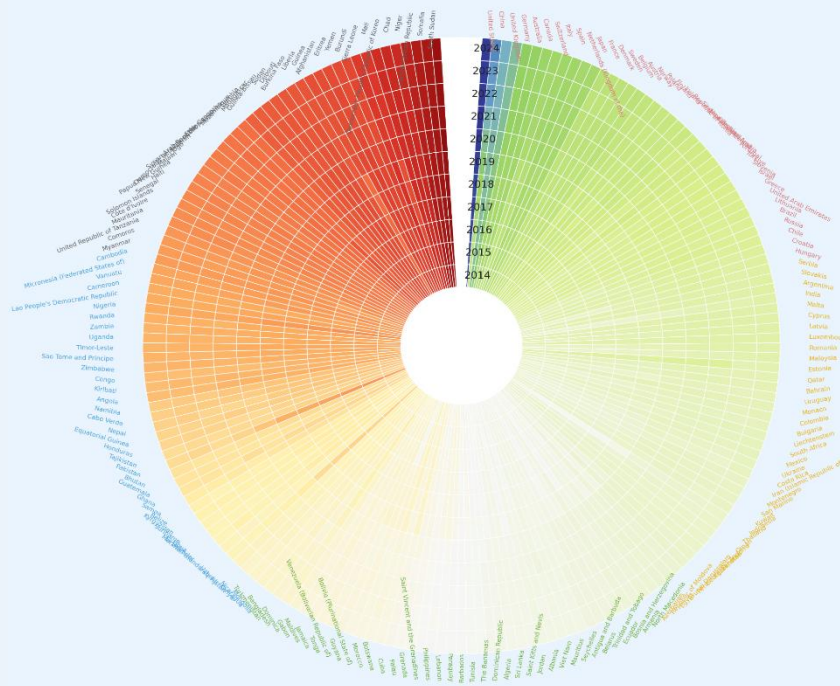




## Open Science Readiness Index (OSRI) Monitoring Report (2014-2024): Panorama to Pixel

Yang Wei\*, Huang Jinxia\*, Peng Daoqi, Kong Yuanbo, Liu Xiwen, Wang Fang,  
Chang Ruofei, Yang Ning, Li Shan, Xiao Man, Xie Jing, Li Min

- UNESCO Decade of Sciences Open Science Programme
- CAST UN Consultation Committee on Open Science and Global Partnerships
- National Science Library, Chinese Academy of Sciences
- Zhejiang University



April 2026

*Both the UNESCO Open Science Outlook 1 report published in 2023 and the Implementation of standard-setting instruments, Part IV: Recommendation on Open Science (2021): consolidated report on the implementation of the Recommendation released in 2025 reveal a stark reality: while open science practices are growing rapidly worldwide, this growth has been uneven. Persistent gaps along existing socio-economic, technological, and digital divides between countries, coupled with a lack of equity in access to funding, skills, and tools, are preventing open science from reaching its full potential.*

*From panoramic views to pinpoint details— this report shows where Open Science stands today.*

Citation format for the report:

Yang Wei\*, Huang Jinxia\*, Peng Daoqi, Kong Yuanbo, Liu Xiwen, Wang Fang, Chang Ruofei, Yang Ning, Xiao Man, Xie Jing, Li Min. Open Science Readiness Index (OSRI) Monitoring Report (2014-2024): Panorama to Pixel. 2026, Beijing.

Contact: yangw@zju.edu.cn ; huangjx@mail.las.ac.cn

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## List of Acronyms

|                |                                                           |
|----------------|-----------------------------------------------------------|
| OSRI           | Open Science Readiness Index                              |
| OS             | Open Science                                              |
| OA             | Open Access                                               |
| OD             | Open Data                                                 |
| OP             | Open Science Policy                                       |
| R              | Notation Value for the Open Science Readiness Index       |
| $\bar{R}_{OA}$ | Notation for Readiness Value in the Open Access Dimension |
| $\bar{R}_{OD}$ | Notation for Readiness Value in the Open Data Dimension   |
| $\bar{R}_{OP}$ | Notation for Readiness Value in the Open Policy Dimension |

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## Executive Summary

Employing the Open Science Readiness Index (OSRI) model, this report assesses the dynamic evolution and development patterns of open science across 193 United Nations Member States over the period 2014–2024. The OSRI score (denoted as the R value, ranging from 0 to 1) is a calibrated and weighted composite indicator derived from three dimensions: Open Access Readiness ( $R_{OA}$ ), Open Data Readiness ( $R_{OD}$ ) and Open Policy Readiness ( $R_{OP}$ ). From global and regional perspectives, the report evaluates the diversity of open science practices and impacts, presents a panoramic view of global open science development, and explores national pathways for advancing open science.

### ■ Measuring Open Science Readiness: An Index-based Analysis

**Significant disparities in open science readiness exist across the 193 countries, revealing a pattern of structural differentiation.**

In 2024: The R values of the 193 countries ranged from 0.170 to 0.869. The majority of developing countries remained at relatively low readiness levels.

From 2014 to 2024: The global average R value increased only modestly, from 0.330 to 0.346, reflecting a pattern of “slow growth from a low baseline.” Countries with high R values continued to improve, while those with low R values showed little progress, resulting in a widening gap between the two groups. A “silent majority” of countries has yet to achieve meaningful improvements in open science capacity. Approximately one quarter of all countries remained at persistently very low readiness levels, with R values below approximately 0.27.

**The R value for the Open Access dimension increased faster than those for the Open Data and Open Policy dimensions.**

In 2024: 54% of countries had calibrated  $R_{OA}$  values below the global average, compared with 49% for  $R_{OD}$  and 57% for  $R_{OP}$ .

From 2014 to 2024: Pronounced structural differentiation persisted across all three dimensions — Open Access Readiness ( $R_{OA}$ ), Open Data Readiness ( $R_{OD}$ ), and Open Policy Readiness ( $R_{OP}$ )—indicating that disparities among countries remained substantial over time. Globally,  $R_{OA}$  exhibited a gradual but steady upward trend, with its global average increasing from 0.322 in 2014 to 0.343 in 2024, a rise of 6.5%. This was reflected in relatively stable levels of openness in research outputs across the 193 countries, alongside a growing share of internationally co-authored publications.  $R_{OD}$  increased more modestly, with the global average rising by 2.3%, driven by significant growth in accessible data but limited expansion in shareable data.  $R_{OP}$  also increased slowly, with the global average rising by 2.7%, while policy development showed clear phase-based characteristics over time.

**Geographical disparities in R values are evident, with differences in countries’ capacity to implement open science likely being the primary driver.**

In 2024: the R values of countries in Europe, Asia, South America, and North America were above the global average, while those of countries in Africa and Oceania remained below the global average.

From 2014 to 2024: Disparities in open science readiness widened among countries in Asia and North America, whereas the overall development patterns in other regions remained relatively stable.

**National open science development currently spans three stages, exhibiting five distinct development patterns over the long term.**

In 2024: Based on national R-values, 193 countries were classified into three stages: Leading, Advanced, and Emerging & Developing.

From 2014 to 2024: Based on decade-long changes in R values, open science development across the 193 countries exhibited five distinct patterns: Comprehensive Leadership, Scale-Driven, Policy-Led, Balanced Low-Growth, and Fragile Foundation.

Practices across different dimensions of readiness may enable countries to break through internal structural barriers to development, particularly those with fragile foundations.

#### ■ **Key Messages**

- Open science readiness exhibits significant disparities in both developmental progress and influence across countries and geographic regions.
- The benefits of open science increasingly arise from the cumulative advantages generated by scale and long-term participation, while open science policies are expanding opportunities for broader stakeholder engagement.
- Digital infrastructure for open science plays an important role in enabling innovation and value creation.

#### ■ **Areas for Action**

- Support countries with low open science readiness by prioritizing efforts to overcome structural bottlenecks and strengthen foundational capacities.
- Enhance policy cooperation among countries experiencing slow but sustained growth in readiness in order to stimulate regional collaborative momentum.
- Encourage high-readiness countries to extend the value of their open science ecosystems, shifting from internal development toward broader international contributions and spillover effects.

# 1 Background

Monitoring the global status and trends of open science constitutes an important action by the Chinese scientific community in support of the *UNESCO Recommendation on Open Science*. It is also one of the implementation objectives of the Open for Science 10 (OS10) programme<sup>10</sup> under the framework of the UNESCO International Decade of Sciences for Sustainable Development. From an indicator and methodological perspective, such monitoring aims to map the evolving dynamics of open science worldwide and to examine its significance for national innovation capacity and the global open innovation ecosystem.

## 1.1 Open Science

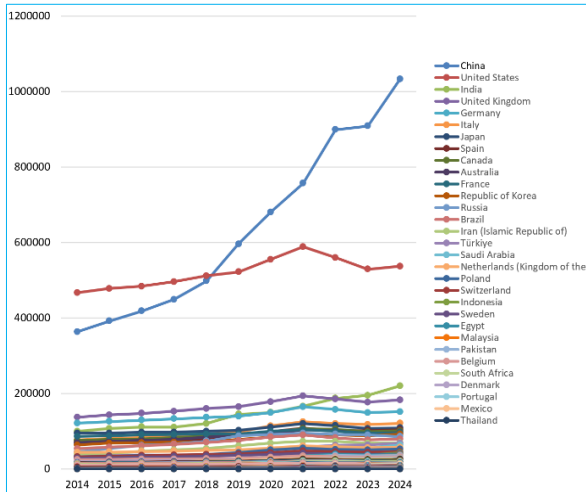
Open science is a fundamental driver of the advancement of human civilization and a key pathway for addressing global challenges and achieving the Sustainable Development Goals. Grounded in the core principles of participation, inclusiveness, sharing, collaboration, openness, and transparency, open science aligns with the intrinsic nature of scientific inquiry. It is profoundly transforming the conduct of research and catalysing scientific innovation, and has been widely endorsed by the international scientific community. In 2021, UNESCO adopted the *Recommendation on Open Science* (hereinafter referred to as “the Recommendation”)<sup>1</sup>, which was collectively endorsed by 194 Member States as the first international normative instrument on open science.

As defined in the Recommendation, open science is defined as a inclusive construct that combines various movements and practices. It encompasses open scientific knowledge, open science infrastructures, science communication, the open engagement of societal actors, and open dialogue with other knowledge systems. Differences in the development of open science across countries and regions remain significant. For example, the first implementation report of the Recommendation (2025) notes that some Member States lack formal policy mechanisms for implementation; others report unintended negative consequences associated with open science practices; and some have yet to develop strategies or plans to promote cross-border, multi-stakeholder collaboration in open science.

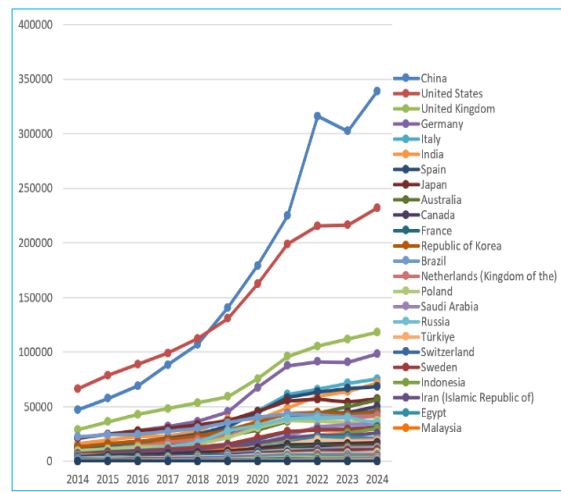
Based on the data collected for this report (see Annex), in 2024 the total number of scholarly publications worldwide exceeded 4.37 million (Figure 1-1a), of which approximately 2.14 million were published as open access (OA) articles (Figure 1-1b). The global average share of OA publications reached 61.7% (Figure 1-1c), with more than 114 countries attaining this level. The number of internationally co-authored publications has increased (Figure 1-1d), while the academic influence of data producers remains concentrated in a limited number of countries (Figures 1-1e–f). At the same time, concerns persist regarding the quality, integrity, and financial sustainability of open data (Figures 1-1g–i). Sixty per cent of countries have journals that are not indexed in the Science Citation Index Expanded (SCIE) (Figure 1-1j), more than 110 countries are not represented in major databases and platform registries (Figure 1-1k), and two-thirds of Member States have yet to formulate or publish open science policies (Figure 1-1l).

The Recommendation explicitly encourages Member States to establish appropriate monitoring and evaluation mechanisms to assess, through both qualitative and quantitative approaches, the effectiveness of open science policies and incentives, and to share evaluation results at the international level. At present, open science faces both unprecedented opportunities arising from technological advancement and enhanced collaboration, and significant global challenges, including policy divergences, uneven infrastructure development, and the digital divide. The levels of development and pathways towards readiness in open science vary considerably across countries and regions, and traditional single indicators, such as the proportion of open access publications, are no longer sufficient to capture the increasing complexity of the open science ecosystem.

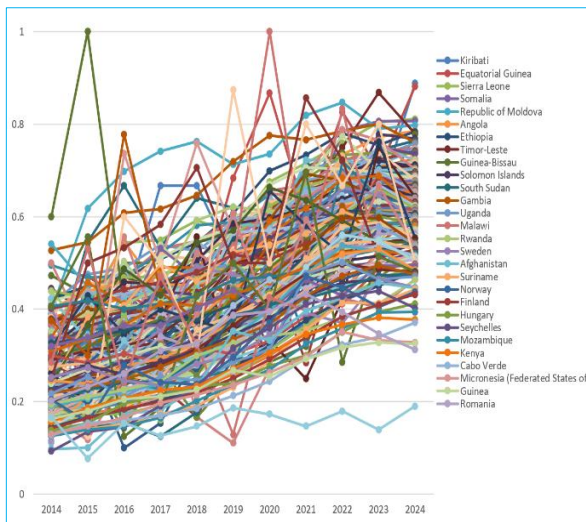
<sup>1</sup> [https://unesdoc.unesco.org/ark:/48223/pf0000379949\\_chi](https://unesdoc.unesco.org/ark:/48223/pf0000379949_chi)



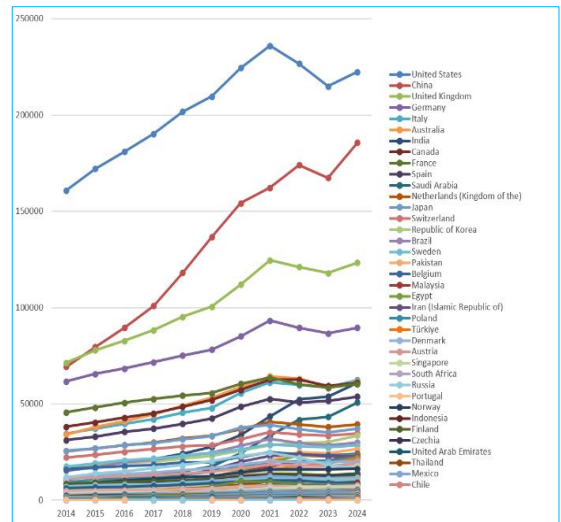
1-1a. Number of publications by country



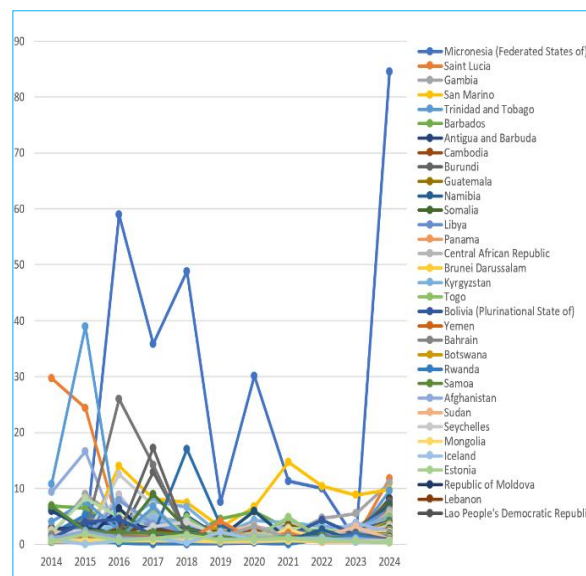
1-1b. Number of OA publications by country



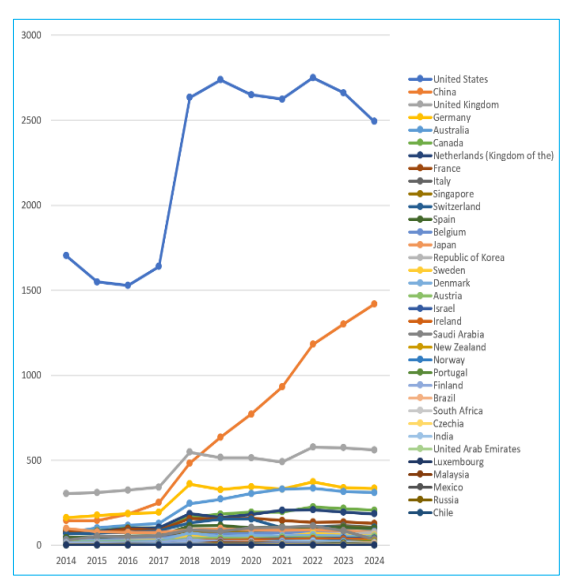
1-1c. Share of OA publications by country



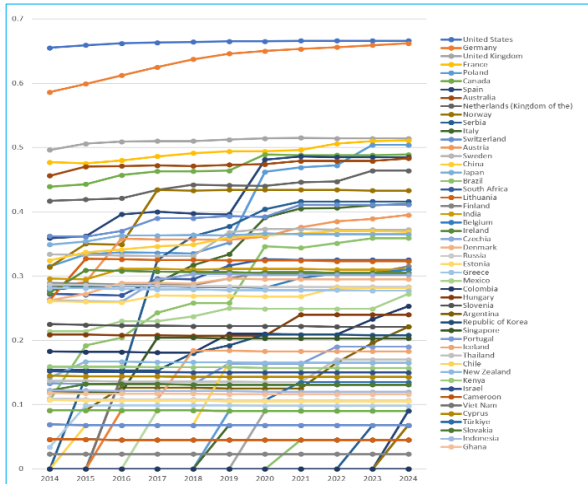
1-1d. Number of internationally co-authored publications by country



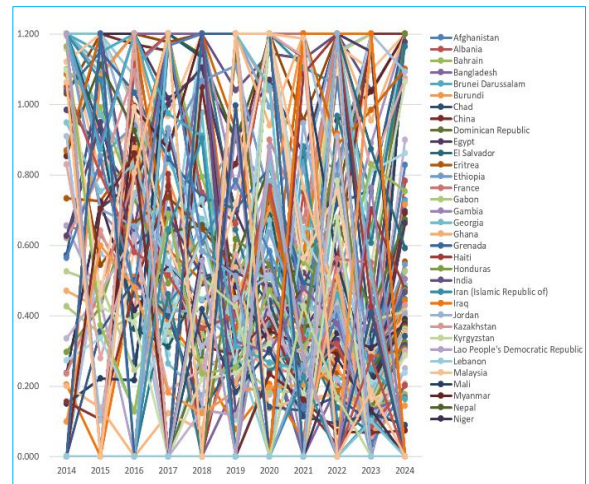
1-1e. FWCI by country



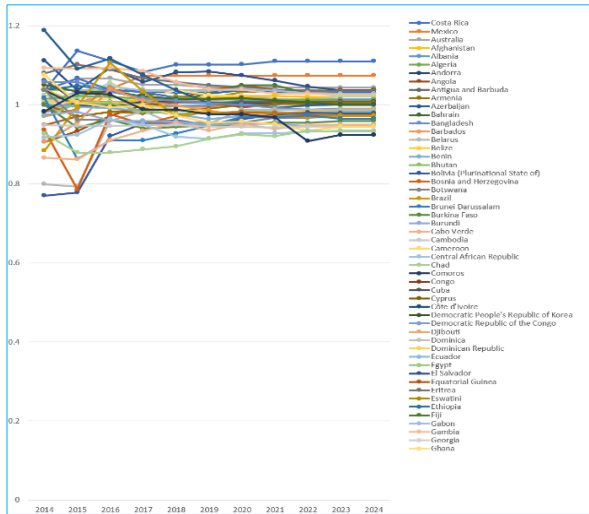
1-1f. Number of top 1% scientists by country



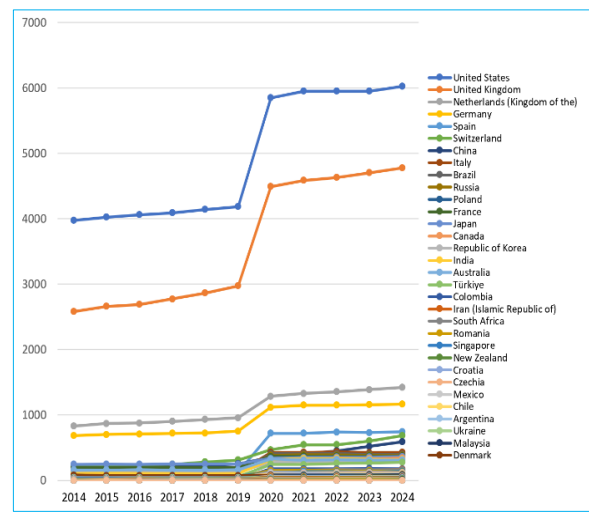
1-1g. Quality of countries' shareable papers and scientific data



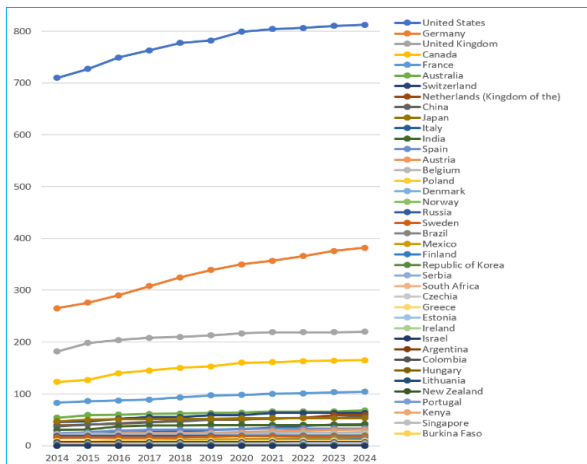
1-1h. Integrity of countries' shareable data



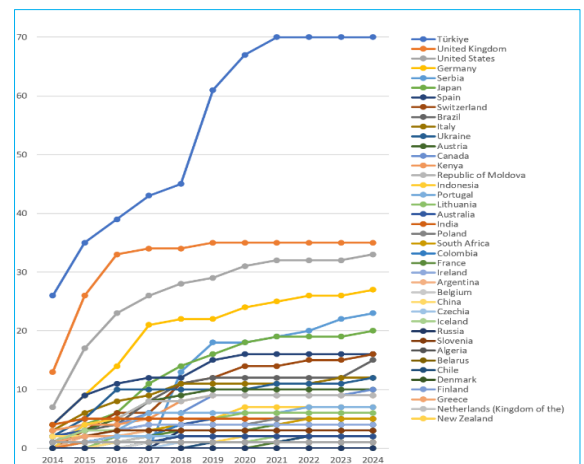
1-1i. Financial sustainability of countries' shareable data



1-1j. Number of journals by country



1-1k. Number of open platforms by country



1-1l. Number of open science policies by country

Figure 1-1. Statistical overview of the status and trends of open science across 193 Member States, 2014–2024

## 1.2 Progress in Open Science Monitoring

With the rapid proliferation of national open science policies, a range of important international initiatives has emerged to monitor open science practices (Table 1-1).

At the international level, the European Commission launched the Open Science Monitoring initiative<sup>2</sup> in 2013, taking the lead globally. This initiative conducts cross-disciplinary monitoring across 28 EU Member States, covering multiple domains including publications, open data, FAIR data, citizen science, and repositories. Its data sources integrate commercial databases, open databases, and survey data. In 2019, the European Union released its final report on open science monitoring, establishing the earliest, broadest, and most comprehensive regional monitoring framework to date.

At the national level, France and Finland have demonstrated particularly advanced practices. France released two National Plans for Open Science in 2018 and 2021, and established the French Open Science Monitor (FOSM)<sup>3</sup> in 2019. The platform is jointly developed by the French Ministry of Higher Education and Research (MESRE), the University of Lorraine, and the National Institute for Research in Digital Science and Technology (INRIA). FOSM is built upon the principle of openness, with its methodologies, technologies, results, software, and code fully open and shared. Its monitoring scope includes publications, research data, software and code, as well as doctoral theses. To date, more than 60 French institutions have developed their own open science monitoring systems based on the FOSM framework. In 2025, Japan adopted the FOSM methodology, code, data, and interfaces to guide its open science monitoring practices at the national level<sup>4-5</sup>.

Finland has also established a solid foundation in monitoring open science implementation and research. As early as 2015, the Finnish Ministry of Education and Culture initiated an open science maturity assessment to evaluate the development of open science across universities, research institutions, and funding organizations, and published its final report in 2019. Since 2020, Finland has adopted a new generation of open science monitoring model, developed by a dedicated working group under the National Steering Group for Open Science and Research, and implemented its first round of monitoring in 2022. The Finnish framework assesses institutions across four domains—publications, data and infrastructures, education and culture for open scholarship—combined with key drivers such as policy documents, services, collaboration, and outputs, assigning each institution a composite score representing its level of openness.

At the methodological level, in 2025 the Open Science Monitoring Initiative (OSMI) released the *Principles of Open Science Monitoring*<sup>6</sup>, which articulate three core principles: relevance and significance, transparency and reproducibility, and self-assessment and responsible use. In the same year, the PathOS project, funded under the European Union’s Horizon Europe programme, published the *Open Science Impact Indicator Handbook*<sup>7</sup>. This handbook proposes a multidimensional indicator framework encompassing open access, open data, open code, citizen science, open science infrastructures, policy, and training, with the aim of moving beyond traditional output-based metrics to capture the broader academic, societal, and economic impacts of open science.

Related research by Rafols et al. (2024) highlights that differing understandings of open science among stakeholders, combined with the tendency of monitoring activities to focus on easily observable outputs, may lead to a “streetlight effect.” The study advocates for a shift towards a systemic perspective that integrates policies, outputs, processes, and impacts, rather than relying on single, quantifiable indicators. UNESCO has also established a Working Group on Open Science Monitoring, with the objective of developing unified monitoring principles and methodologies for its 193 Member States. As an initial step, the Working Group is developing a policy survey targeting all Member States.

<sup>2</sup> <https://www.eoscoobservatory.eu/home>

<sup>3</sup> <https://frenchopensciencemonitor.esr.gouv.fr/>

<sup>4</sup> <https://osm.nii.ac.jp/>

<sup>5</sup> <https://www.ouvrirlascience.fr/japan-adopts-frances-open-science-monitor-model/>

<sup>6</sup> <https://open-science-monitoring.org/principles/>

<sup>7</sup> <https://zenodo.org/records/14552228>

In summary, existing monitoring approaches have largely concentrated on output-based statistics related to open access publications and research data, with insufficient coverage of policy and institutional environments, infrastructure capacity, and the full range of the seven action areas outlined in the Recommendation. Open science has increasingly become a mechanism for openness and inclusiveness in knowledge production and research processes. A country’s competitiveness is, in part, reflected in the scale, dynamism, interpretability, and utilization of its data. Governance of open science involves coordinated action by governments, leadership from research and funding institutions, and participation from industry and civil society. In the context of the UNESCO Science Decade and the Sustainable Development Goals, there is a pressing need to establish a systematic, long-term, and innovation-oriented monitoring framework for open science. Such a framework should capture the breadth, depth, and coverage of open science action areas; assess the accessibility of scientific knowledge and the extent of international collaboration; evaluate national capacities for data sharing and accessibility across the data lifecycle; and examine the institutional, legal, and infrastructural conditions supporting open science, thereby promoting the development of an open and innovative scientific ecosystem that contributes to national innovation and global sustainable development.

**Table 1-1.** Existing international initiatives on open science monitoring

| Level          | Implementing body                                 | Monitoring initiatives and actions                                                                                                                                                                                                                        | Coverage                                                                                                                                                                       |
|----------------|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| International  | European Commission                               | <ul style="list-style-type: none"> <li>• Launched the Open Science Monitoring initiative in 2013</li> <li>• Published the Open Science Monitoring Report in 2019</li> </ul>                                                                               | Covers publications, open data, FAIR data, citizen science, repositories, and related domains                                                                                  |
|                | France                                            | <ul style="list-style-type: none"> <li>• Established the French Open Science Monitor (FOSM) in 2019 and publishes annual monitoring reports</li> </ul>                                                                                                    | Covers publications, research data, software and code, doctoral theses                                                                                                         |
| National       | Finland                                           | <ul style="list-style-type: none"> <li>• Launched of open science maturity evaluation in 2015</li> <li>• Adopted a new-generation open science monitoring model in 2020</li> </ul>                                                                        | Covers publications, data and infrastructure, policy documents, services, collaboration, and outputs                                                                           |
|                | OSMI <i>Principles of Open Science Monitoring</i> | <ul style="list-style-type: none"> <li>• Proposed three core principles in 2025: relevance and importance; transparency and reproducibility; self-assessment and responsible use</li> </ul>                                                               | Four key aspects: (1) relevance and importance; (2) transparency and reproducibility; (3) self-assessment and responsible use; (4) flexibility and sustainability <sup>8</sup> |
| Methodological | PathOS project                                    | <ul style="list-style-type: none"> <li>• Developed impact indicators related to policy, practice, EOSC, and open science; published the <i>Open Science Impact Indicator Handbook</i></li> <li>• Established the EOSC Open Science Observatory</li> </ul> | Covers open access, open data, open code, citizen science, infrastructures, policy and training                                                                                |
|                | Rafols et al.                                     | <ul style="list-style-type: none"> <li>• Advocated a shift towards a systemic monitoring perspective integrating policy, outputs, processes, and impacts, rather than focusing solely on single quantitative indicators (2024)</li> </ul>                 | —                                                                                                                                                                              |
|                | UNESCO                                            | <ul style="list-style-type: none"> <li>• Open Science Monitoring Framework Working Group</li> </ul>                                                                                                                                                       | Initial step focuses on developing a policy survey for all Member States                                                                                                       |
|                |                                                   |                                                                                                                                                                                                                                                           |                                                                                                                                                                                |

<sup>8</sup> <https://www.openaire.eu/the-principles-of-open-science-monitoring-openaire-contributes-to-shaping-global-guidance>

### 1.3 Open Science Readiness Monitoring

To address the above challenges, this report adopts the *Open Science Readiness Index* (OSRI) proposed by Yang Wei et al. <sup>9</sup>. The OSRI innovatively decomposes the complex progression of open science into three interrelated yet independently measurable dimensions, namely open access, open data, and open science policy governance. These three dimensions are subsequently integrated through weighted normalization to produce a composite indicator ranging from 0 to 1, referred to as the OSRI (see Figure 1-2; the indicator framework and calculation methods are detailed in Section 3 and Annex 2).

Drawing on the seven action areas of the UNESCO *Recommendation on Open Science* and the expected outcomes under the International Decade of Sciences for Sustainable Development, this report further extends and refines the indicator framework. It also incorporates methodological insights from existing practices, including the bibliometric-oriented approach of the French Open Science Monitor, Finland’s maturity-based institutional assessment model, and the European Union’s experience in systematic indicator design. These references have informed targeted adjustments and improvements in data source selection, indicator specification, and calculation methods.

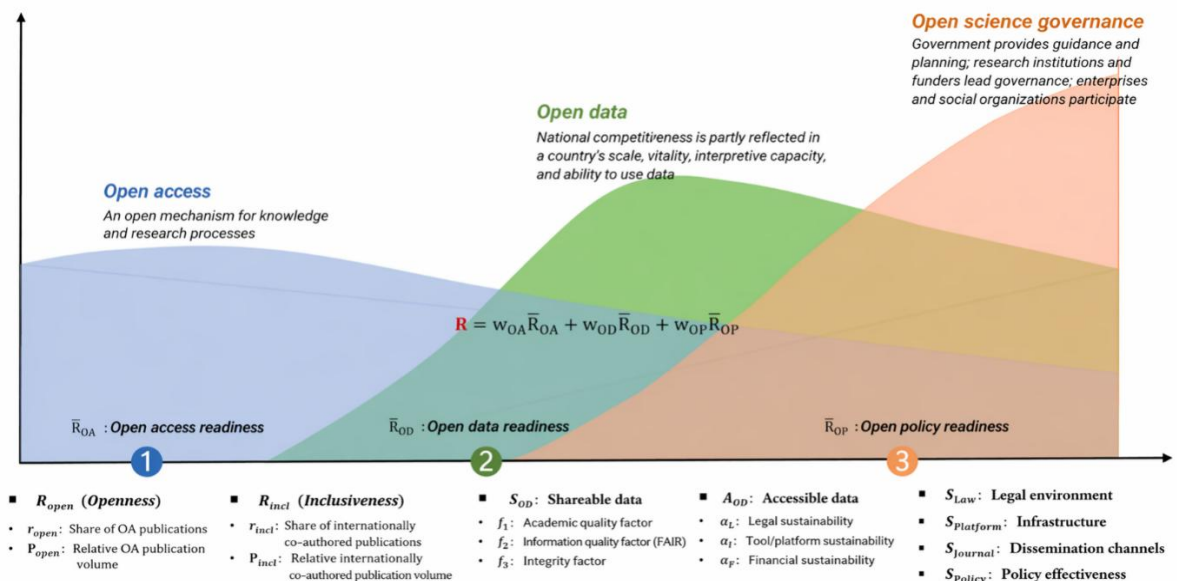


Figure 1-2. Schematic Diagram of the OSRI Monitoring Framework

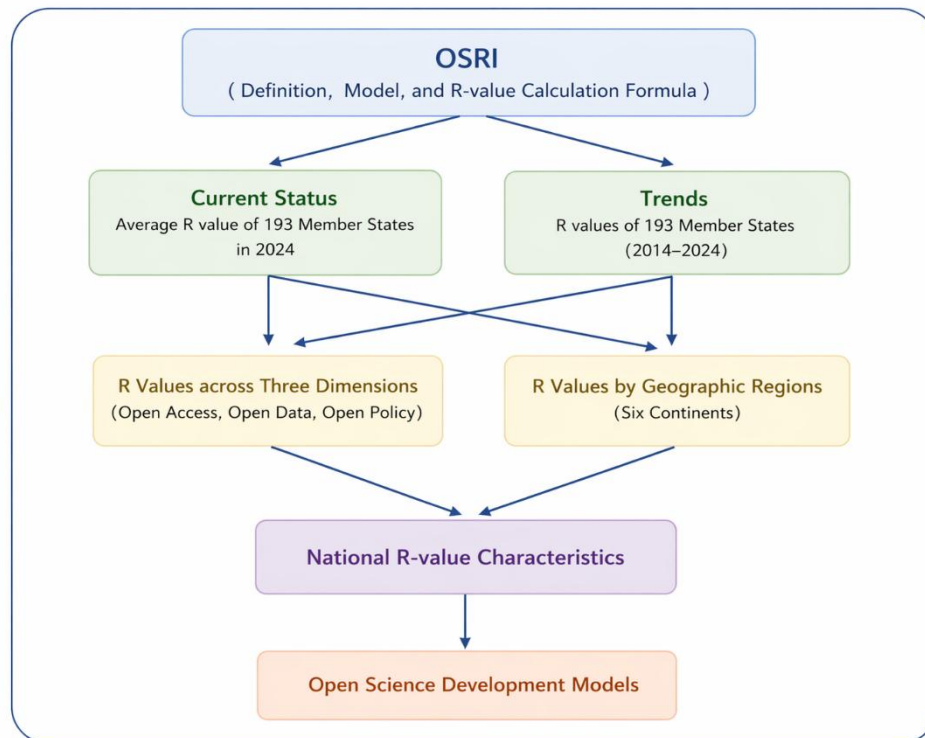
Accordingly, the OSRI monitoring framework aims to achieve the following core objectives:

- (1) To establish a dynamic monitoring system for open science applicable to all United Nations Member States, providing a systematic assessment that combines qualitative and quantitative approaches to evaluate the implementation of the Recommendation, and thereby constructing a comprehensive global overview of open science development at the national level.
- (2) To capture long-term evolutionary trends and stage-specific characteristics of open science development across countries and regions through a longitudinal analysis covering the period 2014–2024, thereby providing evidence-based support for identifying successful practices and structural bottlenecks.
- (3) To fully recognize differences among countries in terms of scientific and technological development levels, institutional traditions, and resource endowments, acknowledging the diversity of pathways towards open science and avoiding the application of a single model to assess all national contexts.

<sup>9</sup> Yang W, Chang R, Kang X, Zhang C, Huang J. Open science readiness index: Theory and simulations. *Fundam Res.* 2024;5(2):902-910. Published 2024 Oct 15. <https://doi.org/10.1016/j.fmre.2024.10.002>

The OSRI monitoring exercise fully acknowledges the inherent limitations in the availability, comparability, and consistency of open science-related data at the global level. To mitigate these constraints, the report applies standardized processing and relative readiness estimation methods during indicator construction, thereby enhancing the robustness and reliability of the assessment.

It should be emphasized that the models, methodologies, and findings presented in this report are intended to complement, rather than duplicate, the work of initiatives such as the UNESCO Open Science Monitoring Framework Working Group. By adopting a perspective of complementarity and synergy, this report seeks to contribute an independent and valuable analytical lens to the global open science monitoring effort. Open science monitoring itself is inherently a collaborative endeavour; as advocated in the Recommendation, such monitoring activities should be conducted under public oversight, including that of the scientific community, and should encourage broad participation from diverse stakeholders.



**Figure 1-3.** The overall framework of this report

## 2 Objectives of the Report

This report constitutes an integral component of the *Open for Science 10* (OS10) programme. It aims to develop an indicator framework and corresponding tools for monitoring open science, with a focus on capturing its dynamic patterns of development.

The full title of the OS10 initiative is: *Towards Open Science Infrastructure Sharing Network: China's Knowledge and Data Sharing Platform — Open for Science 10*. The initiative was proposed by the Chinese scientific community in support of the UNESCO *International Decade of Sciences for Sustainable Development (2024–2033)*. It seeks to advance a technical framework to address challenges in knowledge openness and data sharing.

The initiative is led by Professor Yang Wei (Member of the Chinese Academy of Sciences, Professor at Zhejiang University, and Chair of the China Association for Science and Technology (CAST) United Nations Consultative Committee on Open Science and Global Partnership (CCOS)). Institutional support is provided by the National Science Library of the Chinese Academy of Sciences and Zhejiang University.

Accordingly, the objectives of this report are to:

- Assess the diversity of practices and impacts associated with the advancement of open science;
- Examine the directions and benefits of open science development models within national science, technology, and innovation ecosystems.

This work was carried out in three main phases between June 2024 and March 2026:

**Phase I** — Development and pilot application of the Open Science Readiness monitoring model<sup>10</sup>

**Phase II** — Data Collection and Analysis of National Open Science Readiness Indicators<sup>11</sup>

**Phase III** — Development and Deployment of the Open Science Readiness Monitoring Tool<sup>12</sup>

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<sup>10</sup> Yang W, Chang R, Kang X, Zhang C, Huang J. Open science readiness index: Theory and simulations. *Fundam Res.* 2024;5(2):902-910. Published 2024 Oct 15. doi:10.1016/j.fmre.2024.10.002

<sup>11</sup> See Annex 2, including raw data, processed data, and computed results for OSRI indicators.

<sup>12</sup> Open Science Readiness Index: <https://open4science.cn/microapp/osmonitor/home>

### 3 Open Science Readiness Index (OSRI)

#### 3.1 Scope of Analysis

This report covers 193 United Nations Member States (see Annex 1), with a temporal scope spanning the period 2014–2024.

#### 3.2 OSRI Theoretical Framework

Building upon the Open Science Readiness Index (OSRI) proposed by Yang Wei et al., this report provides both qualitative and quantitative assessments of the evolution of open science.

The OSRI value  $R$  for a given country is defined as a weighted composite of three normalized and calibrated dimensions: open access readiness ( $\bar{R}_{OA}$ ), open data readiness ( $\bar{R}_{OD}$ ), and open policy readiness ( $\bar{R}_{OP}$ ):

$$R = w_{OA}S_{\bar{R}_{OA}(t)} + w_{OD}S_{\bar{R}_{OD}(t)} + w_{OP}S_{\bar{R}_{OP}(t)} \quad (1)$$

For comparability, each dimension is standardized. Given that this report expands the scope of analysis to 193 countries, encompassing a wide spectrum of development levels, rankings based solely on absolute outputs may systematically underestimate the substantive progress achieved by developing countries under resource constraints. To address this, the Human Development Index (HDI), as defined by the United Nations Development Programme, is introduced as a calibration factor reflecting a country’s development baseline:

$$\left\{ \begin{array}{l} \bar{R}_{OA}(t) = \frac{R_{OA}(t)}{R_{OAmax}(t_1)} \\ S_{\bar{R}_{OA}(t)} = \alpha \cdot \bar{R}_{OA}(t) + (1 - \alpha) \cdot HDI, \alpha \in [0.5, 0.7] \\ \bar{R}_{OD}(t) = \frac{R_{OD}(t)}{R_{ODmax}(t_1)} \\ S_{\bar{R}_{OD}(t)} = \alpha \cdot \bar{R}_{OD}(t) + (1 - \alpha) \cdot HDI, \alpha \in [0.5, 0.7] \\ \bar{R}_{OP}(t) = \frac{R_{OP}(t)}{R_{OPmax}(t_1)} \\ S_{\bar{R}_{OP}(t)} = \alpha \cdot \bar{R}_{OP}(t) + (1 - \alpha) \cdot HDI, \alpha \in [0.5, 0.7] \end{array} \right. \quad (1 - a)$$

Within this framework, the open access dimension adopts a two-dimensional structure<sup>13</sup>, defined by **openness** (measuring the extent of public accessibility of research outputs) and **inclusiveness** (measuring the degree of international participation in the research process). Each country is represented as a point in this two-dimensional space, and its Euclidean distance from the origin defines its open access readiness. Regions characterized by high values in both dimensions correspond to “Global Science,” denoting a highly open and inclusive scientific paradigm.

Similarly, the open data dimension is structured along two axes: **shareable data** (reflecting a country’s capacity to contribute data to the global pool) and **accessible data** (reflecting its ability to access data from global sources).

<sup>13</sup> Yang W. Open and inclusive science: A Chinese perspective. *Cultures of Science*. 2021;4(4):247-9.

The open policy dimension draws upon Maslow’s hierarchy of needs, categorizing policy readiness into five progressive levels, ranging from basic survival needs to self-actualization. Each level comprises four specific components: legal protection, platform infrastructure, data carriers, and policy instruments.

The weighting coefficients across the three dimensions satisfy the normalization condition:

$$w_{OA} + w_{OD} + w_{OP} = 1 \quad (1 - b)$$

Based on their respective contributions to the open science ecosystem and the reliability of underlying data sources, the weights are set as follows:  $w_{OA} = 0.4$ ,  $w_{OD} = 0.4$ , and  $w_{OP} = 0.2$ . The higher weights assigned to  $R_{OA}$  and  $R_{OD}$  reflect two considerations: first, improving readiness in these two dimensions involves systemic changes in the research system and requires substantial sustained investment; second, their quantitative proxy indicators are grounded in relatively mature bibliometric methodologies, ensuring higher data reliability. While the open policy dimension constitutes an essential institutional foundation, its measurement currently relies more heavily on structural and policy-based proxy variables, with comparatively lower precision. It is therefore assigned a lower weight within the composite index.

### 3.3 Methodology for Calculating R Values across OSRI Dimensions

#### 3.3.1 Quantifying Open Access Readiness: Openness and Inclusiveness

Open Access Readiness reflects the public accessibility of scientific knowledge and the degree of participation in international research collaboration at the national level. It is measured using the Euclidean norm of two components, **openness** ( $R_{open}$ ) and **inclusiveness** ( $R_{incl}$ ). This geometric formulation allows for a more accurate representation of asymmetric development patterns, where a country may perform strongly in open access output but exhibit limited international collaboration, or vice versa:

$$R_{OA} = \sqrt{R_{open}^2 + R_{incl}^2} \quad (2)$$

**Openness** ( $R_{open}$ ) measures the extent to which research outputs are publicly shared. It is determined by the proportion of open access publications ( $r_{open}$ ) and the relative volume of open access outputs ( $P_{open}$ ). The indicator  $r_{open}$  represents the share of open access publications in a country’s total scholarly output, reflecting the degree of open access adoption. The indicator  $P_{open}$  captures the relative scale of open access publications, reflecting the country’s contribution to the global public knowledge pool. Together, these two components provide a balanced assessment of open access readiness: reliance on proportions alone may overestimate countries with small research output but high open access shares, whereas reliance on absolute volumes may favour large research-producing countries while overlooking the depth of transition towards openness.

$$R_{open} = \frac{1}{2} \left\{ \frac{r_{open}(t)}{\langle r_{open}(t_1) \rangle} + \frac{P_{open}(t)}{\langle P_{open}(t_1) \rangle} \right\} \quad (2 - a)$$

**Inclusiveness** ( $R_{incl}$ ) measures the degree of international participation in the research process. It is defined by the proportion of internationally co-authored publications ( $r_{incl}$ ) and their relative volume ( $P_{incl}$ ). International collaboration represents a core value of open science, as the level of collective participation in the knowledge production process is as important as the extent of research output sharing. The indicator  $r_{incl}$  denotes the share of internationally co-authored publications in a country’s total output, while  $P_{incl}$  reflects the relative volume of such collaborations.

$$R_{incl} = \frac{1}{2} \left\{ \frac{r_{incl}(t)}{\langle r_{incl}(t_1) \rangle} + \frac{P_{incl}(t)}{\langle P_{incl}(t_1) \rangle} \right\} \quad (2 - b)$$

### 3.3.2 Quantifying Open Data Readiness: Sharing and Access

Open data readiness is intended to measure a country's capacity for data sharing and its level of accessibility across the scientific data lifecycle. Compared with open access publications, the assessment of research data openness poses greater methodological challenges. To address this, this report adopts an indirect assessment strategy based on "potential data output and accessibility", and measures open data readiness through two dimensions: **shareable open data** ( $S_{OD}$ ) and **accessible open data** ( $A_{OD}$ ):

$$R_{OD}(t) = \sqrt{\left( \frac{S_{OD}(t)}{\langle S_{OD}(t_1) \rangle} \right)^2 + \left( \frac{A_{OD}(t)}{\langle A_{OD}(t_1) \rangle} \right)^2} \quad (3)$$

**(1) Shareable open data ( $S_{OD}$ ):** This dimension represents a country's potential to produce high-quality and reusable scientific data. As the direct measurement of global research data output remains methodologically difficult under current digital conditions, this report uses an indirect estimate based on **potential data output** ( $S_{output}$ ) **adjusted by quality factors** ( $f_1, f_2, f_3$ ):

$$S_{OD} = \frac{1}{3} (f_1 + f_2 + f_3) \times \frac{\ln(S_{output} + 1)}{\ln(S_{max\_global} + 1)} \quad (3 - a)$$

Among these factors:

$f_1$ : **Academic quality factor.** This factor reflects the academic influence of data producers. It is composed of FWCI (Field-Weighted Citation Impact), with a weight of 0.8, and the share of the global top 1 per cent highly cited authors, with a weight of 0.2. Since FWCI may be abnormally high for countries with relatively small publication output, logarithmic transformation is used to mitigate this skewed distribution and to prevent a small number of outliers from exerting excessive influence on the overall assessment.

$$f_1 = 0.8 \times \ln(FWCI * 100 + 1) + 0.2 \times \frac{Au_{1\%}}{\langle Au_{1\%} \rangle} \quad (3 - a - i)$$

$f_2$ : **Information quality factor.** Based on the FAIR principles, namely Findability, Accessibility, Interoperability, and Reusability, this factor is operationalized using re3data:

- **Findability ( $f_F$ ):** the proportion of repositories with persistent identifiers (PID);
- **Accessibility ( $f_A$ ):** weighted according to repository access conditions (Open, Restricted, Embargoed);
- **Interoperability ( $f_I$ ):** the proportion of repositories with non-empty metadata standards;
- **Reusability ( $f_R$ ):** the proportion of repositories with explicit licence agreements, such as CC-BY or CC0.

$$f_2 = \frac{1}{4} (f_F + f_A + f_I + f_R) \quad (3 - a - ii)$$

$f_3$ : **Reliability factor.** This factor measures data integrity and is used as an indirect proxy for the reliability of scientific data through a country's relative retraction rate. A higher retraction rate may reflect systemic problems in data management or research integrity, thereby reducing the credibility and reuse value of a country's scientific data.

$$f_3 = \min(1.2, \frac{Q_{\text{Retraction}}}{\langle Q_{\text{Retraction}} \rangle}) \quad (3 - a - \text{iii})$$

Here,  $S_{\text{output}}$  is represented by the country's number of open access publications, reflecting the potential scale of its contribution as a data producer to the global research ecosystem.  $S_{\text{max\_global}}$  refers to the maximum value of  $S_{\text{output}}$  among the 193 countries in a given year, that is, the value of the country with the largest data output, and serves as the normalization benchmark. Logarithmic transformation is applied in order to reduce scale differences and avoid excessive dominance by countries with very large research output.

**(2) Accessible open data (A<sub>OD</sub>):** This dimension measures the actual conditions and capacity of researchers in a given country to access and use open scientific data. Even where the global supply of open data continues to expand, differences in legal environments, technical infrastructure, and economic affordability may result in significant disparities in actual access. In this sub-dimension, the global total volume of open access publications ( $A_{\text{DATA}}$ ) is used as the scale benchmark for accessible data, and is adjusted by three sustainability correction factors: legal ( $\alpha_L$ ), instrumental ( $\alpha_I$ ), and financial ( $\alpha_F$ ):

$$A_{\text{OD}} = A_{\text{DATA}} \times \alpha_L \times \alpha_I \times \alpha_F \quad (3 - b)$$

$\alpha_L$  **Legal sustainability:** a legal safeguard coefficient determined on the basis of a country's level of economic development.

$\alpha_I$  **Instrumental sustainability:** determined according to the degree of fit between the scale of national platforms and the global volume of data. Owing to limitations in data availability, this report sets  $\alpha_I = \alpha_L$ .

$\alpha_F$  **Financial sustainability:** the ratio of the growth rate of the basic research budget ( $\Delta B$ ) to the growth rate of data acquisition costs ( $\Delta P$ ), reflecting the economic affordability of data access.

### 3.3.3 Quantifying Open Policy Readiness: Capacity and Investment

Open Policy readiness is intended to measure a country's overall capacity to support open science through its institutional environment, legal safeguards, and infrastructure. In this report, four specific indicators are used: legal protection, platform infrastructure, data carriers, and policy instruments. Drawing on Maslow's hierarchy of needs, the level of adaptation of these four indicators is assessed across five levels and calculated separately. The Open Policy readiness score is designed on a 5-point scale, with a maximum of 1.25 points assigned to each indicator.

$$R_{\text{OP}}(t) = \frac{S_{\text{Law}}(t) + S_{\text{Platform}}(t) + S_{\text{Journal}}(t) + S_{\text{Policy}}(t)}{5} \quad (4)$$

The specific indicators are defined as follows:

$S_{\text{Law}}$  **(Legal environment):** The sustainable development of open science requires a sound legal environment, particularly in providing clear legal safeguards for intellectual property protection, data privacy, and academic freedom. This report uses the International Property Rights Index (IPRI) as a proxy indicator. The IPRI covers three dimensions, namely the legal and political environment, physical property rights, and intellectual property rights, and is an authoritative international indicator for assessing a country's level of rule of law and property rights protection.

$$S_{\text{Law}}(t) = 1.25 \times \frac{\text{IPRI}_{\text{score}}(c, t)}{10} \quad (4 - a)$$

$S_{\text{Platform}}$  **(Infrastructure):** Data repositories are a core component of open science infrastructure. Their number and disciplinary coverage directly reflect a country's capacity to support data sharing

and preservation. This report uses the number of national data repositories registered in re3data as the measurement indicator, after logarithmic transformation and normalization against the global maximum value.

$$S_{\text{Platform}}(t) = 1.25 \times \frac{\ln(N_{\text{Plat}}(c, t) + 1)}{\ln(N_{\text{Plat}}^{\text{max}}(t) + 1)} \quad (4 - b)$$

**S<sub>Journal</sub> (Dissemination channels):** Academic journals are a central channel for the dissemination of scientific knowledge. The number of journals from a given country indexed in major international databases reflects its position and influence within the global scholarly communication network. This indicator indirectly measures a country's degree of control over the dissemination channels of open science and, in promoting journal-level open access policies, usually implies greater autonomy and influence.

$$S_{\text{Journal}}(t) = 1.25 \times \frac{\ln(N_{\text{Jour}}(c, t) + 1)}{\ln(N_{\text{Jour}}^{\text{max}}(t) + 1)} \quad (4 - c)$$

**S<sub>Policy</sub> (Policy effectiveness):** The number and quality of open science policies are key indicators of a country's institutional driving force. This report uses the number of a country's open science policies recorded in ROARMAP as the baseline and introduces a UNESCO influence coefficient ( $\alpha_{\text{UNESCO}}$ ) to adjust for quality. If a country's policy is cited in a UNESCO report as an exemplary case, the coefficient is set at 1.0; otherwise, it is set at 0.8.

$$S_{\text{Policy}}(t) = \min \left( 1.25, \left[ 1.25 \times \frac{\ln(N_{\text{Pol}}(c, t) + 1)}{\ln(N_{\text{Pol}}^{\text{max}}(t) + 1)} \right] \times \alpha_{\text{UNESCO}} \right) \quad (4 - d)$$

*(The full set of calculation formulae for OSRI and its component dimensions is provided in Annex 2.)*

### 3.4 Data Sources

The raw data required for the calculation of the Open Science Readiness Index (OSRI, RRR) are primarily drawn from authoritative bibliometric databases and international reports.

In selecting data sources, this report adheres to the following principles:

- **Use of globally comprehensive data sources** to ensure comparability across the 193 Member States;
- **Preference for open-access databases**, including platforms such as *Retraction Watch*, *re3data*, and *ROARMAP*, as well as data from international organizations such as UNESCO;
- **Adoption of a conservative estimation strategy** for countries with incomplete data, in order to avoid unfair underestimation resulting from data gaps.

The principal data content and sources for the three dimensions of OSRI are summarized in Table 3-1.

**Table 3-1. Data sources for OSRI**

| OSRI Dimension                      | Data Content                                                                                                                                                        | Main Sources                                                                                                                                                                                                                                            |
|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Open Access (R<sub>OA</sub>)</b> | Number of open access publications; number of internationally co-authored publications                                                                              | Scopus <sup>14</sup>                                                                                                                                                                                                                                    |
| <b>Open Data (R<sub>OD</sub>)</b>   | FWCI<br>Number of globally highly cited researchers<br>Number of repositories and FAIR compliance<br>Number of retractions<br>Growth rate of basic research budgets | Scopus<br>Clarivate Highly Cited Researchers <sup>15</sup><br>re3data <sup>16</sup><br>Retraction Watch <sup>17</sup><br>OECD <sup>18</sup><br>World Bank <sup>19</sup><br>European University Association (2019 Big Deals Survey Report) <sup>20</sup> |
|                                     | Global volume of open access publications                                                                                                                           | Scopus                                                                                                                                                                                                                                                  |
| <b>Open Policy (R<sub>OP</sub>)</b> | Number of open science policies                                                                                                                                     | ROARMAP <sup>21</sup>                                                                                                                                                                                                                                   |
|                                     | International Property Rights Index (IPRI)                                                                                                                          | IPRI <sup>22</sup>                                                                                                                                                                                                                                      |
|                                     | Number of repositories                                                                                                                                              | re3data                                                                                                                                                                                                                                                 |
|                                     | Number of journals indexed in Journal Citation Reports                                                                                                              | Clarivate (JCR) <sup>23</sup>                                                                                                                                                                                                                           |
|                                     | UNESCO exemplary cases                                                                                                                                              | UNESCO <i>Open Science Outlook 1</i> <sup>24</sup>                                                                                                                                                                                                      |

The raw data, processed data, and resulting datasets used in this report are provided in the Supplementary materials.

<sup>14</sup> <https://www.elsevier.com/products/scopus>

<sup>15</sup> <https://clarivate.com/academia-government/the-institute-for-scientific-information/highly-cited-researchers-key-trends-2015-2025/>

<sup>16</sup> <https://www.re3data.org/>

<sup>17</sup> <https://retractionwatch.com/>

<sup>18</sup> <https://www.oecd.org/en/data/insights/statistical-releases/2025/03/rd-spending-growth-slows-in-oecd-surges-in-china-government-support-for-energy-and-defence-rd-rises-sharply.html>

<sup>19</sup> <https://ourworldindata.org/grapher/world-bank-income-groups>

<sup>20</sup> <https://www.eua.eu/publications/reports/2019-big-deals-survey-report.html>

<sup>21</sup> <https://roarmap.eprints.org/>

<sup>22</sup> <https://internationalpropertyrightsindex.org/>

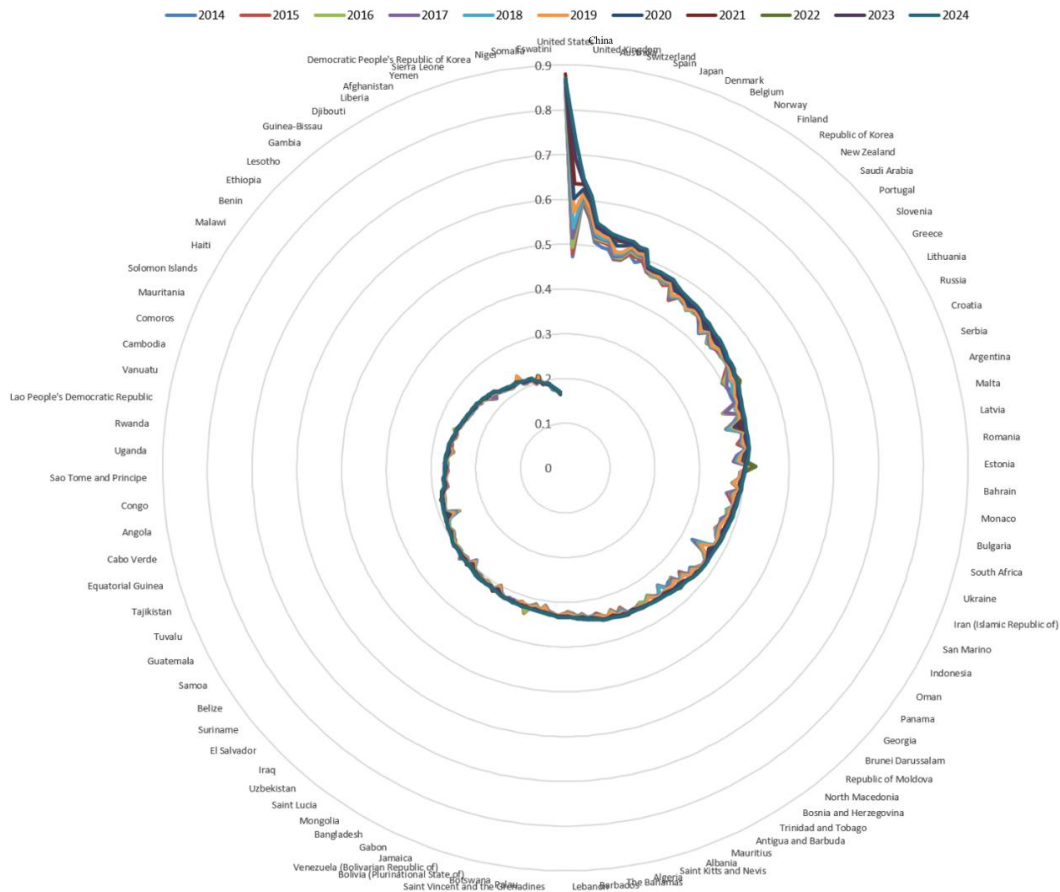
<sup>23</sup> <https://jcr.clarivate.com/jcr/browse-journals>

<sup>24</sup> <https://www.unesco.org/en/articles/open-science-outlook-1-status-and-trends-around-world-0>

## 4 Monitoring Results of the OSRI

### 4.1 Trends and Current Status of the R Value: Uneven Development of National Open Science Readiness, with Policy as a Driving Force

- From 2014 to 2024, the overall level of open science readiness across the 193 countries showed a steady upward trend.
- In 2024, the average R value across the 193 countries was 0.346, with national values ranging from 0.170 to 0.869.



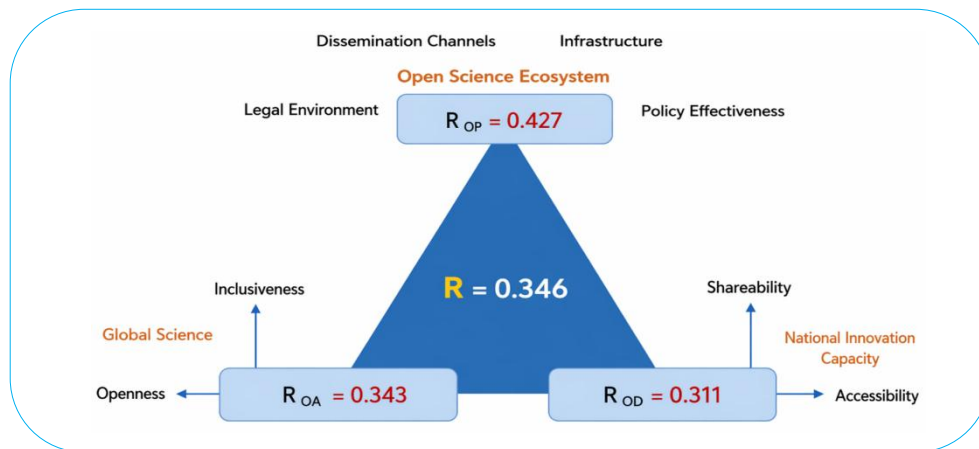
**Figure 4-1.** Radar chart of the distribution of R values across 193 countries, 2014–2024

#### 4.1.1 National Open Science Readiness in 2024

In 2024, substantial disparities were observed in open science readiness across the 193 countries worldwide, with R values ranging from 0.170 in South Sudan to 0.869 in the United States, indicating a wide span of variation.

The distribution of open science development across the 193 countries was highly right-skewed, with most developing countries remaining at relatively low levels of readiness (Figure 4-1).

The average R value was 0.346. The average scores of the three dimensions, namely  $R_{OA}$ ,  $R_{OD}$ , and  $R_{OP}$ , were 0.343, 0.311, and 0.346, respectively (Figure 4-2).



**Figure 4-2.** Global Average R Value and Three Dimensional Averages across 193 Countries, 2024

The top ten countries in terms of R value were, in descending order, the United States (0.869), China (0.730), the United Kingdom (0.648), Germany (0.611), Australia (0.552), Canada (0.544), Switzerland (0.533), Italy (0.530), the Netherlands (0.529), and Spain (0.529). These countries are at the global forefront in open access, open scientific data, and policy and institutional development related to open science.

Considering the combined performance of the overall R value and the three sub-dimensions in 2024, the formulation of open science policy appears to play a leading role in shaping national open science readiness, as reflected in the comparatively higher peak values of the policy dimension. By contrast, open data readiness remains generally lower across countries, suggesting that open science policies are more strongly oriented towards the open publication of research outputs. This pattern is particularly evident among the countries ranked in the top 25 per cent in terms of R value in 2024 (Figure 4-3). The United States, which ranked first, recorded high levels of both open science policy readiness and open data readiness, with policy readiness being especially prominent. India recorded a relatively low level of open data readiness; however, its national “One Nation, One Subscription” agreement on access and open publishing has contributed significantly to its R value. China, which ranked second, recorded the highest open access readiness in the world and the second-highest open data readiness globally. However, open policy readiness was the lowest among its three dimensions, and remained below that of the United Kingdom, Australia, Canada, Switzerland, Italy, the Netherlands, Spain, France, and Japan, all of which ranked below China in overall R value.

More than half of all countries recorded R values below 0.35, with countries in sub-Saharan Africa and some small island States in Oceania concentrated in the lower two tiers. This is especially evident among the

countries ranked in the bottom 25 per cent in terms of R value in 2024 (Figure 4-4). For these countries, R values ranged from 0.17 to 0.27, with relatively limited variation. Countries with low R values generally lacked effective implementation levers. In some cases, although open policy readiness was not low, this had not yet translated into tangible progress in open access or open data, both of which remained at low levels of readiness.

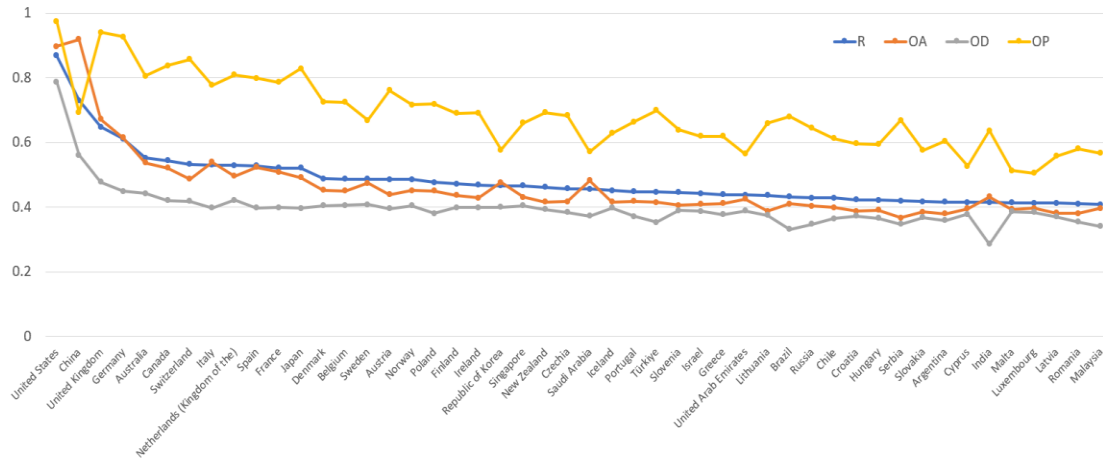


Figure 4-3. Top 25% countries by R values, 2024

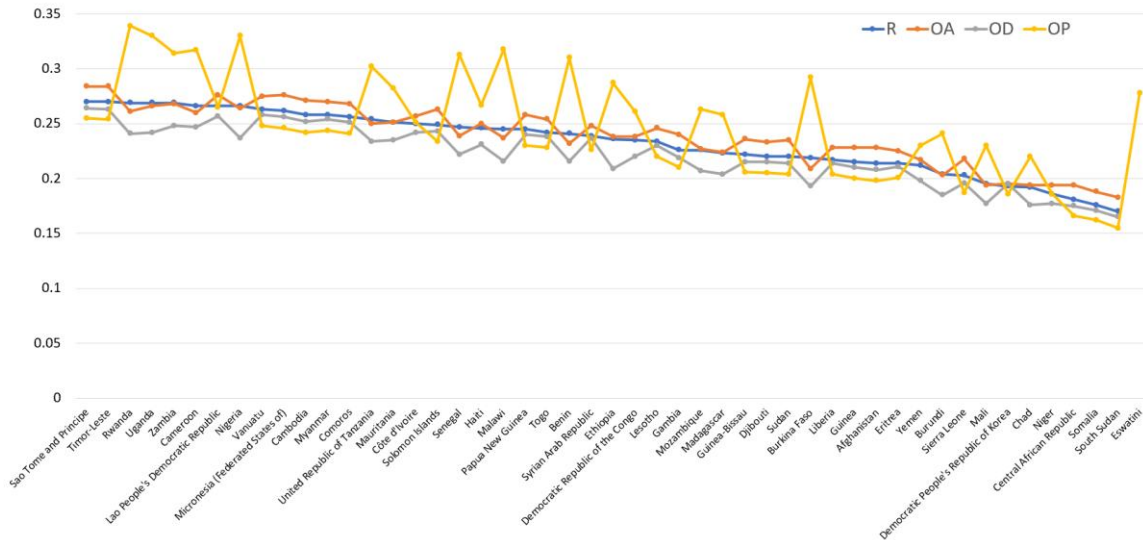
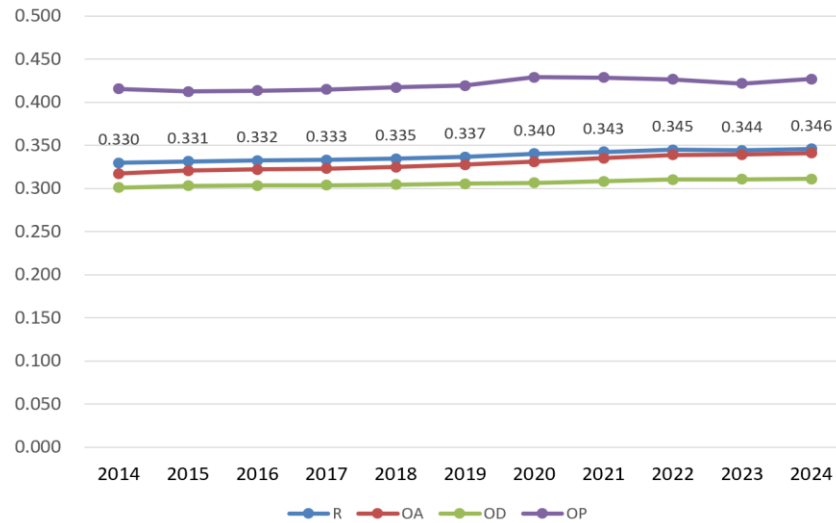


Figure 4-4. Bottom 25% countries by R values, 2024

#### 4.1.2 Dynamic Evolution of National Open Science Readiness (2014–2024)

Between 2014 and 2024, the overall level of open science readiness across the 193 countries exhibited a steady upward trend, with the global average R value increasing modestly from 0.330 to 0.346 (Figure 4-5).



**Figure 4-5.** Global trend of R values, 2014–2024

Throughout this period, significant divergence in national levels of open science readiness persisted. The United States consistently ranked first globally, with its R value increasing steadily from 0.853 to 0.869, consolidating its leading position. China recorded the most substantial improvement over the past decade, with its R value rising sharply from 0.473 to 0.730. This accelerated growth is closely associated with large-scale investment in research and development, particularly the rapid expansion of open access publishing of research outputs<sup>25</sup>. European countries such as the United Kingdom (0.595–0.648) and Germany (0.559–0.611) maintained steady growth trajectories. Most countries remained concentrated within the 0.40–0.55 range, with relatively limited overall increases (Figure 4-6).

Over the same period, the global average R value increased from 0.330 to 0.346. The evolution of the R value distribution is illustrated through the global median (solid line) and the interquartile range (middle 50 per cent band), capturing both the central tendency and dispersion of global open science readiness. As shown in Figure 4-7, the overall distribution structure remained relatively stable over the decade, with no significant upward shift in either the median or the interquartile range, reflecting a typical pattern of “low-level gradual growth”.

Notably, the upper bound of the interquartile range increased more significantly than the lower bound. This indicates that countries with higher levels of open science readiness continued to improve, while those with lower levels experienced near stagnation, resulting in a widening gap between the two ends. The “silent majority” of countries clustered around the median showed limited substantive progress in capability development. Approximately one quarter of countries remained persistently at very low levels, with OSRI values below approximately 0.27. In these countries, foundational capacity-building for open science

<sup>25</sup> Yang, W., & Huang, J. X. (2025). A global-local strategy for global open access. *Innovation* (Cambridge (Mass.)), 6(3), 100799. <https://doi.org/10.1016/j.xinn.2025.100799>

continues to face systemic bottlenecks, and they are predominantly located in sub-Saharan Africa and among small island developing States.

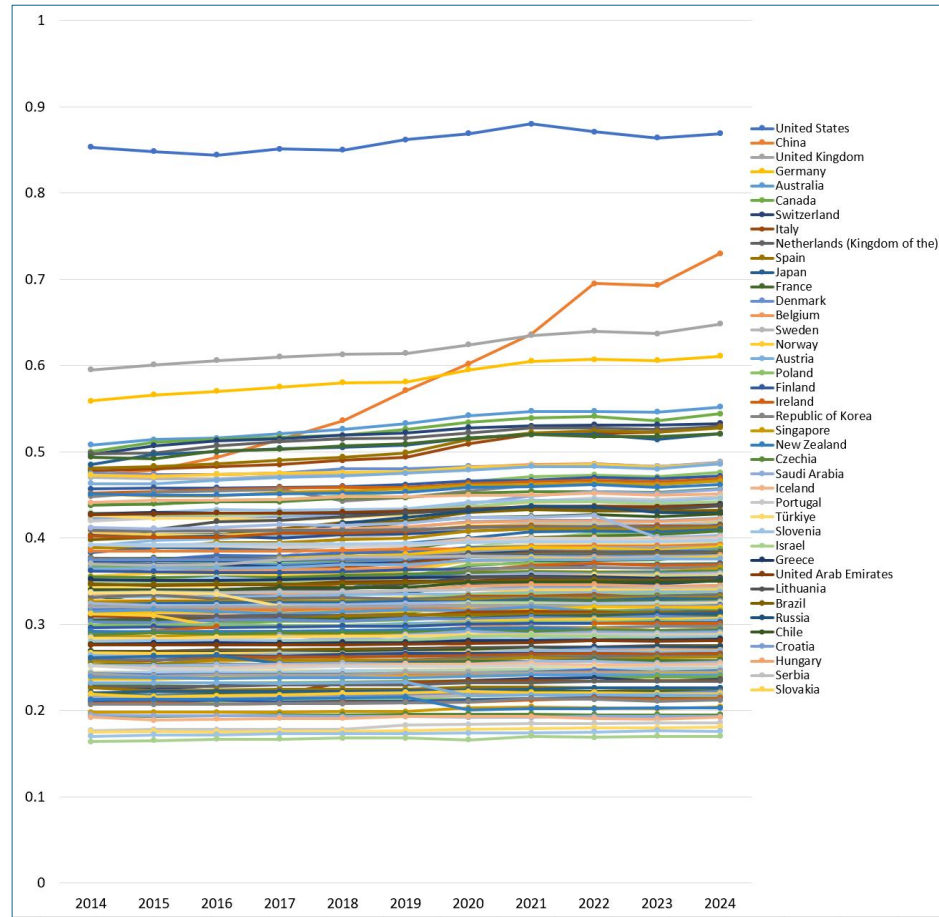


Figure 4-6. Global OSRI trends, 2014–2024

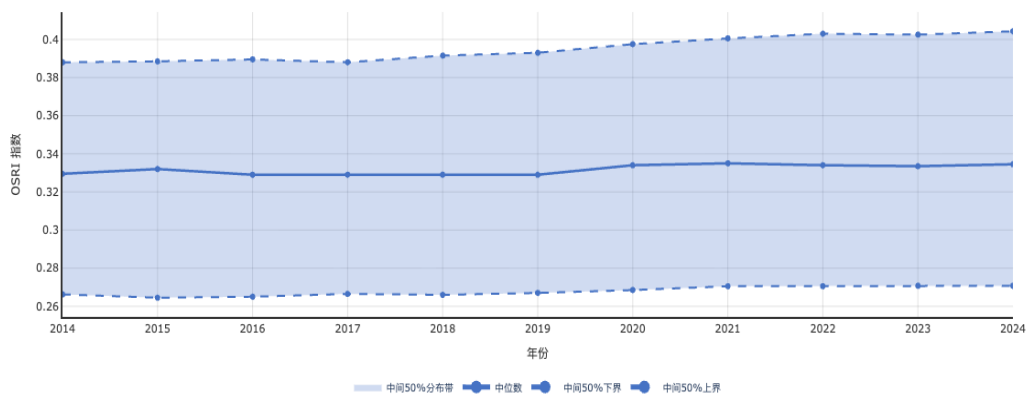


Figure 4-7. Interquartile range (IQR) distribution of R values across 193 countries, 2014–2024

## 4.2 R Values across the Three Dimensions: Open Access Outpaces Open Data and Open Policy

- Between 2014 and 2024, the growth rates of global  $R_{OD}$  and  $R_{OP}$  were significantly lower than those of  $R_{OA}$ . At the same time, structural differentiation remained pronounced across all three dimensions. Across the 193 countries, the overall openness of research outputs changed only marginally, while the proportion of internationally co-authored publications increased. Accessible data increased significantly, whereas the growth of shareable data remained limited. The development of open science policy also displayed stage-based characteristics.
- In 2024, among the 193 countries, 54 per cent recorded calibrated  $R_{OA}$  values below the global average, 50 per cent recorded calibrated  $R_{OD}$  values below the global average, and 57 per cent recorded calibrated  $R_{OA}$  values below the global average.

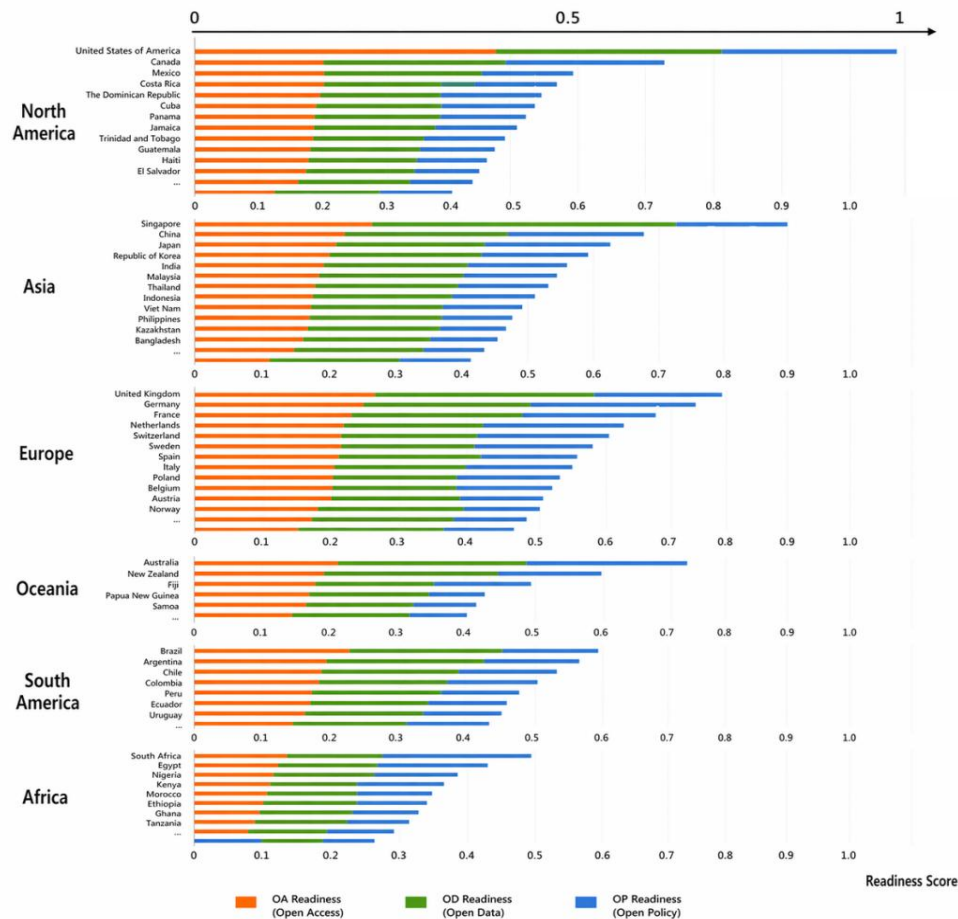


Figure 4-8. Distribution of R values across the three dimensions for countries in six regions, 2014–2024

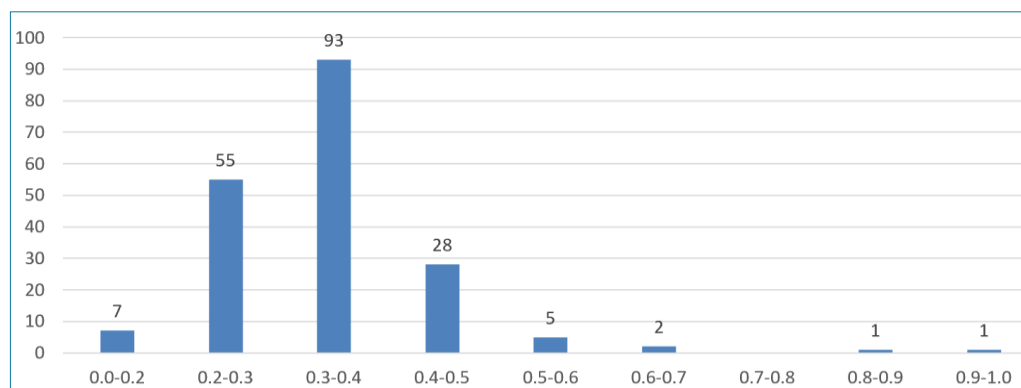
### 4.2.1 Current Status and Trends in Open Access Readiness ( $\bar{R}_{OA}$ )

Open Access readiness ( $R_{OA}$ ) reflects the public accessibility of national scientific knowledge and the degree of participation in international research collaboration. Its value ranges from 0 to 1, with higher values indicating higher levels of Open Access readiness.

Between 2014 and 2024, global Open Access readiness showed an overall pattern of slow but sustained growth, with the global average rising modestly from 0.322 in 2014 to 0.343 in 2024, representing a cumulative increase of approximately 6.5 per cent over the decade. This increase indicates that open access is advancing steadily at the global level, although disparities among countries remain substantial.

In 2024, among the 193 countries, 80 per cent recorded Open Access readiness values below the global average:

- Globally, Open Access readiness ( $R_{OA}$ ) ranged from 0 to 1, with an average value of 0.343, indicating a relatively low overall level.
- A total of 105 countries recorded  $R_{OA}$  values below the global average.
- China and the United States recorded comparatively high  $R_{OA}$  values, forming a marked contrast with other countries.



**Figure 4-9.** Distribution of  $\bar{R}_{OA}$  values across 193 countries, 2024

Data for the period 2014–2024 show that, over the longer term, the global pattern of Open Access development displays a pronounced “Matthew effect”: countries with stronger initial foundations have benefited more substantially from accumulated advantages in policy, funding, and technological support, and have therefore advanced more rapidly in terms of readiness.

China and the United States remained in the leading group throughout 2014–2024. The United States ranked first globally in 2014 with an  $R_{OA}$  value of 0.670 and maintained a generally stable upward trend thereafter, although the index declined slightly between 2022 and 2024; in 2024, it ranked second globally with a value of 0.897. China exhibited a particularly strong growth trajectory and ranked first globally in 2024. This rise is closely associated with the rapid shift of China’s research output towards open access.

Countries such as the United Kingdom, Germany, France, Australia, and Canada remained within the range of 0.5 to 0.7 and showed steady increases in  $R_{OA}$ , driven by mandatory open access policies introduced by national research funding agencies. Japan and the Republic of Korea recorded values in the range of 0.477 to 0.491 and have shown stable upward trends in recent years as national open science strategies have become more clearly defined. India was among the more notable performers in terms of  $R_{OA}$ , rising from 0.316 to 0.432 over the decade, with a cumulative increase of 36.7 per cent. In particular, growth accelerated after 2019, largely owing to policy efforts at the national level to promote open access

infrastructure. Brazil and Singapore showed more moderate growth, with 2024 values of 0.410 and 0.431, respectively, both above the global average. By contrast, countries in Africa and some low-income countries in Asia remained persistently within the range of 0.18 to 0.25, with little change over the decade, indicating that open access remains a distant objective for these countries.

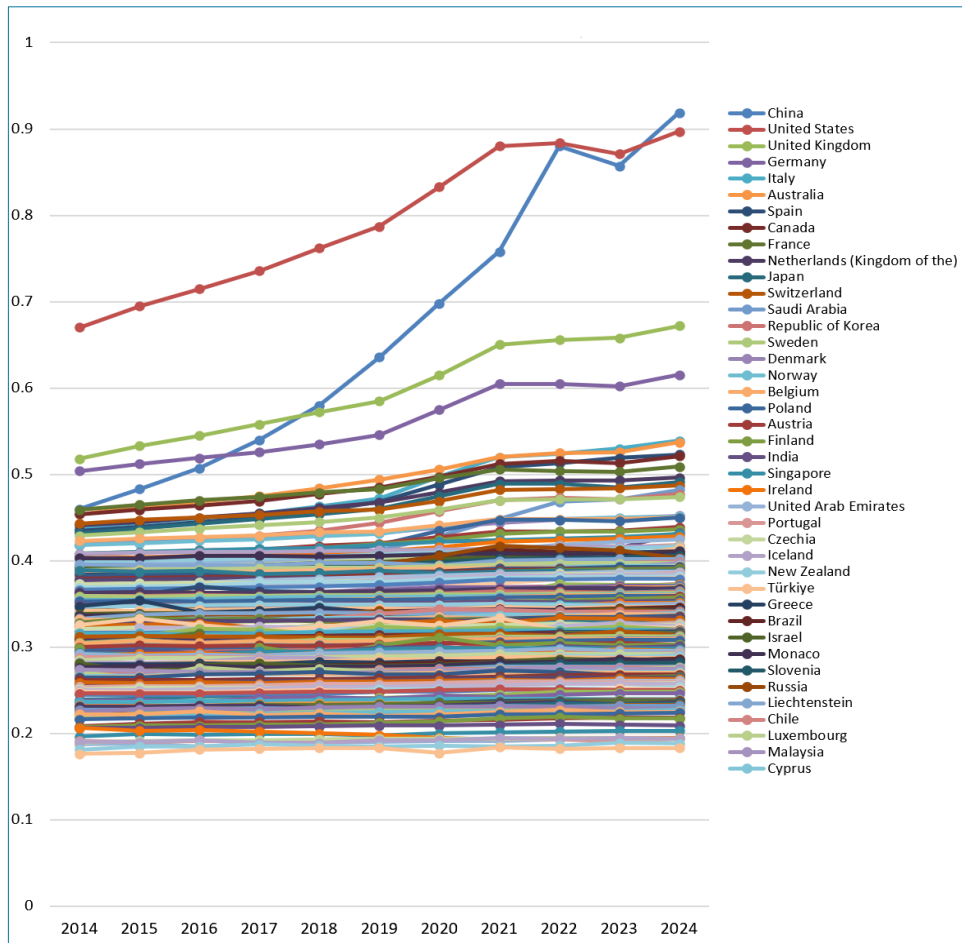


Figure 4-10. Evolution of  $\bar{R}_{OA}$  values across 193 countries, 2014–2024

To further examine the factors underlying the status and trends described above, the analysis may be approached from the two perspectives of **openness** and **inclusiveness**:

### (1) Openness ( $R_{open}$ )

Openness measures the degree to which research outputs are publicly shared. It is determined by the proportion of open access publications ( $r_{open}$ ) and their relative volume ( $P_{open}$ ).

In 2024, the average level of openness across the 193 countries was 0.427, representing an increase of 2.9 per cent compared with 2014 (0.415), indicating only limited change overall.

As shown in Figure 4-11, there were substantial differences in levels of openness across countries in 2024, and the pace of development in openness also varied considerably among countries over the period 2014–2024. Looking at the underlying indicators of openness, the average share of open access publications across the 193 countries reached 0.617 in 2024, representing a 1.32-fold increase compared with 0.265 in 2014. In 2024, the total number of publications worldwide exceeded 4.37 million, an increase of 75 per cent

compared with 2014, while the total volume of OA publications reached 2.14 million, representing a 3.74-fold increase over the same period.

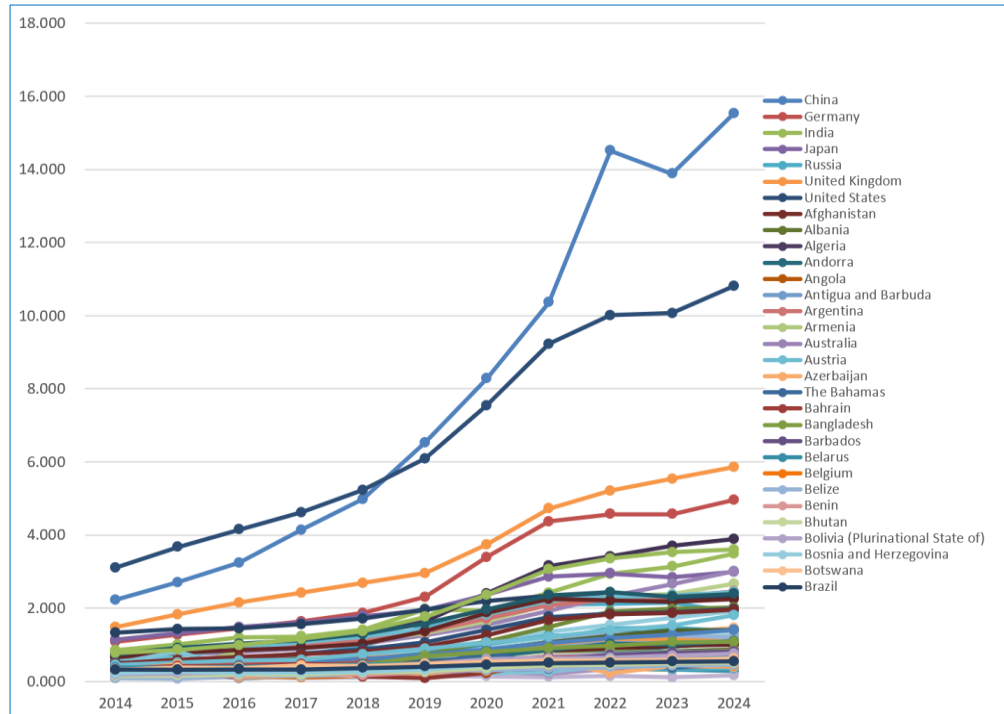


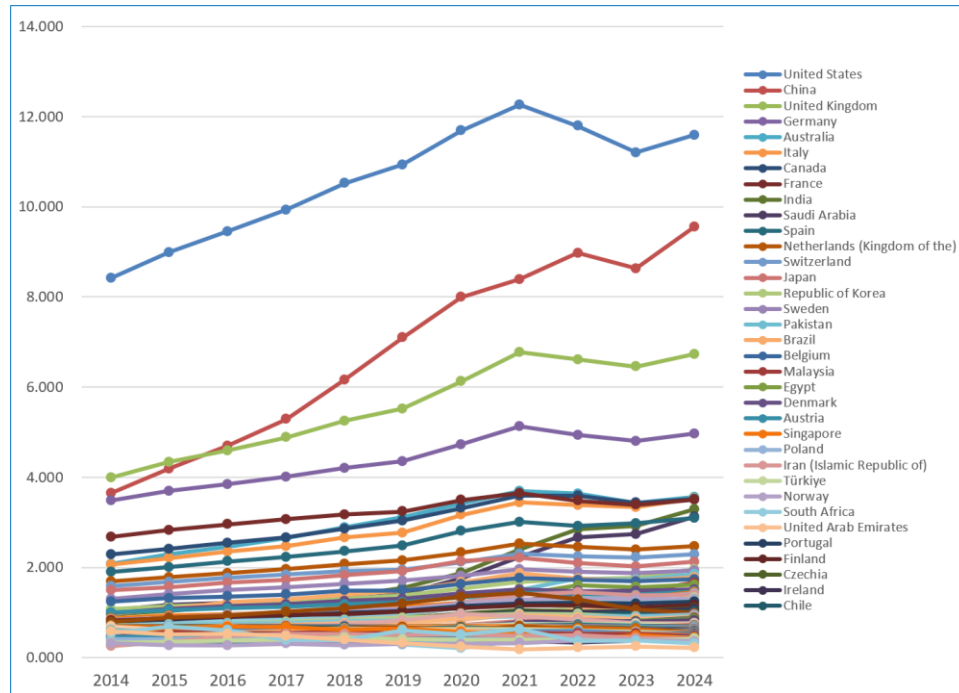
Figure 4-11. Evolution of openness ( $R_{open}$ ) in  $ROA$  across 193 countries, 2014–2024

## (2) Inclusiveness ( $R_{incl}$ )

Inclusiveness measures the degree of international participation in the research process. It is determined by the proportion of internationally co-authored publications ( $r_{incl}$ ) and their relative volume ( $P_{incl}$ ).

In 2024, the average level of inclusiveness across the 193 countries was 27 per cent higher than in 2014. In that year, the total number of internationally co-authored publications reached 1.89 million, accounting for 43 per cent of global scholarly output. Compared with 2014, the number of internationally co-authored publications, then 0.96 million, increased by 0.97 times, while their share of total global publications increased by 5 percentage points.

During the period 2014–2024, the United States, China, the United Kingdom, and Germany maintained relatively high levels of inclusiveness in open access, while India and Saudi Arabia showed particularly strong growth momentum in this dimension. The number of internationally co-authored publications increased by 2.67 times in India, 3.72 times in Saudi Arabia, 1.68 times in China, 0.72 times in the United Kingdom, 0.45 times in Germany, and 0.38 times in the United States.



**Figure 4-12.** Evolution of inclusiveness ( $R_{incl}$ ) in  $ROA$  across 193 countries, 2014–2024

#### 4.2.2 Current Status and Trends in Open Data Readiness ( $\bar{R}_{OD}$ )

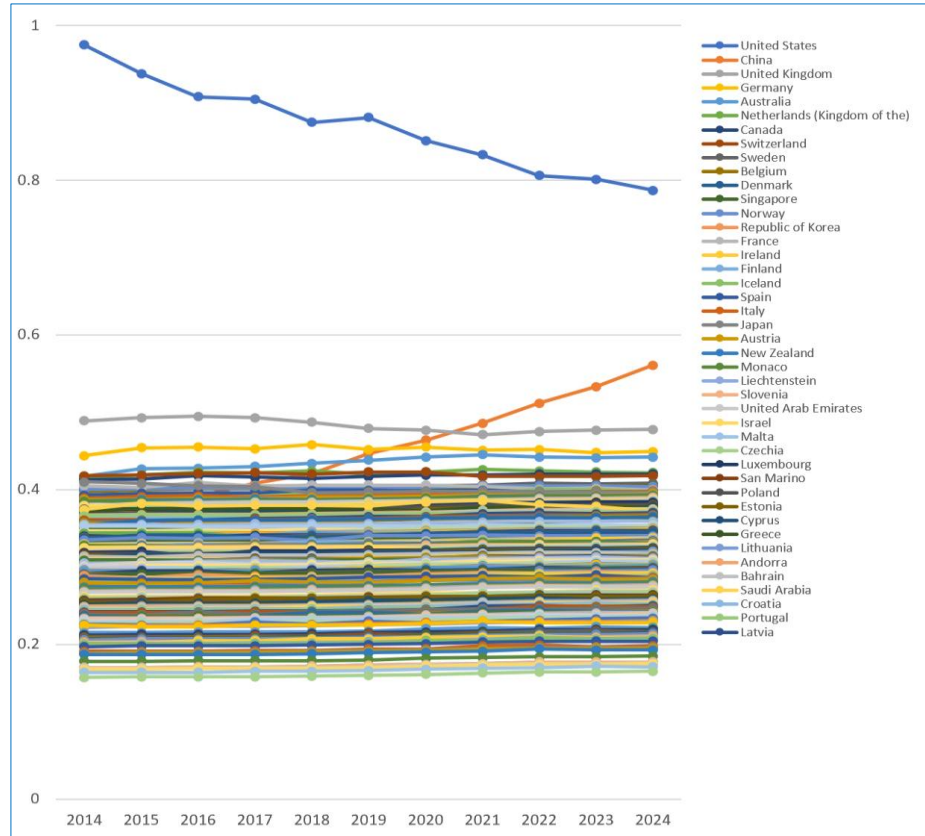
Open Data readiness ( $R_{OD}$ ) is intended to measure a country’s capacity for data sharing and its level of accessibility across the scientific data lifecycle.

Between 2014 and 2024, global Open Data readiness showed an overall pattern of steady but modest growth, with the global average rising slightly from 0.306 to 0.313, representing a cumulative increase of approximately 2.3 per cent over the decade. This rate of increase is significantly lower than that observed for the Open Access dimension, reflecting the complexity and relative lag of open data practices. In terms of distribution, structural differentiation remained evident throughout the entire period. Over the decade, most countries remained concentrated in the middle range of 0.30–0.40, suggesting that the institutional, infrastructural, and cultural barriers associated with open data development are considerably more difficult to overcome than those associated with open access publishing. Even though the global supply of open data has continued to grow, actual accessibility in low-income countries has not improved in parallel, owing to weak legal safeguards, underdeveloped internet infrastructure, and fiscal constraints. As a result, the “data divide” has continued to widen in quantitative terms.

In 2024, among the 193 countries, 50 per cent recorded  $R_{OD}$  values below the global average.

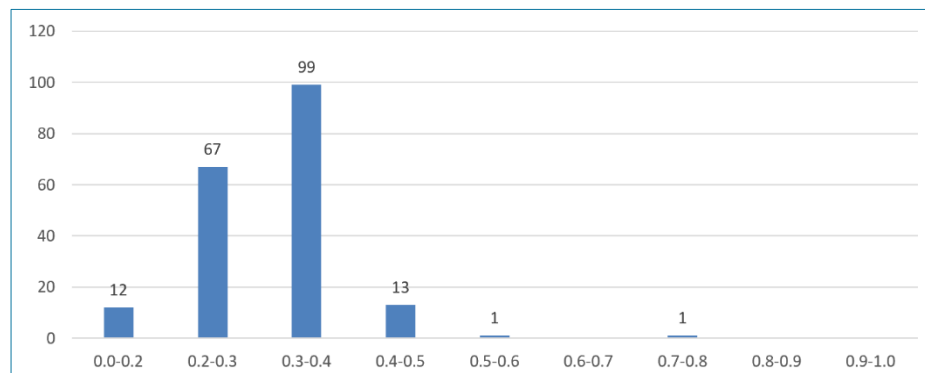
- Globally, Open Data readiness ( $R_{OD}$ ) ranged from 0.165 to 0.787, with an average value of 0.313, indicating a relatively low overall level.
- From a regional perspective, North America (average 0.512) and Europe remained the two most mature regions in terms of Open Data development. East Asia and the Pacific recorded the most notable increase (+0.024), driven primarily by the structural rise of China. Latin America (+0.006) and sub-Saharan Africa (+0.007) remained overall within the low-readiness range, with average values of 0.343 and 0.257, respectively. Although countries such as South Africa and Kenya have

advanced at the level of national scientific data policy, constraints in digital infrastructure have kept actual data accessibility at persistently low levels, creating structural bottlenecks.



**Figure 4-13.** Evolution of  $\bar{R}_{OD}$  values across 193 countries, 2014–2024

- A total of 95 countries recorded  $R_{OD}$  values below the global average, while both the United States and China recorded  $R_{OD}$  values above 0.5.



**Figure 4-14.** Distribution of  $\bar{R}_{OD}$  values across 193 countries, 2024

The United States ranked first globally with an  $R_{OD}$  value of 0.787. It has the world’s largest scientific data repository system, with the number of United States-based institutions registered in re3data far exceeding that of any other country. Its FAIR compliance and data infrastructure development also remain at the global forefront. As shown in Figure 4-13, the decline observed in the United States’ readiness score should not be interpreted as an absolute decline in its level of open data development; rather, it reflects a structural

effect arising from the construction of the index. As the scale of data output in emerging major research countries, particularly China, has expanded rapidly, the relative share of the United States in globally shareable data has been compressed, and this relative change is amplified by the normalization procedure.

China recorded the largest increase in Open Data readiness during 2014–2024, rising from 0.380 to 0.561. This substantial increase reflects the combined effects of large-scale research output and sustained investment and growth in open science infrastructure. By contrast, core European research countries, including the United Kingdom (0.478), Germany (0.449), and France (0.399), showed relatively limited changes over the decade and remained broadly stable overall. Australia and Singapore recorded the most consistent gains, both benefiting from mature national data policy frameworks and high-quality internet infrastructure.

To further examine the factors underlying the status and trends described above, the analysis may be approached from the two perspectives of **shareable data** and **accessible data**:

### (1) Shareable Data ( $S_{OD}$ )

Shareable data represent a country's potential to produce high-quality and reusable scientific data. The measurement indicators include the academic quality factor, the information quality factor, and the reliability factor.

In 2024, the average value of shareable data ( $S_{OD}$ ) across the 193 countries was 0.473, representing an increase of 15 per cent compared with 2014 (0.412). A small number of countries were clearly ahead of the rest, which is associated with their relatively high levels of academic quality, information quality, and data integrity.

In 2024, the average academic quality factor for open data was 1.247, showing a pattern of marked absolute inequality, with a small number of countries at high levels and the overwhelming majority at low levels. A total of 173 countries recorded SOD values below the average. Among the 20 countries above the average, the United States led globally in the share of top 1 per cent highly cited researchers, reaching a level 54 times higher than the global average, although its FWCI was lower than that of some countries with smaller publication output.

In 2024, the average information quality factor for open data was 0.089, which, like the 2014 value of 0.068, remained at a low level. In terms of findability, accessibility, interoperability, and reusability under the FAIR principles, the shared data of many countries in current international databases or online platforms continue to face deficiencies, including the absence of persistent identifiers (PIDs), restricted access, weak interoperability, and a low proportion of repositories with explicit licensing arrangements (see Annex).

In 2024, the average reliability factor for open data was 0.536, representing an increase of 68 per cent compared with 2014 (0.319). In the same year, among the 193 countries, 15 countries recorded more than 100 retractions, and the average number of retractions was 56, representing a twofold increase compared with 2014 (18).

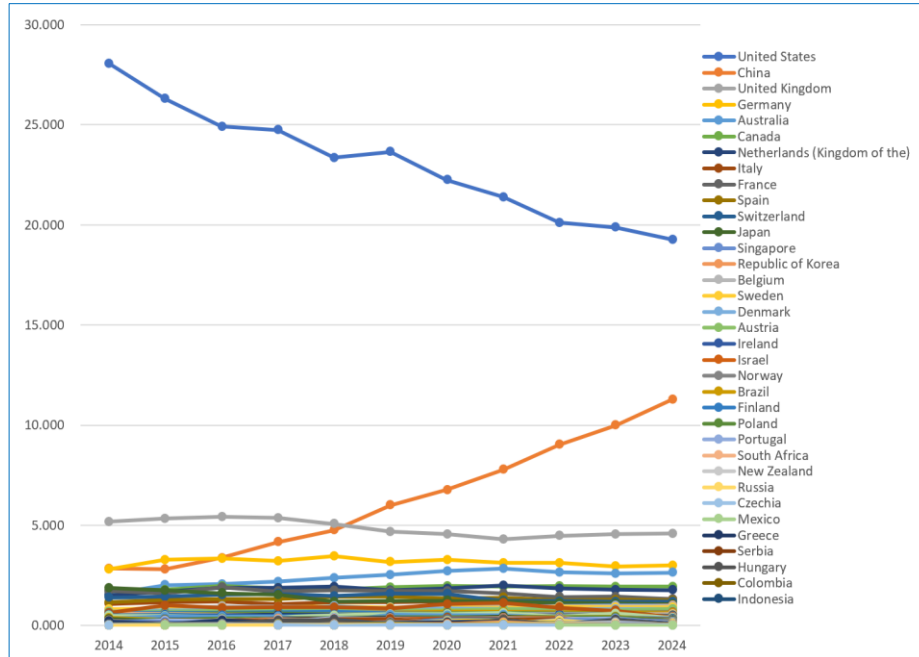


Figure 4-15. Evolution of shareable data ( $S_{OD}$ ) in  $R_{OD}$  across 193 countries, 2014–2024

## (2) Accessible Data ( $A_{OD}$ )

Accessible data measure the actual conditions and capacity of researchers in a given country to obtain and use open scientific data. The measurement indicators include legal sustainability, instrumental sustainability, financial sustainability, and the reliability factor, while the global total of open access publications is used as the scale benchmark for accessible data.

In 2024, the average number of globally accessible OA publications across the 193 countries was 1.05 million, representing a 3.46-fold increase compared with 2014 (235,000). This is related to the long-term provision by countries of data on basic research budgets and their rates of increase, as well as on data acquisition costs and their rates of increase.

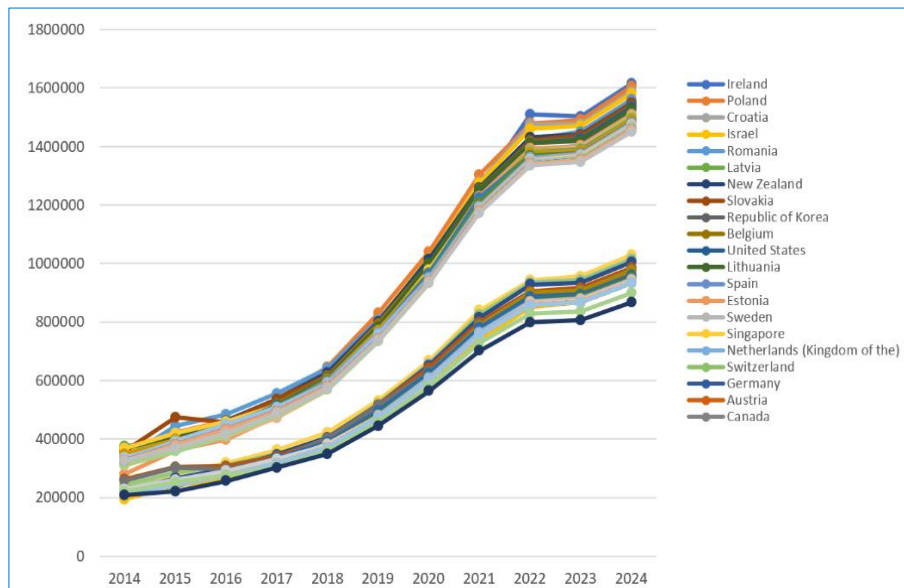
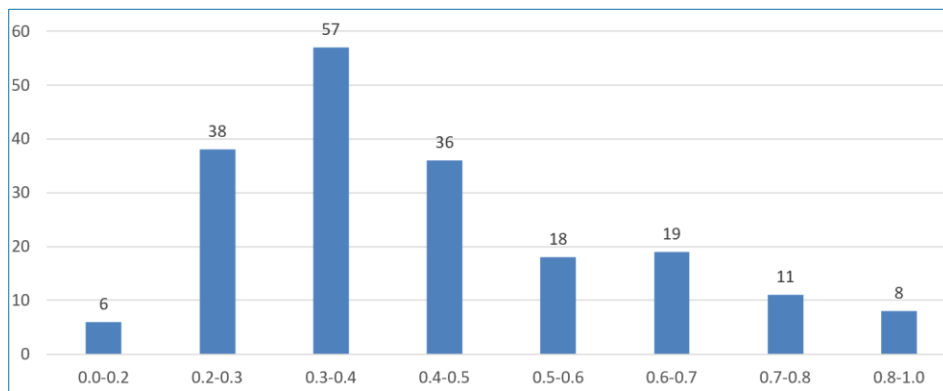


Figure 4-16. Evolution of accessible data ( $A_{OD}$ ) in  $R_{OD}$  across 193 countries, 2014–2024

### 4.2.3 Current Status and Trends in Open Policy Readiness ( $\bar{R}_{OP}$ )

Open Policy readiness ( $R_{OP}$ ) is intended to measure a country’s overall capacity to support open science through its institutional environment, legal safeguards, and infrastructure. It is a weighted composite of four sub-dimensions: legal environment, infrastructure, dissemination channels, and policy effectiveness, with values ranging from 0 to 1.

Between 2014 and 2024, the global average Open Policy readiness score increased gradually from 0.416 to 0.427, representing a cumulative increase of 2.7 per cent over the decade. This rate of growth was significantly lower than that of the Open Access dimension, reflecting the lag and path-dependent nature of institutional development and policy implementation.



**Figure 4-17.** Distribution of  $\bar{R}_{OP}$  values across 193 countries, 2024

In 2024, the distribution of Open Policy readiness across the 193 countries appeared relatively balanced:

- Globally, Open Policy readiness ( $R_{OP}$ ) ranged from 0.155 to 0.975, with an average of 0.427.
- A total of 110 countries recorded  $R_{OP}$  values below the global average, while 56 countries recorded  $R_{OP}$  values above 0.5.
- Countries with relatively high levels of Open Policy readiness included the United States, the United Kingdom, Germany, Switzerland, Canada, Japan, the Netherlands, and Australia.

From the perspective of global trends, Open Policy readiness showed an overall fluctuating pattern, reflecting the stage-based nature of open science policy development worldwide. Between 2014 and 2019, the average value across the 193 countries increased only gradually, from 0.416 to 0.419. Between 2021 and 2023, a temporary decline was observed, from 0.429 to 0.422, followed by a slight recovery to 0.427 in 2024.

The United States ranked first globally with an  $R_{OP}$  value of 0.975 and maintained this level throughout the decade, owing to its comprehensive strengths across all sub-dimensions, including legal protection of property rights, the scale of data repositories, journal coverage, and policy influence. Europe also performed strongly in these areas, particularly in legal protection of property rights and journal coverage. Japan was among the countries with the most notable increases, rising steadily from 0.743 to 0.828. Since 2017, Japan has systematically advanced its national open science strategy and substantially expanded its scientific data infrastructure.

Among emerging economies and middle-income countries, Serbia recorded the largest increase over the decade, rising sharply from 0.478 to 0.668. This growth was driven primarily by its gradual integration into the European research policy system in the course of its EU accession process and its participation in

multiple related initiatives<sup>26</sup>. Countries such as Indonesia<sup>27</sup> and Peru<sup>28</sup> also recorded significant increases of more than 9 per cent over the decade, reflecting a pathway of institutional improvement driven by policy instruments and platform development.

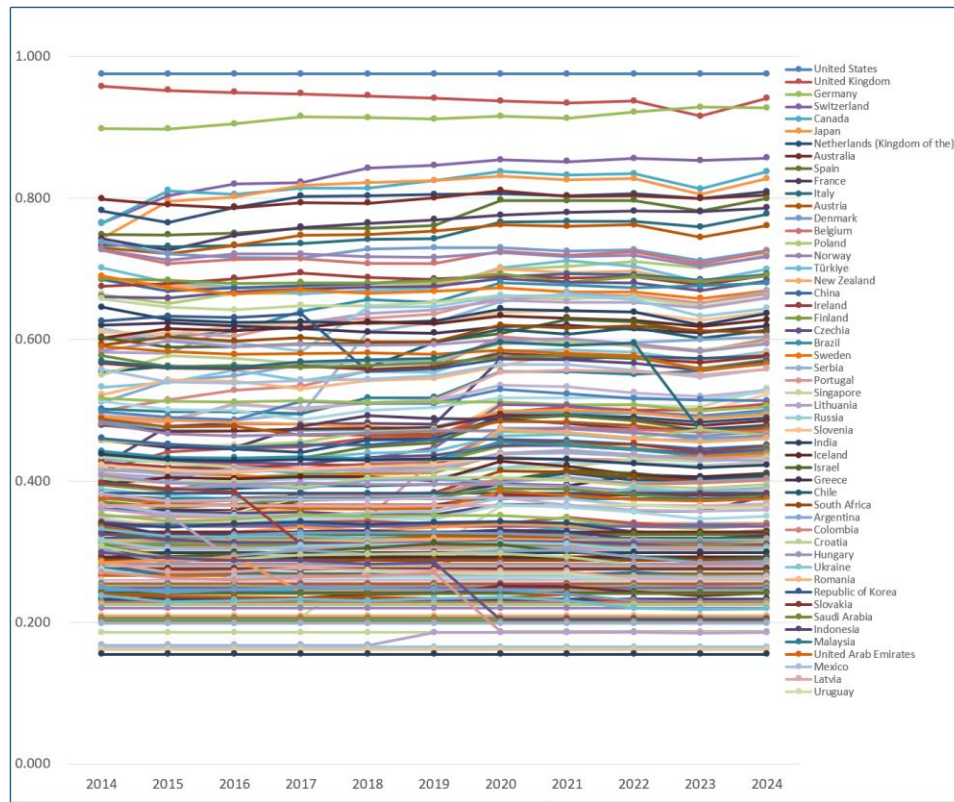


Figure 4-18. Evolution of  $\bar{R}_{OP}$  values across 193 countries, 2014 – 2024

From a regional perspective, North America and the core countries of Europe remained the two regions with the highest levels of Open Policy readiness globally, both showing a pattern of steady improvement. Latin America recorded the largest increase in regional average values over the decade, rising from 0.544 to 0.611. Active exploration in open science by countries such as Brazil and Argentina contributed to this overall improvement. In Asia, the region’s performance was shaped largely by pronounced internal disparities: leading countries such as Japan and Singapore have relatively mature policy systems, whereas policy development in parts of Central Asia and Southeast Asia remains at an early stage. Africa as a whole remains in the low-readiness range, and its structural constraints have not fundamentally changed over the past decade.

Overall, while the improvement in global Open Policy readiness has broadened in scope, it remains insufficient in depth, and international inequalities in institutional development continue to be pronounced.

To further examine the factors underlying the status and trends described above, the analysis may be extended across four dimensions: **legal environment**, **infrastructure**, **dissemination channels**, and **policy effectiveness**.

<sup>26</sup> <https://www.openaire.eu/os-serbia>

<sup>27</sup> <https://www.csis.or.id/publication/a-case-for-open-science-in-indonesia-advancing-digital-literacy-scientific-infrastructure-and-leadership/>

<sup>28</sup> <https://www.ouvri.lascience.fr/latin-america-could-become-a-world-leader-in-non-commercial-open-science/>

**S<sub>Law</sub> (Legal environment):** The sustainable development of open science requires a sound legal environment, particularly one that provides clear legal safeguards in areas such as intellectual property protection, data privacy, and academic freedom. In 2024, the average International Property Rights Index across the 193 countries was 3.29, representing a decline from 3.64 in 2014, which suggests that the environment for copyright and related protections remains in need of strengthening.

**S<sub>Platform</sub> (Infrastructure):** Data repositories are a core component of open science infrastructure. Their number and disciplinary coverage directly reflect a country's capacity to support data sharing and preservation. In 2024, among the 193 countries, the average number of repositories registered in open data systems was 12.7, and only 20 countries reached or exceeded this level.

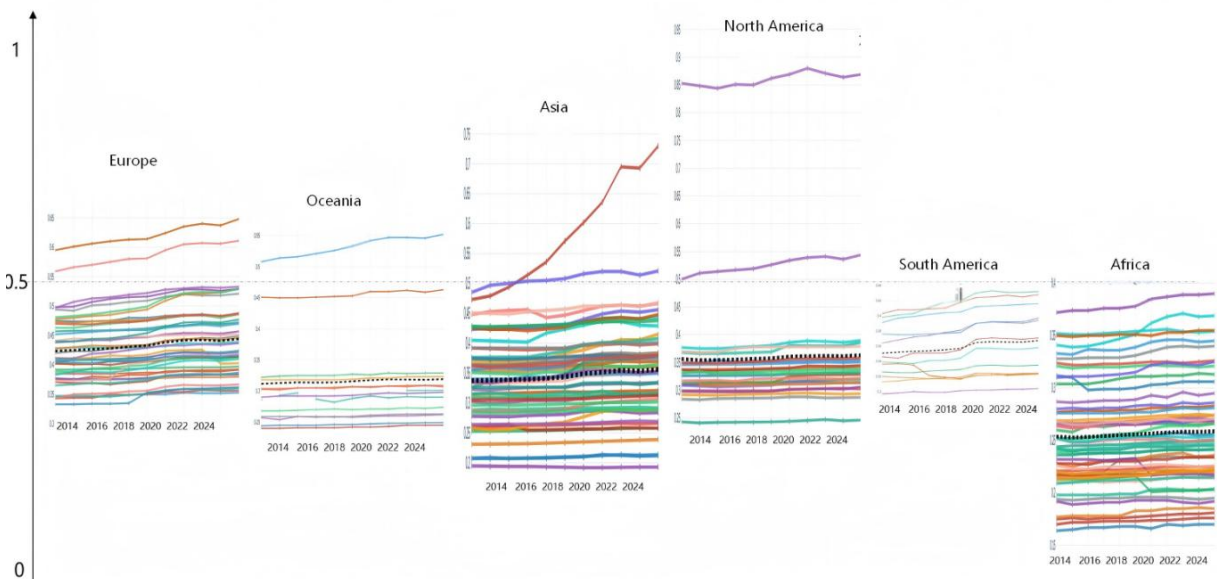
**S<sub>Journal</sub> (Dissemination channels):** Academic journals are a central channel for the dissemination of scientific knowledge. The number of journals from a given country indexed in major international databases reflects its position and influence within the global scholarly communication network. In 2024, the average number of journals across the 193 countries was 12.7, representing an increase from 9.8 in 2014.

**S<sub>Policy</sub> (Policy effectiveness):** The number and quality of open science policies are key indicators of a country's institutional driving force. In 2024, the average number of open science-related policies across the 193 countries was 2.2, increasing substantially from 0.48 in 2014. However, policies with strong international collaborative features, or policy cases cited by UNESCO reports as exemplary practice, remain limited.

### 4.3 R Values across Geographic Regions: Intercontinental Differences and Structural Variation within Regions

This report follows the *Standard Country or Area Codes for Statistical Use (M49)*<sup>29</sup> of the United Nations Statistics Division (UNSD). The M49 standard contains a three-level geographic classification. This report adopts a simplified version of that classification, under which each country or area is assigned to one of the following regions: Europe, the Americas, Asia, Oceania, and Africa. For the purpose of further calculating R values at the national level, the Americas are subdivided into North America and South America. The six geographic regions and the list of Member States are provided in Annex 1.

- The six geographic regions each display distinct profiles in terms of R values and the three dimensions of readiness, namely Open Access readiness, Open Data readiness, and Open Policy readiness. Differences in the capacity to practise open science may be the primary factor underlying these variations.
- Between 2014 and 2024, disparities in open science readiness widened among countries in Asia and North America, while the overall patterns of development in the other continents remained relatively stable.
- In 2024, Europe recorded the highest average Open Science Readiness Index (R value), at 0.444. The average R values for South America, North America, Asia, Oceania, and Africa were 0.369, 0.363, 0.356, 0.319, and 0.258, respectively. These figures indicate clear differences in open science readiness across continents.



**Figure 4-19.** Distribution of R values for countries in six regions, 2014–2024

<sup>29</sup> United Nations Statistics Division (UNSD). Standard Country or Area Codes for Statistical Use (M49). Available at <https://unstats.un.org/unsd> (accessed on Jun. 2025). 2024.

### 4.3.1 Europe

In 2024, the average R value for European countries was 0.444. Europe recorded the highest average Open Science Readiness Index (R value) of all continents in 2024. Europe has been an early mover in the practice of open science, advancing its development earlier and more deeply than other regions<sup>30</sup>. Since 2016, European countries, led in particular by the European Commission, have comprehensively promoted the transition of scientific research and innovation towards greater openness and democratization. Through measures such as the European Research Area strategy, the Horizon 2020 programme<sup>31</sup>, and the European Open Science Cloud (EOSC)<sup>32</sup>, Europe has established the most institutionalized open science system in the world.

#### (1) Trends in R Values among European Countries, 2014–2024

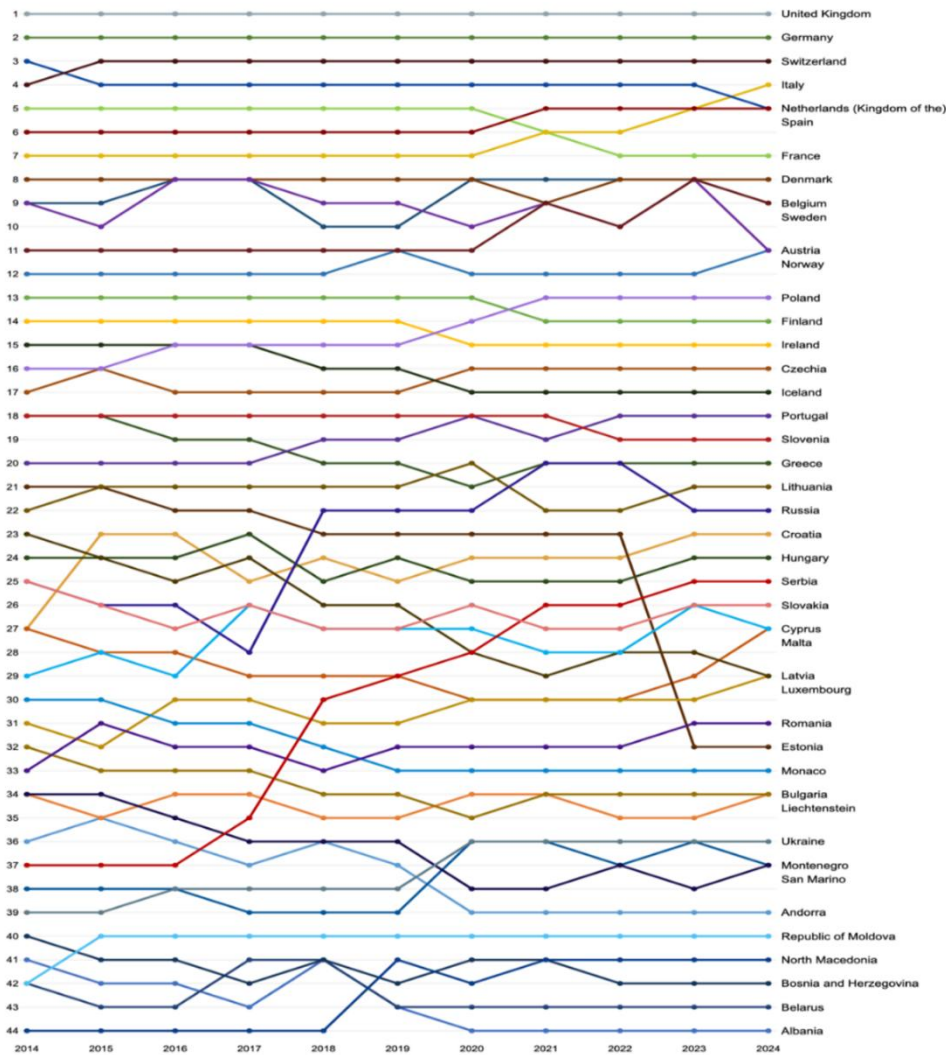


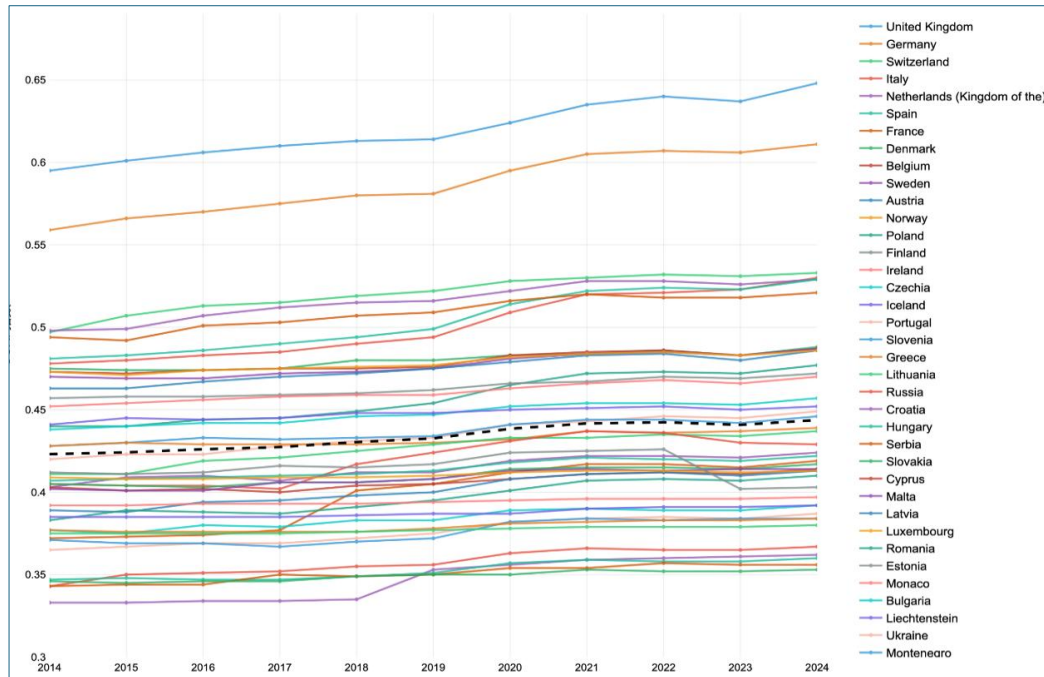
Figure 4-20. Evolution of R-value rankings for European countries, 2014–2024

<sup>30</sup> Sh Moradi, S Abdi, Open science–related policies in Europe, *Science and Public Policy*, Volume 50, Issue 3, June 2023, Pages 521–530, <https://doi.org/10.1093/scipol/scac082>

<sup>31</sup> [https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-2020\\_en](https://research-and-innovation.ec.europa.eu/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-2020_en)

<sup>32</sup> [https://research-and-innovation.ec.europa.eu/strategy/strategy-research-and-innovation/our-digital-future/open-science/european-open-science-cloud-eosc\\_en](https://research-and-innovation.ec.europa.eu/strategy/strategy-research-and-innovation/our-digital-future/open-science/european-open-science-cloud-eosc_en)

As shown in the ranking trends (Figure 4-20), the structure of the top ten countries in Europe remained highly stable. The United Kingdom consistently ranked first, and Germany consistently ranked second, while Switzerland and Italy, as well as the Netherlands and Spain, occasionally exchanged positions. Of particular note, some Central and Eastern European countries, especially Poland, the Russian Federation, Slovenia, and Serbia in the Balkan Peninsula, showed upward movement in their rankings. By contrast, other Balkan countries, including North Macedonia, Bosnia and Herzegovina, and Albania, remained clustered among the bottom four over the long term, with almost no change in ranking.



**Figure 4-21.** Trends in R values for European countries, 2014–2024

## (2) Current Status of R Values among European Countries in 2024

In terms of R values (Figures 4-21 and 4-22), open science readiness in Europe shows a differentiated pattern, broadly characterized by a development gradient in which north-western Europe leads, central Europe is catching up, and south-eastern Europe remains relatively behind.

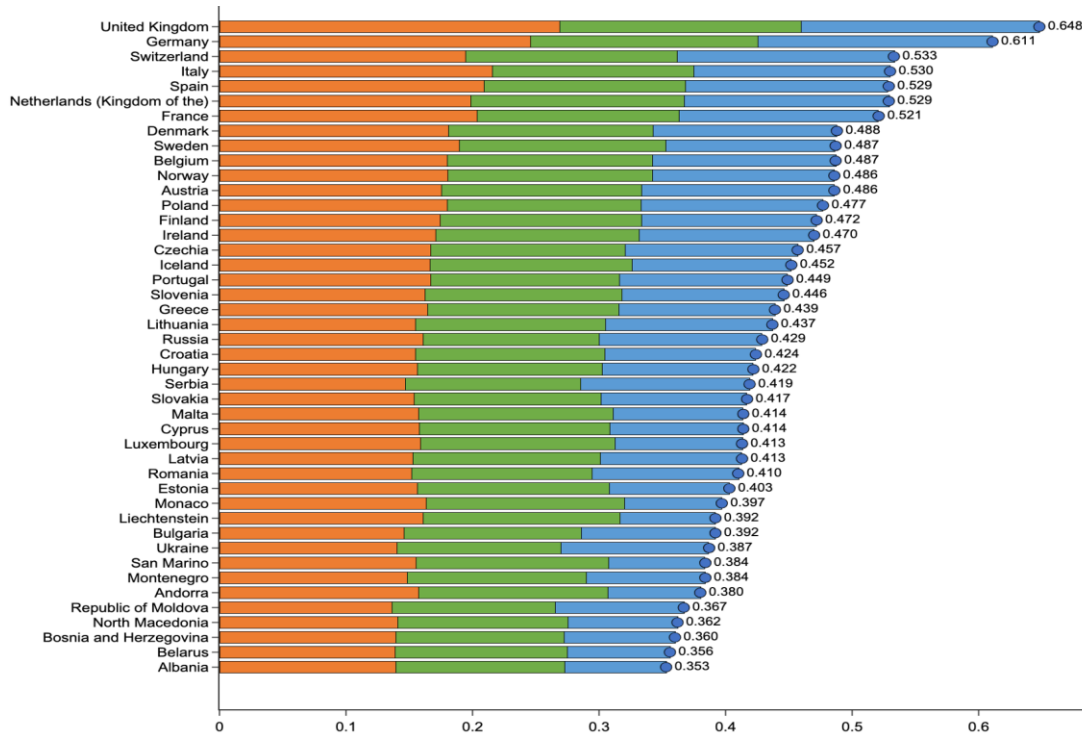
The first tier consists mainly of countries such as the United Kingdom, Germany, Switzerland, the Netherlands, Italy, France, and Spain. These countries generally possess well-developed research systems, mature open access policies, and strong digital research infrastructures, and they constitute the core driving force of open science development in Europe.

The second tier includes mainly Nordic countries and some Western European countries, such as Sweden, Denmark, Norway, Belgium, Austria, and Finland. Although their research systems are somewhat smaller in scale, they demonstrate relatively strong performance in open science policy, data-sharing culture, and research assessment reform.

The third tier is composed primarily of Central and Eastern European countries, including Poland, Czechia, Slovenia, Portugal, and Greece. In recent years, these countries have rapidly advanced open science under the impetus of European Union policies, but they still face gaps in the scale of open access output, research infrastructure, funding, and institutional readiness.

The fourth tier includes mainly countries in the Balkans and parts of Eastern Europe, such as North Macedonia, Bosnia and Herzegovina, Albania, Moldova, and Belarus. These countries remain relatively weak in terms of research funding, digital infrastructure, and international research collaboration networks, and therefore their level of open science development remains comparatively low.

In 2024, the average  $R_{OA}$  of European countries (0.42), the average  $R_{OD}$  (0.381), and the average  $R_{OP}$  (0.432) were all above the global average.



**Figure 4-22.** Distribution of R values across the three dimensions ( $R_{OA}$ ,  $R_{OD}$ , and  $R_{OP}$ ) for European countries, 2024  
( $R_{OA}$  in red,  $R_{OD}$  in green, and  $R_{OP}$  in blue)

### 4.3.2 South America

In 2024, the average R value for South American countries was 0.367. South America is one of the earliest regions in the world to adopt the open access movement, characterized by a non-commercial, institutionally driven model. A representative infrastructure, SciELO<sup>33</sup>, established in 1998, has become a major regional open access platform covering countries such as Brazil, Chile, and Argentina, playing a significant role in promoting open access to scholarly literature in Spanish- and Portuguese-speaking contexts. The UNESCO *Open Science Outlook 1*<sup>34</sup> also identifies Latin America as a leading region in open access practice.

#### (1) Trends in R Values among South American Countries, 2014–2024

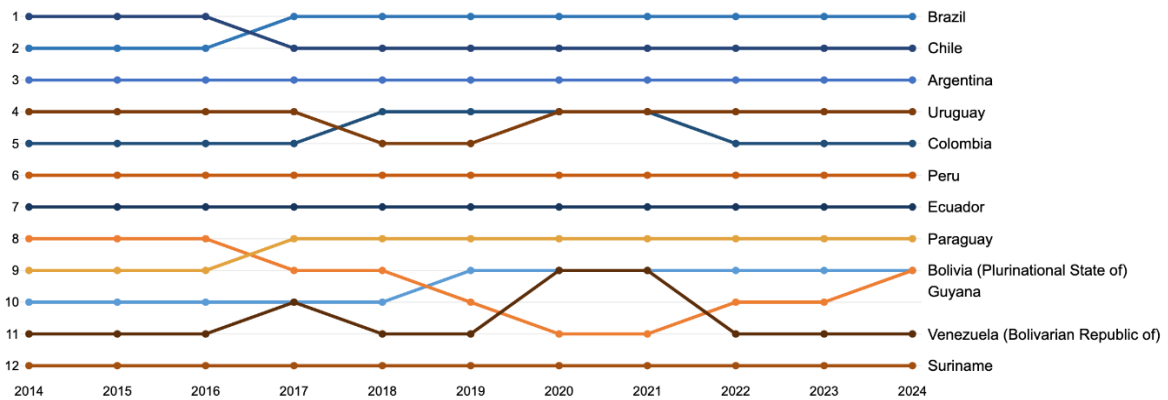


Figure 4-23. Evolution of R-value rankings for South American countries, 2014–2024

As shown in the ranking trends (Figure 4-23), the regional structure has remained highly stable: Brazil has consistently ranked first, Chile second, and Argentina third. Uruguay and Colombia have also maintained relatively stable positions. Countries in the middle and lower tiers, including Peru, Ecuador, Paraguay, Bolivia, Guyana, Venezuela, and Suriname, have exhibited some degree of fluctuation in their rankings.

In terms of R values (Figure 4-24), South America has shown a moderate but steady upward trend since 2014, with the regional average increasing from 0.351 to 0.367. Brazil (0.398–0.432), Chile (0.403–0.428), and Argentina (0.391–0.416) have consistently ranked among the top three. The rate of increase for these countries accelerated slightly after 2020, which is associated with the introduction of national-level open science policies. Uruguay (0.376–0.397) and Colombia (0.364–0.394) have demonstrated stable performance. By contrast, Venezuela (0.313–0.323) and Guyana (0.336–0.324) have experienced stagnation or slight decline, reflecting the direct impact of economic crises on national research systems.

#### (2) Current Status of R Values among South American Countries in 2024

In 2024, the OSRI values of the 12 South American countries were concentrated within a relatively narrow range of 0.304 to 0.432, making South America one of the regions with the smallest internal disparities. Brazil (0.432) ranked first, supported by strong research output and a solid foundation in infrastructure development, followed by Chile (0.428) and Argentina (0.416). Uruguay (0.397) and Colombia (0.394) occupied the middle tier, while Peru (0.371) has shown notable progress over the past decade. Venezuela (0.323), Bolivia (0.324), and Suriname (0.304) ranked at the lower end.

<sup>33</sup> <https://scielo.org/en/about-scielo/>

<sup>34</sup> <https://www.unesco.org/en/articles/open-science-outlook-1-status-and-trends-around-world-0>

Overall, the development of open science in South America is relatively balanced, with differences across countries primarily reflected in the Open Policy dimension. Key driving factors include policy adoption, journal development, platform construction, and the legal environment (see Figure 4-25).

In 2024, the average  $R_{OA}$  value in South America (0.35) was at the global average level, while the average  $R_{OD}$  value (0.327) and  $R_{OP}$  value (0.481) were both above the global average.

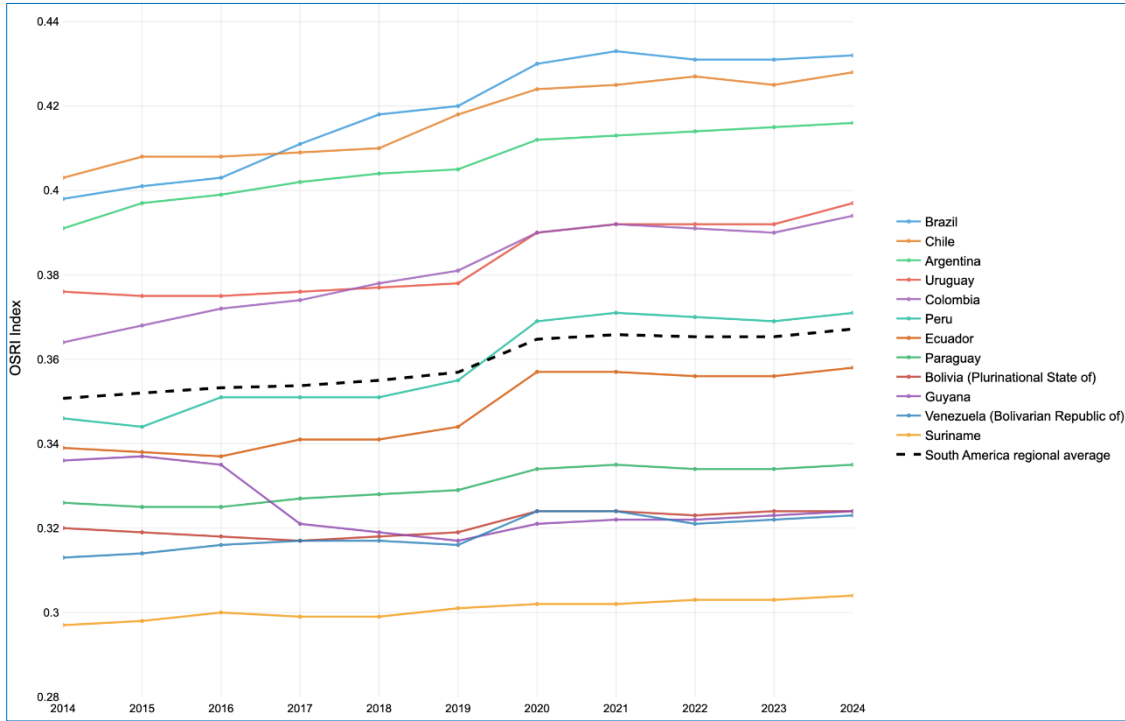


Figure 4-24. Trends in R values for South American countries, 2014–2024

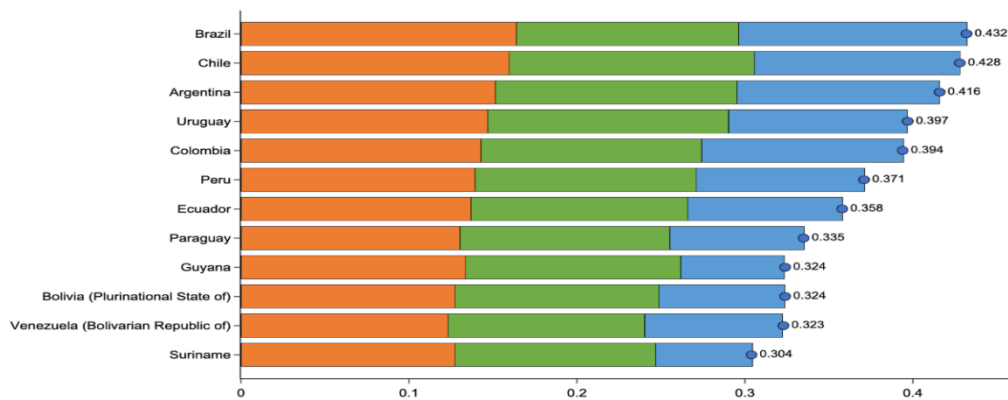


Figure 4-25. Distribution of R values across the three dimensions ( $R_{OA}$ ,  $R_{OD}$ ,  $R_{OP}$ ) for South American countries, 2024 ( $R_{OA}$  in red,  $R_{OD}$  in green, and  $R_{OP}$  in blue)

### 4.3.3 North America

In 2024, the average R value for North American countries was 0.363. Within North America, a highly polarized pattern is evident between the leading countries and the remaining members. The United States recorded a particularly high level of open science readiness.

#### (1) Trends in R Values among North American Countries, 2014–2024

As shown in the ranking trends (Figure 4-26), the United States, Canada, Mexico, Costa Rica, and Panama consistently occupied the top positions, with the overall structure remaining highly stable and almost no change in ranking over the decade. Small Caribbean island States, including Trinidad and Tobago and Antigua and Barbuda, generally ranked between sixth and twelfth place. Haiti remained in 23rd place, at the bottom of the regional ranking, throughout the period, with no upward movement observed.

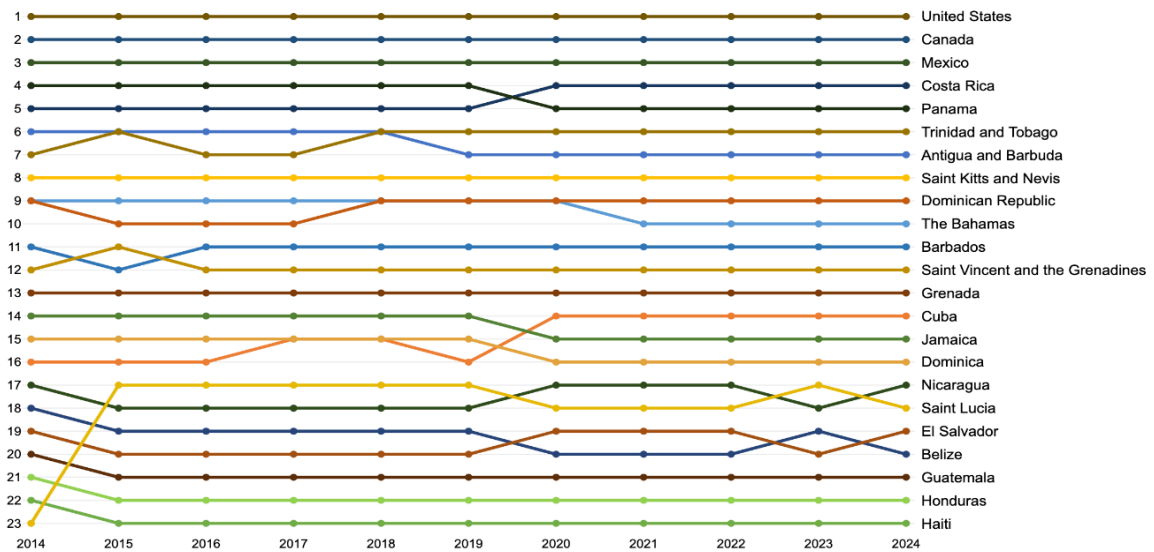


Figure 4-26. Evolution of R-value rankings for North American countries, 2014–2024

In terms of R values (Figure 4-27), the United States increased steadily from 0.853 to approximately 0.869. Canada’s OSRI (0.500–0.544) also showed stable growth and remained second in the region, making it an active participant in open science. In recent years, Canada has successively introduced the *Open Science Action Plan: 2021–2026*<sup>35</sup>, the Federal Open Science Repository of Canada<sup>36</sup>, and the Open Science Data Platform<sup>37</sup>. The remaining 21 countries in Central America and the Caribbean recorded OSRI values largely concentrated between 0.25 and 0.39, while Haiti (0.243–0.246) remained almost stagnant over the decade.

#### (2) Current Status of R Values among North American Countries in 2024

In 2024, the United States (0.869) ranked far ahead of all other countries in the region, while Canada (0.550) ranked second. The gap between the United States and Canada is reflected more strongly in the dimensions of Open Access and Open Data. Mexico (0.390) and Costa Rica (0.386) were the best-performing countries in Central America, while Panama (0.379) and Trinidad and Tobago (0.358) also ranked near the top. Caribbean island States were generally concentrated in the range of 0.30–0.36. In this respect, they share structural similarities with the island States of Oceania, as their development is constrained by limited

<sup>35</sup> <https://www.canada.ca/en/environment-climate-change/services/science-technology/open-science-action-plan.html>

<sup>36</sup> <https://science.gc.ca/site/science/en/open-science/fosrc>

<sup>37</sup> <https://osdp-psdo.canada.ca/dp/en>

research scale and broader environmental conditions. Haiti (0.246) remained at the bottom, with almost no growth over the ten-year period.

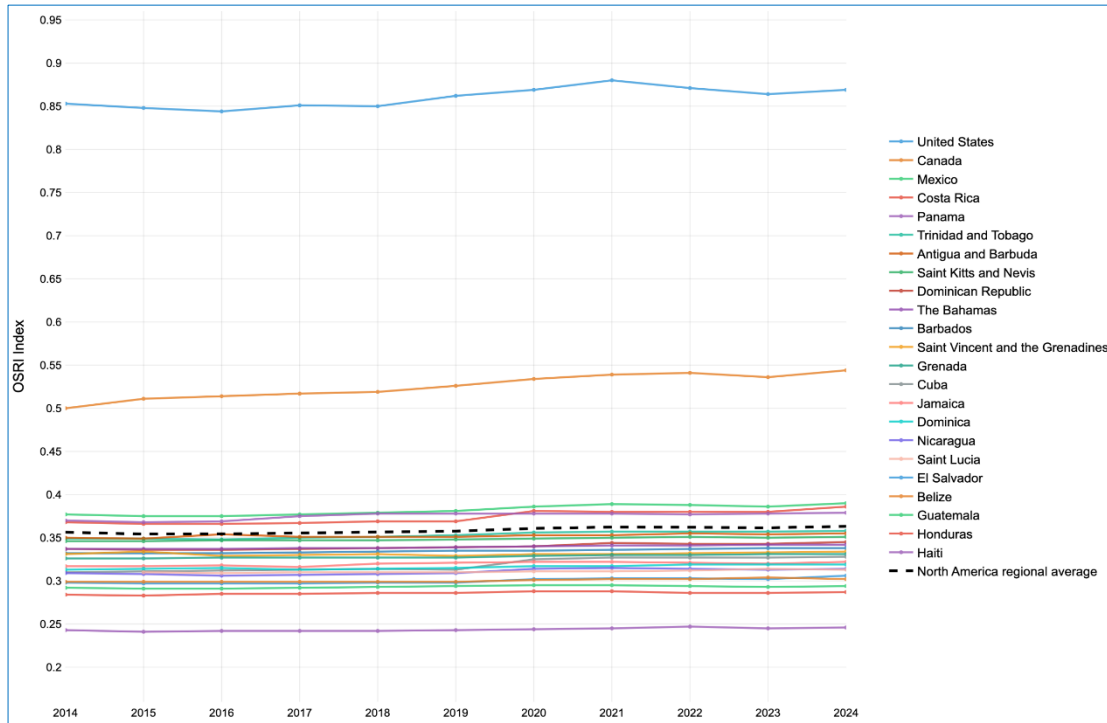


Figure 4-27. Trends in R values among North American countries, 2014–2024

In 2024, the average  $R_{OA}$  value of North American countries (0.363) and the average  $R_{OD}$  value (0.338) were both above the global average, while the average  $R_{OP}$  value (0.413) was below the global average.

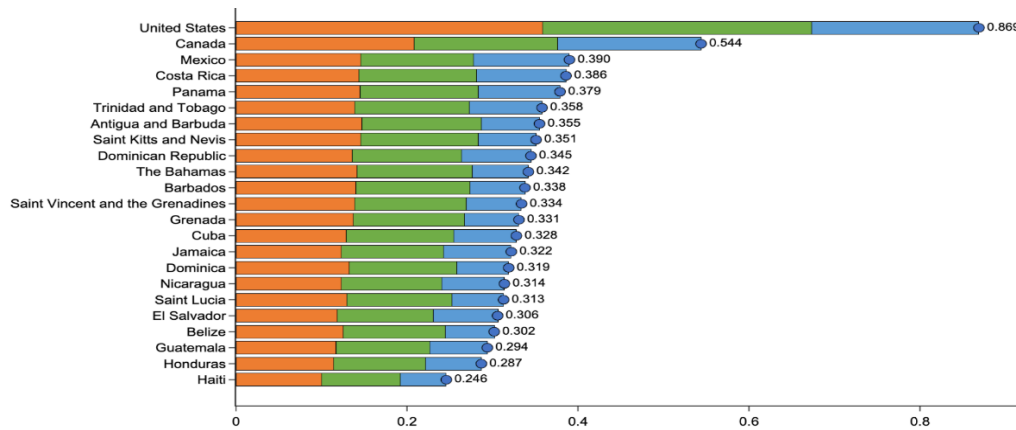


Figure 4-28. Distribution of R values across the three dimensions of open science ( $R_{OA}$ ,  $R_{OD}$ , and  $R_{OP}$ ) for North American countries, 2024 ( $R_{OA}$  in red,  $R_{OD}$  in green, and  $R_{OP}$  in blue)

### 4.3.4 Asia

In 2024, the average R value for Asian countries was 0.356. Over the period 2014–2024, disparities in open science readiness across Asian countries became more pronounced, and the pathways by which countries advanced towards open science also became increasingly differentiated. The regional average rose modestly from 0.336 to 0.355. China recorded particularly strong progress, while overall improvement across the region remained limited.

#### (1) Trends in R Values among Asian Countries, 2014–2024

As shown in the ranking trends (Figure 4-29), China surpassed Japan in 2014 and has remained in first place since then. Countries such as the Republic of Korea, Singapore, Saudi Arabia, and Türkiye showed upward movement in their rankings, while India rose into the top ten.

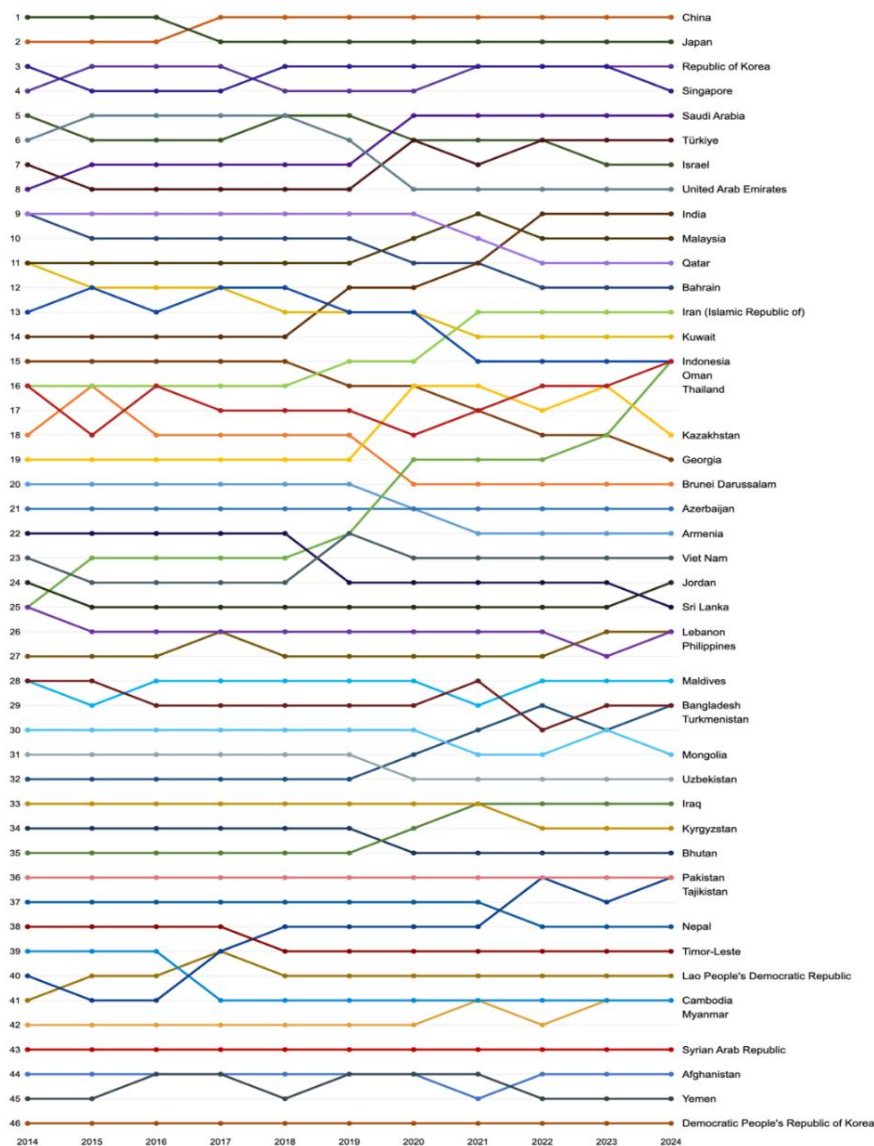
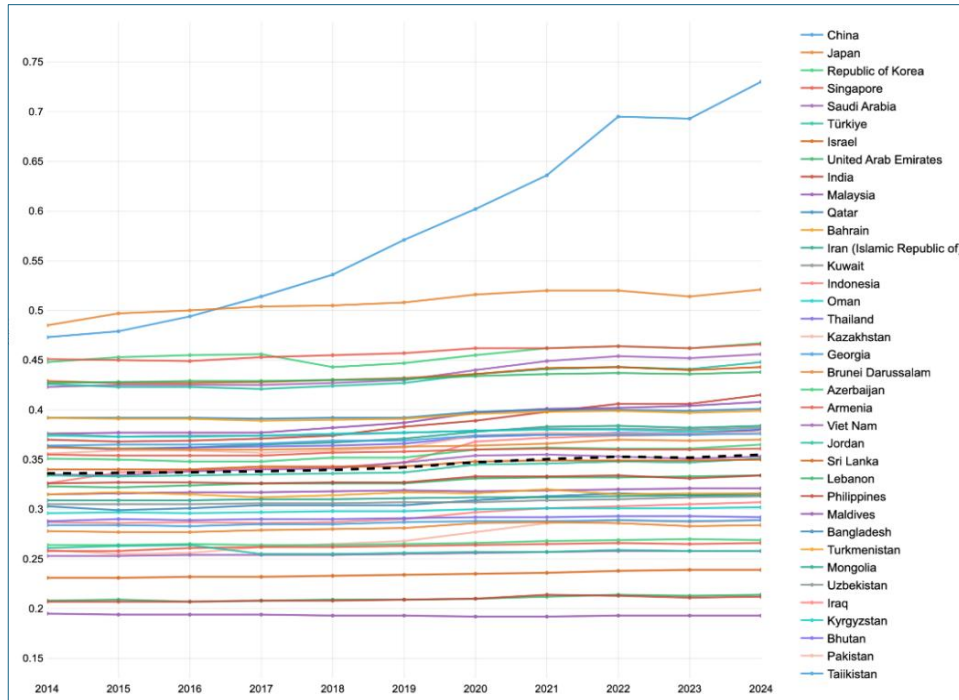


Figure 4-29. Evolution of R-value rankings for Asian countries, 2014–2024

In terms of R values (Figure 4-30), China’s OSRI rose from 0.473 to 0.730, showing an accelerating trend year by year. Japan was also among the earliest Asian countries to practise open science and has continued to advance the development of national open science infrastructure<sup>38</sup>. India recorded a notable increase (from 0.370 to 0.415), benefiting from substantial growth in research output and the open access pathway associated with One Nation One Subscription (ONOS).



**Figure 4-30.** Trends in R values for Asian countries, 2014–2024

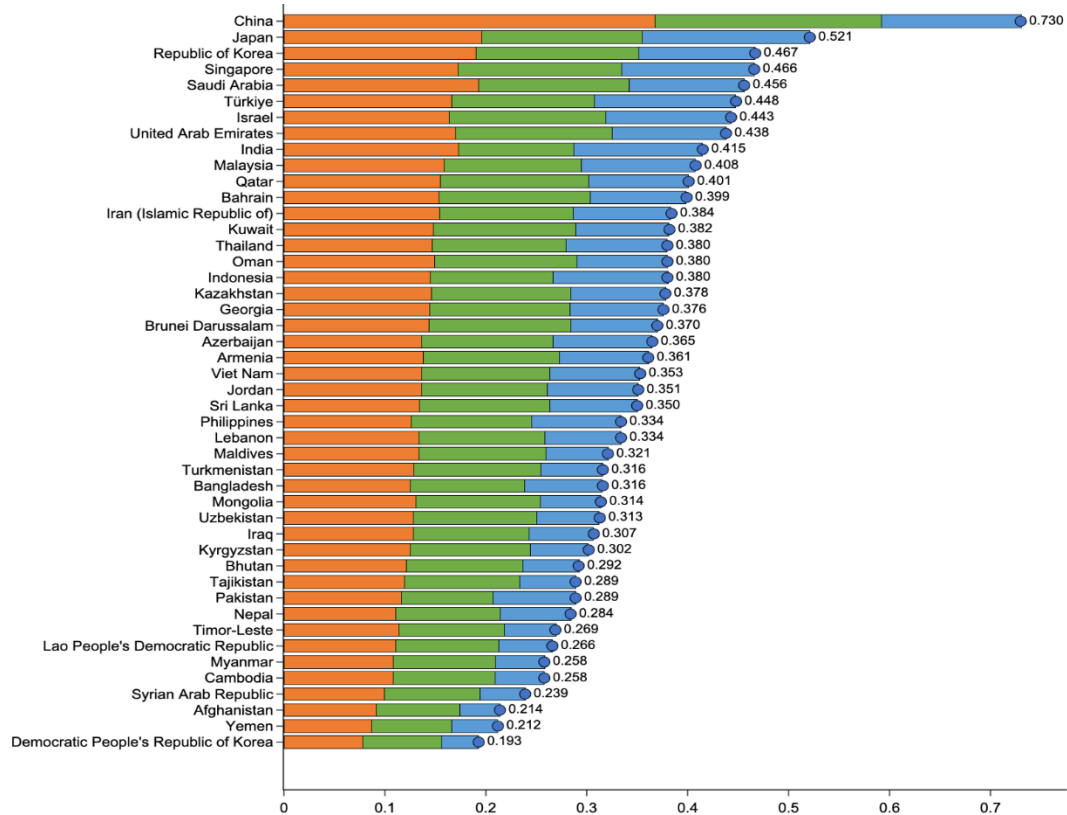
## (2) Current Status of R Values among Asian Countries in 2024

As shown in Figure 4-30, China (0.730) held a clearly leading position in both the Open Access and Open Data dimensions in 2024, with a particularly strong advantage in the Open Access dimension. This is closely related to its large scale of research output and collaborative production. Japan (0.521) and the Republic of Korea (0.467) followed, both recording relatively high R values. Singapore (0.466), despite its more limited research scale, maintained a high position owing to its highly mature institutional environment and international collaboration networks.

The Russian Federation (0.429) recorded relatively low scores in both the Open Data and Open Policy dimensions. Saudi Arabia (0.456), Türkiye (0.448), Israel (0.443), and the United Arab Emirates (0.438) showed stable performance. India (0.415), Malaysia (0.408), and Indonesia (0.380) also recorded R values above the Asian average. Many countries in Central Asia and South-East Asia fell within the range of 0.25 to 0.38. By contrast, the Democratic People’s Republic of Korea (0.193), Yemen (0.212), and Afghanistan (0.214) recorded low R values.

In 2024, the average  $R_{OA}$  value of Asian countries (0.356) and the average  $R_{OP}$  value (0.432) were both above the global average, while the average  $R_{OD}$  value (0.317) was at the global average level.

<sup>38</sup> <https://rcos.nii.ac.jp/en/about/>



**Figure 4-31.** Distribution of R values across the three dimensions ( $R_{OA}$ ,  $R_{OD}$ , and  $R_{OP}$ ) in Asian countries, 2024 ( $R_{OA}$  in red,  $R_{OD}$  in green, and  $R_{OP}$  in blue)

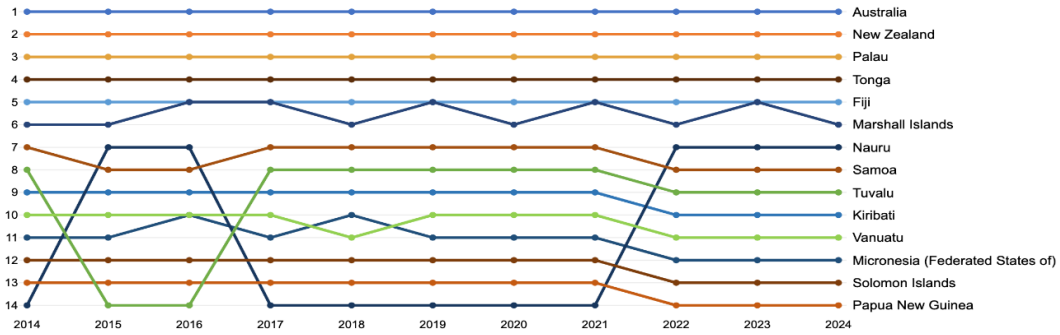
### 4.3.5 Oceania

In 2024, the average R value for countries in Oceania was 0.319. Although the region lags behind Europe and Latin America in terms of open access policy and regulation, Australia remains the regional leader, supported by sustained growth in open access research output and a relatively well-developed data infrastructure system. New Zealand has also actively advanced national research data management in recent years. Pacific island countries, however, face a markedly different reality: severe outflows of research talent, digital infrastructure that depends heavily on external assistance, and very weak domestic research institutions. UNESCO has also launched dedicated initiatives to improve access to knowledge for Small Island Developing States (SIDS)<sup>39</sup>.

#### (1) Trends in R Values among Oceanian Countries, 2014–2024

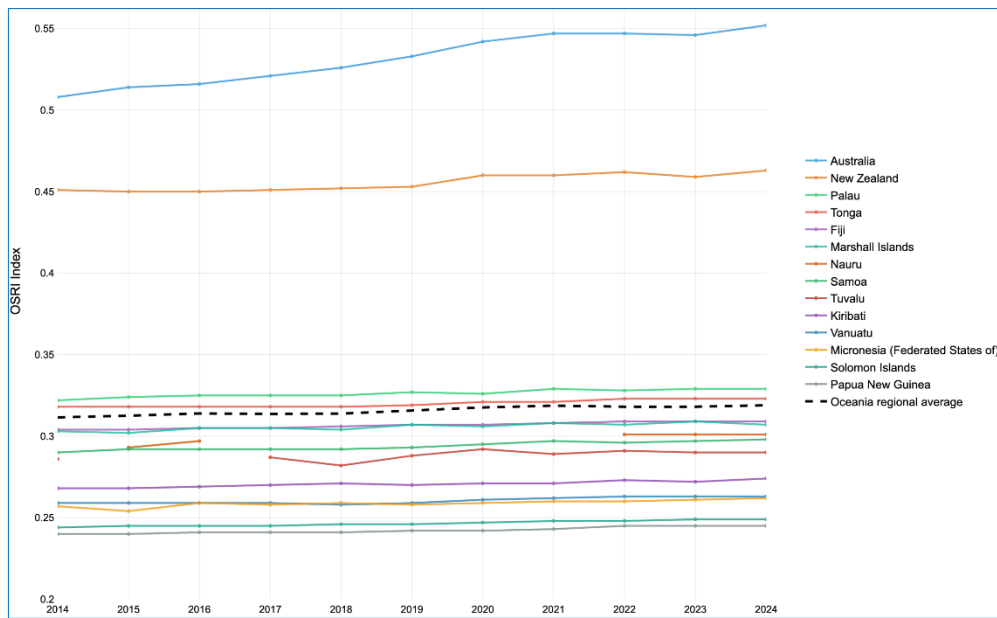
As shown in the ranking trends (Figure 4-32), the relative positions of countries within the region remained highly stable over the decade. Australia consistently ranked first and New Zealand second, while the top four countries (Australia, New Zealand, Palau, and Tonga) changed little, if at all. Countries in the middle tier (from Fiji to Samoa) experienced slight fluctuations in ranking, but the extent of change was limited.

<sup>39</sup> <https://core.unesco.org/en/project/3210231041>



**Figure 4-32.** Evolution of R-value rankings for Oceania countries, 2014–2024

In terms of R values (Figure 4-33), Australia increased steadily from 0.508 to 0.552 and was the only country in the region to show a clearly rising trend. New Zealand rose from 0.451 to approximately 0.463, reflecting only moderate growth. The other Pacific island countries remained largely stagnant within the range of 0.24 to 0.33. The regional average rose only slightly, from 0.312 to 0.319, indicating very limited overall gains and no clear narrowing of structural disparities.



**Figure 4-33.** Trends in R values for Oceania countries, 2014–2024

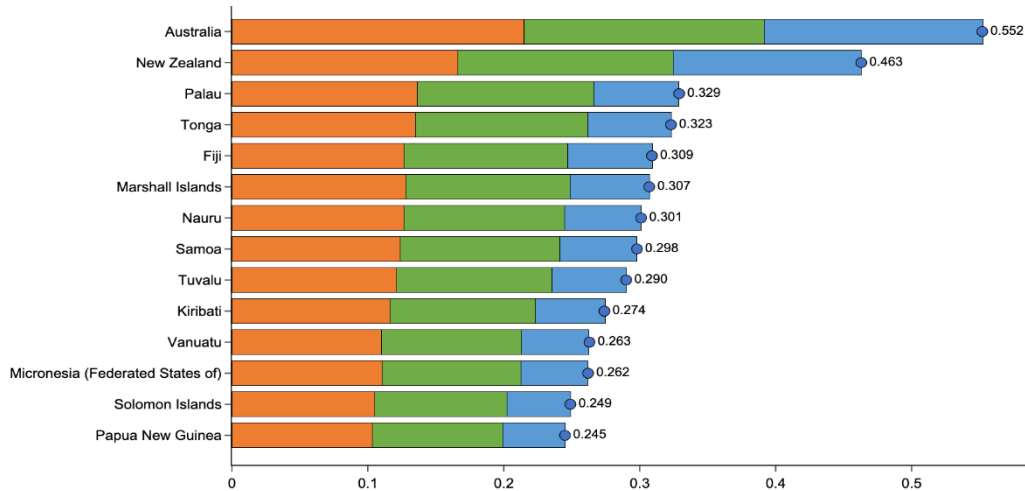
## (2) Current Status of R Values among Oceanian Countries in 2024

In 2024, Australia (0.552) and New Zealand (0.463) remained clearly ahead of all other countries in the region. Their R values were approximately 1.4 to 2 times those of the remaining countries. Across the three dimensions, both countries maintained relatively balanced and comparatively high scores in Open Access, Open Data, and Open Policy (Figure 4-34).

A middle tier is formed by Palau (0.329), Tonga (0.323), Fiji (0.309), the Marshall Islands (0.307), and Nauru (0.301). The remaining Pacific island countries, from Samoa (0.298) to Solomon Islands (0.249), recorded relatively concentrated scores, while Papua New Guinea (0.245) ranked at the bottom. It is noteworthy that, in most island countries, the Open Policy dimension accounts for a relatively larger share, whereas Open

Access and Open Data readiness remain extremely low, indicating a clear gap between policy intention and actual output.

In 2024, the average  $R_{OA}$  value of Oceania countries (0.326) and the average  $R_{OP}$  value (0.341) were both below the global average, while the average average  $R_{OD}$  value (0.301) was above the global average.



**Figure 4-34.** Distribution of R values across the three dimensions ( $R_{OA}$ ,  $R_{OD}$ , and  $R_{OP}$ ) for Oceania countries, 2024  
( $R_{OA}$  in red,  $R_{OD}$  in green, and  $R_{OP}$  in blue)

### 4.3.6 Africa

In 2024, the average R value for African countries was 0.254. Africa is the region with the lowest overall level of open science readiness globally, contributing 0.75 per cent of global scientific knowledge. For African countries, stable digital infrastructure remains one of the primary obstacles to the practice of open science<sup>40</sup>. In response, the region has been strengthening investment in and development of digital infrastructure in order gradually to improve the research environment<sup>41</sup>. In 2017, the National Research Foundation (NRF) supported the establishment of the African Open Science Platform, with South Africa playing a leading role. South Africa was also among the first African countries to adopt a dedicated national open science policy.

#### (1) Trends in R Values among African Countries, 2014–2024

In terms of rankings (Figure 4-35), South Africa maintained its leading position, while Egypt and Morocco were the countries among the higher-ranked group that showed the most notable upward movement.

In terms of R values, the average R value for Africa as a whole increased only slightly, from 0.254 to 0.259, representing the slowest rate of growth among all regions. South Africa (0.372–0.390) consistently ranked first in the region. Egypt (0.341–0.369) and North African countries such as Morocco (0.310–0.325) and Tunisia (0.328–0.340) also maintained steady upward trends. Approximately 70 per cent of countries in sub-Saharan Africa remained within the low range of 0.15–0.28, with very limited change over the decade. This indicates that the dual bottlenecks of foundational research capacity and institutional development

<sup>40</sup> <https://blog.doaj.org/2019/10/11/guest-post-overview-of-the-african-open-access-landscape-with-a-focus-on-scholarly-publishing/>

<sup>41</sup> [https://au.int/sites/default/files/newsevents/workingdocuments/33178-wd-stisa-english\\_-\\_final.pdf](https://au.int/sites/default/files/newsevents/workingdocuments/33178-wd-stisa-english_-_final.pdf)

have not been effectively overcome. Libya (0.312–0.306) was among the few countries to record a decline, which is directly associated with its prolonged political instability.

## (2) Current Status of R Values among African Countries in 2024

In 2024, the R values of African countries were mostly concentrated between 0.170 and 0.400 (Figure 4-36). Notably, the region exhibits the most pronounced global pattern of relatively higher Open Access and Open Data readiness combined with comparatively low Open Policy readiness (Figure 4-37).

In 2024, compared with the already limited scale of open access and open data output, the foundations of the policy environment, legal protection, and platform development in Africa remained even weaker. South Africa (0.400) and Egypt (0.369) led the region by a considerable margin, with the former benefiting from a stronger open science policy environment and the latter showing stronger performance in open access output and collaboration. Mauritius (0.354), Seychelles (0.355), Algeria (0.345), Botswana (0.326), and Morocco (0.325) formed a secondary leading group. Kenya (0.313) and Nigeria were relatively notable cases of progress in sub-Saharan Africa. Although the adoption rate of open science practices in Kenya remains low, it has shown an upward trend. Nigeria, for its part, launched the open access scholarly publishing platform *Open Journals Nigeria* as early as 2018.

At the lower end of the distribution, the Central African Republic (0.181), Somalia (0.176), and South Sudan (0.170) ranked among the lowest globally, with prolonged conflict and extremely limited research infrastructure constituting the principal constraints. Overall, the open science ecosystem in Africa requires coordinated advancement through both external resource support and the strengthening of domestic capacities.

In 2024, the average  $R_{OA}$  value of African countries (0.256), the average  $R_{OD}$  value (0.237), and the average  $R_{OP}$  value (0.29) were all below the global average.

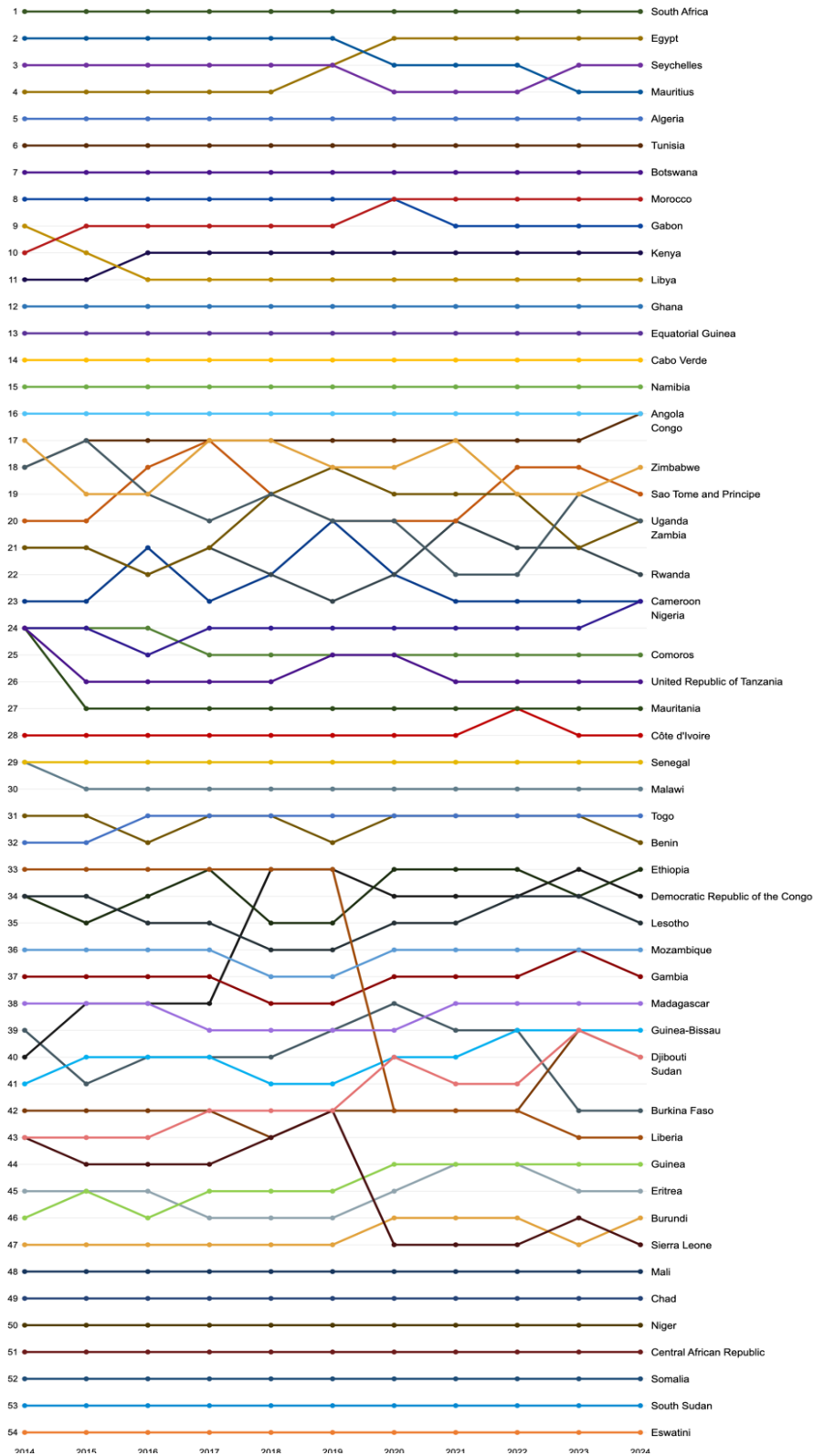


Figure 4-35. Evolution of R-value rankings for African countries, 2014–2024

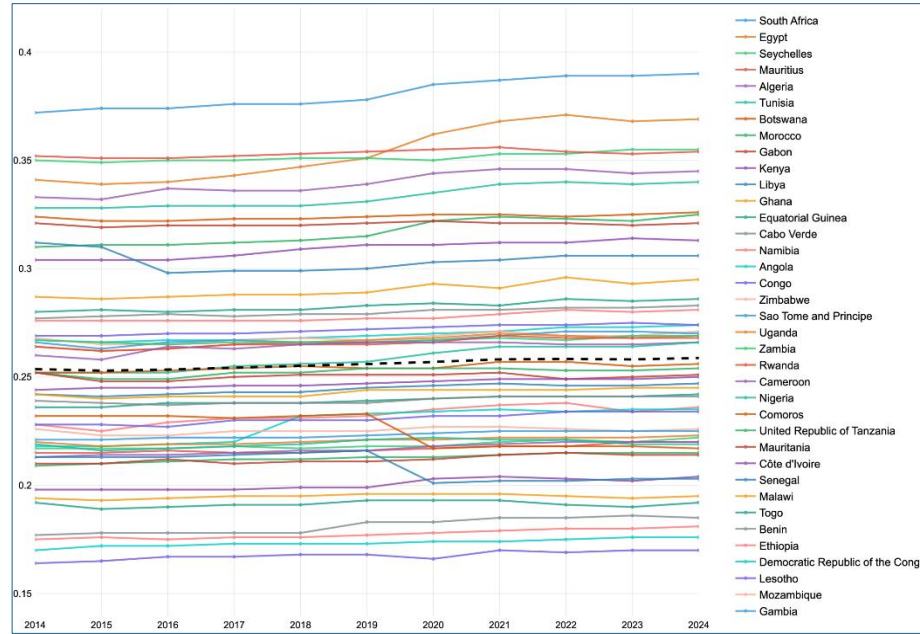


Figure 4-36. Trends in R values for African countries, 2014–2024

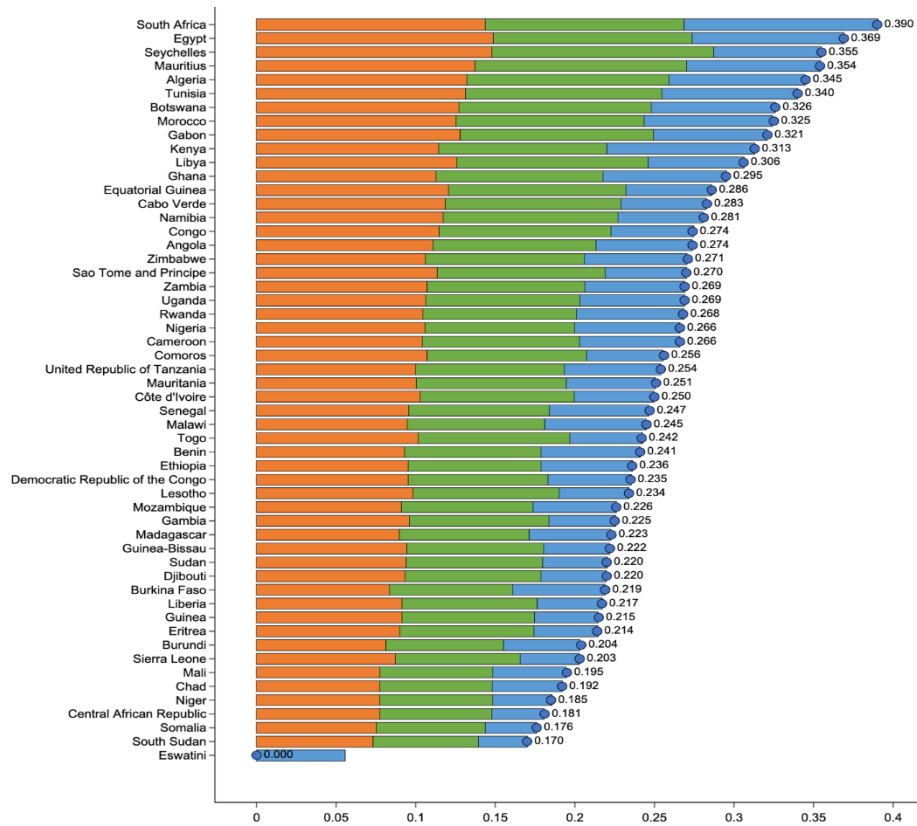


Figure 4-37. Readiness across the three dimensions ( $RO_A$ ,  $RO_D$ , and  $RO_P$ ) in Africa, 2024 ( $RO_A$  in red,  $RO_D$  in green, and  $RO_P$  in blue)

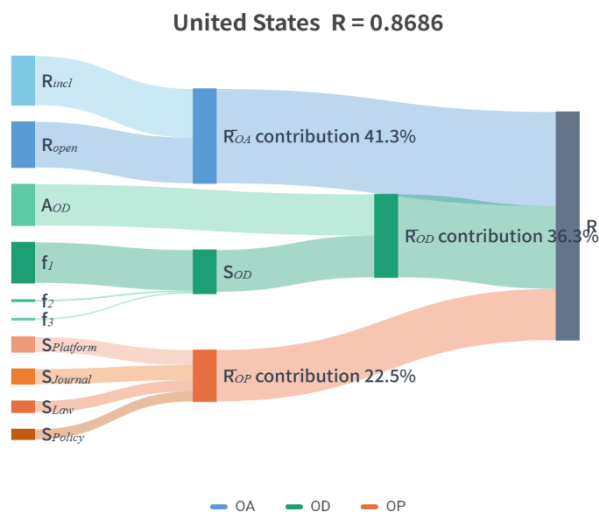
## 5 Open Science Readiness Development Pathways

### 5.1 Interpretation of National OSRI Development Characteristics

#### 5.1.1 Specific Indicator Contributions of Three Categories of Countries by R Value in 2024

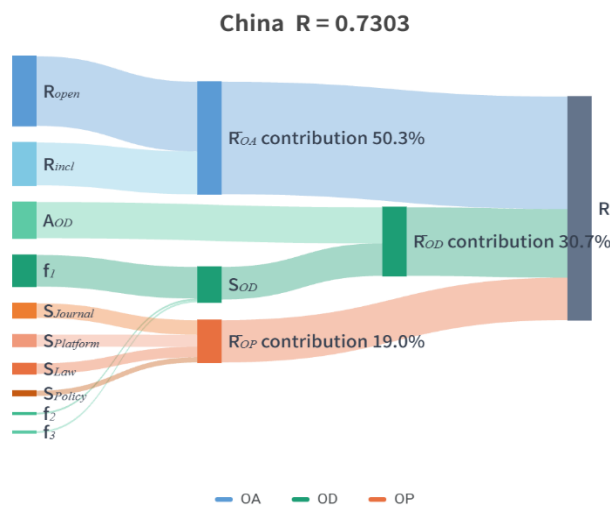
This section applies a Sankey diagram approach to analyse the contribution of the three dimensions to the R value across countries. First, Sankey diagrams are constructed for all 193 countries. Countries are then grouped into three categories according to their R values, and within each category, countries with similar Sankey structures are further classified based on shared R value characteristics. In the following Sankey diagrams, blue represents the Open Access (OA) dimension, green represents the Open Data (OD) dimension, and orange represents the Open Policy (OP) dimension.

#### Category I: Global Leading Countries ( $R > 0.6$ )



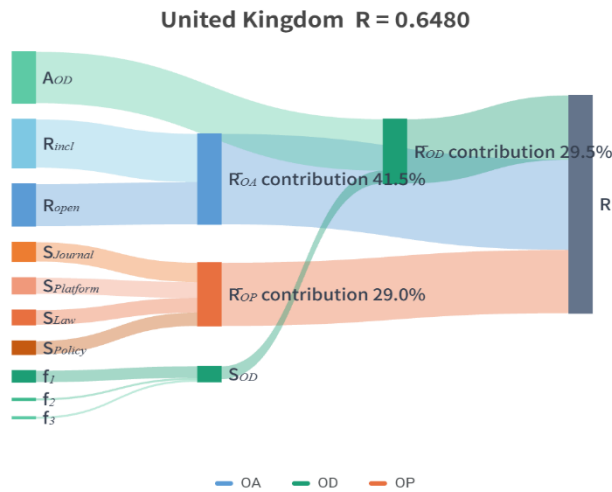
**The United States ( $R = 0.869$ )** is the most balanced leading country in 2024 across the three dimensions of Open Access, Open Data, and Open Policy. Its OP value is 0.975 (close to the maximum), reflecting a highly developed system in terms of legal protection, data infrastructure, journal systems, and policy frameworks. Its OA value is 0.897, with  $R_{open}$  and  $R_{incl}$  nearly equal (10.8 vs. 11.6), indicating a balanced development between open access output and international collaboration capacity. The OD dimension is relatively the weakest (0.787), yet it remains the highest among all 193 countries. Within this dimension, academic quality is particularly strong (57.66, accounting for 97 per cent of the contribution to  $S_{OD}$ ), with FWCI and the number of highly cited researchers significantly leading globally.

**Figure 5-1.** Indicator Contributions to the R Value for the United States, 2024 (Sankey Diagram)



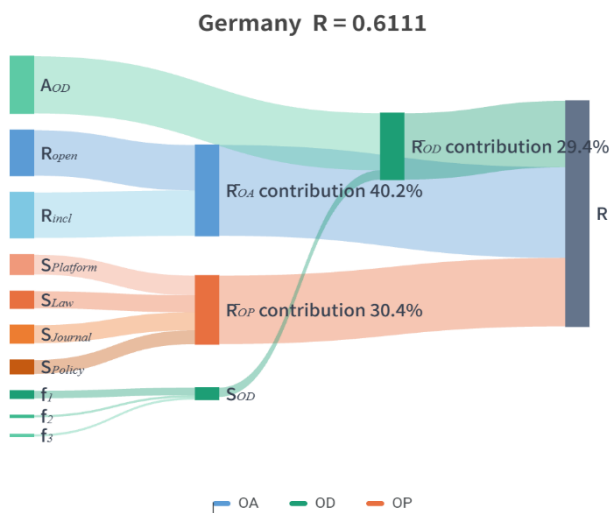
**China ( $R = 0.730$ )** ranks first globally in Open Access readiness (0.919) and second in Open Data readiness in 2024. Its OA structure differs markedly from that of the United States, being primarily driven by its dominant scale of open access publications.  $R_{open}$  is significantly greater than  $R_{incl}$  (15.5 vs. 9.6, ratio 1.62). Its  $R_{OD}$  value (0.561) and  $R_{OP}$  value (0.692) are both lower than its OA value, reflecting a pattern in which practice outpaces policy. While publication volume is high, data management (particularly  $f_2$  information quality) and policy system development lag behind, and issues related to retraction rates (low  $f_3$  reliability) warrant attention.

**Figure 5-2.** Indicator Contributions to the R Value for China, 2024 (Sankey diagram)



**The United Kingdom (R = 0.648)** is a typical “open policy-led” country. Its  $R_{OP}$  value (0.941) significantly exceeds its  $R_{OA}$  value (0.672), indicating a highly mature institutional and legal framework. In terms of OA, the overall scale of open access output remains relatively limited, although international collaboration participation is strong ( $R_{incl}$  slightly higher than  $R_{open}$ , 6.7 vs. 5.9). In the OD dimension, academic quality ( $f_1 = 13.32$ ) is notable, while information quality ( $f_2 = 0.514$ ) is at the global average level.

**Figure 5-3.** Indicator Contributions to the R Value for the United Kingdom, 2024 (Sankey diagram)



**Germany (R = 0.611)** exhibits a pattern similar to that of the United Kingdom, with its  $R_{OP}$  value (0.927) far exceeding its  $R_{OA}$  value (0.615). A distinctive feature is that  $R_{open}$  and  $R_{incl}$  are almost identical (4.97 vs. 4.96), indicating a highly synchronized development between domestic open access output and international collaboration. In the OD dimension, its information quality ( $f_2 = 0.662$ ) is relatively high compared to other countries, indicating strong performance in FAIR data management.

**Figure 5-4.** Indicator Contributions to the R Value for Germany, 2024 (Sankey diagram)

### Category II: Advanced Countries (0.47 < R < 0.6)

(For the Sankey diagrams of the countries listed below, see the OSRI monitoring platform: <https://openscience10.cn/microapp/osmonitor>)

- **Australia (R = 0.552) and Canada (R = 0.544):** The R-value structures of these two countries are highly similar, with R values for OP, OA, and OD respectively around 0.8, 0.52–0.54, and 0.42–0.44, forming a “policy-led” pattern. In both countries,  $R_{incl}$  is higher than  $R_{open}$ , reflecting the generally strong international co-authorship environment characteristic of Commonwealth countries.
- **Switzerland (R = 0.533):** This country shows the largest gap among the three dimensions, with the highest OP value (0.857). Within the OA dimension,  $R_{incl} > R_{open}$ , indicating a high proportion of international co-authorship, which is consistent with Switzerland’s position as a hub for international organizations.
- **Italy (R = 0.530) and Spain (R = 0.529):** These two countries display very similar R-value structures. Their  $R_{OA}$  values are relatively high (0.52 and 0.54, respectively), while OD remains comparatively weak (around 0.40). Unlike the Commonwealth countries, both Italy and Spain have

$R_{open}$  slightly higher than  $R_{incl}$ , indicating that the scale of domestic OA publication output is greater than that of international co-authorship.

- **Netherlands (R = 0.529):** The R values across the three dimensions are relatively balanced. Within the OA dimension,  $R_{open}$  and  $R_{incl}$  are almost equal. Within the OD dimension, academic quality ( $f1 = 4.70$ ) stands out within this group, reflecting academic influence that exceeds the country's overall scale.
- **Japan (R = 0.521):** The OP dimension is relatively strong (0.828). Within the OA dimension, Japan shows the highest  $R_{open}/R_{incl}$  ratio (3.0 vs. 2.1), indicating that its open access development is driven primarily by domestic output, while participation in international co-authorship remains comparatively limited. Within the OD dimension, information quality ( $f2 = 0.365$ ) is relatively low among developed countries.
- **France (R = 0.521):** France records almost the same overall R value as Japan, but with an opposite internal structure.  $R_{incl}$  is much higher than  $R_{open}$ , indicating a high proportion of international co-authorship but a relatively smaller domestic OA scale. Within the OD dimension, reliability ( $f3 = 0.734$ ) is comparatively low, making France the only country in this group with a value below 1.0.
- **The four Nordic countries (Denmark 0.488, Sweden 0.487, Norway 0.486, Finland 0.472):** Their R values are extremely close, with a difference of only 0.016. The structures of the three dimensions are also highly similar:  $R_{OA}$  ranges from 0.44 to 0.47,  $R_{OD}$  from 0.40 to 0.41, and  $R_{OP}$  from 0.67 to 0.73. This is the group of countries with the most consistent R-value structure overall.
- **Belgium (R = 0.487) and Austria (R = 0.486):** In both cases,  $R_{incl}$  is clearly higher than  $R_{open}$ , reflecting an advantage in international collaboration.
- **Poland (R = 0.477):** Within this group, Poland has the lowest academic quality factor ( $f1 = 0.41$ ), but the highest information quality factor ( $f2 = 0.504$ ), indicating that its data repositories perform well in FAIR compliance, although its overall academic influence remains limited.  $R_{open}$  is significantly higher than  $R_{incl}$  (2.25 vs. 1.42), suggesting relatively weak international co-authorship.
- **Ireland (R = 0.470):**  $R_{open}$  and  $R_{incl}$  are almost equal (1.0 vs. 1.07), and the degree of balance across the three dimensions is relatively high (0.160).

### Category III: Emerging and Developing Countries (R ≤ 0.47)

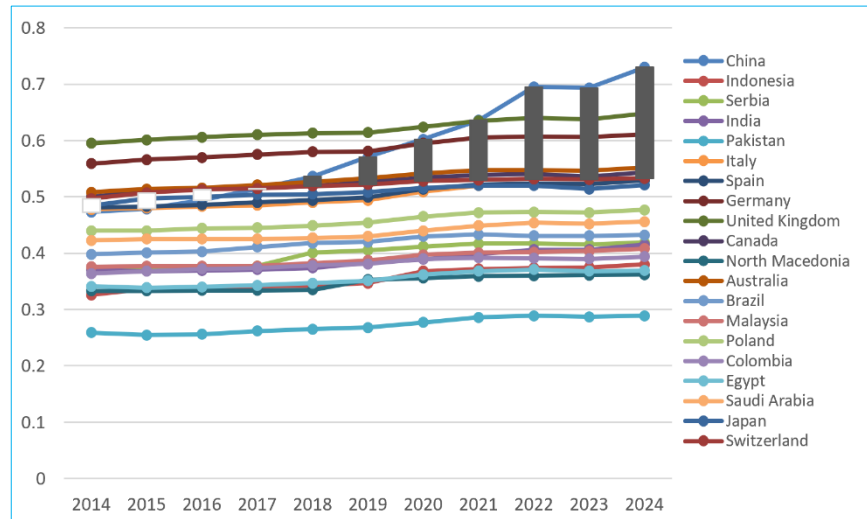
(For the Sankey diagrams of the countries listed below, see the OSRI monitoring platform: <https://openscience10.cn/microapp/osmonitor>)

- **Saudi Arabia (R = 0.456):** This country has the highest R value in this group but also the most imbalanced structure. The OA dimension is relatively strong (0.482), with  $R_{incl}$  far exceeding  $R_{open}$ , indicating that academic output relies heavily on international co-authorship. In the OD dimension, both information quality ( $f2 = 0.023$ ) and reliability ( $f3 = 0.220$ ) are extremely low, suggesting that data management infrastructure is largely absent and retraction-related issues are significant.
- **Brazil (R = 0.432):** The OP dimension (0.680) is relatively strong among developing countries, reflecting a certain level of policy foundation, particularly in journal development. In the OA dimension,  $R_{open} > R_{incl}$ , indicating a substantial domestic OA publication base. In the OD dimension,  $f3$  reaches 1.2 (maximum), demonstrating effective control of retraction rates.
- **Serbia (R = 0.419):** The three dimensions are relatively balanced. The OP dimension (0.668) is prominent within this group. In the OD dimension, information quality ( $f2 = 0.416$ ) performs well, indicating that despite a smaller scale, data management practices are relatively well established.

- **India (R = 0.415):** The OA dimension (0.432) is primarily driven by publication volume ( $R_{open}=3.49$ ). The OD dimension is a clear weakness (0.286): academic quality ( $f1 = 0.516$ ), information quality ( $f2 = 0.310$ ), and reliability ( $f3 = 0.450$ ) are all relatively low, indicating systemic deficiencies in data quality, FAIR compliance, and reliability.
- **Malaysia (R = 0.408):** In the OA dimension,  $R_{incl} > R_{open}$ , indicating a moderate level of international collaboration. In the OD dimension, information quality ( $f2 = 0.068$ ) is extremely low, reflecting weak foundations in FAIR data management.
- **Colombia (R = 0.395):** The three dimensions are relatively balanced. In the OD dimension,  $f3$  reaches 1.2, indicating strong data reliability.
- **Indonesia (R = 0.380):** In the OA dimension, the ratio  $R_{open}/R_{incl}=2.06$ , indicating that OA development is almost entirely driven by domestic publications, with very limited international collaboration. In the OD dimension, information quality ( $f2 = 0.120$ ) remains low.
- **Egypt (R = 0.369):** In the OD dimension, both  $f2$  (0.045) and  $f3$  (0.342) are very low, making data quality and reliability the primary bottlenecks. The OP dimension (0.479) is also relatively weak, making Egypt one of the few countries in this group with OP below 0.5.
- **North Macedonia (R = 0.362):** In the OD dimension,  $f2$  equals 0, indicating the absence of any FAIR-compliant repositories indexed in re3data. The OP dimension (0.434) is also weak, reflecting limited policy support.
- **Pakistan (R = 0.289):** All three dimensions are underdeveloped. In the OA dimension,  $R_{incl} > R_{open}$  (1.85 vs. 1.20), indicating a strong dependence on international collaboration for academic output.

### 5.1.2 Specific Indicator Contributions of Countries with High Growth in R Values, 2014-2024

Between 2014 and 2024, the 20 countries with the largest increases in R values were: China, Indonesia, Serbia, India, Pakistan, Italy, Spain, Germany, the United Kingdom, Canada, North Macedonia, Australia, Brazil, Malaysia, Poland, Colombia, Egypt, Saudi Arabia, Japan, and Switzerland.



**Figure 5-5.** R-Value Trends for the Top 20 Countries by Growth, 2014–2024

During the period 2014–2024, these 20 countries showed a clearly visible upward trend in their R values around 2021 (see Figure 5-5).

In 2024, the R-value performance of these 20 countries is shown in Table 5-4:

- Among the 193 countries, 15 of these countries ranked within the top 25 per cent in terms of R values in 2024 (shown in red in Table 5-4), 4 countries ranked between the 26th and 50th percentiles (shown in blue), and 1 country ranked between the 51st and 75th percentiles (shown in green).
- The 20 countries each displayed strengths in one or more of the three dimensions of readiness. Based on differences in the relative contribution of the three dimensions to R values, several types of R-value development can be identified:

**Type I: Synergistic development of two dimensions, generating a strong increase in R values and rapidly enhancing national open science readiness.**

- Among the countries ranked within the top 25 per cent globally in terms of R values in 2024, China is the typical example. Over the decade from 2014 to 2024, China’s  $R_{OA}$  increased by 99.8 per cent, ranking first globally, while its  $R_{OD}$  increased by 47.6 per cent, also ranking first globally. Among the countries ranked between the 26th and 50th percentiles globally in 2024, Indonesia is the typical example: its  $R_{OA}$  growth ranked 13th globally, while its  $R_{OP}$  growth ranked second globally. Among the countries ranked between the 51st and 75th percentiles globally in 2024, although Pakistan still recorded relatively low values across all three dimensions in 2024, its  $R_{OA}$  growth over the decade was notable, ranking eighth globally, while its  $R_{OP}$  growth ranked 27th globally.

**Type II: Development driven by the absolute advantage of one dimension, thereby improving national open science readiness.**

- Countries in which  $R_{OA}$  constitutes the main advantage in R values:** Among the countries ranked within the top 25 per cent globally in 2024, typical cases include India, the United Kingdom, Italy, Germany, Saudi Arabia, Spain, Australia, Canada, Poland, and Japan. Their  $R_{OA}$  growth rates over the decade were 36.7 per cent, 29 per cent, 23 per cent, 22 per cent, 21.7 per cent, 18 per cent, 14.7 per cent, 14.2 per cent, 13.6 per cent, and 12.1 per cent, respectively, placing them among the top 20 countries globally in terms of  $R_{OA}$  growth. In 2024, India recorded more than 71,000 OA publications and Japan more than 57,000, while the shares of internationally co-authored publications in total output were 27.6 per cent and 34.1 per cent, respectively. Among the countries ranked between the 26th and 50th percentiles globally in 2024, Egypt is a typical example of a country whose advantage in R values is primarily driven by  $R_{OA}$ , with  $R_{OA}$  growth ranking 18th globally.
- Countries in which  $R_{OP}$  constitutes the main advantage in R values:** Among the countries ranked within the top 25 per cent globally in 2024, typical cases are Serbia (40 per cent) and Brazil (13.3 per cent), both of which ranked among the top 20 countries globally in terms of  $R_{OP}$  growth. Among the countries ranked between the 26th and 50th percentiles globally in 2024, North Macedonia and Colombia are typical examples of countries whose R-value growth was driven by stronger gains in  $R_{OP}$ .

**Table 5-1.** Top 20 Countries by Growth in R Values, 2014–2024

| Country         | Growth in R Value over the Decade | R Value in 2024 | $R_{OA}$ Advantage | $R_{OD}$ Advantage | $R_{OP}$ Advantage |
|-----------------|-----------------------------------|-----------------|--------------------|--------------------|--------------------|
| China           | 54.3%                             | 0.730           | √                  | √                  |                    |
| Serbia          | 12.6%                             | 0.419           |                    |                    | √                  |
| India           | 12.2%                             | 0.415           | √                  |                    |                    |
| Italy           | 10.9%                             | 0.530           | √                  |                    |                    |
| Spain           | 10%                               | 0.529           | √                  |                    |                    |
| Germany         | 9.3%                              | 0.611           | √                  |                    |                    |
| United Kingdom  | 8.9%                              | 0.648           | √                  |                    |                    |
| Canada          | 8.8%                              | 0.544           | √                  |                    |                    |
| Australia       | 8.7%                              | 0.552           | √                  |                    |                    |
| Brazil          | 8.5%                              | 0.432           |                    |                    | √                  |
| Malaysia        | 8.5%                              | 0.408           | √                  |                    | √                  |
| Poland          | 8.4%                              | 0.477           | √                  |                    |                    |
| Saudi Arabia    | 7.8%                              | 0.456           | √                  |                    |                    |
| Japan           | 7.4%                              | 0.521           | √                  |                    |                    |
| Switzerland     | 7.2%                              | 0.533           |                    |                    | √                  |
| Indonesia       | 16.6%                             | 0.380           | √                  |                    | √                  |
| North Macedonia | 8.7%                              | 0.362           |                    |                    | √                  |
| Colombia        | 8.2%                              | 0.394           |                    |                    | √                  |
| Egypt           | 8.2%                              | 0.369           | √                  |                    |                    |
| Pakistan        | 11.6%                             | 0.289           | √                  |                    |                    |

**Note:** In 2024, countries ranked within the top 25 per cent in terms of R values are shown in red, those ranked between the 26th and 50th percentiles are shown in blue, and those ranked between the 51st and 75th percentiles are shown in green.

## 5.2 Five Patterns of Open Science Readiness Development

Based on the growth of R values over the past decade and the performance across the three dimensions, national open science development can be categorized into five patterns (Table 5-5).

**Table 5-2.** Five Patterns of Open Science Development across 193 Countries

| Model                    | Core Characteristics                                                     | Representative Countries                                                             | R Value Range | Contribution of Dimensions | Core Drivers                                                    |
|--------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------|----------------------------|-----------------------------------------------------------------|
| Comprehensive leadership | High and sustained performance across OA, OD, and OP with strong synergy | United States                                                                        | >0.85         | OP≈OA<br>OP,OA>OD          | Overall national strength; long-term institutional accumulation |
| Scale-driven             | One dimension expanded at scale, primarily OA                            | China, India, Indonesia                                                              | 0.38~0.73     | OA>>OD,OP                  | Expansion of R&D investment; rapid growth in publication output |
| Policy-led               | Well-developed open science ecosystem driven by policy                   | United Kingdom, Germany, Australia, Canada, Switzerland, and most European countries | 0.47~0.65     | OP>>OA>OD                  | Institutional development; international policy frameworks      |
| Balanced Low-Growth      | Gradual and balanced progress across three dimensions                    | Nordic countries, Belgium, etc.                                                      | 0.42~0.49     | OA≈OD≈OP                   | High-quality governance; steady development tradition           |
| Fragile Foundation       | Low levels across all dimensions; policies exist but weak implementation | Pakistan, North Macedonia, Egypt                                                     | <0.37         | OP>OA,OD                   | Early-stage development; multi-dimensional gaps                 |

### Pattern I: Comprehensive Leadership

#### R Characteristics:

High R values, with approximate contribution ratios of  $R_{OA}:R_{OD}:R_{OP} \approx 1.8:1.6:1$ .

#### Representative country:

United States

#### Development pathway:

The United States is the only country that maintains high levels across all three dimensions simultaneously, with strong mutual reinforcement and coordinated development. Both  $R_{OA}$  and  $R_{OD}$  are highly developed. Although  $R_{OP}$  is comparatively lower (contributing 22.5 per cent to the R value), it effectively enhances both  $R_{OA}$  and  $R_{OD}$ , which contribute 41.3 per cent and 36.3 per cent, respectively.

In the OA dimension, the federal government has promoted policies on public access to research outputs since the late twentieth century, such as the National Institutes of Health (NIH) Public Access Policy, gradually establishing a comprehensive system covering legal frameworks, infrastructure, scholarly publishing, and policy instruments. At the same time, the United States remains the world's largest producer of scientific research, with the highest concentration of top universities and research institutions, leading in both OA publication volume and international collaboration.

In the OD dimension, extensive data repositories, strict requirements for data management plans (DMPs), and mature FAIR data practices contribute to exceptionally high academic quality ( $f1 = 57.66$ ), far exceeding that of any other country. In addition, the world’s largest research funding base, the highest density of high-level research institutions, and strong influence over the global academic publishing market collectively form a robust ecosystem supporting open science development.

**Strengths:**

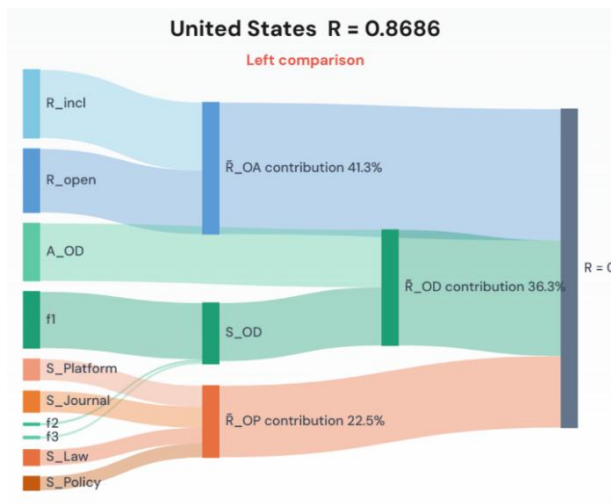
The three dimensions exhibit strong synergy. Mature policies (OP) provide institutional guarantees for OA and OD practices; large-scale academic output (OA) supplies a rich foundation for data sharing (OD); and high-quality data management (OD) in turn enhances academic reputation. The balanced structure between openness ( $R_{open}$ ) and inclusiveness ( $R_{incl}$ ) reflects both large-scale output and strong international collaboration capacity.

**Limitations:**

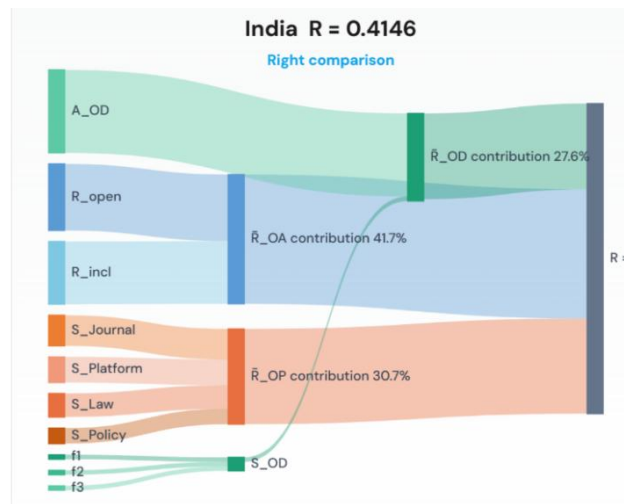
OD remains the relatively weakest dimension within the United States’ open science readiness. The transition from “open publications” to “open data” still has room for improvement. While the information quality factor ( $f2 = 0.666$ ) is relatively high, it has not reached an optimal level, and further improvements in FAIR compliance of data repositories are needed.

**Key insight:**

Given its unique economic strength and research scale, this model is difficult to replicate. Its core lesson lies in the **positive feedback loop between policy and practice**: rather than waiting for all conditions to be in place, policy instruments (such as the OSTP public access memorandum) are used proactively to compel research institutions to advance OA and OD practices.



**Figure 5-6.** Comprehensive Leadership Pattern across the Three Dimensions of R Value (United States as Reference)



**Figure 5-7.** Scale-Driven Development Pattern in Selected Dimensions of R Value (India as Reference)

**Pattern II: Scale-Driven**

**R Characteristics:**

Relatively high R values, with approximate contribution ratios of  $R_{OA}:R_{OD}:R_{OP} \approx 1.8:0.8:1$ .

**Representative countries:**

China, India, Indonesia, and Saudi Arabia

### Development pathway:

In this group of countries, growth in OSRI is driven primarily by the OA dimension, especially through the large scale of scholarly publication output ( $R_{open}$ ). Over the course of development, rapid growth in research publications has preceded the improvement of data management practices and policy systems, resulting in a pathway that may be characterized as “expansion first, regulation later”. China is the most representative case of this model: OA accounts for 50.3 per cent of its R value, while OP and OD contribute only 19.0 per cent and 30.7 per cent, respectively. India (OA accounting for 41.7 per cent) and Indonesia (OA accounting for 38.0 per cent) show similar patterns. Saudi Arabia also has a high OA share (42.3 per cent), but unlike the other countries in this group, the main driver of its OA dimension is international co-authorship, with particularly strong performance in this regard ( $R_{incl}/R_{open}=1.55$ ).

A common background among these countries is the sharp increase in research investment over the past one to two decades. In China, R&D expenditure has grown at double-digit annual rates since the 2000s, accompanied by an explosion in publication output. India and Indonesia both have large research communities, and publication output has continued to rise with the expansion of higher education. For some countries, “getting papers published first” has represented the path of least resistance for growth, without the immediate need to wait for complex institutional frameworks to be completed or to invest heavily in repository infrastructure. Input in research funding and personnel alone can produce visible gains in a relatively short period.

### Strengths:

Quantitative expansion can ultimately generate qualitative improvement. In China,  $R_{open}$  in the OA dimension reaches 15.53, the highest in the world, while academic quality in the OD dimension ( $f1$ ) has reached 32.97, second only to the United States (57.66). This suggests that the expansion of publication scale has indeed been accompanied by growth in academic influence. China has contributed the largest volume of content to the global open access pool, which in itself constitutes a major contribution to global open science. An additional implicit advantage of the scale-driven pathway is that, once the base becomes sufficiently large, subsequent policy guidance can build on an already extensive body of practice rather than starting from zero.

### Limitations:

The central risk of this pathway is that it may become “large but not strong”, with growth in OA failing to drive parallel progress in the other dimensions. In the OD dimension, China’s information quality factor ( $f2$ ) is only 0.37 and its reliability factor ( $f3$ ) only 0.57, indicating relatively weak FAIR compliance and comparatively high retraction rates. India faces even more pronounced challenges: all three indicators, namely academic quality ( $f1 = 0.52$ ), information quality ( $f2 = 0.31$ ), and reliability ( $f3 = 0.45$ ), remain low, suggesting weak data management and limited overall academic influence. Indonesia’s  $R_{open}/R_{incl}$  ratio reaches 2.06, indicating that its open science development is almost entirely inward-looking, with limited international participation. Saudi Arabia represents another extreme: it relies heavily on international co-authorship, while its own data management capacity is close to absent, with  $f2$  at only 0.023 and  $f3$  at only 0.22.

In the OP dimension, China’s  $R_{OP}$  value (0.692) is not low among developing countries, but the gap between OP and its OA value (0.919) indicates that policy development has not kept pace with practical expansion. More specifically, China’s  $S_{policy}$  value is only 0.325, the lowest single indicator across all its dimensions, indicating substantial room for improvement both in the number of open science policies and in their level of international recognition.

### Pattern III: Policy-Led

#### **R Characteristics:**

Relatively high R values, with the contributions of the three dimensions,  $R_{OA}$ ,  $R_{OD}$ , and  $R_{OP}$ , being approximately balanced at a ratio of 1:1:1.

#### **Representative countries:**

The United Kingdom, Germany, Australia, Canada, Switzerland, and most developed European countries, including Italy, Spain, the Netherlands, and France.

#### **Development pathway:**

Almost all developed European countries and Commonwealth countries fall within this category. Its defining feature is that the OP dimension, typically above 0.75, is significantly higher than the OA dimension, which generally ranges between 0.45 and 0.67, forming a pattern in which policy readiness is high while practice still needs to catch up. The United Kingdom is a typical example of this model: its OP value reaches 0.941, whereas its OA value is only 0.672, leaving a gap of 0.27. Germany (gap of 0.31), Switzerland (gap of 0.37), and Canada (gap of 0.32) show similar policy-practice gaps.

The development pathway of these countries generally follows a common sequence: first, an institutional framework for open science is established through legislation and policy documents, thereby improving  $S_{Law}$  and  $S_{Policy}$ ; second, data platforms are built on the basis of existing research infrastructure, thereby improving  $S_{Platform}$ ; and third, under institutional guarantees, researchers are gradually encouraged to publish in OA formats and to engage in data-sharing practices. This pathway is rooted in the governance traditions and research system structures of these countries. European countries, especially European Union Member States, benefit from regional policy coordination. Since Horizon 2020, the European Commission has made OA a funding condition; Horizon Europe has further required data management plans; and Plan S has set out explicit mandatory requirements for OA publishing. Under this top-down approach, policy indicators naturally reached high levels earlier. The United Kingdom's REF (Research Excellence Framework) requirements for OA and the German federal government's data management rules for DFG-funded projects are typical cases of policy-driven practice.

In addition, compared with the United States and China, these countries generally have a smaller publication scale, with the United Kingdom's annual publication output being only about one-fifth that of China. As a result, it is difficult for the OA dimension to reach high values through a purely scale-based pathway. Choosing to "build the framework first and fill it with content later" therefore represents a rational strategy for resource allocation, as the marginal cost of institutional development is far lower than that of substantially expanding research output.

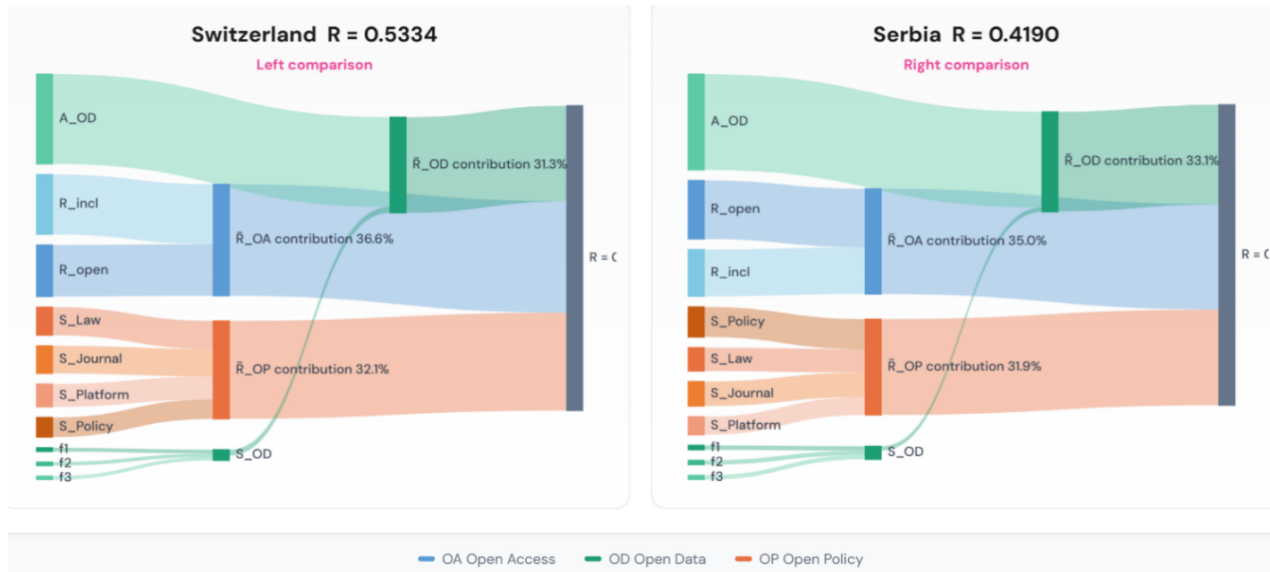
#### **Strengths:**

The greatest advantage of a policy-led pathway lies in its sustainability and predictability. A mature institutional environment means that researchers have clear behavioural expectations, such as the obligation to publish through OA channels and to submit data management plans; funding agencies have explicit compliance standards; and data repositories have a stable basis for operation. This pathway often produces results relatively slowly, but once the institutional framework is in place, subsequent improvements in OA and OD can proceed more smoothly. Germany provides an important example in this regard: although its OA scale is not particularly large, the quality of its data repositories is very high, and its information quality factor ( $f_2 = 0.662$ ) indicates that FAIR compliance is among the strongest in the world. This suggests that a policy-led approach can indeed improve the quality of data management. The United Kingdom's high  $f_1$  value (13.32) also suggests that, under policy guidance, academic quality need not be constrained by overall scale.

#### **Limitations:**

The principal risk of this pathway is institutional formalism, that is, the possibility that policy frameworks advance while practice fails to keep pace. A relatively weak OA dimension indicates that the actual scale of OA publication output remains limited. In addition, these countries'  $R_{OD}$  values, typically around 0.39 to

0.45, are generally lower than their  $R_{OA}$  values, suggesting that the transmission chain from “open publications” to “open data” is also broken in policy-led countries. One point of note is that France is the only country in this group with an  $f_3$  value below 1.0, indicating that even in a favourable institutional environment, problems related to retractions may still persist.



**Figure 5-8.** Policy-Led R-Value Development Pattern (Switzerland as Reference)

**Figure 5-9.** Balanced Low-Growth R-Value Development Pattern (Serbia as reference)

### Pattern IV: Balanced Low-Growth

#### R Characteristics:

R values are around the average level, with the contribution ratios of the three dimensions,  $R_{OA}$ ,  $R_{OD}$ , and  $R_{OP}$ , being approximately 1.8:1.6:1.

#### Representative countries:

The four Nordic countries (Denmark, Sweden, Norway, and Finland), Belgium, Austria, Ireland, and Serbia.

#### Development pathway:

In these countries, the standard deviation across the three dimensions is usually below 0.18, compared with 0.232 for the United Kingdom and 0.181 for China. Their R values are concentrated within the narrow range of 0.42 to 0.49, indicating relatively balanced development across dimensions. The most extreme example is found in the four Nordic countries: Denmark (0.488), Sweden (0.487), Norway (0.486), and Finland (0.472) differ by only 0.016 in overall R value, and their three-dimensional structures are almost identical.

These countries are usually small- or medium-sized developed economies with limited research scale, their annual publication output typically amounting to only 1 to 3 per cent of that of China. As a result, it is difficult for them to achieve a breakthrough in OA through scale expansion alone. At the same time, although these countries generally have high-quality governance systems and mature legal environments, their smaller scale limits their influence in international scholarly publishing and data infrastructure, and thus their  $S_{Journal}$  and  $S_{Platform}$  values are difficult to raise to the levels of the United Kingdom, the United States, and Western European countries.

Serbia provides a particularly notable example, as achieving balance across all three dimensions is not easy. It has made significant efforts at the policy level, with  $R_{OP}$  reaching 0.668 and  $S_{Policy}$  as high as 0.746. Its information quality factor ( $f_2 = 0.416$ ) also performs relatively well. However, the scale of publication

output remains small, and both  $R_{open}$  and  $R_{incl}$  in the OA dimension remain below 0.8, constraining the further increase of its R value.

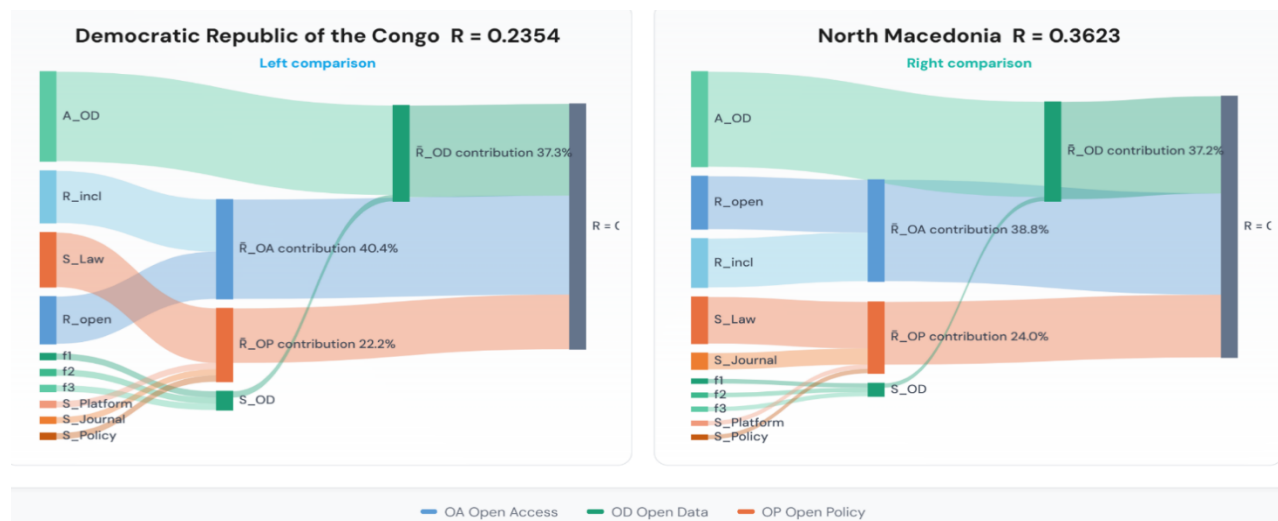
**Strengths:**

Balance itself is a strength. In addition, the Nordic countries possess an important underlying advantage: relatively high levels of social trust and strong traditions of research integrity mean that their reliability factor ( $f_3$ ) generally reaches the maximum value of 1.2, indicating good control of retraction rates.

**Limitations:**

The principal limitation of this pathway is the absence of a clear growth engine. Without a breakthrough source of momentum, improvement in R values can only rely on the simultaneous but gradual advancement of all three dimensions, so year-on-year changes are often very small. The fact that the R values of the Nordic countries are so close may suggest that they have entered a kind of “growth plateau”, in which, under existing resource constraints, none of the three dimensions can easily improve substantially.

**Pattern V: Fragile Foundation**



**Figure 5-10.** Fragile Foundation R-Value Development Pattern (Democratic Republic of the Congo as Reference)

**Representative countries:**

Pakistan, North Macedonia, Egypt, and some less advanced developing countries, such as the Democratic Republic of the Congo.

**Development pathway:**

This corresponds to an early-stage development pattern in the OSRI typology, characterized by an R value generally below 0.37 and consistently low performance across all three dimensions.

This is an early-stage development model within the OSRI spectrum. R values are typically below 0.37, with all three dimensions remaining at low levels. Pakistan ( $R = 0.289$ ) records the lowest value among the 30 countries, with  $R_{OA} = 0.290$ ,  $R_{OD} = 0.228$ , and  $R_{OP} = 0.410$ . North Macedonia has an  $f_2$  value of 0, indicating that no database registered in re3data meets FAIR standards. Egypt records an  $f_2$  value of only 0.045 and an  $f_3$  value of only 0.342. Unlike the previous four models, countries in this group do not primarily face the question of how to optimize resource allocation; rather, they face challenges on all fronts, including insufficient research investment, the absence of data infrastructure, weak legal protection, and limited participation in international scholarship. These countries are constrained by objective conditions such as their level of economic development, the readiness of their higher education systems, and their degree of

integration into the international academic community. Pakistan spends less than 0.3 per cent of GDP on R&D, far below the global average; North Macedonia has a very small research workforce; and Egypt, although it has a certain scale of publication output, has barely begun in data management.

### Limitations:

Structural deficits constitute the most fundamental limitation of this model. Where countries have not yet established national data repositories, or have not yet adopted international standards, low  $f_2$  values become one of their defining characteristics, indicating that development must begin with basic infrastructure building. Low  $f_3$  values, such as those observed in Pakistan (0.23) and Egypt (0.34), point to deeper underlying issues. Higher retraction rates may be associated with academic evaluation mechanisms that prioritize quantity over quality, as well as insufficient education in research integrity. Improvement in these areas typically requires a longer time horizon, as it involves broader transformation of research culture.

## 5.3 Pathways for Enhancing R value

### ▪ Pathway I: Enhancing Open Access Readiness

This is a widely adopted approach across many countries and is particularly suitable for countries that currently remain at relatively low levels of open science readiness. Enhancing Open Access readiness means increasing both the proportion of OA publications among total published papers and the share of internationally co-authored publications.

With regard to increasing publication output and the share of OA publications, article processing charges (APCs) constitute a major barrier. According to the annual *Global OA Journals and APC Monitoring Report* issued by the National Science Library of the Chinese Academy of Sciences, the total amount of APCs paid by authors worldwide increased year by year between 2019 and 2025. By 2025, the average APC per article in global OA journals had exceeded USD 3,000, and total APC expenditure by authors worldwide had exceeded several hundred million US dollars, imposing significant pressure on the research community. To overcome the barrier posed by high APCs, three reference models may be considered:

(1) the **Green OA model**, centred on institutional repositories and knowledge repositories, which encourages authors to deposit published papers, including non-OA papers, in open repositories to enable global or partial open access;

(2) the **Gold OA model**, combining research community leadership with national guidance, under which authors publish high-quality research outputs in OA form according to their means, while the State defines the proportion of research funding that may be used for APC payments or imposes ceilings on APC unit costs;

(3) **national access subscription agreements combined with open publishing cooperation agreements**, as part of national R&D policy, through which countries establish R&D models suited to their own circumstances so as to improve both access to global research outputs and the openness of their own scientific outputs in a coordinated manner.

With regard to increasing the proportion of internationally co-authored publications, this entails expanding the publication output of international collaborative projects and increasing the number of co-authored papers.

### ▪ Pathway II: Enhancing Open Data Readiness

This approach is particularly suitable for countries whose open science readiness has developed only slowly, including both countries at lower levels of readiness and those already at relatively higher levels.

Enhancing Open Data readiness means increasing the accessibility and shareability of national data. This includes strengthening the development of open data platforms, securing inclusion in international open directories, and enabling open data sharing with national open data platforms.

Three reference models may be considered:

- (1) strengthening the construction of open data platforms, securing their inclusion in internationally recognized databases, platforms, and open directories, and enabling open data sharing with international open data platforms and national or regional open science platforms. Examples include inclusion in Figshare, Dryad, re3data, and DataCite, and cooperation with platforms such as OpenAIRE in Europe, OS4Science in China, and related platforms developed in Japan;
- (2) joining international open data-sharing networks, promoting participation in relevant international alliances, and jointly developing technical standards for open sharing. Examples include CODATA and OSI4S;
- (3) enhancing overall open science readiness through regional cooperation. Over the past three years, OSRI has conducted pilot applications and analyses of open science readiness in nine countries and regions, including the European Union, the United States, the United Kingdom, Germany, India, the Russian Federation, the least developed countries (STL66), and China. The results show that the European Union has consistently recorded the highest R value, exceeding that of the United States, China, the United Kingdom, and Germany when analysed separately. Regions, whether geographic areas or economic groupings, can promote cooperation among countries in open science policy, action plans, information technology infrastructure, and capacity-building. At present, the Academy of Sciences Malaysia is promoting the establishment of the APEC Open Science Alliance (APECOSA), which aims to bring together the practical experience of APEC economies in the formulation and implementation of open science policies and guidelines, discuss the role of open science guidelines in advancing policy implementation and cross-economy coordination, and clarify the core strategic pillars to be covered by open science in the APEC region.

Within the first model described above, countries with limited capacity to build data platforms may draw on and use platform-building tools developed in other countries in order rapidly to advance data openness and data sharing. Examples include the OSF in the United States and the open-source tools provided under China's OS10 initiative, which can support cloud-based deployment.

### ▪ **Pathway III: Enhancing Open Policy Readiness**

This pathway is suitable for countries that seek to advance readiness across all three dimensions. By building a coordinated open science ecosystem and promoting practice through a top-down approach, it effectively constitutes a pathway of multi-dimensional, coordinated development. Enhancing Open Policy readiness means strengthening the institutional environment, legal safeguards, infrastructure, and scientific journals that support open science at the national level: establishing the institutional framework for open science through legislation and policy documents; then investing in, or making use of, existing research infrastructure to build data platforms; and subsequently, under institutional guarantees, gradually encouraging researchers to publish research outputs and to engage in OA publishing and data-sharing practices.

Countries with weak foundations may draw on the open science experience of Serbia. Serbia's  $R_{OP}$  reached 0.668, and its  $f_2$  reached 0.416. Serbia's experience shows that even with a relatively small research scale, significant improvements in  $R_{OP}$  and  $R_{OD}$  can be achieved through participation in European research frameworks, such as association with Horizon Europe, and through the construction of data management systems in line with European Union standards. In addition, the experience of Brazil is also instructive. As a developing country, Brazil achieved a full score in  $f_3$ , indicating that effective control of retraction rates can be achieved even under conditions of limited resources. The key lies in the establishment of robust mechanisms for research integrity.

## 6 Key Messages

This report uses the Open Science Readiness Index (OSRI) to systematically and quantitatively assess the evolution of 193 United Nations Member States across three dimensions—Open Access, Open Data, and Open Policy—over the period 2014 to 2024. The findings indicate that, while global open science is on an overall upward trajectory, the average growth rate remains modest and structural differentiation remains significant, with the "Matthew Effect" (the rich getting richer) evident across all three dimensions. The "Matthew effect" manifests itself across all three dimensions. These observations carry significant implications for the design of national open science policies, the allocation of resources, and the pursuit of international cooperation.

### ▪ **Open Science Readiness Assessment**

- Open science is expected to generate significant economic and social benefits as it advances. At present, the scientific value of open science in enhancing national innovation efficiency is systematically underestimated. Open science-related policies are creating greater opportunities for broader stakeholder participation and sustainable development.
- The benefits of open science arise primarily from its scalability and long-term cumulative effects, while significant disparities persist across countries and regions in terms of both progress and impact.
- Open science infrastructures play a critical role in enabling innovation and value creation. Countries vary in their stages of investment in open science and in their strategic priorities. While countries with higher levels of readiness tend to accumulate benefits over time, the uneven cost distribution across the pillars of open science is emerging as a constraint on maximizing overall gains.

### ▪ **Practical Recommendations**

#### **1. Strengthening Open Science Capacity in Countries with Low Levels of Readiness: Prioritizing Structural Bottlenecks**

The report shows that low-income countries, particularly the 54 countries in Africa, have an average R value of only 0.259, with an increase of less than 0.01 over the past decade. This stagnation results from the systematic interplay of multiple factors. It is therefore recommended to:

- Include digital infrastructure development as a priority area of scientific and technological assistance to low-income countries, and promote the implementation of regional sharing models;
- Provide open science policy templates and technical assistance for policy drafting;
- Give priority support to Small Island Developing States (SIDS) and Least Developed Countries (LDCs).

#### **2. Enhancing Policy Cooperation in Countries with Steady but Moderate Growth in Open Science Readiness: Harnessing the Momentum of Regional Collaboration**

The report shows that some middle-income countries have achieved notable improvements in readiness over the past decade, with successful pathways that vary in their respective focuses. Serbia's deep engagement in EU-related activities, as well as collaborative efforts among Brazil, Colombia and Peru, demonstrate the significant role of regional synergies in raising overall average readiness levels. It is therefore recommended to:

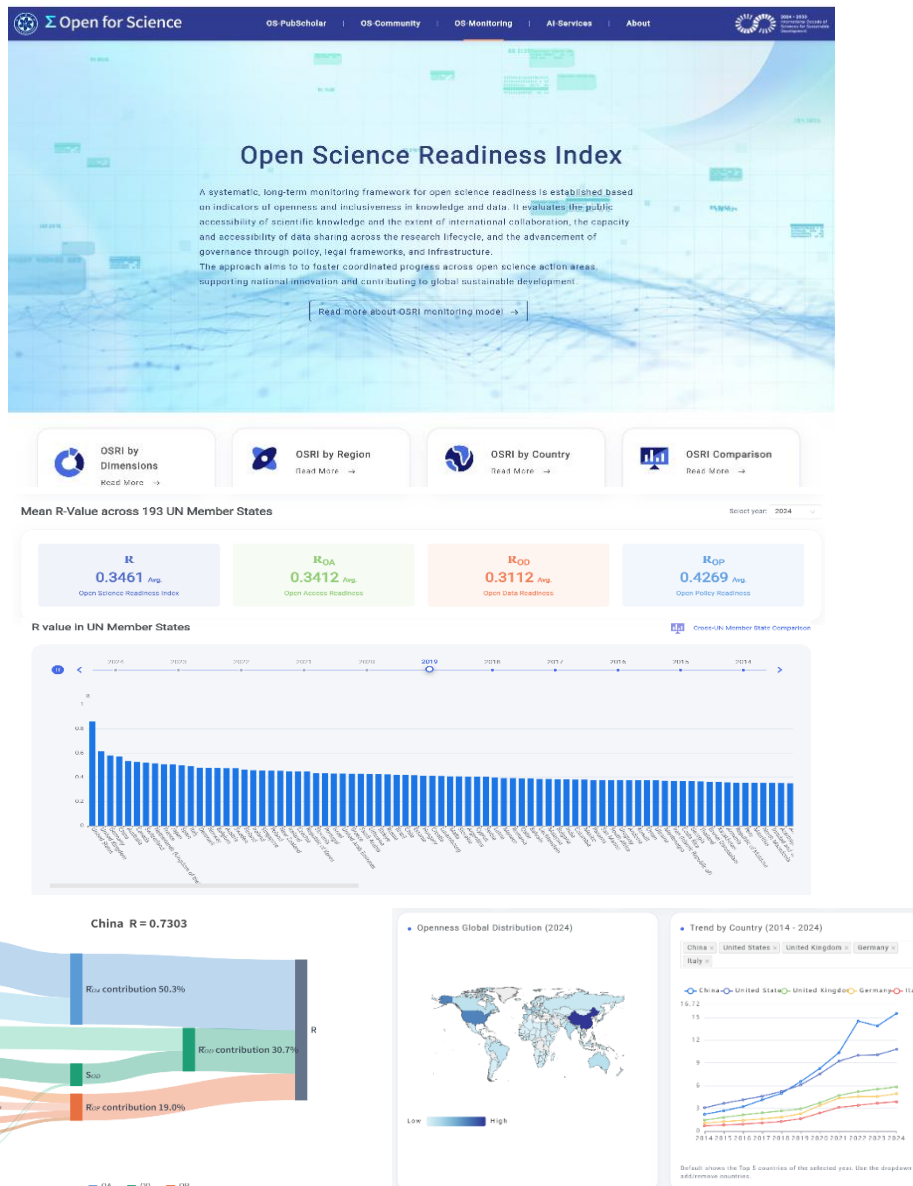
- Promote the establishment of regional mechanisms for mutual recognition of open science infrastructure and data sharing, thereby lowering the threshold for infrastructure development in individual countries;
- Systematically compile and disseminate successful policy cases from middle-income countries, thereby strengthening their demonstration effect and catalytic role.
- Encourage emerging scientific powers such as India and Brazil to export policy experiences and technical solutions to countries at comparable levels of development within the framework of South-South cooperation, thereby forming a multipolar network for the diffusion of policy knowledge.

### **3. Encouraging the Extension of Open Science Ecosystem Value in High-Readiness Countries: From Self-Development to Spillover Contributions**

Countries with relatively high open science readiness possess certain resource advantages in the practice of open science. It is therefore recommended to:

- Promote the extension of open science policies of their funding agencies to bilateral cooperation partners, thereby strengthening the integration of open science with international collaboration;
- Leverage their advantages or leading roles in foundational data source platforms, such as ROARMAP and re3data, to facilitate the provision of more accessible policy registration and repository certification services for countries in the Global South.

## 7 OSRI Platform



The OSRI platform is available at: <https://open4science.cn/microapp/osmonitor/home>

### Main functionalities include:

- Presentation of the definition, theoretical model, and calculation formulas of the OSRI;
- Visualization of the R values and the three dimensions for all 193 Member States, including their current status (2024) and evolutionary trends (2014–2024);
- Analysis of R values and the three dimensions at the level of geographic regions, including both current status (2024) and temporal evolution (2014–2024);
- Cross-country comparisons of R values, including dimension-level comparisons overall R values, indicator-level comparisons, and year-by-year analysis

## 8 Collaboration and the Way Forward

### 8.1 Strengthening Collaboration

While presenting the above findings, this report also acknowledges certain limitations in terms of data coverage, indicator weighting, and overall methodological design.

At the **data level**, some of the databases used in this study are based on voluntary registration mechanisms, which may introduce systematic bias. In general, institutions in Europe and North America exhibit significantly higher registration rates than those in developing countries, which may result in the underestimation of the latter's level of readiness. Although this bias has been partially mitigated through the introduction of the UNESCO impact coefficient ( $\alpha_{\text{UNESCO}}$ ), it has not been fully eliminated. It is therefore important to encourage broader data sharing among stakeholders and to advance collaboration with the UNESCO Open Science Monitoring Framework Working Group.

At the **weighting level**, the OSRI currently adopts a fixed weighting scheme of OA:OD:OP = 0.4:0.4:0.2, along with an HDI calibration factor  $\alpha \in [0.5, 0.7]$ . These parameters are based on theoretical considerations rather than empirical validation. The sensitivity of ranking outcomes to alternative weighting schemes has not yet been systematically tested.

At the **indicator coverage level**, the current OSRI framework places emphasis on scientific research, national innovation, and sustainable development, and remains largely oriented toward quantifiable output-based indicators. Future refinement could further align indicator selection with the priority action areas outlined in the UNESCO Recommendation on Open Science, thereby enhancing conceptual coherence and policy relevance.

### 8.2 The Way Forward

The scope and objectives of this report are aligned with, and methodologically complementary to, the mission of the UNESCO Working Group on Open Science Monitoring. This report represents a first attempt to provide a long-term, dynamic perspective on the evolution of open science across all 193 Member States. By combining qualitative and quantitative approaches through the Open Science Readiness Index, and situating the analysis within the framework of the UNESCO Recommendation on Open Science, it seeks to contribute to the development of a scalable, interoperable, and openly shared global monitoring ecosystem for open science.

To this end, the OSRI dataset, indicator calculation codes, and methodological documentation will be made publicly available under an open license, enabling access, reuse, and collaborative improvement. This reflects a core principle underpinning this work: that the monitoring of open science should itself adhere to the principles of openness, transparency, and inclusiveness.

Looking ahead, as global open science data infrastructures continue to evolve, the OSRI framework is expected to incorporate a more diverse range of real-time and high-resolution data sources. This will facilitate the gradual development of a multi-level monitoring system encompassing national innovation systems, research institutions, and wider societal participation. Ultimately, it aims to provide a more robust, equitable, and inclusive evidence base to support the implementation and evaluation of the UNESCO Recommendation on Open Science, and to inform evidence-based policymaking at both national and global levels.

## Annex

### Annex 1. List of United Nations Member States

| Region        | English Name                 | Chinese Name |
|---------------|------------------------------|--------------|
| <b>Europe</b> |                              |              |
|               | Albania                      | 阿尔巴尼亚        |
|               | Andorra                      | 安道尔          |
|               | Austria                      | 奥地利          |
|               | Belarus                      | 白俄罗斯         |
|               | Belgium                      | 比利时          |
|               | Bosnia and Herzegovina       | 波斯尼亚和黑塞哥维那   |
|               | Bulgaria                     | 保加利亚         |
|               | Croatia                      | 克罗地亚         |
|               | Cyprus                       | 塞浦路斯         |
|               | Czech Republic               | 捷克           |
|               | Denmark                      | 丹麦           |
|               | Estonia                      | 爱沙尼亚         |
|               | Finland                      | 芬兰           |
|               | France                       | 法国           |
|               | Germany                      | 德国           |
|               | Greece                       | 希腊           |
|               | Hungary                      | 匈牙利          |
|               | Iceland                      | 冰岛           |
|               | Ireland                      | 爱尔兰          |
|               | Italy                        | 意大利          |
|               | Latvia                       | 拉脱维亚         |
|               | Liechtenstein                | 列支敦士登        |
|               | Lithuania                    | 立陶宛          |
|               | Luxembourg                   | 卢森堡          |
|               | Malta                        | 马耳他          |
|               | Moldova                      | 摩尔多瓦         |
|               | Monaco                       | 摩纳哥          |
|               | Montenegro                   | 黑山           |
|               | Netherlands (Kingdom of the) | 荷兰           |
|               | North Macedonia              | 北马其顿         |
|               | Norway                       | 挪威           |
|               | Poland                       | 波兰           |

|                                    |         |
|------------------------------------|---------|
| Portugal                           | 葡萄牙     |
| Romania                            | 罗马尼亚    |
| Russian Federation                 | 俄罗斯联邦   |
| San Marino                         | 圣马力诺    |
| Serbia                             | 塞尔维亚    |
| Slovakia                           | 斯洛伐克    |
| Slovenia                           | 斯洛文尼亚   |
| Spain                              | 西班牙     |
| Sweden                             | 瑞典      |
| Switzerland                        | 瑞士      |
| Ukraine                            | 乌克兰     |
| United Kingdom                     | 英国      |
| <b>South America</b>               |         |
| Argentina                          | 阿根廷     |
| Bolivia (Plurinational State of)   | 玻利维亚    |
| Brazil                             | 巴西      |
| Chile                              | 智利      |
| Colombia                           | 哥伦比亚    |
| Ecuador                            | 厄瓜多尔    |
| Guyana                             | 圭亚那     |
| Paraguay                           | 巴拉圭     |
| Peru                               | 秘鲁      |
| Suriname                           | 苏里南     |
| Uruguay                            | 乌拉圭     |
| Venezuela (Bolivarian Republic of) | 委内瑞拉    |
| <b>North America</b>               |         |
| Antigua and Barbuda                | 安提瓜和巴布达 |
| Bahamas                            | 巴哈马     |
| Barbados                           | 巴巴多斯    |
| Belize                             | 伯利兹     |
| Canada                             | 加拿大     |
| Costa Rica                         | 哥斯达黎加   |
| Cuba                               | 古巴      |
| Dominica                           | 多米尼克    |
| Dominican Republic                 | 多米尼加共和国 |
| El Salvador                        | 萨尔瓦多    |

|                                       |            |
|---------------------------------------|------------|
| Grenada                               | 格林纳达       |
| Guatemala                             | 危地马拉       |
| Haiti                                 | 海地         |
| Honduras                              | 洪都拉斯       |
| Jamaica                               | 牙买加        |
| Mexico                                | 墨西哥        |
| Nicaragua                             | 尼加拉瓜       |
| Panama                                | 巴拿马        |
| Saint Kitts and Nevis                 | 圣基茨和尼维斯    |
| Saint Lucia                           | 圣卢西亚       |
| Saint Vincent and the Grenadines      | 圣文森特和格林纳丁斯 |
| Trinidad and Tobago                   | 特立尼达和多巴哥   |
| United States of America              | 美利坚合众国     |
| <b>Asia</b>                           |            |
| Afghanistan                           | 阿富汗        |
| Armenia                               | 亚美尼亚       |
| Azerbaijan                            | 阿塞拜疆       |
| Bahrain                               | 巴林         |
| Bangladesh                            | 孟加拉国       |
| Bhutan                                | 不丹         |
| Brunei Darussalam                     | 文莱         |
| Cambodia                              | 柬埔寨        |
| China                                 | 中国         |
| Democratic People's Republic of Korea | 朝鲜         |
| Georgia                               | 格鲁吉亚       |
| India                                 | 印度         |
| Indonesia                             | 印度尼西亚      |
| Iran (Islamic Republic of)            | 伊朗         |
| Iraq                                  | 伊拉克        |
| Israel                                | 以色列        |
| Japan                                 | 日本         |
| Jordan                                | 约旦         |
| Kazakhstan                            | 哈萨克斯坦      |
| Kuwait                                | 科威特        |
| Kyrgyzstan                            | 吉尔吉斯斯坦     |
| Lao People's Democratic Republic      | 老挝         |

|                          |           |
|--------------------------|-----------|
| Lebanon                  | 黎巴嫩       |
| Malaysia                 | 马来西亚      |
| Maldives                 | 马尔代夫      |
| Mongolia                 | 蒙古        |
| Myanmar                  | 缅甸        |
| Nepal                    | 尼泊尔       |
| Oman                     | 阿曼        |
| Pakistan                 | 巴基斯坦      |
| Philippines              | 菲律宾       |
| Qatar                    | 卡塔尔       |
| Republic of Korea        | 韩国        |
| Saudi Arabia             | 沙特阿拉伯     |
| Singapore                | 新加坡       |
| Sri Lanka                | 斯里兰卡      |
| Syrian Arab Republic     | 叙利亚阿拉伯共和国 |
| Tajikistan               | 塔吉克斯坦     |
| Thailand                 | 泰国        |
| Timor-Leste              | 东帝汶       |
| Turkey                   | 土耳其       |
| Turkmenistan             | 土库曼斯坦     |
| United Arab Emirates     | 阿拉伯联合酋长国  |
| Uzbekistan               | 乌兹别克斯坦    |
| Viet Nam                 | 越南        |
| Yemen                    | 也门        |
| <b>Africa</b>            |           |
| Algeria                  | 阿尔及利亚     |
| Angola                   | 安哥拉       |
| Benin                    | 贝宁        |
| Botswana                 | 博茨瓦纳      |
| Burkina Faso             | 布基纳法索     |
| Burundi                  | 布隆迪       |
| Cabo Verde               | 佛得角       |
| Cameroon                 | 喀麦隆       |
| Central African Republic | 中非共和国     |
| Chad                     | 乍得        |
| Comoros                  | 科摩罗       |

|                                  |          |
|----------------------------------|----------|
| Congo                            | 刚果       |
| Côte d'Ivoire                    | 科特迪瓦     |
| Democratic Republic of the Congo | 刚果民主共和国  |
| Djibouti                         | 吉布提      |
| Egypt                            | 埃及       |
| Equatorial Guinea                | 赤道几内亚    |
| Eritrea                          | 厄立特里亚    |
| Eswatini                         | 埃斯瓦蒂尼    |
| Ethiopia                         | 埃塞俄比亚    |
| Gabon                            | 加蓬       |
| Gambia                           | 冈比亚      |
| Ghana                            | 加纳       |
| Guinea                           | 几内亚      |
| Guinea-Bissau                    | 几内亚比绍    |
| Kenya                            | 肯尼亚      |
| Lesotho                          | 莱索托      |
| Liberia                          | 利比里亚     |
| Libya                            | 利比亚      |
| Madagascar                       | 马达加斯加    |
| Malawi                           | 马拉维      |
| Mali                             | 马里       |
| Mauritania                       | 毛里塔尼亚    |
| Mauritius                        | 毛里求斯     |
| Morocco                          | 摩洛哥      |
| Mozambique                       | 莫桑比克     |
| Namibia                          | 纳米比亚     |
| Niger                            | 尼日尔      |
| Nigeria                          | 尼日利亚     |
| Rwanda                           | 卢旺达      |
| Sao Tome and Principe            | 圣多美和普林西比 |
| Senegal                          | 塞内加尔     |
| Seychelles                       | 塞舌尔      |
| Sierra Leone                     | 塞拉利昂     |
| Somalia                          | 索马里      |
| South Africa                     | 南非       |
| South Sudan                      | 南苏丹      |

|                                  |           |
|----------------------------------|-----------|
| Sudan                            | 苏丹        |
| Togo                             | 多哥        |
| Tunisia                          | 突尼斯       |
| Uganda                           | 乌干达       |
| United Republic of Tanzania      | 坦桑尼亚联合共和国 |
| Zambia                           | 赞比亚       |
| Zimbabwe                         | 津巴布韦      |
| <b>Oceania</b>                   |           |
| Australia                        | 澳大利亚      |
| Fiji                             | 斐济        |
| Kiribati                         | 基里巴斯      |
| Marshall Islands                 | 马绍尔群岛     |
| Micronesia (Federated States of) | 密克罗尼西亚联邦  |
| Nauru                            | 瑙鲁        |
| New Zealand                      | 新西兰       |
| Palau                            | 帕劳        |
| Papua New Guinea                 | 巴布亚新几内亚   |
| Samoa                            | 萨摩亚       |
| Solomon Islands                  | 所罗门群岛     |
| Tonga                            | 汤加        |
| Tuvalu                           | 图瓦卢       |
| Vanuatu                          | 瓦努阿图      |

## Annex 2. OSRI Calculation Formulae

| Variable                                              | Dimension           | Meaning                                                                                                                      | Measurement Indicator                                                             | Formula                                                                                                                                                      | No.      |
|-------------------------------------------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|
| <b>R</b>                                              | Final indicator     | Open Science Readiness Index (OSRI), with weights of OA = 0.4, OD = 0.4, and OP = 0.2                                        | /                                                                                 | $R = w_{OA}S_{\bar{R}_{OA}(t)} + w_{OD}S_{\bar{R}_{OD}(t)} + w_{OP}S_{\bar{R}_{OP}(t)}$                                                                      | (1)      |
| $\bar{R}_{OA}(t)$                                     | /                   | Normalized result of Open Access                                                                                             | /                                                                                 | $\bar{R}_{OA}(t) = R_{OA}(t)/\bar{R}_{OA} \max(t_1)$<br>$S_{\bar{R}_{OA}(t)} = \alpha \cdot \bar{R}_{OA}(t) + (1 - \alpha) \cdot HDI, \alpha \in [0.5, 0.7]$ | (1-a)    |
| $\bar{R}_{OD}(t)$                                     | /                   | Normalized result of Open Data                                                                                               | /                                                                                 | $\bar{R}_{OD}(t) = R_{OD}(t)/\bar{R}_{OD} \max(t_1)$<br>$S_{\bar{R}_{OD}(t)} = \alpha \cdot \bar{R}_{OD}(t) + (1 - \alpha) \cdot HDI, \alpha \in [0.5, 0.7]$ |          |
| $\bar{R}_{OP}(t)$                                     | /                   | Normalized result of Open Policy                                                                                             | /                                                                                 | $\bar{R}_{OP}(t) = R_{OP}(t)/\bar{R}_{OP} \max(t_1)$<br>$S_{\bar{R}_{OP}(t)} = \alpha \cdot \bar{R}_{OP}(t) + (1 - \alpha) \cdot HDI, \alpha \in [0.5, 0.7]$ |          |
| <b>w<sub>OA</sub>, w<sub>OD</sub>, w<sub>OP</sub></b> | OSRI                | Weights of Open Access, Open Data, and Open Policy                                                                           | /                                                                                 | $w_{OA} + w_{OD} + w_{OP} = 1, w_{OA} = 0.4, w_{OD} = 0.4, \text{ and } w_{OP} = 0.2.$                                                                       | (1-b)    |
| <b>R<sub>OA</sub></b>                                 | <b>OA dimension</b> | Open Access readiness                                                                                                        | /                                                                                 | $R_{OA} = \sqrt{R_{open}^2 + R_{incl}^2}$                                                                                                                    | (2)      |
| $\langle \cdot \rangle$                               | General symbol      | Denotes the arithmetic mean over the selected subset of countries                                                            | /                                                                                 | Taking $\langle P_{open} \rangle$ as an example: $\langle P_{open} \rangle = \frac{1}{n} \sum_{i=1}^n P_{open}(i)$                                           | /        |
| <b>R<sub>open</sub></b>                               | R <sub>OA</sub>     | Openness of science from the perspective of OA                                                                               | /                                                                                 | $R_{open} = \frac{1}{2} \left\{ \frac{r_{open}(t)}{\langle r_{open}(t_1) \rangle} + \frac{P_{open}(t)}{\langle P_{open}(t_1) \rangle} \right\}$              | (2-a)    |
| <b>R<sub>incl</sub></b>                               | R <sub>OA</sub>     | Inclusiveness of science from the perspective of co-authorship                                                               | /                                                                                 | $R_{incl} = \frac{1}{2} \left\{ \frac{r_{incl}(t)}{\langle r_{incl}(t_1) \rangle} + \frac{P_{incl}(t)}{\langle P_{incl}(t_1) \rangle} \right\}$              | (2-b)    |
| <b>r<sub>open</sub></b>                               | R <sub>OA</sub>     | Share of a country's OA papers in its total scholarly output                                                                 | National OA publication volume; national total scholarly output (Scopus)          | $r_{open} = \frac{\text{national OA publication volume}}{\text{national total scholarly output}}$                                                            | (2-a-i)  |
| <b>P<sub>open</sub></b>                               | R <sub>OA</sub>     | A country's OA publication volume as a share of the historical maximum of the average OA publication volume across countries | National OA publication volume (Scopus)                                           | $P_{open} = \frac{\text{national OA publication volume}}{\text{Max(Avg(national OA publication volume))}}$                                                   | (2-a-ii) |
| <b>r<sub>incl</sub></b>                               | R <sub>OA</sub>     | Share of a country's internationally co-authored papers in its total scholarly output                                        | National co-authored publication volume; national total scholarly output (Scopus) | $r_{incl} = \frac{\text{internationally co – authored publication volume}}{\text{national total scholarly output}}$                                          | (2-b-i)  |

| Variable   | Dimension           | Meaning                                                                                                                                                                                                                                                                                                       | Measurement Indicator                                                                      | Formula                                                                                                                                          | No.          |
|------------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| $P_{incl}$ | $R_{OA}$            | A country's internationally co-authored publication volume as a share of the historical maximum of the average internationally co-authored publication volume across countries                                                                                                                                | National co-authored publication volume (Scopus)                                           | $P_{incl} = \frac{\text{internationally co – authored publication volume}}{\text{Max(Avg(internationally co – authored publication volume))}}$   | (2-b-ii)     |
| $R_{OD}$   | <b>OD dimension</b> | Open Data readiness                                                                                                                                                                                                                                                                                           | /                                                                                          | $R_{OD}(t) = \sqrt{\left(\frac{S_{OD}(t)}{\langle S_{OD}(t_1) \rangle}\right)^2 + \left(\frac{A_{OD}(t)}{\langle A_{OD}(t_1) \rangle}\right)^2}$ | (3)          |
| $S_{OD}$   | $R_{OD}$            | Total shareable data                                                                                                                                                                                                                                                                                          | /                                                                                          | $S_{OD} = \frac{1}{3}(f_1 + f_2 + f_3) \times \frac{\ln(S_{output} + 1)}{\ln(S_{max\_global} + 1)}$                                              | (3-a)        |
| $f_1$      | $R_{OD}$            | Academic quality of a country's data, measured by FWCI and the number of Clarivate top 1% highly cited researchers, weighted at 0.2 and 0.8 respectively                                                                                                                                                      | FWCI; Clarivate top 1% HCR (Scopus, Clarivate)                                             | $f_1 = 0.8 \times \ln(FWCI * 100 + 1) + 0.2 \times \frac{Au_{1\%}}{\langle Au_{1\%} \rangle}$                                                    | (3-a-i)      |
| $Au_{1\%}$ | $R_{OD}$            | Share of a country's Clarivate top 1% HCR in the global total                                                                                                                                                                                                                                                 | Clarivate top 1% HCR (Clarivate)                                                           | $Au_{1\%} = \frac{\text{number of national HCRs}}{\text{global number of HCRs}}$                                                                 | (3-a-i-I)    |
| $f_2$      | $R_{OD}$            | Information quality of a country's data                                                                                                                                                                                                                                                                       | /                                                                                          | $f_2 = \frac{1}{4}(f_F + f_A + f_I + f_R)$                                                                                                       | (3-a-ii)     |
| $f_F$      | $R_{OD}$            | Findability of data, judged by the field "PID systems", that is, the proportion of repositories in the country that have a PID. The logarithmic ratio of the number of repositories in the country to the global maximum is used as a weighting coefficient (the same applies to $f_A$ , $f_I$ , and $f_R$ ). | Number of repositories in the country with PID (re3data)                                   | $f_F = \frac{N_{PID}}{N_{total}} \times \frac{\ln(N_{total} + 1)}{\ln(N_{max\_global} + 1)}$                                                     | (3-a-ii-I)   |
| $f_A$      | $R_{OD}$            | Accessibility of data, judged by the field "Data access". If the field contains "open" = 1; if it does not contain "open" but contains "restricted" or "embargoed" = 0.5.                                                                                                                                     | Number of repositories in the country with open/restricted/embargoed data access (re3data) | $f_A = \frac{1.0 \times N_{open} + 0.5 \times N_{restricted}}{N_{total}} \times \frac{\ln(N_{total} + 1)}{\ln(N_{max\_global} + 1)}$             | (3-a-ii-II)  |
| $f_I$      | $R_{OD}$            | Interoperability of data, judged by the field "metadata standards". If the field is non-empty, that is, any standard such as Dublin Core,                                                                                                                                                                     | Number of repositories in the country with non-                                            | $f_I = \frac{N_{standard}}{N_{total}} \times \frac{\ln(N_{total} + 1)}{\ln(N_{max\_global} + 1)}$                                                | (3-a-ii-III) |

| Variable          | Dimension | Meaning                                                                                                                                                                                                                     | Measurement Indicator                                                                                                                   | Formula                                                                                          | No.         |
|-------------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|-------------|
|                   |           | DIF, or DataCite is used, the value is 1; if the field is empty or contains only “other”, the value is 0.                                                                                                                   | empty metadata standards (re3data)                                                                                                      |                                                                                                  |             |
| $f_R$             | $R_{OD}$  | Reusability of data, judged by the field “Database licenses”. If the field is non-empty, that is, explicit licences such as CC-BY, CC0, or Copyright are provided, the value is 1.0; if the field is empty, the value is 0. | Number of repositories in the country with non-empty database licences (re3data)                                                        | $f_R = \frac{N_{license}}{N_{total}} \times \frac{\ln(N_{total} + 1)}{\ln(N_{max\_global} + 1)}$ | (3-a-ii-IV) |
| $f_3$             | $R_{OD}$  | Integrity of data                                                                                                                                                                                                           | National retraction volume, national publication volume, global retraction volume, global publication volume (retraction watch, Scopus) | $f_3 = \min(1.2, \frac{Q_{Retraction}}{\langle Q_{Retraction} \rangle})$                         | (3-a-iii)   |
| $Q_{Retraction}$  | $R_{OD}$  | — Retraction rate of a country                                                                                                                                                                                              | National retraction volume; national publication volume (retraction watch, Scopus)                                                      | $Q_{Retraction} = \frac{P_{Retraction}}{P_{OD}}$                                                 | (3-a-iii-I) |
| $S_{output}$      | $R_{OD}$  | — Total OA publication volume of a country                                                                                                                                                                                  | National OA publication volume (Scopus)                                                                                                 | /                                                                                                | (3-a-iv)    |
| $S_{max\_global}$ | $R_{OD}$  | Maximum value of $S_{output}$ among the 193 countries in a given year                                                                                                                                                       | National OA publication volume (Scopus)                                                                                                 | /                                                                                                | (3-a-v)     |
| $A_{OD}$          | $R_{OD}$  | Total accessible data                                                                                                                                                                                                       | /                                                                                                                                       | $A_{OD} = A_{DATA} \times \alpha_L \times \alpha_1 \times \alpha_F$                              | (3-b)       |
| $A_{DATA}$        | $R_{OD}$  | Total global OA publication volume                                                                                                                                                                                          | Total global OA publication volume (Scopus)                                                                                             | /                                                                                                | (3-b-i)     |
| $\alpha_L$        | $R_{OD}$  | Legal sustainability                                                                                                                                                                                                        | Judged on the basis of World Bank income level                                                                                          | $\alpha_L = \begin{cases} 1.0 & \text{High Income} \\ 0.8 & \text{other countries} \end{cases}$  | (3-b-ii)    |

| Variable              | Dimension           | Meaning                                                                                                                        | Measurement Indicator                                                            | Formula                                                                                                                                                | No.         |
|-----------------------|---------------------|--------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| $\alpha_I$            | R <sub>OD</sub>     | Tool/platform sustainability                                                                                                   | Judged on the basis of economic development level                                | $\alpha_I = \alpha_L = \begin{cases} 1.0 & \text{High Income} \\ 0.8 & \text{other countries} \end{cases}$                                             | (3-b-iii)   |
| $\alpha_F$            | R <sub>OD</sub>     | Financial sustainability                                                                                                       | /                                                                                | $\alpha_F = \frac{1 + \Delta B}{1 + \Delta P}$                                                                                                         | (3-b-iv)    |
| $\Delta B$            | R <sub>OD</sub>     | Annual growth rate of a country's basic research budget                                                                        | Annual growth rate of a country's basic research budget (OECD)                   | /                                                                                                                                                      | (3-b-iv-1)  |
| $\Delta P$            | R <sub>OD</sub>     | Annual increase in data acquisition cost, using the average annual growth rate of publisher big deals as a proxy indicator     | Average annual growth rate of publisher big deals (2019 Big Deals Survey Report) | Taken as 3.6% from EUA Report 2019                                                                                                                     | (3-b-iv-II) |
| <b>R<sub>OP</sub></b> | <b>OP dimension</b> | Open Policy readiness                                                                                                          | /                                                                                | $R_{OP}(t) = (S_{Law}(t) + S_{Platform}(t) + S_{Journal}(t) + S_{Policy}(t))/5$                                                                        | (4)         |
| $S_{Law}(t)$          | R <sub>OP</sub>     | Measures whether a country provides sufficient legal safeguards for open science                                               | International Property Rights Index (IPRI)                                       | $S_{Law}(t) = 1.25 \times \frac{IPRI_{score}(c, t)}{10}$                                                                                               | (4-a)       |
| $S_{Platform}(t)$     | R <sub>OP</sub>     | Measures the scale of the digital infrastructure supporting open science in a country                                          | Number of repositories (re3data)                                                 | $S_{Platform}(t) = 1.25 \times \frac{\ln(N_{Plat}(c, t) + 1)}{\ln(N_{Plat}^{max}(t) + 1)}$                                                             | (4-b)       |
| $S_{Journal}(t)$      | R <sub>OP</sub>     | Measures a country's control over and influence in the dissemination channels of open science (journals)                       | Number of journals indexed in international databases (Clarivate)                | $S_{Journal}(t) = 1.25 \times \frac{\ln(N_{Jour}(c, t) + 1)}{\ln(N_{Jour}^{max}(t) + 1)}$                                                              | (4-c)       |
| $S_{Policy}(t)$       | R <sub>OP</sub>     | Measures both the prevalence (quantity) and international recognition (quality/influence) of a country's open science policies | Number of OS policies in a country (ROARMAP)                                     | $S_{Policy}(t) = \min \left( 1.25, \left[ 1.25 \times \frac{\ln(N_{Pol}(c, t) + 1)}{\ln(N_{Pol}^{max}(t) + 1)} \right] \times \alpha_{UNESCO} \right)$ | (4-d)       |
| $\alpha_{UNESCO}$     | R <sub>OP</sub>     | Whether a country's open science practices are described or cited in UNESCO reports as a case, trend, or exemplary practice    | UNESCO <i>Open Science Outlook</i>                                               | $\alpha_{UNESCO} = \begin{cases} 0.8 & \text{not mentioned} \\ 1.0 & \text{mentioned} \end{cases}$                                                     | (4-d-i)     |

## OSRI Supplemental Data: Results, Processed Data, and Raw Data

### (1) Results

Table S1-1. Open Science Readiness (R values) for 193 countries, 2014–2024

| Year                         | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| United States                | 0.853 | 0.848 | 0.844 | 0.851 | 0.85  | 0.862 | 0.869 | 0.88  | 0.871 | 0.864 | 0.869 |
| China                        | 0.473 | 0.479 | 0.494 | 0.514 | 0.536 | 0.571 | 0.602 | 0.636 | 0.695 | 0.693 | 0.730 |
| United Kingdom               | 0.595 | 0.601 | 0.606 | 0.61  | 0.613 | 0.614 | 0.624 | 0.635 | 0.64  | 0.637 | 0.648 |
| Germany                      | 0.559 | 0.566 | 0.570 | 0.575 | 0.58  | 0.581 | 0.595 | 0.605 | 0.607 | 0.606 | 0.611 |
| Australia                    | 0.508 | 0.514 | 0.516 | 0.521 | 0.526 | 0.533 | 0.542 | 0.547 | 0.547 | 0.546 | 0.552 |
| Canada                       | 0.500 | 0.511 | 0.514 | 0.517 | 0.519 | 0.526 | 0.534 | 0.539 | 0.541 | 0.536 | 0.544 |
| Switzerland                  | 0.497 | 0.507 | 0.513 | 0.515 | 0.519 | 0.522 | 0.528 | 0.53  | 0.532 | 0.531 | 0.533 |
| Italy                        | 0.478 | 0.48  | 0.483 | 0.485 | 0.49  | 0.494 | 0.509 | 0.52  | 0.521 | 0.523 | 0.53  |
| Netherlands (Kingdom of the) | 0.498 | 0.499 | 0.507 | 0.512 | 0.515 | 0.516 | 0.522 | 0.528 | 0.528 | 0.526 | 0.529 |
| Spain                        | 0.481 | 0.483 | 0.486 | 0.49  | 0.494 | 0.499 | 0.514 | 0.522 | 0.524 | 0.523 | 0.529 |
| France                       | 0.494 | 0.492 | 0.501 | 0.503 | 0.507 | 0.509 | 0.516 | 0.520 | 0.518 | 0.518 | 0.521 |
| Japan                        | 0.485 | 0.497 | 0.500 | 0.504 | 0.505 | 0.508 | 0.516 | 0.520 | 0.520 | 0.514 | 0.521 |
| Denmark                      | 0.475 | 0.474 | 0.474 | 0.475 | 0.480 | 0.48  | 0.483 | 0.484 | 0.486 | 0.483 | 0.488 |
| Belgium                      | 0.473 | 0.472 | 0.474 | 0.475 | 0.475 | 0.476 | 0.483 | 0.485 | 0.486 | 0.483 | 0.487 |
| Sweden                       | 0.47  | 0.469 | 0.469 | 0.472 | 0.473 | 0.475 | 0.481 | 0.484 | 0.485 | 0.483 | 0.487 |
| Austria                      | 0.463 | 0.463 | 0.467 | 0.47  | 0.472 | 0.475 | 0.479 | 0.483 | 0.484 | 0.480 | 0.486 |
| Norway                       | 0.473 | 0.471 | 0.474 | 0.475 | 0.476 | 0.477 | 0.482 | 0.484 | 0.485 | 0.483 | 0.486 |
| Poland                       | 0.440 | 0.44  | 0.444 | 0.445 | 0.449 | 0.454 | 0.465 | 0.472 | 0.473 | 0.472 | 0.477 |
| Finland                      | 0.457 | 0.458 | 0.458 | 0.459 | 0.46  | 0.462 | 0.466 | 0.467 | 0.47  | 0.469 | 0.472 |
| Ireland                      | 0.452 | 0.454 | 0.456 | 0.458 | 0.459 | 0.459 | 0.463 | 0.466 | 0.468 | 0.466 | 0.470 |
| Republic of Korea            | 0.448 | 0.453 | 0.455 | 0.456 | 0.443 | 0.447 | 0.455 | 0.462 | 0.464 | 0.462 | 0.467 |
| Singapore                    | 0.451 | 0.45  | 0.449 | 0.453 | 0.455 | 0.457 | 0.462 | 0.462 | 0.464 | 0.462 | 0.466 |
| New Zealand                  | 0.451 | 0.45  | 0.45  | 0.451 | 0.452 | 0.453 | 0.46  | 0.46  | 0.462 | 0.459 | 0.463 |
| Czechia                      | 0.438 | 0.44  | 0.442 | 0.442 | 0.446 | 0.447 | 0.452 | 0.454 | 0.454 | 0.453 | 0.457 |

| <b>Year</b>          | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Saudi Arabia         | 0.423       | 0.425       | 0.425       | 0.425       | 0.427       | 0.43        | 0.44        | 0.449       | 0.454       | 0.452       | 0.456       |
| Iceland              | 0.441       | 0.445       | 0.444       | 0.445       | 0.448       | 0.448       | 0.45        | 0.451       | 0.452       | 0.45        | 0.452       |
| Portugal             | 0.42        | 0.423       | 0.423       | 0.428       | 0.431       | 0.433       | 0.441       | 0.443       | 0.446       | 0.445       | 0.449       |
| Türkiye              | 0.426       | 0.423       | 0.423       | 0.421       | 0.424       | 0.427       | 0.436       | 0.441       | 0.443       | 0.441       | 0.448       |
| Slovenia             | 0.428       | 0.43        | 0.433       | 0.432       | 0.433       | 0.434       | 0.441       | 0.444       | 0.444       | 0.442       | 0.446       |
| Israel               | 0.429       | 0.427       | 0.427       | 0.428       | 0.43        | 0.432       | 0.436       | 0.442       | 0.443       | 0.44        | 0.443       |
| Greece               | 0.428       | 0.43        | 0.429       | 0.429       | 0.429       | 0.43        | 0.432       | 0.437       | 0.436       | 0.437       | 0.439       |
| United Arab Emirates | 0.427       | 0.428       | 0.429       | 0.429       | 0.43        | 0.431       | 0.434       | 0.436       | 0.437       | 0.436       | 0.438       |
| Lithuania            | 0.411       | 0.411       | 0.419       | 0.421       | 0.425       | 0.429       | 0.433       | 0.433       | 0.435       | 0.434       | 0.437       |
| Brazil               | 0.398       | 0.401       | 0.403       | 0.411       | 0.418       | 0.42        | 0.43        | 0.433       | 0.431       | 0.431       | 0.432       |
| Russia               | 0.405       | 0.404       | 0.404       | 0.402       | 0.417       | 0.424       | 0.431       | 0.437       | 0.436       | 0.43        | 0.429       |
| Chile                | 0.403       | 0.408       | 0.408       | 0.409       | 0.41        | 0.418       | 0.424       | 0.425       | 0.427       | 0.425       | 0.428       |
| Croatia              | 0.403       | 0.409       | 0.41        | 0.407       | 0.412       | 0.412       | 0.419       | 0.422       | 0.422       | 0.421       | 0.424       |
| Hungary              | 0.407       | 0.408       | 0.409       | 0.41        | 0.411       | 0.413       | 0.418       | 0.421       | 0.42        | 0.419       | 0.422       |
| Serbia               | 0.372       | 0.373       | 0.374       | 0.377       | 0.401       | 0.405       | 0.412       | 0.417       | 0.417       | 0.415       | 0.419       |
| Slovakia             | 0.405       | 0.404       | 0.403       | 0.406       | 0.406       | 0.408       | 0.414       | 0.415       | 0.415       | 0.414       | 0.417       |
| Argentina            | 0.391       | 0.397       | 0.399       | 0.402       | 0.404       | 0.405       | 0.412       | 0.413       | 0.414       | 0.415       | 0.416       |
| India                | 0.37        | 0.368       | 0.369       | 0.371       | 0.374       | 0.383       | 0.389       | 0.398       | 0.406       | 0.406       | 0.415       |
| Cyprus               | 0.403       | 0.401       | 0.402       | 0.4         | 0.404       | 0.405       | 0.408       | 0.411       | 0.412       | 0.411       | 0.414       |
| Malta                | 0.402       | 0.401       | 0.401       | 0.406       | 0.406       | 0.408       | 0.413       | 0.414       | 0.413       | 0.414       | 0.414       |
| Latvia               | 0.389       | 0.388       | 0.394       | 0.395       | 0.398       | 0.4         | 0.408       | 0.411       | 0.412       | 0.41        | 0.413       |
| Luxembourg           | 0.409       | 0.408       | 0.408       | 0.409       | 0.409       | 0.41        | 0.412       | 0.413       | 0.413       | 0.412       | 0.413       |
| Romania              | 0.383       | 0.389       | 0.388       | 0.387       | 0.391       | 0.395       | 0.401       | 0.407       | 0.408       | 0.407       | 0.41        |
| Malaysia             | 0.376       | 0.377       | 0.377       | 0.377       | 0.382       | 0.387       | 0.397       | 0.401       | 0.402       | 0.404       | 0.408       |
| Estonia              | 0.412       | 0.411       | 0.412       | 0.416       | 0.415       | 0.417       | 0.424       | 0.425       | 0.426       | 0.402       | 0.403       |
| Qatar                | 0.392       | 0.392       | 0.392       | 0.391       | 0.392       | 0.392       | 0.398       | 0.4         | 0.4         | 0.399       | 0.401       |
| Bahrain              | 0.392       | 0.391       | 0.391       | 0.389       | 0.39        | 0.391       | 0.396       | 0.398       | 0.399       | 0.397       | 0.399       |
| Monaco               | 0.392       | 0.392       | 0.393       | 0.393       | 0.393       | 0.394       | 0.395       | 0.396       | 0.396       | 0.396       | 0.397       |
| Uruguay              | 0.376       | 0.375       | 0.375       | 0.376       | 0.377       | 0.378       | 0.39        | 0.392       | 0.392       | 0.392       | 0.397       |
| Colombia             | 0.364       | 0.368       | 0.372       | 0.374       | 0.378       | 0.381       | 0.39        | 0.392       | 0.391       | 0.39        | 0.394       |
| Bulgaria             | 0.377       | 0.375       | 0.38        | 0.379       | 0.383       | 0.383       | 0.389       | 0.39        | 0.389       | 0.389       | 0.392       |

| <b>Year</b>                | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Liechtenstein              | 0.385       | 0.385       | 0.385       | 0.385       | 0.386       | 0.387       | 0.387       | 0.39        | 0.391       | 0.391       | 0.392       |
| Mexico                     | 0.377       | 0.375       | 0.375       | 0.377       | 0.379       | 0.381       | 0.386       | 0.389       | 0.388       | 0.386       | 0.39        |
| South Africa               | 0.372       | 0.374       | 0.374       | 0.376       | 0.376       | 0.378       | 0.385       | 0.387       | 0.389       | 0.389       | 0.39        |
| Ukraine                    | 0.365       | 0.367       | 0.369       | 0.369       | 0.372       | 0.375       | 0.382       | 0.384       | 0.385       | 0.384       | 0.387       |
| Costa Rica                 | 0.368       | 0.366       | 0.366       | 0.367       | 0.369       | 0.369       | 0.381       | 0.38        | 0.38        | 0.38        | 0.386       |
| Iran (Islamic Republic of) | 0.363       | 0.361       | 0.362       | 0.365       | 0.367       | 0.371       | 0.378       | 0.383       | 0.384       | 0.382       | 0.384       |
| Montenegro                 | 0.371       | 0.369       | 0.369       | 0.367       | 0.37        | 0.372       | 0.382       | 0.384       | 0.383       | 0.384       | 0.384       |
| San Marino                 | 0.377       | 0.376       | 0.376       | 0.376       | 0.376       | 0.378       | 0.381       | 0.382       | 0.383       | 0.383       | 0.384       |
| Kuwait                     | 0.376       | 0.373       | 0.374       | 0.374       | 0.375       | 0.377       | 0.379       | 0.381       | 0.381       | 0.38        | 0.382       |
| Andorra                    | 0.375       | 0.375       | 0.375       | 0.375       | 0.376       | 0.377       | 0.378       | 0.379       | 0.379       | 0.379       | 0.38        |
| Indonesia                  | 0.326       | 0.337       | 0.339       | 0.341       | 0.342       | 0.347       | 0.368       | 0.372       | 0.374       | 0.375       | 0.38        |
| Oman                       | 0.374       | 0.373       | 0.373       | 0.374       | 0.376       | 0.377       | 0.379       | 0.38        | 0.38        | 0.378       | 0.38        |
| Thailand                   | 0.363       | 0.36        | 0.362       | 0.363       | 0.364       | 0.366       | 0.373       | 0.375       | 0.377       | 0.376       | 0.38        |
| Panama                     | 0.37        | 0.368       | 0.369       | 0.375       | 0.378       | 0.378       | 0.378       | 0.378       | 0.377       | 0.378       | 0.379       |
| Kazakhstan                 | 0.356       | 0.359       | 0.359       | 0.357       | 0.359       | 0.362       | 0.374       | 0.377       | 0.376       | 0.376       | 0.378       |
| Georgia                    | 0.364       | 0.365       | 0.365       | 0.366       | 0.369       | 0.369       | 0.374       | 0.375       | 0.375       | 0.375       | 0.376       |
| Peru                       | 0.346       | 0.344       | 0.351       | 0.351       | 0.351       | 0.355       | 0.369       | 0.371       | 0.37        | 0.369       | 0.371       |
| Brunei Darussalam          | 0.362       | 0.361       | 0.36        | 0.36        | 0.361       | 0.363       | 0.364       | 0.366       | 0.37        | 0.369       | 0.37        |
| Egypt                      | 0.341       | 0.339       | 0.34        | 0.343       | 0.347       | 0.351       | 0.362       | 0.368       | 0.371       | 0.368       | 0.369       |
| Republic of Moldova        | 0.343       | 0.35        | 0.351       | 0.352       | 0.355       | 0.356       | 0.363       | 0.366       | 0.365       | 0.365       | 0.367       |
| Azerbaijan                 | 0.351       | 0.35        | 0.348       | 0.348       | 0.352       | 0.352       | 0.36        | 0.362       | 0.361       | 0.361       | 0.365       |
| North Macedonia            | 0.333       | 0.333       | 0.334       | 0.334       | 0.335       | 0.353       | 0.356       | 0.359       | 0.36        | 0.361       | 0.362       |
| Armenia                    | 0.355       | 0.354       | 0.354       | 0.354       | 0.357       | 0.358       | 0.36        | 0.361       | 0.36        | 0.36        | 0.361       |
| Bosnia and Herzegovina     | 0.347       | 0.348       | 0.347       | 0.347       | 0.349       | 0.351       | 0.357       | 0.359       | 0.358       | 0.358       | 0.36        |
| Ecuador                    | 0.339       | 0.338       | 0.337       | 0.341       | 0.341       | 0.344       | 0.357       | 0.357       | 0.356       | 0.356       | 0.358       |
| Trinidad and Tobago        | 0.349       | 0.349       | 0.348       | 0.35        | 0.351       | 0.353       | 0.356       | 0.357       | 0.357       | 0.357       | 0.358       |
| Belarus                    | 0.343       | 0.344       | 0.344       | 0.35        | 0.349       | 0.35        | 0.354       | 0.354       | 0.357       | 0.356       | 0.356       |
| Antigua and Barbuda        | 0.35        | 0.349       | 0.354       | 0.351       | 0.351       | 0.351       | 0.353       | 0.353       | 0.355       | 0.354       | 0.355       |
| Seychelles                 | 0.35        | 0.349       | 0.35        | 0.35        | 0.351       | 0.351       | 0.35        | 0.353       | 0.353       | 0.355       | 0.355       |
| Mauritius                  | 0.352       | 0.351       | 0.351       | 0.352       | 0.353       | 0.354       | 0.355       | 0.356       | 0.354       | 0.353       | 0.354       |
| Albania                    | 0.346       | 0.345       | 0.346       | 0.346       | 0.349       | 0.35        | 0.35        | 0.353       | 0.352       | 0.352       | 0.353       |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Viet Nam                           | 0.335       | 0.334       | 0.338       | 0.34        | 0.341       | 0.347       | 0.354       | 0.355       | 0.353       | 0.351       | 0.353       |
| Jordan                             | 0.334       | 0.333       | 0.334       | 0.335       | 0.336       | 0.337       | 0.345       | 0.346       | 0.348       | 0.347       | 0.351       |
| Saint Kitts and Nevis              | 0.346       | 0.346       | 0.347       | 0.347       | 0.347       | 0.348       | 0.349       | 0.35        | 0.351       | 0.35        | 0.351       |
| Sri Lanka                          | 0.34        | 0.34        | 0.34        | 0.343       | 0.343       | 0.343       | 0.348       | 0.349       | 0.349       | 0.349       | 0.35        |
| Algeria                            | 0.333       | 0.332       | 0.337       | 0.336       | 0.336       | 0.339       | 0.344       | 0.346       | 0.346       | 0.344       | 0.345       |
| Dominican Republic                 | 0.337       | 0.336       | 0.336       | 0.337       | 0.338       | 0.339       | 0.34        | 0.344       | 0.343       | 0.343       | 0.345       |
| The Bahamas                        | 0.337       | 0.337       | 0.337       | 0.338       | 0.338       | 0.339       | 0.34        | 0.341       | 0.341       | 0.342       | 0.342       |
| Tunisia                            | 0.328       | 0.328       | 0.329       | 0.329       | 0.329       | 0.331       | 0.335       | 0.339       | 0.34        | 0.339       | 0.34        |
| Barbados                           | 0.332       | 0.332       | 0.332       | 0.333       | 0.334       | 0.335       | 0.335       | 0.336       | 0.337       | 0.338       | 0.338       |
| Paraguay                           | 0.326       | 0.325       | 0.325       | 0.327       | 0.328       | 0.329       | 0.334       | 0.335       | 0.334       | 0.334       | 0.335       |
| Lebanon                            | 0.323       | 0.322       | 0.324       | 0.326       | 0.326       | 0.326       | 0.331       | 0.332       | 0.332       | 0.333       | 0.334       |
| Philippines                        | 0.326       | 0.327       | 0.327       | 0.326       | 0.327       | 0.327       | 0.333       | 0.333       | 0.334       | 0.331       | 0.334       |
| Saint Vincent and the Grenadines   | 0.331       | 0.334       | 0.329       | 0.33        | 0.331       | 0.329       | 0.331       | 0.331       | 0.332       | 0.333       | 0.334       |
| Grenada                            | 0.326       | 0.326       | 0.327       | 0.327       | 0.327       | 0.327       | 0.329       | 0.33        | 0.33        | 0.331       | 0.331       |
| Palau                              | 0.322       | 0.324       | 0.325       | 0.325       | 0.325       | 0.327       | 0.326       | 0.329       | 0.328       | 0.329       | 0.329       |
| Cuba                               | 0.31        | 0.311       | 0.312       | 0.313       | 0.314       | 0.313       | 0.325       | 0.327       | 0.327       | 0.327       | 0.328       |
| Botswana                           | 0.324       | 0.322       | 0.322       | 0.323       | 0.323       | 0.324       | 0.325       | 0.325       | 0.324       | 0.325       | 0.326       |
| Morocco                            | 0.31        | 0.311       | 0.311       | 0.312       | 0.313       | 0.315       | 0.322       | 0.324       | 0.323       | 0.322       | 0.325       |
| Bolivia (Plurinational State of)   | 0.32        | 0.319       | 0.318       | 0.317       | 0.318       | 0.319       | 0.324       | 0.324       | 0.323       | 0.324       | 0.324       |
| Guyana                             | 0.336       | 0.337       | 0.335       | 0.321       | 0.319       | 0.317       | 0.321       | 0.322       | 0.322       | 0.323       | 0.324       |
| Tonga                              | 0.318       | 0.318       | 0.318       | 0.318       | 0.318       | 0.319       | 0.321       | 0.321       | 0.323       | 0.323       | 0.323       |
| Venezuela (Bolivarian Republic of) | 0.313       | 0.314       | 0.316       | 0.317       | 0.317       | 0.316       | 0.324       | 0.324       | 0.321       | 0.322       | 0.323       |
| Jamaica                            | 0.317       | 0.317       | 0.318       | 0.316       | 0.32        | 0.321       | 0.322       | 0.322       | 0.321       | 0.32        | 0.322       |
| Gabon                              | 0.321       | 0.319       | 0.32        | 0.32        | 0.32        | 0.321       | 0.322       | 0.321       | 0.321       | 0.32        | 0.321       |
| Maldives                           | 0.315       | 0.316       | 0.317       | 0.317       | 0.318       | 0.319       | 0.318       | 0.319       | 0.32        | 0.321       | 0.321       |
| Dominica                           | 0.313       | 0.314       | 0.315       | 0.313       | 0.314       | 0.315       | 0.317       | 0.317       | 0.319       | 0.319       | 0.319       |
| Bangladesh                         | 0.303       | 0.299       | 0.301       | 0.304       | 0.304       | 0.304       | 0.309       | 0.313       | 0.316       | 0.314       | 0.316       |
| Turkmenistan                       | 0.315       | 0.317       | 0.315       | 0.312       | 0.314       | 0.317       | 0.316       | 0.32        | 0.315       | 0.316       | 0.316       |
| Mongolia                           | 0.309       | 0.309       | 0.309       | 0.31        | 0.31        | 0.311       | 0.312       | 0.312       | 0.313       | 0.314       | 0.314       |
| Nicaragua                          | 0.309       | 0.308       | 0.306       | 0.307       | 0.308       | 0.309       | 0.314       | 0.315       | 0.314       | 0.313       | 0.314       |
| Kenya                              | 0.304       | 0.304       | 0.304       | 0.306       | 0.309       | 0.311       | 0.311       | 0.312       | 0.312       | 0.314       | 0.313       |

| Year                  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Saint Lucia           |       | 0.31  | 0.309 | 0.31  | 0.31  | 0.31  | 0.311 | 0.311 | 0.312 | 0.314 | 0.313 |
| Uzbekistan            | 0.305 | 0.305 | 0.305 | 0.306 | 0.306 | 0.307 | 0.307 | 0.309 | 0.31  | 0.312 | 0.313 |
| Fiji                  | 0.304 | 0.304 | 0.305 | 0.305 | 0.306 | 0.307 | 0.307 | 0.308 | 0.309 | 0.309 | 0.309 |
| Iraq                  | 0.287 | 0.286 | 0.287 | 0.286 | 0.287 | 0.29  | 0.297 | 0.301 | 0.303 | 0.305 | 0.307 |
| Marshall Islands      | 0.303 | 0.302 | 0.305 | 0.305 | 0.304 | 0.307 | 0.306 | 0.308 | 0.307 | 0.309 | 0.307 |
| El Salvador           | 0.298 | 0.297 | 0.297 | 0.297 | 0.298 | 0.298 | 0.302 | 0.303 | 0.303 | 0.302 | 0.306 |
| Libya                 | 0.312 | 0.31  | 0.298 | 0.299 | 0.299 | 0.3   | 0.303 | 0.304 | 0.306 | 0.306 | 0.306 |
| Suriname              | 0.297 | 0.298 | 0.3   | 0.299 | 0.299 | 0.301 | 0.302 | 0.302 | 0.303 | 0.303 | 0.304 |
| Belize                | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.301 | 0.302 | 0.302 | 0.304 | 0.302 |
| Kyrgyzstan            | 0.296 | 0.297 | 0.296 | 0.297 | 0.298 | 0.298 | 0.3   | 0.301 | 0.301 | 0.301 | 0.302 |
| Nauru                 |       | 0.293 | 0.297 |       |       |       |       |       | 0.301 | 0.301 | 0.301 |
| Samoa                 | 0.29  | 0.292 | 0.292 | 0.292 | 0.292 | 0.293 | 0.295 | 0.297 | 0.296 | 0.297 | 0.298 |
| Ghana                 | 0.287 | 0.286 | 0.287 | 0.288 | 0.288 | 0.289 | 0.293 | 0.291 | 0.296 | 0.293 | 0.295 |
| Guatemala             | 0.292 | 0.291 | 0.291 | 0.292 | 0.293 | 0.294 | 0.295 | 0.295 | 0.294 | 0.293 | 0.294 |
| Bhutan                | 0.288 | 0.29  | 0.289 | 0.29  | 0.29  | 0.291 | 0.292 | 0.292 | 0.293 | 0.293 | 0.292 |
| Tuvalu                | 0.286 |       |       | 0.287 | 0.282 | 0.288 | 0.292 | 0.289 | 0.291 | 0.29  | 0.29  |
| Pakistan              | 0.259 | 0.255 | 0.256 | 0.262 | 0.265 | 0.268 | 0.277 | 0.286 | 0.289 | 0.287 | 0.289 |
| Tajikistan            | 0.284 | 0.284 | 0.283 | 0.285 | 0.285 | 0.287 | 0.288 | 0.288 | 0.289 | 0.288 | 0.289 |
| Honduras              | 0.284 | 0.283 | 0.285 | 0.285 | 0.286 | 0.286 | 0.288 | 0.288 | 0.286 | 0.286 | 0.287 |
| Equatorial Guinea     | 0.28  | 0.281 | 0.28  | 0.281 | 0.281 | 0.283 | 0.284 | 0.283 | 0.286 | 0.285 | 0.286 |
| Nepal                 | 0.278 | 0.277 | 0.277 | 0.279 | 0.28  | 0.281 | 0.286 | 0.287 | 0.286 | 0.283 | 0.284 |
| Cabo Verde            | 0.277 | 0.278 | 0.279 | 0.278 | 0.279 | 0.279 | 0.281 | 0.281 | 0.282 | 0.282 | 0.283 |
| Namibia               | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.277 | 0.277 | 0.279 | 0.281 | 0.28  | 0.281 |
| Angola                | 0.267 | 0.266 | 0.267 | 0.267 | 0.268 | 0.269 | 0.27  | 0.271 | 0.273 | 0.273 | 0.274 |
| Congo                 | 0.269 | 0.269 | 0.27  | 0.27  | 0.271 | 0.272 | 0.273 | 0.274 | 0.274 | 0.275 | 0.274 |
| Kiribati              | 0.268 | 0.268 | 0.269 | 0.27  | 0.271 | 0.27  | 0.271 | 0.271 | 0.273 | 0.272 | 0.274 |
| Zimbabwe              | 0.268 | 0.265 | 0.265 | 0.267 | 0.268 | 0.267 | 0.269 | 0.271 | 0.269 | 0.269 | 0.271 |
| Sao Tome and Principe | 0.266 | 0.263 | 0.266 | 0.267 | 0.266 | 0.266 | 0.267 | 0.269 | 0.271 | 0.271 | 0.27  |
| Timor-Leste           | 0.264 | 0.264 | 0.265 | 0.264 | 0.264 | 0.265 | 0.266 | 0.268 | 0.269 | 0.27  | 0.269 |
| Uganda                | 0.264 | 0.262 | 0.263 | 0.265 | 0.266 | 0.267 | 0.268 | 0.27  | 0.269 | 0.268 | 0.269 |
| Zambia                | 0.267 | 0.266 | 0.265 | 0.266 | 0.266 | 0.266 | 0.267 | 0.268 | 0.267 | 0.269 | 0.269 |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Rwanda                           | 0.264       | 0.262       | 0.263       | 0.265       | 0.265       | 0.265       | 0.266       | 0.269       | 0.268       | 0.268       | 0.268       |
| Cameroon                         | 0.26        | 0.258       | 0.264       | 0.263       | 0.265       | 0.266       | 0.266       | 0.266       | 0.265       | 0.265       | 0.266       |
| Lao People's Democratic Republic | 0.258       | 0.258       | 0.261       | 0.262       | 0.262       | 0.263       | 0.264       | 0.265       | 0.266       | 0.265       | 0.266       |
| Nigeria                          | 0.252       | 0.252       | 0.252       | 0.255       | 0.256       | 0.257       | 0.261       | 0.264       | 0.264       | 0.264       | 0.266       |
| Vanuatu                          | 0.259       | 0.259       | 0.259       | 0.259       | 0.258       | 0.259       | 0.261       | 0.262       | 0.263       | 0.263       | 0.263       |
| Micronesia (Federated States of) | 0.257       | 0.254       | 0.259       | 0.258       | 0.259       | 0.258       | 0.259       | 0.26        | 0.26        | 0.261       | 0.262       |
| Cambodia                         | 0.253       | 0.253       | 0.254       | 0.254       | 0.254       | 0.255       | 0.256       | 0.257       | 0.258       | 0.258       | 0.258       |
| Myanmar                          | 0.261       | 0.263       | 0.264       | 0.255       | 0.255       | 0.256       | 0.257       | 0.257       | 0.259       | 0.258       | 0.258       |
| Comoros                          | 0.252       | 0.252       | 0.253       | 0.254       | 0.255       | 0.254       | 0.254       | 0.257       | 0.257       | 0.255       | 0.256       |
| United Republic of Tanzania      | 0.252       | 0.249       | 0.249       | 0.252       | 0.252       | 0.254       | 0.254       | 0.254       | 0.253       | 0.253       | 0.254       |
| Mauritania                       | 0.252       | 0.248       | 0.248       | 0.25        | 0.251       | 0.251       | 0.251       | 0.252       | 0.249       | 0.25        | 0.251       |
| Côte d'Ivoire                    | 0.244       | 0.245       | 0.245       | 0.246       | 0.246       | 0.247       | 0.248       | 0.249       | 0.249       | 0.249       | 0.25        |
| Solomon Islands                  | 0.244       | 0.245       | 0.245       | 0.245       | 0.246       | 0.246       | 0.247       | 0.248       | 0.248       | 0.249       | 0.249       |
| Senegal                          | 0.242       | 0.241       | 0.242       | 0.243       | 0.243       | 0.245       | 0.246       | 0.247       | 0.246       | 0.246       | 0.247       |
| Haiti                            | 0.243       | 0.241       | 0.242       | 0.242       | 0.242       | 0.243       | 0.244       | 0.245       | 0.247       | 0.245       | 0.246       |
| Malawi                           | 0.242       | 0.24        | 0.241       | 0.241       | 0.241       | 0.244       | 0.244       | 0.244       | 0.244       | 0.245       | 0.245       |
| Papua New Guinea                 | 0.24        | 0.24        | 0.241       | 0.241       | 0.241       | 0.242       | 0.242       | 0.243       | 0.245       | 0.245       | 0.245       |
| Togo                             | 0.236       | 0.236       | 0.238       | 0.238       | 0.238       | 0.239       | 0.24        | 0.241       | 0.241       | 0.241       | 0.242       |
| Benin                            | 0.239       | 0.238       | 0.237       | 0.238       | 0.238       | 0.238       | 0.24        | 0.241       | 0.241       | 0.241       | 0.241       |
| Syrian Arab Republic             | 0.231       | 0.231       | 0.232       | 0.232       | 0.233       | 0.234       | 0.235       | 0.236       | 0.238       | 0.239       | 0.239       |
| Ethiopia                         | 0.228       | 0.225       | 0.229       | 0.231       | 0.231       | 0.232       | 0.235       | 0.237       | 0.238       | 0.234       | 0.236       |
| Democratic Republic of the Congo | 0.218       | 0.218       | 0.219       | 0.22        | 0.232       | 0.233       | 0.234       | 0.235       | 0.234       | 0.235       | 0.235       |
| Lesotho                          | 0.228       | 0.228       | 0.227       | 0.23        | 0.23        | 0.23        | 0.232       | 0.232       | 0.234       | 0.234       | 0.234       |
| Mozambique                       | 0.226       | 0.223       | 0.223       | 0.225       | 0.225       | 0.225       | 0.227       | 0.227       | 0.226       | 0.225       | 0.226       |
| Gambia                           | 0.221       | 0.221       | 0.222       | 0.222       | 0.222       | 0.223       | 0.224       | 0.225       | 0.225       | 0.225       | 0.225       |
| Madagascar                       | 0.22        | 0.218       | 0.219       | 0.219       | 0.22        | 0.221       | 0.221       | 0.222       | 0.222       | 0.222       | 0.223       |
| Guinea-Bissau                    | 0.217       | 0.217       | 0.217       | 0.218       | 0.217       | 0.218       | 0.218       | 0.22        | 0.221       | 0.22        | 0.222       |
| Djibouti                         | 0.215       | 0.215       | 0.216       | 0.215       | 0.215       | 0.216       | 0.217       | 0.218       | 0.218       | 0.22        | 0.22        |
| Sudan                            | 0.213       | 0.214       | 0.214       | 0.215       | 0.216       | 0.216       | 0.218       | 0.219       | 0.22        | 0.22        | 0.22        |
| Burkina Faso                     | 0.219       | 0.216       | 0.217       | 0.218       | 0.219       | 0.221       | 0.222       | 0.221       | 0.221       | 0.219       | 0.219       |
| Liberia                          | 0.232       | 0.232       | 0.232       | 0.231       | 0.232       | 0.233       | 0.217       | 0.218       | 0.218       | 0.218       | 0.217       |

| Year                                  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Guinea                                | 0.209 | 0.21  | 0.211 | 0.212 | 0.212 | 0.213 | 0.213 | 0.214 | 0.215 | 0.215 | 0.215 |
| Afghanistan                           | 0.208 | 0.209 | 0.207 | 0.208 | 0.209 | 0.209 | 0.21  | 0.212 | 0.214 | 0.213 | 0.214 |
| Eritrea                               | 0.21  | 0.21  | 0.212 | 0.21  | 0.211 | 0.211 | 0.212 | 0.214 | 0.215 | 0.214 | 0.214 |
| Yemen                                 | 0.207 | 0.207 | 0.207 | 0.208 | 0.208 | 0.209 | 0.21  | 0.214 | 0.213 | 0.211 | 0.212 |
| Burundi                               | 0.198 | 0.198 | 0.198 | 0.198 | 0.199 | 0.199 | 0.203 | 0.204 | 0.203 | 0.202 | 0.204 |
| Sierra Leone                          | 0.213 | 0.213 | 0.213 | 0.214 | 0.215 | 0.216 | 0.201 | 0.202 | 0.202 | 0.203 | 0.203 |
| Mali                                  | 0.194 | 0.193 | 0.194 | 0.195 | 0.195 | 0.196 | 0.196 | 0.196 | 0.195 | 0.194 | 0.195 |
| Democratic People's Republic of Korea | 0.195 | 0.194 | 0.194 | 0.194 | 0.193 | 0.193 | 0.192 | 0.192 | 0.193 | 0.193 | 0.193 |
| Chad                                  | 0.192 | 0.189 | 0.19  | 0.191 | 0.191 | 0.193 | 0.193 | 0.193 | 0.191 | 0.19  | 0.192 |
| Niger                                 | 0.177 | 0.178 | 0.178 | 0.178 | 0.178 | 0.183 | 0.183 | 0.185 | 0.185 | 0.186 | 0.185 |
| Central African Republic              | 0.175 | 0.176 | 0.175 | 0.176 | 0.176 | 0.177 | 0.178 | 0.179 | 0.18  | 0.18  | 0.181 |
| Somalia                               | 0.17  | 0.172 | 0.172 | 0.173 | 0.173 | 0.173 | 0.174 | 0.174 | 0.175 | 0.176 | 0.176 |
| South Sudan                           | 0.164 | 0.165 | 0.167 | 0.167 | 0.168 | 0.168 | 0.166 | 0.17  | 0.169 | 0.17  | 0.17  |
| Eswatini                              |       |       |       |       |       |       |       |       |       |       |       |

**Table S1-2. Open Access Readiness ( $\bar{R}_{OA}$ ) for 193 countries, 2014–2024**

| Year                         | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| China                        | 0.46  | 0.483 | 0.507 | 0.54  | 0.58  | 0.636 | 0.698 | 0.758 | 0.88  | 0.857 | 0.919 |
| United States                | 0.67  | 0.695 | 0.715 | 0.736 | 0.762 | 0.787 | 0.833 | 0.88  | 0.884 | 0.871 | 0.897 |
| United Kingdom               | 0.518 | 0.533 | 0.545 | 0.558 | 0.572 | 0.585 | 0.615 | 0.65  | 0.656 | 0.658 | 0.672 |
| Germany                      | 0.504 | 0.512 | 0.519 | 0.526 | 0.535 | 0.546 | 0.575 | 0.605 | 0.605 | 0.602 | 0.615 |
| Italy                        | 0.438 | 0.444 | 0.449 | 0.455 | 0.463 | 0.472 | 0.497 | 0.52  | 0.524 | 0.53  | 0.539 |
| Australia                    | 0.454 | 0.462 | 0.468 | 0.475 | 0.484 | 0.494 | 0.506 | 0.52  | 0.525 | 0.526 | 0.537 |
| Spain                        | 0.435 | 0.439 | 0.445 | 0.45  | 0.457 | 0.468 | 0.488 | 0.508 | 0.513 | 0.519 | 0.523 |
| Canada                       | 0.454 | 0.459 | 0.464 | 0.469 | 0.477 | 0.485 | 0.497 | 0.512 | 0.516 | 0.513 | 0.521 |
| France                       | 0.459 | 0.465 | 0.47  | 0.474 | 0.479 | 0.483 | 0.496 | 0.506 | 0.504 | 0.503 | 0.509 |
| Netherlands (Kingdom of the) | 0.441 | 0.445 | 0.45  | 0.455 | 0.461 | 0.467 | 0.479 | 0.492 | 0.493 | 0.493 | 0.496 |
| Japan                        | 0.432 | 0.437 | 0.443 | 0.448 | 0.454 | 0.46  | 0.475 | 0.489 | 0.489 | 0.485 | 0.491 |
| Switzerland                  | 0.443 | 0.447 | 0.45  | 0.453 | 0.457 | 0.459 | 0.469 | 0.482 | 0.483 | 0.484 | 0.487 |

| <b>Year</b>          | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Saudi Arabia         | 0.396       | 0.401       | 0.402       | 0.403       | 0.406       | 0.412       | 0.428       | 0.448       | 0.468       | 0.471       | 0.482       |
| Republic of Korea    | 0.418       | 0.423       | 0.426       | 0.429       | 0.435       | 0.444       | 0.457       | 0.47        | 0.473       | 0.471       | 0.477       |
| Sweden               | 0.429       | 0.433       | 0.437       | 0.441       | 0.445       | 0.45        | 0.459       | 0.47        | 0.471       | 0.471       | 0.474       |
| Denmark              | 0.419       | 0.422       | 0.425       | 0.427       | 0.43        | 0.432       | 0.438       | 0.444       | 0.447       | 0.449       | 0.452       |
| Norway               | 0.418       | 0.42        | 0.423       | 0.425       | 0.428       | 0.431       | 0.44        | 0.447       | 0.448       | 0.45        | 0.451       |
| Poland               | 0.394       | 0.398       | 0.401       | 0.404       | 0.408       | 0.418       | 0.435       | 0.447       | 0.447       | 0.446       | 0.45        |
| Belgium              | 0.423       | 0.426       | 0.427       | 0.429       | 0.433       | 0.434       | 0.441       | 0.448       | 0.448       | 0.448       | 0.45        |
| Austria              | 0.407       | 0.409       | 0.412       | 0.413       | 0.417       | 0.42        | 0.427       | 0.434       | 0.434       | 0.435       | 0.439       |
| Finland              | 0.408       | 0.41        | 0.411       | 0.413       | 0.415       | 0.419       | 0.424       | 0.431       | 0.434       | 0.434       | 0.436       |
| India                | 0.316       | 0.322       | 0.328       | 0.331       | 0.339       | 0.356       | 0.363       | 0.386       | 0.409       | 0.415       | 0.432       |
| Singapore            | 0.408       | 0.41        | 0.412       | 0.414       | 0.415       | 0.418       | 0.422       | 0.424       | 0.426       | 0.427       | 0.431       |
| Ireland              | 0.403       | 0.404       | 0.406       | 0.407       | 0.409       | 0.411       | 0.416       | 0.422       | 0.424       | 0.426       | 0.428       |
| United Arab Emirates | 0.395       | 0.396       | 0.398       | 0.399       | 0.401       | 0.403       | 0.407       | 0.413       | 0.418       | 0.422       | 0.425       |
| Portugal             | 0.385       | 0.387       | 0.389       | 0.39        | 0.393       | 0.397       | 0.403       | 0.409       | 0.413       | 0.416       | 0.418       |
| Czechia              | 0.39        | 0.393       | 0.394       | 0.396       | 0.398       | 0.401       | 0.407       | 0.412       | 0.412       | 0.414       | 0.417       |
| Iceland              | 0.408       | 0.409       | 0.41        | 0.41        | 0.411       | 0.412       | 0.413       | 0.414       | 0.416       | 0.416       | 0.416       |
| New Zealand          | 0.399       | 0.4         | 0.401       | 0.403       | 0.405       | 0.407       | 0.409       | 0.412       | 0.414       | 0.414       | 0.416       |
| Türkiye              | 0.362       | 0.365       | 0.368       | 0.369       | 0.373       | 0.379       | 0.386       | 0.393       | 0.4         | 0.405       | 0.415       |
| Greece               | 0.386       | 0.388       | 0.389       | 0.391       | 0.392       | 0.395       | 0.399       | 0.404       | 0.406       | 0.409       | 0.411       |
| Brazil               | 0.369       | 0.373       | 0.377       | 0.381       | 0.387       | 0.396       | 0.405       | 0.413       | 0.41        | 0.408       | 0.41        |
| Israel               | 0.391       | 0.393       | 0.394       | 0.395       | 0.397       | 0.398       | 0.402       | 0.405       | 0.407       | 0.408       | 0.409       |
| Monaco               | 0.403       | 0.403       | 0.406       | 0.406       | 0.405       | 0.406       | 0.407       | 0.408       | 0.407       | 0.408       | 0.409       |
| Slovenia             | 0.388       | 0.39        | 0.391       | 0.391       | 0.393       | 0.395       | 0.398       | 0.402       | 0.403       | 0.404       | 0.406       |
| Russia               | 0.36        | 0.365       | 0.368       | 0.374       | 0.381       | 0.396       | 0.406       | 0.417       | 0.415       | 0.412       | 0.403       |
| Liechtenstein        | 0.396       | 0.395       | 0.395       | 0.395       | 0.397       | 0.397       | 0.395       | 0.4         | 0.401       | 0.402       | 0.402       |
| Chile                | 0.377       | 0.378       | 0.38        | 0.381       | 0.384       | 0.386       | 0.391       | 0.394       | 0.395       | 0.397       | 0.399       |
| Malaysia             | 0.354       | 0.356       | 0.357       | 0.358       | 0.363       | 0.368       | 0.375       | 0.384       | 0.391       | 0.392       | 0.397       |
| Luxembourg           | 0.389       | 0.39        | 0.39        | 0.391       | 0.392       | 0.392       | 0.394       | 0.396       | 0.397       | 0.397       | 0.397       |
| Cyprus               | 0.382       | 0.383       | 0.384       | 0.384       | 0.385       | 0.387       | 0.39        | 0.391       | 0.393       | 0.394       | 0.395       |
| Andorra              | 0.388       | 0.388       | 0.386       | 0.387       | 0.389       | 0.39        | 0.391       | 0.392       | 0.392       | 0.391       | 0.394       |
| Malta                | 0.383       | 0.384       | 0.385       | 0.384       | 0.386       | 0.387       | 0.387       | 0.391       | 0.391       | 0.393       | 0.393       |
| Hungary              | 0.368       | 0.369       | 0.37        | 0.371       | 0.373       | 0.377       | 0.383       | 0.387       | 0.389       | 0.39        | 0.391       |

| <b>Year</b>                | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Estonia                    | 0.379       | 0.38        | 0.381       | 0.382       | 0.383       | 0.385       | 0.387       | 0.389       | 0.39        | 0.39        | 0.391       |
| San Marino                 | 0.389       | 0.387       | 0.388       | 0.385       | 0.386       | 0.388       | 0.386       | 0.387       | 0.388       | 0.387       | 0.388       |
| Qatar                      | 0.377       | 0.378       | 0.379       | 0.379       | 0.38        | 0.38        | 0.382       | 0.385       | 0.386       | 0.387       | 0.388       |
| Croatia                    | 0.369       | 0.371       | 0.373       | 0.374       | 0.377       | 0.379       | 0.382       | 0.385       | 0.386       | 0.387       | 0.387       |
| Lithuania                  | 0.373       | 0.373       | 0.375       | 0.377       | 0.379       | 0.381       | 0.383       | 0.385       | 0.386       | 0.387       | 0.387       |
| Iran (Islamic Republic of) | 0.34        | 0.342       | 0.345       | 0.348       | 0.353       | 0.361       | 0.37        | 0.38        | 0.384       | 0.383       | 0.386       |
| Bahrain                    | 0.373       | 0.374       | 0.375       | 0.375       | 0.376       | 0.377       | 0.379       | 0.382       | 0.385       | 0.385       | 0.385       |
| Slovakia                   | 0.368       | 0.369       | 0.371       | 0.372       | 0.374       | 0.377       | 0.38        | 0.383       | 0.383       | 0.384       | 0.385       |
| Latvia                     | 0.369       | 0.37        | 0.371       | 0.375       | 0.376       | 0.376       | 0.378       | 0.38        | 0.381       | 0.381       | 0.382       |
| Romania                    | 0.353       | 0.354       | 0.355       | 0.358       | 0.361       | 0.364       | 0.369       | 0.374       | 0.378       | 0.379       | 0.38        |
| Argentina                  | 0.366       | 0.367       | 0.368       | 0.369       | 0.37        | 0.372       | 0.375       | 0.378       | 0.378       | 0.379       | 0.379       |
| Oman                       | 0.36        | 0.361       | 0.362       | 0.363       | 0.364       | 0.365       | 0.366       | 0.369       | 0.37        | 0.37        | 0.373       |
| Egypt                      | 0.326       | 0.327       | 0.329       | 0.331       | 0.334       | 0.338       | 0.349       | 0.361       | 0.373       | 0.372       | 0.372       |
| Montenegro                 | 0.362       | 0.361       | 0.361       | 0.362       | 0.364       | 0.366       | 0.369       | 0.369       | 0.369       | 0.371       | 0.371       |
| Kuwait                     | 0.355       | 0.355       | 0.357       | 0.358       | 0.358       | 0.359       | 0.362       | 0.365       | 0.367       | 0.368       | 0.37        |
| Seychelles                 | 0.363       | 0.362       | 0.363       | 0.363       | 0.364       | 0.364       | 0.361       | 0.366       | 0.365       | 0.369       | 0.369       |
| Antigua and Barbuda        | 0.363       | 0.36        | 0.37        | 0.365       | 0.364       | 0.363       | 0.366       | 0.364       | 0.368       | 0.366       | 0.368       |
| Uruguay                    | 0.363       | 0.364       | 0.363       | 0.363       | 0.364       | 0.365       | 0.366       | 0.367       | 0.368       | 0.368       | 0.367       |
| Thailand                   | 0.339       | 0.339       | 0.341       | 0.342       | 0.344       | 0.347       | 0.352       | 0.358       | 0.363       | 0.362       | 0.367       |
| Serbia                     | 0.351       | 0.351       | 0.352       | 0.354       | 0.355       | 0.359       | 0.36        | 0.363       | 0.365       | 0.366       | 0.367       |
| Bulgaria                   | 0.352       | 0.353       | 0.354       | 0.355       | 0.355       | 0.355       | 0.357       | 0.359       | 0.362       | 0.364       | 0.365       |
| Mexico                     | 0.339       | 0.341       | 0.343       | 0.345       | 0.348       | 0.351       | 0.356       | 0.36        | 0.362       | 0.363       | 0.365       |
| Kazakhstan                 | 0.345       | 0.348       | 0.347       | 0.349       | 0.35        | 0.354       | 0.356       | 0.36        | 0.361       | 0.363       | 0.365       |
| Saint Kitts and Nevis      | 0.359       | 0.359       | 0.36        | 0.359       | 0.36        | 0.36        | 0.362       | 0.365       | 0.364       | 0.363       | 0.364       |
| Panama                     | 0.359       | 0.358       | 0.359       | 0.359       | 0.36        | 0.36        | 0.361       | 0.361       | 0.362       | 0.362       | 0.363       |
| Indonesia                  | 0.309       | 0.308       | 0.308       | 0.311       | 0.317       | 0.326       | 0.33        | 0.34        | 0.347       | 0.354       | 0.362       |
| Georgia                    | 0.354       | 0.355       | 0.356       | 0.357       | 0.358       | 0.358       | 0.358       | 0.359       | 0.36        | 0.361       | 0.361       |
| Brunei Darussalam          | 0.349       | 0.351       | 0.351       | 0.353       | 0.355       | 0.356       | 0.356       | 0.357       | 0.36        | 0.36        | 0.36        |
| Costa Rica                 | 0.353       | 0.354       | 0.353       | 0.354       | 0.355       | 0.355       | 0.356       | 0.357       | 0.358       | 0.359       | 0.359       |
| South Africa               | 0.325       | 0.325       | 0.328       | 0.33        | 0.333       | 0.337       | 0.342       | 0.349       | 0.353       | 0.354       | 0.359       |
| Colombia                   | 0.337       | 0.339       | 0.34        | 0.342       | 0.343       | 0.345       | 0.35        | 0.353       | 0.354       | 0.356       | 0.357       |
| The Bahamas                | 0.349       | 0.349       | 0.348       | 0.349       | 0.35        | 0.351       | 0.351       | 0.353       | 0.352       | 0.353       | 0.354       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| North Macedonia                  | 0.341       | 0.341       | 0.342       | 0.343       | 0.345       | 0.345       | 0.347       | 0.349       | 0.35        | 0.35        | 0.352       |
| Ukraine                          | 0.326       | 0.327       | 0.329       | 0.331       | 0.333       | 0.339       | 0.342       | 0.345       | 0.347       | 0.351       | 0.351       |
| Barbados                         | 0.34        | 0.34        | 0.341       | 0.342       | 0.343       | 0.346       | 0.346       | 0.347       | 0.348       | 0.349       | 0.35        |
| Peru                             | 0.338       | 0.339       | 0.34        | 0.34        | 0.34        | 0.341       | 0.344       | 0.346       | 0.346       | 0.348       | 0.348       |
| Bosnia and Herzegovina           | 0.337       | 0.338       | 0.339       | 0.34        | 0.341       | 0.342       | 0.343       | 0.345       | 0.346       | 0.347       | 0.348       |
| Albania                          | 0.341       | 0.341       | 0.341       | 0.344       | 0.345       | 0.344       | 0.346       | 0.347       | 0.348       | 0.347       | 0.348       |
| Belarus                          | 0.346       | 0.347       | 0.348       | 0.349       | 0.349       | 0.349       | 0.349       | 0.35        | 0.349       | 0.347       | 0.347       |
| Trinidad and Tobago              | 0.336       | 0.339       | 0.337       | 0.338       | 0.338       | 0.34        | 0.34        | 0.343       | 0.343       | 0.345       | 0.346       |
| Armenia                          | 0.342       | 0.342       | 0.343       | 0.344       | 0.345       | 0.345       | 0.343       | 0.346       | 0.345       | 0.346       | 0.346       |
| Saint Vincent and the Grenadines | 0.347       | 0.354       | 0.34        | 0.342       | 0.346       | 0.34        | 0.342       | 0.34        | 0.343       | 0.344       | 0.346       |
| Grenada                          | 0.338       | 0.339       | 0.339       | 0.339       | 0.34        | 0.339       | 0.341       | 0.342       | 0.342       | 0.344       | 0.343       |
| Mauritius                        | 0.336       | 0.337       | 0.338       | 0.339       | 0.341       | 0.341       | 0.343       | 0.344       | 0.343       | 0.341       | 0.343       |
| Ecuador                          | 0.332       | 0.333       | 0.333       | 0.333       | 0.333       | 0.334       | 0.336       | 0.338       | 0.339       | 0.341       | 0.342       |
| Viet Nam                         | 0.327       | 0.329       | 0.329       | 0.331       | 0.333       | 0.338       | 0.344       | 0.343       | 0.341       | 0.341       | 0.341       |
| Palau                            | 0.33        | 0.335       | 0.338       | 0.337       | 0.337       | 0.342       | 0.338       | 0.342       | 0.34        | 0.343       | 0.341       |
| Republic of Moldova              | 0.333       | 0.337       | 0.339       | 0.339       | 0.34        | 0.339       | 0.339       | 0.341       | 0.341       | 0.34        | 0.341       |
| Jordan                           | 0.315       | 0.317       | 0.317       | 0.317       | 0.319       | 0.32        | 0.324       | 0.327       | 0.332       | 0.336       | 0.34        |
| Azerbaijan                       | 0.329       | 0.33        | 0.33        | 0.329       | 0.33        | 0.33        | 0.331       | 0.332       | 0.331       | 0.334       | 0.34        |
| Dominican Republic               | 0.33        | 0.332       | 0.333       | 0.332       | 0.334       | 0.334       | 0.335       | 0.337       | 0.337       | 0.337       | 0.339       |
| Tonga                            | 0.332       | 0.331       | 0.331       | 0.331       | 0.33        | 0.332       | 0.335       | 0.333       | 0.336       | 0.338       | 0.337       |
| Sri Lanka                        | 0.328       | 0.329       | 0.33        | 0.331       | 0.331       | 0.332       | 0.332       | 0.333       | 0.335       | 0.335       | 0.336       |
| Lebanon                          | 0.318       | 0.319       | 0.319       | 0.32        | 0.32        | 0.321       | 0.323       | 0.325       | 0.328       | 0.332       | 0.335       |
| Guyana                           | 0.328       | 0.334       | 0.332       | 0.333       | 0.329       | 0.323       | 0.332       | 0.332       | 0.331       | 0.333       | 0.334       |
| Maldives                         | 0.326       | 0.329       | 0.33        | 0.33        | 0.331       | 0.332       | 0.33        | 0.331       | 0.332       | 0.333       | 0.334       |
| Dominica                         | 0.325       | 0.326       | 0.328       | 0.322       | 0.325       | 0.327       | 0.33        | 0.327       | 0.334       | 0.333       | 0.331       |
| Algeria                          | 0.319       | 0.32        | 0.321       | 0.322       | 0.323       | 0.324       | 0.325       | 0.328       | 0.329       | 0.329       | 0.331       |
| Tunisia                          | 0.314       | 0.315       | 0.316       | 0.317       | 0.317       | 0.319       | 0.321       | 0.324       | 0.326       | 0.326       | 0.328       |
| Mongolia                         | 0.321       | 0.321       | 0.321       | 0.323       | 0.323       | 0.325       | 0.325       | 0.325       | 0.326       | 0.326       | 0.327       |
| Paraguay                         | 0.321       | 0.323       | 0.322       | 0.322       | 0.325       | 0.325       | 0.325       | 0.326       | 0.327       | 0.326       | 0.326       |
| Saint Lucia                      |             | 0.323       | 0.321       | 0.324       | 0.322       | 0.321       | 0.322       | 0.321       | 0.324       | 0.328       | 0.324       |
| Cuba                             | 0.316       | 0.317       | 0.319       | 0.319       | 0.321       | 0.32        | 0.32        | 0.321       | 0.321       | 0.322       | 0.323       |
| Turkmenistan                     | 0.326       | 0.333       | 0.326       | 0.319       | 0.323       | 0.33        | 0.325       | 0.334       | 0.32        | 0.324       | 0.322       |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Uzbekistan                         | 0.308       | 0.307       | 0.309       | 0.31        | 0.311       | 0.31        | 0.308       | 0.313       | 0.315       | 0.318       | 0.32        |
| Iraq                               | 0.295       | 0.296       | 0.294       | 0.295       | 0.294       | 0.299       | 0.297       | 0.304       | 0.311       | 0.316       | 0.32        |
| Gabon                              | 0.316       | 0.316       | 0.317       | 0.316       | 0.316       | 0.317       | 0.318       | 0.32        | 0.32        | 0.319       | 0.32        |
| Marshall Islands                   | 0.316       | 0.313       | 0.321       | 0.32        | 0.315       | 0.324       | 0.32        | 0.323       | 0.32        | 0.324       | 0.32        |
| Bolivia (Plurinational State of)   | 0.316       | 0.316       | 0.315       | 0.316       | 0.317       | 0.318       | 0.318       | 0.319       | 0.319       | 0.32        | 0.319       |
| Suriname                           | 0.308       | 0.31        | 0.313       | 0.311       | 0.311       | 0.314       | 0.315       | 0.315       | 0.316       | 0.316       | 0.319       |
| Botswana                           | 0.311       | 0.31        | 0.312       | 0.312       | 0.313       | 0.314       | 0.315       | 0.316       | 0.317       | 0.317       | 0.318       |
| Nauru                              |             | 0.308       | 0.316       |             |             |             |             |             | 0.316       | 0.316       | 0.316       |
| Fiji                               | 0.31        | 0.31        | 0.311       | 0.312       | 0.313       | 0.314       | 0.314       | 0.315       | 0.316       | 0.316       | 0.316       |
| Libya                              | 0.309       | 0.309       | 0.31        | 0.311       | 0.311       | 0.312       | 0.312       | 0.314       | 0.315       | 0.316       | 0.315       |
| Philippines                        | 0.304       | 0.304       | 0.305       | 0.306       | 0.305       | 0.305       | 0.309       | 0.311       | 0.313       | 0.313       | 0.315       |
| Belize                             | 0.312       | 0.313       | 0.312       | 0.312       | 0.311       | 0.311       | 0.315       | 0.316       | 0.313       | 0.318       | 0.314       |
| Morocco                            | 0.298       | 0.3         | 0.299       | 0.3         | 0.301       | 0.302       | 0.304       | 0.308       | 0.309       | 0.31        | 0.313       |
| Bangladesh                         | 0.292       | 0.293       | 0.295       | 0.297       | 0.297       | 0.299       | 0.303       | 0.308       | 0.312       | 0.311       | 0.312       |
| Kyrgyzstan                         | 0.305       | 0.308       | 0.304       | 0.306       | 0.308       | 0.308       | 0.31        | 0.312       | 0.312       | 0.313       | 0.312       |
| Samoa                              | 0.298       | 0.302       | 0.302       | 0.301       | 0.302       | 0.304       | 0.307       | 0.31        | 0.308       | 0.31        | 0.31        |
| Jamaica                            | 0.301       | 0.305       | 0.304       | 0.303       | 0.305       | 0.306       | 0.307       | 0.309       | 0.31        | 0.309       | 0.309       |
| Nicaragua                          | 0.304       | 0.307       | 0.305       | 0.307       | 0.306       | 0.307       | 0.308       | 0.309       | 0.31        | 0.309       | 0.309       |
| Venezuela (Bolivarian Republic of) | 0.296       | 0.297       | 0.299       | 0.3         | 0.302       | 0.302       | 0.305       | 0.306       | 0.307       | 0.308       | 0.308       |
| Tuvalu                             | 0.299       |             |             | 0.3         | 0.289       | 0.302       | 0.311       | 0.302       | 0.305       | 0.302       | 0.303       |
| Bhutan                             | 0.3         | 0.302       | 0.301       | 0.302       | 0.301       | 0.303       | 0.305       | 0.304       | 0.304       | 0.305       | 0.303       |
| Equatorial Guinea                  | 0.293       | 0.296       | 0.293       | 0.295       | 0.294       | 0.299       | 0.3         | 0.296       | 0.301       | 0.299       | 0.301       |
| Tajikistan                         | 0.293       | 0.292       | 0.291       | 0.295       | 0.295       | 0.297       | 0.299       | 0.298       | 0.299       | 0.298       | 0.298       |
| Cabo Verde                         | 0.29        | 0.292       | 0.293       | 0.29        | 0.293       | 0.293       | 0.295       | 0.293       | 0.295       | 0.297       | 0.296       |
| El Salvador                        | 0.292       | 0.29        | 0.291       | 0.29        | 0.293       | 0.294       | 0.295       | 0.296       | 0.298       | 0.296       | 0.296       |
| Namibia                            | 0.288       | 0.288       | 0.288       | 0.288       | 0.287       | 0.288       | 0.289       | 0.29        | 0.293       | 0.292       | 0.293       |
| Guatemala                          | 0.285       | 0.287       | 0.287       | 0.287       | 0.288       | 0.289       | 0.29        | 0.292       | 0.292       | 0.292       | 0.292       |
| Kiribati                           | 0.282       | 0.282       | 0.283       | 0.287       | 0.287       | 0.283       | 0.285       | 0.283       | 0.287       | 0.286       | 0.291       |
| Pakistan                           | 0.236       | 0.239       | 0.241       | 0.244       | 0.249       | 0.255       | 0.266       | 0.279       | 0.29        | 0.288       | 0.29        |
| Congo                              | 0.28        | 0.28        | 0.283       | 0.283       | 0.284       | 0.286       | 0.286       | 0.288       | 0.288       | 0.287       | 0.287       |
| Honduras                           | 0.28        | 0.28        | 0.281       | 0.28        | 0.283       | 0.282       | 0.284       | 0.283       | 0.283       | 0.285       | 0.286       |
| Kenya                              | 0.275       | 0.275       | 0.276       | 0.278       | 0.278       | 0.28        | 0.282       | 0.284       | 0.285       | 0.285       | 0.286       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Sao Tome and Principe            | 0.281       | 0.272       | 0.279       | 0.281       | 0.278       | 0.278       | 0.279       | 0.283       | 0.286       | 0.285       | 0.284       |
| Timor-Leste                      | 0.276       | 0.278       | 0.278       | 0.276       | 0.277       | 0.277       | 0.278       | 0.282       | 0.283       | 0.286       | 0.284       |
| Ghana                            | 0.27        | 0.271       | 0.271       | 0.272       | 0.273       | 0.274       | 0.276       | 0.278       | 0.281       | 0.281       | 0.282       |
| Nepal                            | 0.269       | 0.269       | 0.269       | 0.271       | 0.272       | 0.273       | 0.275       | 0.277       | 0.277       | 0.277       | 0.277       |
| Angola                           | 0.27        | 0.27        | 0.271       | 0.271       | 0.271       | 0.271       | 0.271       | 0.274       | 0.275       | 0.276       | 0.277       |
| Lao People's Democratic Republic | 0.271       | 0.272       | 0.271       | 0.272       | 0.272       | 0.274       | 0.275       | 0.275       | 0.276       | 0.276       | 0.276       |
| Micronesia (Federated States of) | 0.271       | 0.264       | 0.276       | 0.272       | 0.275       | 0.272       | 0.272       | 0.275       | 0.273       | 0.274       | 0.276       |
| Vanuatu                          | 0.274       | 0.273       | 0.271       | 0.271       | 0.269       | 0.271       | 0.273       | 0.274       | 0.276       | 0.275       | 0.275       |
| Cambodia                         | 0.266       | 0.266       | 0.268       | 0.268       | 0.268       | 0.269       | 0.27        | 0.271       | 0.272       | 0.271       | 0.271       |
| Myanmar                          | 0.265       | 0.266       | 0.268       | 0.269       | 0.268       | 0.269       | 0.27        | 0.27        | 0.271       | 0.27        | 0.27        |
| Comoros                          | 0.265       | 0.265       | 0.268       | 0.269       | 0.271       | 0.268       | 0.268       | 0.273       | 0.271       | 0.267       | 0.268       |
| Zambia                           | 0.262       | 0.262       | 0.262       | 0.263       | 0.263       | 0.264       | 0.265       | 0.266       | 0.267       | 0.268       | 0.268       |
| Uganda                           | 0.257       | 0.257       | 0.258       | 0.259       | 0.259       | 0.26        | 0.262       | 0.264       | 0.265       | 0.265       | 0.266       |
| Zimbabwe                         | 0.258       | 0.258       | 0.259       | 0.26        | 0.261       | 0.261       | 0.263       | 0.264       | 0.265       | 0.265       | 0.265       |
| Nigeria                          | 0.239       | 0.24        | 0.243       | 0.244       | 0.246       | 0.248       | 0.253       | 0.257       | 0.261       | 0.261       | 0.264       |
| Solomon Islands                  | 0.259       | 0.258       | 0.259       | 0.258       | 0.26        | 0.26        | 0.261       | 0.262       | 0.261       | 0.264       | 0.263       |
| Rwanda                           | 0.254       | 0.254       | 0.254       | 0.256       | 0.256       | 0.256       | 0.258       | 0.26        | 0.26        | 0.261       | 0.261       |
| Cameroon                         | 0.254       | 0.255       | 0.255       | 0.256       | 0.257       | 0.257       | 0.258       | 0.259       | 0.26        | 0.259       | 0.26        |
| Papua New Guinea                 | 0.251       | 0.253       | 0.253       | 0.253       | 0.252       | 0.254       | 0.254       | 0.255       | 0.257       | 0.257       | 0.258       |
| Côte d'Ivoire                    | 0.25        | 0.25        | 0.251       | 0.252       | 0.254       | 0.254       | 0.256       | 0.256       | 0.257       | 0.257       | 0.257       |
| Togo                             | 0.246       | 0.246       | 0.248       | 0.248       | 0.248       | 0.251       | 0.251       | 0.251       | 0.252       | 0.252       | 0.254       |
| Mauritania                       | 0.248       | 0.247       | 0.247       | 0.249       | 0.25        | 0.248       | 0.248       | 0.251       | 0.249       | 0.252       | 0.251       |
| Haiti                            | 0.245       | 0.245       | 0.245       | 0.246       | 0.246       | 0.248       | 0.248       | 0.25        | 0.251       | 0.248       | 0.25        |
| United Republic of Tanzania      | 0.246       | 0.246       | 0.246       | 0.247       | 0.248       | 0.248       | 0.25        | 0.251       | 0.251       | 0.25        | 0.25        |
| Syrian Arab Republic             | 0.237       | 0.236       | 0.237       | 0.239       | 0.24        | 0.241       | 0.243       | 0.245       | 0.248       | 0.248       | 0.248       |
| Lesotho                          | 0.237       | 0.238       | 0.236       | 0.241       | 0.242       | 0.24        | 0.244       | 0.242       | 0.245       | 0.246       | 0.246       |
| Gambia                           | 0.236       | 0.236       | 0.237       | 0.237       | 0.238       | 0.239       | 0.24        | 0.24        | 0.24        | 0.24        | 0.24        |
| Senegal                          | 0.232       | 0.232       | 0.232       | 0.234       | 0.235       | 0.235       | 0.235       | 0.237       | 0.238       | 0.239       | 0.239       |
| Ethiopia                         | 0.217       | 0.219       | 0.22        | 0.222       | 0.222       | 0.224       | 0.228       | 0.232       | 0.237       | 0.235       | 0.238       |
| Democratic Republic of the Congo | 0.229       | 0.229       | 0.231       | 0.232       | 0.231       | 0.233       | 0.236       | 0.237       | 0.238       | 0.238       | 0.238       |
| Malawi                           | 0.229       | 0.231       | 0.232       | 0.233       | 0.233       | 0.234       | 0.236       | 0.236       | 0.237       | 0.237       | 0.237       |
| Guinea-Bissau                    | 0.231       | 0.231       | 0.232       | 0.232       | 0.23        | 0.231       | 0.232       | 0.235       | 0.236       | 0.234       | 0.236       |

| Year                                  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Sudan                                 | 0.224 | 0.226 | 0.225 | 0.227 | 0.229 | 0.229 | 0.231 | 0.232 | 0.235 | 0.234 | 0.235 |
| Djibouti                              | 0.227 | 0.226 | 0.229 | 0.228 | 0.227 | 0.229 | 0.229 | 0.229 | 0.229 | 0.233 | 0.233 |
| Benin                                 | 0.227 | 0.227 | 0.228 | 0.229 | 0.228 | 0.228 | 0.229 | 0.232 | 0.231 | 0.232 | 0.232 |
| Guinea                                | 0.219 | 0.223 | 0.224 | 0.226 | 0.225 | 0.227 | 0.227 | 0.228 | 0.23  | 0.228 | 0.228 |
| Liberia                               | 0.225 | 0.228 | 0.229 | 0.227 | 0.23  | 0.231 | 0.231 | 0.231 | 0.231 | 0.229 | 0.228 |
| Afghanistan                           | 0.22  | 0.223 | 0.217 | 0.219 | 0.22  | 0.221 | 0.221 | 0.226 | 0.227 | 0.226 | 0.228 |
| Mozambique                            | 0.222 | 0.222 | 0.222 | 0.223 | 0.224 | 0.225 | 0.226 | 0.226 | 0.226 | 0.226 | 0.227 |
| Eritrea                               | 0.222 | 0.222 | 0.226 | 0.221 | 0.223 | 0.22  | 0.222 | 0.225 | 0.227 | 0.225 | 0.225 |
| Madagascar                            | 0.216 | 0.217 | 0.218 | 0.218 | 0.219 | 0.219 | 0.219 | 0.222 | 0.222 | 0.223 | 0.224 |
| Sierra Leone                          | 0.208 | 0.211 | 0.213 | 0.213 | 0.214 | 0.213 | 0.215 | 0.216 | 0.217 | 0.218 | 0.218 |
| Yemen                                 | 0.207 | 0.209 | 0.209 | 0.21  | 0.21  | 0.212 | 0.214 | 0.217 | 0.219 | 0.217 | 0.217 |
| Burkina Faso                          | 0.206 | 0.206 | 0.207 | 0.207 | 0.208 | 0.209 | 0.209 | 0.21  | 0.211 | 0.21  | 0.209 |
| Burundi                               | 0.196 | 0.199 | 0.198 | 0.199 | 0.199 | 0.197 | 0.2   | 0.201 | 0.202 | 0.203 | 0.203 |
| Democratic People's Republic of Korea | 0.206 | 0.203 | 0.204 | 0.202 | 0.2   | 0.198 | 0.195 | 0.193 | 0.195 | 0.195 | 0.195 |
| Mali                                  | 0.189 | 0.191 | 0.192 | 0.192 | 0.193 | 0.194 | 0.194 | 0.194 | 0.195 | 0.195 | 0.194 |
| Chad                                  | 0.191 | 0.19  | 0.191 | 0.191 | 0.193 | 0.194 | 0.193 | 0.194 | 0.193 | 0.191 | 0.194 |
| Central African Republic              | 0.187 | 0.188 | 0.185 | 0.188 | 0.189 | 0.19  | 0.191 | 0.191 | 0.193 | 0.192 | 0.194 |
| Niger                                 | 0.19  | 0.19  | 0.192 | 0.189 | 0.189 | 0.192 | 0.192 | 0.195 | 0.194 | 0.195 | 0.194 |
| Somalia                               | 0.181 | 0.185 | 0.185 | 0.187 | 0.186 | 0.185 | 0.186 | 0.185 | 0.186 | 0.189 | 0.188 |
| South Sudan                           | 0.176 | 0.177 | 0.181 | 0.182 | 0.183 | 0.183 | 0.177 | 0.184 | 0.182 | 0.183 | 0.183 |

Table S1-3. Open Data Readiness ( $\bar{R}_{OD}$ ) for 193 countries, 2014–2024

| Year                         | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| United States                | 0.975 | 0.938 | 0.908 | 0.905 | 0.875 | 0.881 | 0.851 | 0.833 | 0.806 | 0.801 | 0.787 |
| China                        | 0.38  | 0.379 | 0.391 | 0.408 | 0.421 | 0.447 | 0.464 | 0.486 | 0.512 | 0.533 | 0.561 |
| United Kingdom               | 0.489 | 0.493 | 0.495 | 0.493 | 0.487 | 0.479 | 0.477 | 0.471 | 0.475 | 0.477 | 0.478 |
| Germany                      | 0.444 | 0.454 | 0.455 | 0.453 | 0.458 | 0.452 | 0.455 | 0.451 | 0.452 | 0.448 | 0.449 |
| Australia                    | 0.417 | 0.427 | 0.428 | 0.43  | 0.434 | 0.438 | 0.442 | 0.445 | 0.442 | 0.441 | 0.442 |
| Netherlands (Kingdom of the) | 0.414 | 0.419 | 0.423 | 0.422 | 0.424 | 0.42  | 0.423 | 0.426 | 0.424 | 0.423 | 0.422 |
| Canada                       | 0.413 | 0.414 | 0.418 | 0.416 | 0.415 | 0.417 | 0.419 | 0.419 | 0.42  | 0.42  | 0.42  |

| <b>Year</b>          | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Switzerland          | 0.418       | 0.419       | 0.421       | 0.422       | 0.42        | 0.423       | 0.423       | 0.417       | 0.417       | 0.417       | 0.418       |
| Sweden               | 0.401       | 0.403       | 0.403       | 0.403       | 0.405       | 0.404       | 0.405       | 0.406       | 0.408       | 0.407       | 0.408       |
| Belgium              | 0.398       | 0.399       | 0.401       | 0.401       | 0.401       | 0.401       | 0.402       | 0.404       | 0.404       | 0.405       | 0.406       |
| Denmark              | 0.4         | 0.402       | 0.402       | 0.402       | 0.406       | 0.403       | 0.404       | 0.404       | 0.405       | 0.404       | 0.405       |
| Singapore            | 0.391       | 0.391       | 0.39        | 0.395       | 0.399       | 0.398       | 0.4         | 0.402       | 0.403       | 0.404       | 0.405       |
| Norway               | 0.4         | 0.401       | 0.402       | 0.402       | 0.403       | 0.403       | 0.403       | 0.405       | 0.405       | 0.405       | 0.404       |
| Republic of Korea    | 0.39        | 0.392       | 0.395       | 0.393       | 0.396       | 0.394       | 0.395       | 0.397       | 0.399       | 0.398       | 0.4         |
| France               | 0.405       | 0.403       | 0.409       | 0.405       | 0.406       | 0.406       | 0.406       | 0.404       | 0.401       | 0.402       | 0.399       |
| Ireland              | 0.389       | 0.392       | 0.39        | 0.392       | 0.394       | 0.395       | 0.396       | 0.398       | 0.398       | 0.398       | 0.399       |
| Finland              | 0.393       | 0.393       | 0.394       | 0.395       | 0.395       | 0.394       | 0.396       | 0.397       | 0.398       | 0.398       | 0.399       |
| Iceland              | 0.393       | 0.395       | 0.395       | 0.393       | 0.398       | 0.397       | 0.395       | 0.396       | 0.4         | 0.4         | 0.398       |
| Spain                | 0.393       | 0.395       | 0.396       | 0.396       | 0.399       | 0.399       | 0.398       | 0.399       | 0.397       | 0.398       | 0.398       |
| Italy                | 0.389       | 0.391       | 0.392       | 0.39        | 0.392       | 0.392       | 0.394       | 0.396       | 0.396       | 0.398       | 0.398       |
| Japan                | 0.41        | 0.408       | 0.405       | 0.404       | 0.396       | 0.397       | 0.398       | 0.398       | 0.398       | 0.397       | 0.397       |
| Austria              | 0.387       | 0.388       | 0.389       | 0.389       | 0.39        | 0.39        | 0.391       | 0.393       | 0.393       | 0.393       | 0.395       |
| New Zealand          | 0.385       | 0.387       | 0.387       | 0.388       | 0.387       | 0.388       | 0.389       | 0.391       | 0.392       | 0.392       | 0.393       |
| Monaco               | 0.385       | 0.385       | 0.385       | 0.386       | 0.386       | 0.387       | 0.389       | 0.39        | 0.391       | 0.391       | 0.392       |
| Liechtenstein        | 0.379       | 0.379       | 0.38        | 0.38        | 0.381       | 0.383       | 0.385       | 0.387       | 0.389       | 0.389       | 0.39        |
| Slovenia             | 0.377       | 0.382       | 0.382       | 0.379       | 0.379       | 0.381       | 0.385       | 0.387       | 0.388       | 0.389       | 0.39        |
| United Arab Emirates | 0.379       | 0.382       | 0.383       | 0.384       | 0.384       | 0.385       | 0.386       | 0.387       | 0.387       | 0.388       | 0.388       |
| Israel               | 0.379       | 0.38        | 0.379       | 0.378       | 0.38        | 0.382       | 0.384       | 0.385       | 0.386       | 0.386       | 0.387       |
| Malta                | 0.373       | 0.374       | 0.375       | 0.375       | 0.376       | 0.378       | 0.38        | 0.382       | 0.384       | 0.383       | 0.386       |
| Czechia              | 0.375       | 0.378       | 0.378       | 0.373       | 0.379       | 0.38        | 0.381       | 0.382       | 0.383       | 0.383       | 0.384       |
| Luxembourg           | 0.374       | 0.374       | 0.373       | 0.374       | 0.375       | 0.376       | 0.381       | 0.383       | 0.383       | 0.384       | 0.384       |
| San Marino           | 0.369       | 0.37        | 0.37        | 0.371       | 0.372       | 0.374       | 0.376       | 0.378       | 0.38        | 0.38        | 0.381       |
| Poland               | 0.375       | 0.375       | 0.376       | 0.376       | 0.376       | 0.376       | 0.378       | 0.38        | 0.38        | 0.381       | 0.381       |
| Estonia              | 0.367       | 0.367       | 0.368       | 0.373       | 0.37        | 0.37        | 0.375       | 0.376       | 0.378       | 0.378       | 0.379       |
| Cyprus               | 0.369       | 0.369       | 0.371       | 0.373       | 0.374       | 0.374       | 0.372       | 0.376       | 0.377       | 0.377       | 0.378       |
| Greece               | 0.372       | 0.375       | 0.374       | 0.375       | 0.375       | 0.375       | 0.373       | 0.377       | 0.377       | 0.377       | 0.377       |
| Lithuania            | 0.362       | 0.363       | 0.364       | 0.364       | 0.365       | 0.37        | 0.371       | 0.37        | 0.374       | 0.374       | 0.375       |
| Andorra              | 0.367       | 0.368       | 0.368       | 0.368       | 0.369       | 0.37        | 0.371       | 0.373       | 0.374       | 0.374       | 0.375       |

| <b>Year</b>           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Bahrain               | 0.363       | 0.364       | 0.364       | 0.365       | 0.366       | 0.368       | 0.37        | 0.373       | 0.373       | 0.374       | 0.375       |
| Saudi Arabia          | 0.374       | 0.382       | 0.379       | 0.38        | 0.38        | 0.379       | 0.384       | 0.386       | 0.381       | 0.378       | 0.373       |
| Croatia               | 0.364       | 0.364       | 0.365       | 0.361       | 0.366       | 0.364       | 0.368       | 0.37        | 0.371       | 0.371       | 0.372       |
| Portugal              | 0.366       | 0.367       | 0.367       | 0.367       | 0.368       | 0.368       | 0.369       | 0.37        | 0.371       | 0.371       | 0.371       |
| Latvia                | 0.359       | 0.36        | 0.361       | 0.363       | 0.364       | 0.365       | 0.365       | 0.369       | 0.37        | 0.369       | 0.37        |
| Slovakia              | 0.361       | 0.361       | 0.357       | 0.362       | 0.362       | 0.363       | 0.365       | 0.366       | 0.367       | 0.367       | 0.368       |
| Qatar                 | 0.358       | 0.359       | 0.361       | 0.358       | 0.362       | 0.362       | 0.364       | 0.365       | 0.366       | 0.366       | 0.367       |
| Hungary               | 0.358       | 0.353       | 0.358       | 0.358       | 0.359       | 0.36        | 0.362       | 0.363       | 0.364       | 0.365       | 0.366       |
| Chile                 | 0.354       | 0.36        | 0.361       | 0.361       | 0.361       | 0.362       | 0.363       | 0.364       | 0.364       | 0.364       | 0.365       |
| Uruguay               | 0.35        | 0.349       | 0.349       | 0.35        | 0.353       | 0.352       | 0.356       | 0.358       | 0.358       | 0.359       | 0.36        |
| Argentina             | 0.355       | 0.355       | 0.355       | 0.356       | 0.356       | 0.356       | 0.357       | 0.358       | 0.359       | 0.359       | 0.359       |
| Montenegro            | 0.347       | 0.347       | 0.348       | 0.348       | 0.349       | 0.351       | 0.352       | 0.354       | 0.354       | 0.354       | 0.354       |
| Romania               | 0.344       | 0.346       | 0.344       | 0.344       | 0.345       | 0.349       | 0.35        | 0.352       | 0.353       | 0.353       | 0.354       |
| Oman                  | 0.346       | 0.346       | 0.348       | 0.347       | 0.349       | 0.348       | 0.352       | 0.354       | 0.353       | 0.353       | 0.353       |
| Türkiye               | 0.353       | 0.353       | 0.352       | 0.352       | 0.353       | 0.353       | 0.353       | 0.354       | 0.354       | 0.355       | 0.353       |
| Kuwait                | 0.344       | 0.345       | 0.346       | 0.344       | 0.345       | 0.348       | 0.35        | 0.35        | 0.352       | 0.351       | 0.352       |
| Brunei Darussalam     | 0.338       | 0.339       | 0.339       | 0.34        | 0.341       | 0.342       | 0.344       | 0.348       | 0.348       | 0.349       | 0.35        |
| Antigua and Barbuda   | 0.343       | 0.343       | 0.343       | 0.344       | 0.344       | 0.345       | 0.347       | 0.348       | 0.349       | 0.349       | 0.35        |
| Bulgaria              | 0.342       | 0.341       | 0.341       | 0.341       | 0.346       | 0.346       | 0.347       | 0.348       | 0.349       | 0.349       | 0.35        |
| Seychelles            | 0.341       | 0.342       | 0.342       | 0.343       | 0.343       | 0.344       | 0.345       | 0.347       | 0.348       | 0.348       | 0.349       |
| Georgia               | 0.342       | 0.343       | 0.341       | 0.341       | 0.344       | 0.343       | 0.344       | 0.345       | 0.348       | 0.348       | 0.348       |
| Russia                | 0.344       | 0.344       | 0.344       | 0.339       | 0.34        | 0.34        | 0.342       | 0.345       | 0.347       | 0.347       | 0.347       |
| Serbia                | 0.34        | 0.339       | 0.339       | 0.341       | 0.341       | 0.341       | 0.343       | 0.346       | 0.347       | 0.347       | 0.347       |
| Saint Kitts and Nevis | 0.338       | 0.339       | 0.339       | 0.339       | 0.34        | 0.341       | 0.342       | 0.344       | 0.345       | 0.345       | 0.346       |
| Panama                | 0.338       | 0.339       | 0.339       | 0.339       | 0.34        | 0.341       | 0.342       | 0.344       | 0.345       | 0.346       | 0.345       |
| Costa Rica            | 0.337       | 0.336       | 0.337       | 0.337       | 0.338       | 0.339       | 0.342       | 0.342       | 0.343       | 0.343       | 0.345       |
| Kazakhstan            | 0.337       | 0.341       | 0.341       | 0.339       | 0.339       | 0.34        | 0.343       | 0.345       | 0.344       | 0.345       | 0.345       |
| Belarus               | 0.332       | 0.334       | 0.334       | 0.334       | 0.336       | 0.338       | 0.338       | 0.337       | 0.34        | 0.34        | 0.34        |
| Malaysia              | 0.335       | 0.338       | 0.337       | 0.338       | 0.334       | 0.34        | 0.34        | 0.341       | 0.34        | 0.34        | 0.34        |
| Trinidad and Tobago   | 0.326       | 0.327       | 0.327       | 0.328       | 0.329       | 0.33        | 0.332       | 0.335       | 0.337       | 0.337       | 0.338       |
| The Bahamas           | 0.33        | 0.331       | 0.331       | 0.331       | 0.332       | 0.333       | 0.334       | 0.336       | 0.337       | 0.337       | 0.338       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| North Macedonia                  | 0.329       | 0.329       | 0.331       | 0.33        | 0.33        | 0.333       | 0.332       | 0.334       | 0.335       | 0.337       | 0.337       |
| Armenia                          | 0.327       | 0.327       | 0.33        | 0.329       | 0.332       | 0.332       | 0.331       | 0.332       | 0.333       | 0.333       | 0.336       |
| Albania                          | 0.327       | 0.327       | 0.327       | 0.327       | 0.328       | 0.329       | 0.33        | 0.334       | 0.333       | 0.333       | 0.334       |
| Barbados                         | 0.327       | 0.327       | 0.327       | 0.328       | 0.328       | 0.329       | 0.331       | 0.332       | 0.333       | 0.333       | 0.334       |
| Bosnia and Herzegovina           | 0.324       | 0.326       | 0.325       | 0.327       | 0.326       | 0.329       | 0.33        | 0.332       | 0.332       | 0.332       | 0.333       |
| Thailand                         | 0.326       | 0.326       | 0.328       | 0.33        | 0.329       | 0.331       | 0.331       | 0.332       | 0.333       | 0.332       | 0.333       |
| Mauritius                        | 0.325       | 0.325       | 0.325       | 0.326       | 0.326       | 0.327       | 0.329       | 0.33        | 0.331       | 0.331       | 0.332       |
| Brazil                           | 0.327       | 0.328       | 0.326       | 0.327       | 0.329       | 0.329       | 0.331       | 0.331       | 0.331       | 0.331       | 0.331       |
| Iran (Islamic Republic of)       | 0.328       | 0.327       | 0.326       | 0.328       | 0.328       | 0.328       | 0.329       | 0.332       | 0.332       | 0.333       | 0.331       |
| Peru                             | 0.321       | 0.321       | 0.325       | 0.321       | 0.322       | 0.323       | 0.325       | 0.329       | 0.329       | 0.33        | 0.33        |
| Mexico                           | 0.325       | 0.326       | 0.326       | 0.327       | 0.327       | 0.327       | 0.328       | 0.329       | 0.329       | 0.329       | 0.33        |
| Saint Vincent and the Grenadines | 0.321       | 0.322       | 0.322       | 0.322       | 0.323       | 0.324       | 0.325       | 0.327       | 0.328       | 0.328       | 0.329       |
| Colombia                         | 0.325       | 0.325       | 0.325       | 0.325       | 0.325       | 0.326       | 0.324       | 0.327       | 0.328       | 0.328       | 0.329       |
| Azerbaijan                       | 0.319       | 0.32        | 0.319       | 0.321       | 0.321       | 0.321       | 0.323       | 0.326       | 0.326       | 0.327       | 0.327       |
| Grenada                          | 0.319       | 0.319       | 0.319       | 0.32        | 0.32        | 0.321       | 0.323       | 0.324       | 0.325       | 0.325       | 0.326       |
| Ukraine                          | 0.319       | 0.32        | 0.315       | 0.321       | 0.321       | 0.322       | 0.322       | 0.323       | 0.324       | 0.324       | 0.325       |
| Palau                            | 0.317       | 0.317       | 0.317       | 0.318       | 0.318       | 0.319       | 0.321       | 0.322       | 0.323       | 0.323       | 0.324       |
| Republic of Moldova              | 0.316       | 0.317       | 0.317       | 0.318       | 0.318       | 0.319       | 0.32        | 0.322       | 0.323       | 0.323       | 0.324       |
| Ecuador                          | 0.315       | 0.314       | 0.314       | 0.315       | 0.315       | 0.32        | 0.321       | 0.322       | 0.322       | 0.323       | 0.323       |
| Sri Lanka                        | 0.313       | 0.316       | 0.315       | 0.318       | 0.318       | 0.319       | 0.32        | 0.32        | 0.321       | 0.322       | 0.322       |
| Dominican Republic               | 0.313       | 0.313       | 0.313       | 0.314       | 0.314       | 0.315       | 0.317       | 0.318       | 0.319       | 0.319       | 0.321       |
| Guyana                           | 0.313       | 0.313       | 0.313       | 0.314       | 0.314       | 0.315       | 0.317       | 0.318       | 0.319       | 0.319       | 0.32        |
| Algeria                          | 0.309       | 0.309       | 0.312       | 0.311       | 0.31        | 0.314       | 0.315       | 0.316       | 0.317       | 0.317       | 0.317       |
| Viet Nam                         | 0.314       | 0.313       | 0.315       | 0.315       | 0.315       | 0.316       | 0.317       | 0.318       | 0.319       | 0.319       | 0.317       |
| Tonga                            | 0.31        | 0.31        | 0.31        | 0.311       | 0.311       | 0.312       | 0.314       | 0.315       | 0.316       | 0.316       | 0.317       |
| Maldives                         | 0.309       | 0.309       | 0.309       | 0.31        | 0.31        | 0.311       | 0.313       | 0.314       | 0.315       | 0.315       | 0.316       |
| Turkmenistan                     | 0.308       | 0.308       | 0.308       | 0.309       | 0.309       | 0.31        | 0.312       | 0.313       | 0.314       | 0.314       | 0.315       |
| Cuba                             | 0.307       | 0.308       | 0.308       | 0.311       | 0.311       | 0.31        | 0.311       | 0.315       | 0.314       | 0.315       | 0.314       |
| Dominica                         | 0.307       | 0.307       | 0.307       | 0.308       | 0.308       | 0.309       | 0.311       | 0.312       | 0.313       | 0.313       | 0.314       |
| Jordan                           | 0.306       | 0.307       | 0.309       | 0.309       | 0.31        | 0.31        | 0.311       | 0.313       | 0.312       | 0.312       | 0.313       |
| Egypt                            | 0.307       | 0.307       | 0.308       | 0.31        | 0.31        | 0.311       | 0.312       | 0.314       | 0.312       | 0.313       | 0.312       |

| Year                               | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Paraguay                           | 0.305 | 0.305 | 0.305 | 0.306 | 0.306 | 0.307 | 0.309 | 0.311 | 0.311 | 0.311 | 0.312 |
| South Africa                       | 0.309 | 0.309 | 0.308 | 0.308 | 0.309 | 0.309 | 0.31  | 0.311 | 0.311 | 0.311 | 0.312 |
| Lebanon                            | 0.305 | 0.306 | 0.307 | 0.308 | 0.307 | 0.306 | 0.31  | 0.311 | 0.312 | 0.313 | 0.311 |
| Mongolia                           | 0.301 | 0.302 | 0.302 | 0.302 | 0.303 | 0.304 | 0.305 | 0.307 | 0.308 | 0.309 | 0.31  |
| Tunisia                            | 0.302 | 0.306 | 0.306 | 0.304 | 0.304 | 0.307 | 0.306 | 0.309 | 0.31  | 0.31  | 0.309 |
| Saint Lucia                        |       | 0.302 | 0.302 | 0.302 | 0.303 | 0.304 | 0.305 | 0.307 | 0.308 | 0.308 | 0.309 |
| Uzbekistan                         | 0.298 | 0.299 | 0.299 | 0.299 | 0.3   | 0.302 | 0.304 | 0.304 | 0.306 | 0.307 | 0.307 |
| Indonesia                          | 0.294 | 0.295 | 0.299 | 0.3   | 0.297 | 0.302 | 0.303 | 0.304 | 0.304 | 0.304 | 0.305 |
| Bolivia (Plurinational State of)   | 0.296 | 0.296 | 0.296 | 0.297 | 0.297 | 0.298 | 0.299 | 0.302 | 0.302 | 0.304 | 0.303 |
| Gabon                              | 0.296 | 0.296 | 0.296 | 0.297 | 0.297 | 0.298 | 0.299 | 0.301 | 0.302 | 0.302 | 0.303 |
| Marshall Islands                   | 0.295 | 0.296 | 0.296 | 0.296 | 0.297 | 0.298 | 0.299 | 0.301 | 0.302 | 0.302 | 0.303 |
| Botswana                           | 0.295 | 0.295 | 0.295 | 0.297 | 0.296 | 0.298 | 0.3   | 0.3   | 0.302 | 0.303 | 0.302 |
| Fiji                               | 0.295 | 0.295 | 0.296 | 0.296 | 0.296 | 0.297 | 0.299 | 0.3   | 0.301 | 0.301 | 0.302 |
| Libya                              | 0.291 | 0.291 | 0.291 | 0.292 | 0.292 | 0.293 | 0.296 | 0.296 | 0.298 | 0.299 | 0.3   |
| Philippines                        | 0.291 | 0.295 | 0.295 | 0.292 | 0.296 | 0.297 | 0.296 | 0.297 | 0.299 | 0.298 | 0.299 |
| Kyrgyzstan                         | 0.29  | 0.291 | 0.291 | 0.292 | 0.293 | 0.294 | 0.295 | 0.296 | 0.297 | 0.297 | 0.299 |
| Suriname                           | 0.291 | 0.291 | 0.292 | 0.292 | 0.293 | 0.294 | 0.295 | 0.296 | 0.298 | 0.298 | 0.298 |
| Belize                             | 0.291 | 0.291 | 0.291 | 0.292 | 0.292 | 0.293 | 0.295 | 0.296 | 0.297 | 0.297 | 0.298 |
| Jamaica                            | 0.29  | 0.291 | 0.291 | 0.291 | 0.292 | 0.293 | 0.295 | 0.296 | 0.297 | 0.297 | 0.298 |
| Morocco                            | 0.288 | 0.291 | 0.292 | 0.292 | 0.292 | 0.293 | 0.294 | 0.295 | 0.296 | 0.296 | 0.296 |
| Nauru                              |       | 0.285 | 0.286 |       |       |       |       |       | 0.295 | 0.295 | 0.296 |
| Venezuela (Bolivarian Republic of) | 0.289 | 0.286 | 0.29  | 0.288 | 0.288 | 0.289 | 0.291 | 0.293 | 0.292 | 0.294 | 0.293 |
| Samoa                              | 0.285 | 0.286 | 0.286 | 0.286 | 0.287 | 0.288 | 0.289 | 0.291 | 0.292 | 0.292 | 0.293 |
| Nicaragua                          | 0.285 | 0.285 | 0.285 | 0.286 | 0.286 | 0.287 | 0.289 | 0.29  | 0.291 | 0.291 | 0.292 |
| Bhutan                             | 0.281 | 0.282 | 0.282 | 0.283 | 0.283 | 0.284 | 0.285 | 0.287 | 0.288 | 0.288 | 0.289 |
| Iraq                               | 0.283 | 0.281 | 0.285 | 0.283 | 0.284 | 0.287 | 0.288 | 0.289 | 0.288 | 0.288 | 0.288 |
| India                              | 0.285 | 0.284 | 0.283 | 0.284 | 0.285 | 0.287 | 0.288 | 0.289 | 0.287 | 0.29  | 0.286 |
| Tajikistan                         | 0.279 | 0.279 | 0.279 | 0.28  | 0.28  | 0.281 | 0.283 | 0.284 | 0.285 | 0.285 | 0.286 |
| Tuvalu                             | 0.278 |       |       | 0.279 | 0.279 | 0.28  | 0.282 | 0.283 | 0.284 | 0.284 | 0.285 |
| Bangladesh                         | 0.28  | 0.278 | 0.28  | 0.282 | 0.281 | 0.28  | 0.282 | 0.285 | 0.286 | 0.284 | 0.284 |
| El Salvador                        | 0.274 | 0.274 | 0.274 | 0.275 | 0.275 | 0.276 | 0.277 | 0.279 | 0.28  | 0.28  | 0.281 |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Equatorial Guinea                | 0.272       | 0.272       | 0.272       | 0.273       | 0.273       | 0.274       | 0.276       | 0.277       | 0.278       | 0.278       | 0.279       |
| Cabo Verde                       | 0.269       | 0.27        | 0.27        | 0.27        | 0.271       | 0.272       | 0.273       | 0.275       | 0.276       | 0.276       | 0.277       |
| Namibia                          | 0.268       | 0.269       | 0.269       | 0.269       | 0.27        | 0.271       | 0.272       | 0.274       | 0.276       | 0.275       | 0.276       |
| Guatemala                        | 0.267       | 0.268       | 0.268       | 0.268       | 0.269       | 0.27        | 0.271       | 0.273       | 0.274       | 0.274       | 0.274       |
| Congo                            | 0.262       | 0.263       | 0.263       | 0.263       | 0.264       | 0.265       | 0.266       | 0.267       | 0.268       | 0.27        | 0.27        |
| Honduras                         | 0.26        | 0.261       | 0.261       | 0.261       | 0.262       | 0.263       | 0.264       | 0.266       | 0.267       | 0.268       | 0.268       |
| Kiribati                         | 0.26        | 0.26        | 0.26        | 0.261       | 0.261       | 0.262       | 0.264       | 0.265       | 0.266       | 0.266       | 0.267       |
| Sao Tome and Principe            | 0.257       | 0.257       | 0.258       | 0.258       | 0.259       | 0.26        | 0.261       | 0.262       | 0.264       | 0.264       | 0.264       |
| Kenya                            | 0.257       | 0.258       | 0.26        | 0.26        | 0.26        | 0.261       | 0.262       | 0.262       | 0.263       | 0.263       | 0.264       |
| Timor-Leste                      | 0.256       | 0.256       | 0.256       | 0.257       | 0.257       | 0.258       | 0.26        | 0.261       | 0.262       | 0.262       | 0.263       |
| Ghana                            | 0.254       | 0.255       | 0.258       | 0.259       | 0.26        | 0.26        | 0.261       | 0.262       | 0.263       | 0.262       | 0.262       |
| Nepal                            | 0.252       | 0.254       | 0.253       | 0.253       | 0.255       | 0.257       | 0.257       | 0.259       | 0.26        | 0.258       | 0.259       |
| Vanuatu                          | 0.251       | 0.251       | 0.251       | 0.252       | 0.252       | 0.253       | 0.255       | 0.256       | 0.257       | 0.257       | 0.258       |
| Lao People's Democratic Republic | 0.249       | 0.25        | 0.25        | 0.25        | 0.251       | 0.252       | 0.253       | 0.255       | 0.256       | 0.256       | 0.257       |
| Angola                           | 0.249       | 0.249       | 0.25        | 0.25        | 0.25        | 0.251       | 0.253       | 0.254       | 0.255       | 0.256       | 0.256       |
| Micronesia (Federated States of) | 0.248       | 0.248       | 0.249       | 0.249       | 0.25        | 0.251       | 0.252       | 0.254       | 0.255       | 0.255       | 0.256       |
| Myanmar                          | 0.246       | 0.246       | 0.247       | 0.247       | 0.249       | 0.249       | 0.25        | 0.251       | 0.254       | 0.253       | 0.254       |
| Cambodia                         | 0.245       | 0.245       | 0.246       | 0.246       | 0.246       | 0.248       | 0.249       | 0.251       | 0.252       | 0.253       | 0.252       |
| Comoros                          | 0.243       | 0.244       | 0.244       | 0.244       | 0.245       | 0.246       | 0.247       | 0.249       | 0.25        | 0.25        | 0.251       |
| Zimbabwe                         | 0.242       | 0.242       | 0.242       | 0.243       | 0.243       | 0.244       | 0.245       | 0.249       | 0.25        | 0.248       | 0.25        |
| Zambia                           | 0.241       | 0.241       | 0.241       | 0.242       | 0.242       | 0.243       | 0.244       | 0.246       | 0.249       | 0.249       | 0.248       |
| Cameroon                         | 0.239       | 0.238       | 0.242       | 0.239       | 0.242       | 0.244       | 0.245       | 0.246       | 0.246       | 0.247       | 0.247       |
| Solomon Islands                  | 0.236       | 0.236       | 0.237       | 0.237       | 0.237       | 0.238       | 0.24        | 0.241       | 0.242       | 0.242       | 0.243       |
| Uganda                           | 0.237       | 0.236       | 0.236       | 0.237       | 0.241       | 0.241       | 0.239       | 0.243       | 0.244       | 0.242       | 0.242       |
| Côte d'Ivoire                    | 0.235       | 0.236       | 0.237       | 0.236       | 0.237       | 0.238       | 0.239       | 0.241       | 0.242       | 0.242       | 0.242       |
| Rwanda                           | 0.234       | 0.234       | 0.234       | 0.235       | 0.235       | 0.236       | 0.238       | 0.239       | 0.24        | 0.241       | 0.241       |
| Papua New Guinea                 | 0.233       | 0.233       | 0.234       | 0.234       | 0.234       | 0.235       | 0.237       | 0.238       | 0.239       | 0.239       | 0.24        |
| Togo                             | 0.231       | 0.231       | 0.232       | 0.232       | 0.232       | 0.233       | 0.235       | 0.236       | 0.238       | 0.237       | 0.238       |
| Syrian Arab Republic             | 0.228       | 0.228       | 0.229       | 0.229       | 0.231       | 0.231       | 0.232       | 0.233       | 0.234       | 0.236       | 0.237       |
| Nigeria                          | 0.228       | 0.23        | 0.229       | 0.232       | 0.233       | 0.233       | 0.234       | 0.235       | 0.236       | 0.236       | 0.237       |
| Mauritania                       | 0.227       | 0.228       | 0.228       | 0.228       | 0.229       | 0.23        | 0.231       | 0.233       | 0.234       | 0.234       | 0.235       |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United Republic of Tanzania           | 0.226       | 0.225       | 0.225       | 0.229       | 0.226       | 0.23        | 0.228       | 0.23        | 0.231       | 0.233       | 0.234       |
| Haiti                                 | 0.224       | 0.224       | 0.225       | 0.225       | 0.225       | 0.227       | 0.228       | 0.229       | 0.23        | 0.23        | 0.231       |
| Lesotho                               | 0.222       | 0.223       | 0.223       | 0.223       | 0.224       | 0.225       | 0.226       | 0.228       | 0.229       | 0.229       | 0.23        |
| Pakistan                              | 0.225       | 0.223       | 0.223       | 0.225       | 0.225       | 0.225       | 0.227       | 0.23        | 0.228       | 0.228       | 0.228       |
| Senegal                               | 0.215       | 0.215       | 0.216       | 0.216       | 0.216       | 0.217       | 0.22        | 0.222       | 0.221       | 0.223       | 0.222       |
| Democratic Republic of the Congo      | 0.211       | 0.211       | 0.212       | 0.212       | 0.213       | 0.214       | 0.215       | 0.217       | 0.218       | 0.219       | 0.22        |
| Gambia                                | 0.212       | 0.213       | 0.213       | 0.213       | 0.214       | 0.215       | 0.216       | 0.217       | 0.219       | 0.219       | 0.219       |
| Malawi                                | 0.21        | 0.21        | 0.21        | 0.211       | 0.211       | 0.214       | 0.213       | 0.215       | 0.216       | 0.218       | 0.216       |
| Benin                                 | 0.209       | 0.209       | 0.209       | 0.21        | 0.21        | 0.211       | 0.212       | 0.214       | 0.217       | 0.217       | 0.216       |
| Guinea-Bissau                         | 0.208       | 0.208       | 0.209       | 0.209       | 0.209       | 0.21        | 0.212       | 0.213       | 0.214       | 0.214       | 0.215       |
| Djibouti                              | 0.207       | 0.208       | 0.208       | 0.208       | 0.209       | 0.21        | 0.211       | 0.213       | 0.214       | 0.214       | 0.215       |
| Sudan                                 | 0.207       | 0.207       | 0.208       | 0.208       | 0.21        | 0.209       | 0.212       | 0.214       | 0.214       | 0.214       | 0.214       |
| Liberia                               | 0.206       | 0.207       | 0.207       | 0.207       | 0.208       | 0.209       | 0.21        | 0.212       | 0.213       | 0.213       | 0.214       |
| Eritrea                               | 0.203       | 0.204       | 0.204       | 0.204       | 0.205       | 0.206       | 0.207       | 0.209       | 0.21        | 0.21        | 0.211       |
| Guinea                                | 0.202       | 0.203       | 0.203       | 0.203       | 0.204       | 0.205       | 0.206       | 0.208       | 0.209       | 0.209       | 0.21        |
| Ethiopia                              | 0.202       | 0.202       | 0.205       | 0.205       | 0.207       | 0.207       | 0.209       | 0.21        | 0.211       | 0.208       | 0.209       |
| Afghanistan                           | 0.201       | 0.201       | 0.201       | 0.202       | 0.202       | 0.203       | 0.205       | 0.206       | 0.209       | 0.207       | 0.208       |
| Mozambique                            | 0.2         | 0.2         | 0.2         | 0.201       | 0.201       | 0.202       | 0.205       | 0.205       | 0.208       | 0.206       | 0.207       |
| Madagascar                            | 0.197       | 0.198       | 0.198       | 0.198       | 0.199       | 0.2         | 0.201       | 0.203       | 0.204       | 0.204       | 0.204       |
| Yemen                                 | 0.191       | 0.191       | 0.191       | 0.192       | 0.192       | 0.194       | 0.194       | 0.198       | 0.199       | 0.197       | 0.198       |
| Sierra Leone                          | 0.189       | 0.19        | 0.19        | 0.19        | 0.191       | 0.192       | 0.193       | 0.195       | 0.196       | 0.196       | 0.196       |
| Democratic People's Republic of Korea | 0.188       | 0.189       | 0.189       | 0.189       | 0.19        | 0.191       | 0.192       | 0.194       | 0.195       | 0.195       | 0.195       |
| Burkina Faso                          | 0.187       | 0.187       | 0.187       | 0.187       | 0.188       | 0.189       | 0.19        | 0.191       | 0.194       | 0.193       | 0.193       |
| Burundi                               | 0.178       | 0.178       | 0.179       | 0.179       | 0.179       | 0.18        | 0.182       | 0.183       | 0.184       | 0.184       | 0.185       |
| Mali                                  | 0.17        | 0.17        | 0.171       | 0.171       | 0.172       | 0.173       | 0.174       | 0.175       | 0.177       | 0.176       | 0.177       |
| Niger                                 | 0.17        | 0.17        | 0.171       | 0.171       | 0.172       | 0.173       | 0.174       | 0.175       | 0.177       | 0.177       | 0.177       |
| Chad                                  | 0.169       | 0.169       | 0.169       | 0.17        | 0.17        | 0.171       | 0.173       | 0.174       | 0.175       | 0.175       | 0.176       |
| Central African Republic              | 0.168       | 0.168       | 0.169       | 0.169       | 0.169       | 0.17        | 0.172       | 0.173       | 0.174       | 0.174       | 0.175       |
| Somalia                               | 0.164       | 0.164       | 0.164       | 0.165       | 0.165       | 0.166       | 0.168       | 0.169       | 0.17        | 0.172       | 0.171       |
| South Sudan                           | 0.157       | 0.158       | 0.158       | 0.158       | 0.159       | 0.16        | 0.161       | 0.163       | 0.164       | 0.164       | 0.165       |

Table S1-4. Open Policy Readiness (R<sub>OP</sub>) for 193 countries, 2014–2024

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United States                | 0.975       | 0.975       | 0.975       | 0.975       | 0.975       | 0.975       | 0.975       | 0.975       | 0.975       | 0.975       | 0.975       |
| United Kingdom               | 0.958       | 0.952       | 0.949       | 0.947       | 0.944       | 0.941       | 0.937       | 0.934       | 0.937       | 0.916       | 0.941       |
| Germany                      | 0.898       | 0.898       | 0.904       | 0.915       | 0.914       | 0.912       | 0.916       | 0.912       | 0.921       | 0.929       | 0.927       |
| Switzerland                  | 0.765       | 0.803       | 0.82        | 0.822       | 0.842       | 0.846       | 0.854       | 0.851       | 0.856       | 0.853       | 0.857       |
| Canada                       | 0.764       | 0.81        | 0.805       | 0.814       | 0.814       | 0.825       | 0.838       | 0.832       | 0.835       | 0.813       | 0.837       |
| Japan                        | 0.743       | 0.796       | 0.802       | 0.818       | 0.822       | 0.825       | 0.831       | 0.825       | 0.827       | 0.805       | 0.828       |
| Netherlands (Kingdom of the) | 0.782       | 0.765       | 0.787       | 0.803       | 0.803       | 0.805       | 0.807       | 0.803       | 0.806       | 0.8         | 0.809       |
| Australia                    | 0.799       | 0.791       | 0.786       | 0.794       | 0.793       | 0.8         | 0.811       | 0.803       | 0.803       | 0.799       | 0.805       |
| Spain                        | 0.748       | 0.748       | 0.75        | 0.757       | 0.757       | 0.761       | 0.797       | 0.796       | 0.797       | 0.782       | 0.799       |
| France                       | 0.743       | 0.726       | 0.747       | 0.759       | 0.764       | 0.769       | 0.776       | 0.78        | 0.781       | 0.781       | 0.786       |
| Italy                        | 0.734       | 0.731       | 0.733       | 0.735       | 0.741       | 0.743       | 0.766       | 0.767       | 0.767       | 0.759       | 0.777       |
| Austria                      | 0.729       | 0.722       | 0.733       | 0.748       | 0.749       | 0.753       | 0.762       | 0.76        | 0.762       | 0.744       | 0.761       |
| Denmark                      | 0.738       | 0.721       | 0.716       | 0.715       | 0.728       | 0.73        | 0.73        | 0.725       | 0.727       | 0.711       | 0.726       |
| Belgium                      | 0.726       | 0.707       | 0.714       | 0.714       | 0.707       | 0.708       | 0.725       | 0.719       | 0.723       | 0.708       | 0.724       |
| Poland                       | 0.664       | 0.651       | 0.665       | 0.665       | 0.679       | 0.679       | 0.699       | 0.703       | 0.71        | 0.702       | 0.719       |
| Norway                       | 0.727       | 0.712       | 0.721       | 0.721       | 0.717       | 0.716       | 0.723       | 0.717       | 0.719       | 0.703       | 0.717       |
| Türkiye                      | 0.702       | 0.681       | 0.674       | 0.665       | 0.669       | 0.672       | 0.701       | 0.711       | 0.703       | 0.682       | 0.699       |
| New Zealand                  | 0.687       | 0.676       | 0.672       | 0.674       | 0.674       | 0.675       | 0.7         | 0.694       | 0.696       | 0.68        | 0.693       |
| China                        | 0.685       | 0.669       | 0.673       | 0.676       | 0.679       | 0.685       | 0.689       | 0.693       | 0.692       | 0.684       | 0.692       |
| Ireland                      | 0.675       | 0.679       | 0.686       | 0.694       | 0.688       | 0.685       | 0.691       | 0.687       | 0.689       | 0.677       | 0.691       |
| Finland                      | 0.685       | 0.684       | 0.68        | 0.68        | 0.68        | 0.683       | 0.693       | 0.681       | 0.689       | 0.682       | 0.69        |
| Czechia                      | 0.66        | 0.658       | 0.667       | 0.671       | 0.674       | 0.675       | 0.686       | 0.681       | 0.68        | 0.67        | 0.683       |
| Brazil                       | 0.6         | 0.604       | 0.611       | 0.64        | 0.656       | 0.652       | 0.68        | 0.677       | 0.673       | 0.676       | 0.68        |
| Sweden                       | 0.69        | 0.673       | 0.664       | 0.67        | 0.665       | 0.668       | 0.673       | 0.667       | 0.668       | 0.658       | 0.669       |
| Serbia                       | 0.478       | 0.486       | 0.486       | 0.495       | 0.611       | 0.624       | 0.653       | 0.666       | 0.662       | 0.652       | 0.668       |
| Portugal                     | 0.599       | 0.61        | 0.605       | 0.625       | 0.63        | 0.636       | 0.66        | 0.657       | 0.662       | 0.652       | 0.664       |
| Singapore                    | 0.658       | 0.645       | 0.642       | 0.648       | 0.648       | 0.653       | 0.663       | 0.658       | 0.659       | 0.646       | 0.66        |
| Lithuania                    | 0.582       | 0.58        | 0.619       | 0.624       | 0.637       | 0.642       | 0.656       | 0.653       | 0.653       | 0.645       | 0.659       |

|                      | <b>Year</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Russia               |             | 0.615       | 0.599       | 0.595       | 0.583       | 0.645       | 0.646       | 0.662       | 0.663       | 0.656       | 0.633       | 0.644       |
| Slovenia             |             | 0.611       | 0.608       | 0.619       | 0.623       | 0.623       | 0.622       | 0.638       | 0.641       | 0.638       | 0.627       | 0.639       |
| India                |             | 0.646       | 0.628       | 0.624       | 0.625       | 0.624       | 0.626       | 0.643       | 0.641       | 0.638       | 0.62        | 0.637       |
| Iceland              |             | 0.602       | 0.615       | 0.613       | 0.617       | 0.625       | 0.623       | 0.634       | 0.63        | 0.627       | 0.618       | 0.628       |
| Israel               |             | 0.603       | 0.589       | 0.59        | 0.593       | 0.595       | 0.597       | 0.608       | 0.629       | 0.625       | 0.61        | 0.619       |
| Greece               |             | 0.62        | 0.623       | 0.619       | 0.615       | 0.61        | 0.609       | 0.618       | 0.62        | 0.615       | 0.609       | 0.619       |
| Chile                |             | 0.554       | 0.562       | 0.561       | 0.563       | 0.561       | 0.596       | 0.614       | 0.607       | 0.617       | 0.601       | 0.613       |
| South Africa         |             | 0.592       | 0.604       | 0.597       | 0.602       | 0.597       | 0.597       | 0.62        | 0.616       | 0.619       | 0.613       | 0.611       |
| Argentina            |             | 0.511       | 0.541       | 0.549       | 0.564       | 0.57        | 0.568       | 0.599       | 0.592       | 0.596       | 0.6         | 0.604       |
| Colombia             |             | 0.499       | 0.514       | 0.528       | 0.534       | 0.555       | 0.562       | 0.604       | 0.597       | 0.591       | 0.583       | 0.6         |
| Croatia              |             | 0.55        | 0.577       | 0.573       | 0.566       | 0.572       | 0.571       | 0.594       | 0.597       | 0.591       | 0.585       | 0.596       |
| Hungary              |             | 0.584       | 0.598       | 0.59        | 0.593       | 0.592       | 0.593       | 0.6         | 0.601       | 0.594       | 0.584       | 0.594       |
| Ukraine              |             | 0.533       | 0.539       | 0.556       | 0.542       | 0.555       | 0.554       | 0.584       | 0.585       | 0.582       | 0.57        | 0.583       |
| Romania              |             | 0.522       | 0.543       | 0.541       | 0.53        | 0.542       | 0.545       | 0.562       | 0.583       | 0.576       | 0.571       | 0.58        |
| Republic of Korea    |             | 0.626       | 0.633       | 0.631       | 0.636       | 0.555       | 0.559       | 0.572       | 0.573       | 0.576       | 0.573       | 0.577       |
| Slovakia             |             | 0.566       | 0.56        | 0.559       | 0.563       | 0.558       | 0.562       | 0.58        | 0.576       | 0.574       | 0.567       | 0.576       |
| Saudi Arabia         |             | 0.577       | 0.562       | 0.563       | 0.561       | 0.564       | 0.567       | 0.575       | 0.578       | 0.574       | 0.559       | 0.571       |
| Indonesia            |             | 0.421       | 0.478       | 0.482       | 0.48        | 0.482       | 0.48        | 0.572       | 0.571       | 0.567       | 0.557       | 0.569       |
| Malaysia             |             | 0.502       | 0.498       | 0.498       | 0.495       | 0.517       | 0.518       | 0.554       | 0.555       | 0.55        | 0.556       | 0.567       |
| United Arab Emirates |             | 0.59        | 0.583       | 0.579       | 0.58        | 0.581       | 0.579       | 0.585       | 0.58        | 0.577       | 0.557       | 0.565       |
| Mexico               |             | 0.557       | 0.54        | 0.538       | 0.542       | 0.544       | 0.548       | 0.565       | 0.565       | 0.557       | 0.546       | 0.559       |
| Latvia               |             | 0.489       | 0.483       | 0.509       | 0.501       | 0.511       | 0.514       | 0.554       | 0.556       | 0.555       | 0.55        | 0.558       |
| Uruguay              |             | 0.457       | 0.449       | 0.451       | 0.455       | 0.45        | 0.454       | 0.508       | 0.508       | 0.508       | 0.505       | 0.531       |
| Bulgaria             |             | 0.493       | 0.486       | 0.507       | 0.503       | 0.51        | 0.513       | 0.535       | 0.533       | 0.525       | 0.52        | 0.529       |
| Cyprus               |             | 0.513       | 0.501       | 0.5         | 0.487       | 0.5         | 0.504       | 0.518       | 0.518       | 0.519       | 0.514       | 0.527       |
| Costa Rica           |             | 0.458       | 0.449       | 0.448       | 0.451       | 0.46        | 0.459       | 0.511       | 0.506       | 0.502       | 0.497       | 0.523       |
| Malta                |             | 0.498       | 0.491       | 0.486       | 0.513       | 0.509       | 0.509       | 0.529       | 0.523       | 0.516       | 0.515       | 0.513       |
| Republic of Moldova  |             | 0.416       | 0.441       | 0.446       | 0.448       | 0.461       | 0.464       | 0.497       | 0.505       | 0.5         | 0.5         | 0.509       |
| Luxembourg           |             | 0.517       | 0.512       | 0.512       | 0.514       | 0.51        | 0.511       | 0.512       | 0.508       | 0.507       | 0.499       | 0.505       |
| Peru                 |             | 0.409       | 0.399       | 0.427       | 0.432       | 0.432       | 0.447       | 0.508       | 0.506       | 0.498       | 0.492       | 0.5         |
| Thailand             |             | 0.484       | 0.471       | 0.47        | 0.472       | 0.473       | 0.477       | 0.497       | 0.496       | 0.496       | 0.49        | 0.498       |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Qatar                              | 0.49        | 0.486       | 0.482       | 0.48        | 0.477       | 0.474       | 0.499       | 0.5         | 0.497       | 0.488       | 0.494       |
| Azerbaijan                         | 0.46        | 0.448       | 0.445       | 0.44        | 0.458       | 0.459       | 0.491       | 0.493       | 0.49        | 0.483       | 0.489       |
| Iran (Islamic Republic of)         | 0.479       | 0.47        | 0.471       | 0.474       | 0.475       | 0.475       | 0.494       | 0.493       | 0.486       | 0.478       | 0.485       |
| Egypt                              | 0.441       | 0.427       | 0.429       | 0.432       | 0.448       | 0.454       | 0.488       | 0.492       | 0.485       | 0.472       | 0.479       |
| Panama                             | 0.458       | 0.447       | 0.447       | 0.478       | 0.492       | 0.488       | 0.487       | 0.482       | 0.474       | 0.473       | 0.479       |
| Estonia                            | 0.57        | 0.561       | 0.56        | 0.569       | 0.571       | 0.573       | 0.596       | 0.592       | 0.595       | 0.471       | 0.476       |
| Bahrain                            | 0.488       | 0.477       | 0.478       | 0.465       | 0.465       | 0.466       | 0.484       | 0.483       | 0.478       | 0.469       | 0.474       |
| Kazakhstan                         | 0.417       | 0.414       | 0.417       | 0.411       | 0.417       | 0.419       | 0.474       | 0.474       | 0.468       | 0.464       | 0.47        |
| Montenegro                         | 0.435       | 0.428       | 0.424       | 0.417       | 0.424       | 0.428       | 0.469       | 0.476       | 0.473       | 0.469       | 0.47        |
| Kenya                              | 0.457       | 0.452       | 0.448       | 0.455       | 0.47        | 0.473       | 0.469       | 0.468       | 0.461       | 0.473       | 0.465       |
| Kuwait                             | 0.481       | 0.467       | 0.464       | 0.466       | 0.467       | 0.47        | 0.471       | 0.474       | 0.469       | 0.46        | 0.464       |
| Georgia                            | 0.43        | 0.427       | 0.432       | 0.432       | 0.44        | 0.442       | 0.464       | 0.466       | 0.459       | 0.458       | 0.461       |
| Ecuador                            | 0.402       | 0.397       | 0.393       | 0.408       | 0.409       | 0.412       | 0.473       | 0.468       | 0.46        | 0.455       | 0.46        |
| Oman                               | 0.46        | 0.452       | 0.447       | 0.451       | 0.451       | 0.459       | 0.459       | 0.457       | 0.452       | 0.445       | 0.45        |
| Jordan                             | 0.427       | 0.419       | 0.418       | 0.423       | 0.421       | 0.423       | 0.457       | 0.453       | 0.452       | 0.441       | 0.448       |
| Viet Nam                           | 0.394       | 0.385       | 0.405       | 0.409       | 0.411       | 0.426       | 0.449       | 0.453       | 0.446       | 0.438       | 0.447       |
| Armenia                            | 0.436       | 0.429       | 0.426       | 0.424       | 0.433       | 0.436       | 0.45        | 0.45        | 0.445       | 0.439       | 0.444       |
| Philippines                        | 0.442       | 0.434       | 0.433       | 0.434       | 0.432       | 0.431       | 0.455       | 0.45        | 0.444       | 0.435       | 0.442       |
| Bosnia and Herzegovina             | 0.416       | 0.411       | 0.407       | 0.403       | 0.411       | 0.412       | 0.438       | 0.443       | 0.434       | 0.434       | 0.439       |
| Sri Lanka                          | 0.417       | 0.409       | 0.411       | 0.417       | 0.414       | 0.414       | 0.439       | 0.439       | 0.435       | 0.432       | 0.435       |
| North Macedonia                    | 0.35        | 0.349       | 0.349       | 0.349       | 0.349       | 0.43        | 0.431       | 0.431       | 0.43        | 0.43        | 0.434       |
| Brunei Darussalam                  | 0.434       | 0.426       | 0.42        | 0.414       | 0.416       | 0.417       | 0.418       | 0.419       | 0.432       | 0.428       | 0.432       |
| Algeria                            | 0.411       | 0.404       | 0.418       | 0.416       | 0.415       | 0.418       | 0.439       | 0.443       | 0.438       | 0.43        | 0.428       |
| Tunisia                            | 0.409       | 0.399       | 0.401       | 0.403       | 0.403       | 0.405       | 0.419       | 0.427       | 0.426       | 0.422       | 0.427       |
| Trinidad and Tobago                | 0.423       | 0.415       | 0.413       | 0.417       | 0.42        | 0.423       | 0.435       | 0.43        | 0.424       | 0.42        | 0.424       |
| Mauritius                          | 0.438       | 0.43        | 0.429       | 0.431       | 0.429       | 0.431       | 0.433       | 0.43        | 0.424       | 0.419       | 0.423       |
| Venezuela (Bolivarian Republic of) | 0.395       | 0.405       | 0.403       | 0.406       | 0.406       | 0.4         | 0.427       | 0.421       | 0.409       | 0.406       | 0.41        |
| Pakistan                           | 0.371       | 0.353       | 0.353       | 0.373       | 0.375       | 0.377       | 0.4         | 0.416       | 0.411       | 0.402       | 0.41        |
| Belarus                            | 0.36        | 0.359       | 0.359       | 0.383       | 0.377       | 0.375       | 0.396       | 0.394       | 0.408       | 0.404       | 0.408       |
| Dominican Republic                 | 0.4         | 0.387       | 0.389       | 0.393       | 0.393       | 0.395       | 0.398       | 0.411       | 0.402       | 0.401       | 0.407       |
| Morocco                            | 0.379       | 0.375       | 0.376       | 0.378       | 0.38        | 0.383       | 0.414       | 0.413       | 0.406       | 0.399       | 0.404       |

| Year                             | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Albania                          | 0.397 | 0.389 | 0.393 | 0.389 | 0.401 | 0.402 | 0.398 | 0.406 | 0.396 | 0.4   | 0.403 |
| Paraguay                         | 0.378 | 0.368 | 0.373 | 0.379 | 0.379 | 0.381 | 0.403 | 0.402 | 0.396 | 0.397 | 0.401 |
| Jamaica                          | 0.404 | 0.397 | 0.399 | 0.391 | 0.404 | 0.406 | 0.405 | 0.401 | 0.393 | 0.39  | 0.395 |
| Botswana                         | 0.408 | 0.397 | 0.395 | 0.397 | 0.395 | 0.395 | 0.395 | 0.392 | 0.385 | 0.386 | 0.39  |
| Ghana                            | 0.388 | 0.379 | 0.375 | 0.376 | 0.376 | 0.379 | 0.391 | 0.374 | 0.39  | 0.383 | 0.389 |
| Bangladesh                       | 0.372 | 0.353 | 0.356 | 0.361 | 0.364 | 0.364 | 0.377 | 0.379 | 0.383 | 0.381 | 0.385 |
| Monaco                           | 0.382 | 0.382 | 0.382 | 0.382 | 0.382 | 0.382 | 0.382 | 0.382 | 0.382 | 0.382 | 0.382 |
| San Marino                       | 0.366 | 0.366 | 0.366 | 0.366 | 0.366 | 0.366 | 0.38  | 0.38  | 0.38  | 0.379 | 0.38  |
| Lebanon                          | 0.371 | 0.362 | 0.367 | 0.375 | 0.375 | 0.376 | 0.39  | 0.388 | 0.38  | 0.375 | 0.379 |
| El Salvador                      | 0.361 | 0.356 | 0.354 | 0.356 | 0.353 | 0.352 | 0.367 | 0.366 | 0.358 | 0.357 | 0.379 |
| Liechtenstein                    | 0.375 | 0.375 | 0.375 | 0.375 | 0.375 | 0.375 | 0.375 | 0.375 | 0.375 | 0.375 | 0.375 |
| Bolivia (Plurinational State of) | 0.376 | 0.368 | 0.365 | 0.361 | 0.361 | 0.361 | 0.385 | 0.38  | 0.373 | 0.371 | 0.375 |
| Nicaragua                        | 0.367 | 0.354 | 0.351 | 0.351 | 0.355 | 0.357 | 0.376 | 0.374 | 0.366 | 0.365 | 0.368 |
| Andorra                          | 0.365 | 0.365 | 0.365 | 0.365 | 0.365 | 0.365 | 0.365 | 0.365 | 0.365 | 0.365 | 0.365 |
| Cuba                             | 0.305 | 0.305 | 0.305 | 0.305 | 0.305 | 0.305 | 0.365 | 0.365 | 0.366 | 0.362 | 0.363 |
| Gabon                            | 0.381 | 0.371 | 0.374 | 0.374 | 0.374 | 0.375 | 0.376 | 0.366 | 0.359 | 0.357 | 0.359 |
| Nepal                            | 0.347 | 0.337 | 0.341 | 0.348 | 0.347 | 0.347 | 0.366 | 0.363 | 0.356 | 0.346 | 0.35  |
| Antigua and Barbuda              | 0.34  | 0.34  | 0.34  | 0.34  | 0.34  | 0.34  | 0.34  | 0.34  | 0.34  | 0.34  | 0.34  |
| Seychelles                       | 0.339 | 0.339 | 0.339 | 0.339 | 0.339 | 0.339 | 0.339 | 0.339 | 0.339 | 0.339 | 0.339 |
| Rwanda                           | 0.342 | 0.335 | 0.339 | 0.343 | 0.343 | 0.339 | 0.339 | 0.348 | 0.34  | 0.335 | 0.339 |
| Guatemala                        | 0.353 | 0.343 | 0.345 | 0.352 | 0.35  | 0.351 | 0.351 | 0.347 | 0.336 | 0.333 | 0.337 |
| Saint Kitts and Nevis            | 0.336 | 0.336 | 0.336 | 0.336 | 0.336 | 0.336 | 0.336 | 0.336 | 0.336 | 0.336 | 0.336 |
| Nigeria                          | 0.327 | 0.318 | 0.319 | 0.325 | 0.324 | 0.323 | 0.327 | 0.333 | 0.329 | 0.325 | 0.33  |
| Uganda                           | 0.334 | 0.324 | 0.327 | 0.334 | 0.33  | 0.334 | 0.339 | 0.337 | 0.329 | 0.326 | 0.33  |
| Honduras                         | 0.34  | 0.335 | 0.34  | 0.342 | 0.339 | 0.341 | 0.342 | 0.34  | 0.328 | 0.324 | 0.328 |
| The Bahamas                      | 0.328 | 0.328 | 0.328 | 0.328 | 0.328 | 0.328 | 0.328 | 0.328 | 0.328 | 0.328 | 0.328 |
| Barbados                         | 0.324 | 0.324 | 0.324 | 0.324 | 0.324 | 0.324 | 0.324 | 0.324 | 0.324 | 0.324 | 0.324 |
| Zimbabwe                         | 0.34  | 0.324 | 0.324 | 0.329 | 0.33  | 0.327 | 0.331 | 0.328 | 0.317 | 0.318 | 0.323 |
| Saint Vincent and the Grenadines | 0.319 | 0.319 | 0.319 | 0.319 | 0.319 | 0.319 | 0.319 | 0.319 | 0.319 | 0.319 | 0.319 |
| Malawi                           | 0.335 | 0.32  | 0.319 | 0.319 | 0.318 | 0.322 | 0.321 | 0.32  | 0.315 | 0.315 | 0.318 |
| Cameroon                         | 0.314 | 0.304 | 0.323 | 0.327 | 0.327 | 0.327 | 0.326 | 0.322 | 0.315 | 0.314 | 0.317 |

| Year                        | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|-----------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Iraq                        | 0.278 | 0.278 | 0.278 | 0.278 | 0.278 | 0.278 | 0.317 | 0.317 | 0.317 | 0.316 | 0.317 |
| Grenada                     | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 | 0.316 |
| Palau                       | 0.314 | 0.314 | 0.314 | 0.314 | 0.314 | 0.314 | 0.314 | 0.314 | 0.314 | 0.314 | 0.314 |
| Zambia                      | 0.331 | 0.321 | 0.321 | 0.322 | 0.319 | 0.317 | 0.316 | 0.315 | 0.307 | 0.31  | 0.314 |
| Senegal                     | 0.317 | 0.311 | 0.313 | 0.314 | 0.315 | 0.318 | 0.318 | 0.316 | 0.309 | 0.309 | 0.313 |
| Fiji                        | 0.312 | 0.311 | 0.311 | 0.31  | 0.31  | 0.31  | 0.31  | 0.31  | 0.311 | 0.31  | 0.311 |
| Guyana                      | 0.397 | 0.389 | 0.385 | 0.31  | 0.31  | 0.31  | 0.31  | 0.31  | 0.31  | 0.31  | 0.31  |
| Uzbekistan                  | 0.311 | 0.311 | 0.31  | 0.31  | 0.31  | 0.31  | 0.31  | 0.31  | 0.31  | 0.309 | 0.31  |
| Benin                       | 0.325 | 0.317 | 0.313 | 0.313 | 0.311 | 0.312 | 0.315 | 0.314 | 0.311 | 0.305 | 0.31  |
| Tonga                       | 0.308 | 0.308 | 0.308 | 0.308 | 0.308 | 0.308 | 0.308 | 0.308 | 0.308 | 0.308 | 0.308 |
| Maldives                    | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 |
| Turkmenistan                | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 | 0.306 |
| Dominica                    | 0.304 | 0.304 | 0.304 | 0.304 | 0.304 | 0.304 | 0.304 | 0.304 | 0.304 | 0.304 | 0.304 |
| Angola                      | 0.298 | 0.293 | 0.294 | 0.296 | 0.298 | 0.3   | 0.305 | 0.301 | 0.302 | 0.301 | 0.303 |
| Libya                       | 0.36  | 0.351 | 0.288 | 0.288 | 0.288 | 0.288 | 0.302 | 0.302 | 0.302 | 0.302 | 0.302 |
| United Republic of Tanzania | 0.315 | 0.303 | 0.301 | 0.308 | 0.31  | 0.312 | 0.313 | 0.311 | 0.303 | 0.298 | 0.302 |
| Saint Lucia                 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 |
| Mongolia                    | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 | 0.299 |
| Marshall Islands            | 0.293 | 0.293 | 0.293 | 0.293 | 0.293 | 0.293 | 0.293 | 0.293 | 0.293 | 0.293 | 0.293 |
| Burkina Faso                | 0.308 | 0.294 | 0.297 | 0.301 | 0.305 | 0.312 | 0.31  | 0.3   | 0.293 | 0.289 | 0.292 |
| Suriname                    | 0.289 | 0.289 | 0.289 | 0.289 | 0.289 | 0.289 | 0.289 | 0.289 | 0.289 | 0.289 | 0.289 |
| Belize                      | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 |
| Kyrgyzstan                  | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 | 0.288 |
| Ethiopia                    | 0.304 | 0.284 | 0.295 | 0.302 | 0.297 | 0.297 | 0.301 | 0.302 | 0.292 | 0.284 | 0.287 |
| Samoa                       | 0.283 | 0.283 | 0.283 | 0.283 | 0.283 | 0.283 | 0.283 | 0.283 | 0.283 | 0.283 | 0.283 |
| Mauritania                  | 0.308 | 0.292 | 0.29  | 0.295 | 0.296 | 0.297 | 0.297 | 0.292 | 0.282 | 0.279 | 0.282 |
| Nauru                       | 0.281 | 0.281 | 0.281 | 0.281 | 0.281 | 0.281 | 0.281 | 0.281 | 0.281 | 0.281 | 0.281 |
| Bhutan                      | 0.279 | 0.279 | 0.279 | 0.279 | 0.279 | 0.279 | 0.279 | 0.279 | 0.279 | 0.279 | 0.279 |
| Eswatini                    | 0.278 | 0.278 | 0.278 | 0.278 | 0.278 | 0.278 | 0.278 | 0.278 | 0.278 | 0.278 | 0.278 |
| Tajikistan                  | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 |
| Tuvalu                      | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 | 0.276 |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Equatorial Guinea                | 0.27        | 0.27        | 0.27        | 0.27        | 0.27        | 0.27        | 0.27        | 0.27        | 0.27        | 0.27        | 0.27        |
| Cabo Verde                       | 0.267       | 0.267       | 0.267       | 0.267       | 0.267       | 0.267       | 0.267       | 0.267       | 0.267       | 0.267       | 0.267       |
| Haiti                            | 0.277       | 0.269       | 0.271       | 0.269       | 0.268       | 0.268       | 0.268       | 0.268       | 0.271       | 0.267       | 0.267       |
| Namibia                          | 0.266       | 0.266       | 0.266       | 0.266       | 0.266       | 0.266       | 0.266       | 0.266       | 0.266       | 0.266       | 0.266       |
| Lao People's Democratic Republic | 0.247       | 0.247       | 0.265       | 0.265       | 0.265       | 0.265       | 0.265       | 0.265       | 0.265       | 0.264       | 0.265       |
| Mozambique                       | 0.285       | 0.271       | 0.272       | 0.276       | 0.274       | 0.273       | 0.272       | 0.272       | 0.263       | 0.261       | 0.263       |
| Democratic Republic of the Congo | 0.209       | 0.209       | 0.209       | 0.209       | 0.273       | 0.27        | 0.269       | 0.269       | 0.26        | 0.26        | 0.261       |
| Congo                            | 0.26        | 0.26        | 0.26        | 0.26        | 0.26        | 0.26        | 0.26        | 0.26        | 0.26        | 0.26        | 0.26        |
| Madagascar                       | 0.275       | 0.262       | 0.261       | 0.264       | 0.264       | 0.264       | 0.263       | 0.264       | 0.258       | 0.256       | 0.258       |
| Kiribati                         | 0.258       | 0.258       | 0.258       | 0.258       | 0.258       | 0.258       | 0.258       | 0.258       | 0.258       | 0.258       | 0.258       |
| Sao Tome and Principe            | 0.255       | 0.255       | 0.255       | 0.255       | 0.255       | 0.255       | 0.255       | 0.255       | 0.255       | 0.255       | 0.255       |
| Timor-Leste                      | 0.254       | 0.254       | 0.254       | 0.254       | 0.254       | 0.254       | 0.254       | 0.254       | 0.254       | 0.254       | 0.254       |
| Côte d'Ivoire                    | 0.252       | 0.251       | 0.251       | 0.251       | 0.251       | 0.251       | 0.251       | 0.251       | 0.251       | 0.25        | 0.251       |
| Vanuatu                          | 0.248       | 0.248       | 0.248       | 0.248       | 0.248       | 0.248       | 0.248       | 0.248       | 0.248       | 0.248       | 0.248       |
| Micronesia (Federated States of) | 0.246       | 0.246       | 0.246       | 0.246       | 0.246       | 0.246       | 0.246       | 0.246       | 0.246       | 0.246       | 0.246       |
| Myanmar                          | 0.285       | 0.288       | 0.291       | 0.244       | 0.244       | 0.244       | 0.244       | 0.244       | 0.244       | 0.244       | 0.244       |
| Cambodia                         | 0.242       | 0.242       | 0.242       | 0.242       | 0.242       | 0.242       | 0.242       | 0.242       | 0.242       | 0.242       | 0.242       |
| Burundi                          | 0.242       | 0.234       | 0.235       | 0.234       | 0.24        | 0.241       | 0.252       | 0.251       | 0.243       | 0.238       | 0.241       |
| Comoros                          | 0.241       | 0.241       | 0.241       | 0.241       | 0.241       | 0.241       | 0.241       | 0.241       | 0.241       | 0.241       | 0.241       |
| Solomon Islands                  | 0.234       | 0.234       | 0.234       | 0.234       | 0.234       | 0.234       | 0.234       | 0.234       | 0.234       | 0.234       | 0.234       |
| Papua New Guinea                 | 0.23        | 0.23        | 0.23        | 0.23        | 0.23        | 0.23        | 0.23        | 0.23        | 0.23        | 0.23        | 0.23        |
| Yemen                            | 0.24        | 0.237       | 0.236       | 0.235       | 0.236       | 0.234       | 0.235       | 0.24        | 0.228       | 0.228       | 0.23        |
| Mali                             | 0.25        | 0.242       | 0.247       | 0.25        | 0.248       | 0.246       | 0.246       | 0.24        | 0.231       | 0.229       | 0.23        |
| Togo                             | 0.228       | 0.228       | 0.228       | 0.228       | 0.228       | 0.228       | 0.228       | 0.228       | 0.228       | 0.228       | 0.228       |
| Syrian Arab Republic             | 0.226       | 0.226       | 0.226       | 0.226       | 0.226       | 0.226       | 0.226       | 0.226       | 0.226       | 0.226       | 0.226       |
| Lesotho                          | 0.22        | 0.22        | 0.22        | 0.22        | 0.22        | 0.22        | 0.22        | 0.22        | 0.22        | 0.22        | 0.22        |
| Chad                             | 0.238       | 0.229       | 0.231       | 0.233       | 0.231       | 0.233       | 0.236       | 0.231       | 0.22        | 0.218       | 0.22        |
| Gambia                           | 0.21        | 0.21        | 0.21        | 0.21        | 0.21        | 0.21        | 0.21        | 0.21        | 0.21        | 0.21        | 0.21        |
| Guinea-Bissau                    | 0.206       | 0.206       | 0.206       | 0.206       | 0.206       | 0.206       | 0.206       | 0.206       | 0.206       | 0.206       | 0.206       |
| Djibouti                         | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       |
| Sudan                            | 0.204       | 0.204       | 0.204       | 0.204       | 0.204       | 0.204       | 0.204       | 0.204       | 0.204       | 0.204       | 0.204       |

| Year                                  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Liberia                               | 0.298 | 0.292 | 0.288 | 0.288 | 0.283 | 0.284 | 0.204 | 0.204 | 0.204 | 0.204 | 0.204 |
| Eritrea                               | 0.201 | 0.201 | 0.201 | 0.201 | 0.201 | 0.201 | 0.201 | 0.201 | 0.201 | 0.201 | 0.201 |
| Guinea                                | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   | 0.2   |
| Afghanistan                           | 0.198 | 0.198 | 0.198 | 0.198 | 0.198 | 0.198 | 0.198 | 0.198 | 0.198 | 0.198 | 0.198 |
| Sierra Leone                          | 0.271 | 0.263 | 0.26  | 0.264 | 0.266 | 0.271 | 0.187 | 0.187 | 0.187 | 0.187 | 0.187 |
| Democratic People's Republic of Korea | 0.186 | 0.186 | 0.186 | 0.186 | 0.186 | 0.186 | 0.186 | 0.186 | 0.186 | 0.186 | 0.186 |
| Niger                                 | 0.168 | 0.168 | 0.168 | 0.168 | 0.168 | 0.186 | 0.186 | 0.186 | 0.186 | 0.185 | 0.186 |
| Central African Republic              | 0.166 | 0.166 | 0.166 | 0.166 | 0.166 | 0.166 | 0.166 | 0.166 | 0.166 | 0.166 | 0.166 |
| Somalia                               | 0.162 | 0.162 | 0.162 | 0.162 | 0.162 | 0.162 | 0.162 | 0.162 | 0.162 | 0.162 | 0.162 |
| South Sudan                           | 0.155 | 0.155 | 0.155 | 0.155 | 0.155 | 0.155 | 0.155 | 0.155 | 0.155 | 0.155 | 0.155 |

## 2) Processed Data

### Assessment of Open Access Readiness ( $R_{OA}$ )

Table S2-1-1 Openness ( $R_{open}$ ) (2014-2024)

| Year                         | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021   | 2022   | 2023   | 2024   |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| China                        | 2.237 | 2.709 | 3.239 | 4.143 | 4.992 | 6.532 | 8.283 | 10.365 | 14.512 | 13.883 | 15.531 |
| United States                | 3.111 | 3.674 | 4.151 | 4.627 | 5.235 | 6.091 | 7.550 | 9.233  | 10.012 | 10.075 | 10.808 |
| United Kingdom               | 1.486 | 1.832 | 2.158 | 2.430 | 2.688 | 2.956 | 3.747 | 4.726  | 5.217  | 5.544  | 5.852  |
| Germany                      | 1.079 | 1.282 | 1.442 | 1.636 | 1.863 | 2.305 | 3.400 | 4.373  | 4.576  | 4.572  | 4.966  |
| Italy                        | 0.720 | 0.835 | 0.948 | 1.106 | 1.298 | 1.651 | 2.402 | 3.161  | 3.416  | 3.707  | 3.886  |
| Spain                        | 0.774 | 0.865 | 0.987 | 1.159 | 1.377 | 1.761 | 2.367 | 3.062  | 3.355  | 3.528  | 3.608  |
| India                        | 0.861 | 1.013 | 1.194 | 1.226 | 1.411 | 1.973 | 1.934 | 2.425  | 2.934  | 3.141  | 3.495  |
| Australia                    | 0.601 | 0.717 | 0.799 | 0.895 | 1.038 | 1.255 | 1.541 | 1.930  | 2.327  | 2.665  | 3.009  |
| Japan                        | 1.141 | 1.322 | 1.490 | 1.608 | 1.785 | 1.956 | 2.377 | 2.866  | 2.951  | 2.839  | 2.995  |
| Canada                       | 0.701 | 0.792 | 0.877 | 0.983 | 1.134 | 1.319 | 1.639 | 2.096  | 2.322  | 2.380  | 2.673  |
| France                       | 0.686 | 0.798 | 0.893 | 1.006 | 1.141 | 1.350 | 1.710 | 2.081  | 2.230  | 2.303  | 2.467  |
| Netherlands (Kingdom of the) | 0.547 | 0.708 | 0.891 | 1.060 | 1.221 | 1.428 | 1.829 | 2.210  | 2.314  | 2.358  | 2.437  |

| <b>Year</b>                | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Republic of Korea          | 0.738       | 0.914       | 1.035       | 1.122       | 1.295       | 1.583       | 1.972       | 2.357       | 2.435       | 2.317       | 2.393       |
| Brazil                     | 1.335       | 1.428       | 1.443       | 1.560       | 1.715       | 1.968       | 2.192       | 2.343       | 2.327       | 2.263       | 2.302       |
| Poland                     | 0.663       | 0.775       | 0.868       | 0.921       | 1.028       | 1.377       | 1.877       | 2.248       | 2.208       | 2.177       | 2.253       |
| Saudi Arabia               | 0.356       | 0.399       | 0.432       | 0.467       | 0.544       | 0.726       | 1.089       | 1.487       | 1.909       | 1.980       | 2.011       |
| Sweden                     | 0.481       | 0.552       | 0.627       | 0.755       | 0.881       | 1.067       | 1.411       | 1.766       | 1.855       | 1.894       | 1.972       |
| Switzerland                | 0.497       | 0.592       | 0.671       | 0.740       | 0.824       | 0.947       | 1.256       | 1.677       | 1.832       | 1.869       | 1.971       |
| Indonesia                  | 0.333       | 0.332       | 0.343       | 0.476       | 0.685       | 0.950       | 1.071       | 1.352       | 1.545       | 1.743       | 1.923       |
| Russia                     | 0.269       | 0.443       | 0.529       | 0.732       | 0.957       | 1.515       | 1.777       | 2.103       | 2.129       | 2.154       | 1.888       |
| Türkiye                    | 0.451       | 0.508       | 0.568       | 0.586       | 0.746       | 0.900       | 1.057       | 1.222       | 1.395       | 1.529       | 1.808       |
| Iran (Islamic Republic of) | 0.334       | 0.416       | 0.472       | 0.528       | 0.604       | 0.770       | 0.954       | 1.209       | 1.334       | 1.335       | 1.465       |
| South Africa               | 0.518       | 0.466       | 0.513       | 0.557       | 0.602       | 0.726       | 0.874       | 1.043       | 1.181       | 1.275       | 1.417       |
| Norway                     | 0.355       | 0.394       | 0.461       | 0.513       | 0.588       | 0.760       | 1.030       | 1.235       | 1.290       | 1.366       | 1.410       |
| Portugal                   | 0.344       | 0.386       | 0.418       | 0.474       | 0.560       | 0.674       | 0.854       | 1.071       | 1.234       | 1.387       | 1.404       |
| Austria                    | 0.345       | 0.410       | 0.499       | 0.562       | 0.675       | 0.785       | 0.993       | 1.224       | 1.267       | 1.312       | 1.387       |
| Egypt                      | 0.335       | 0.351       | 0.397       | 0.427       | 0.493       | 0.612       | 0.869       | 1.128       | 1.448       | 1.464       | 1.382       |
| Denmark                    | 0.336       | 0.389       | 0.444       | 0.481       | 0.539       | 0.624       | 0.797       | 0.993       | 1.179       | 1.258       | 1.358       |
| Malaysia                   | 0.456       | 0.502       | 0.482       | 0.468       | 0.648       | 0.803       | 0.913       | 1.154       | 1.287       | 1.289       | 1.332       |
| Finland                    | 0.280       | 0.310       | 0.357       | 0.408       | 0.495       | 0.636       | 0.819       | 1.063       | 1.192       | 1.224       | 1.286       |
| Mexico                     | 0.374       | 0.429       | 0.470       | 0.537       | 0.621       | 0.736       | 0.849       | 0.991       | 1.086       | 1.147       | 1.219       |
| Pakistan                   | 0.243       | 0.268       | 0.304       | 0.355       | 0.461       | 0.605       | 0.808       | 1.085       | 1.320       | 1.252       | 1.196       |
| Belgium                    | 0.336       | 0.419       | 0.457       | 0.508       | 0.592       | 0.661       | 0.859       | 1.048       | 1.106       | 1.138       | 1.187       |
| Thailand                   | 0.288       | 0.283       | 0.332       | 0.369       | 0.426       | 0.536       | 0.668       | 0.852       | 1.028       | 1.008       | 1.108       |
| Czechia                    | 0.323       | 0.392       | 0.420       | 0.468       | 0.523       | 0.625       | 0.775       | 0.933       | 0.938       | 1.021       | 1.103       |
| Romania                    | 0.187       | 0.217       | 0.234       | 0.391       | 0.478       | 0.612       | 0.761       | 0.917       | 1.042       | 1.055       | 1.097       |
| Ukraine                    | 0.156       | 0.222       | 0.325       | 0.416       | 0.458       | 0.693       | 0.793       | 0.918       | 0.972       | 1.075       | 1.090       |
| Greece                     | 0.238       | 0.265       | 0.300       | 0.337       | 0.405       | 0.489       | 0.631       | 0.834       | 0.920       | 1.053       | 1.081       |
| Hungary                    | 0.219       | 0.275       | 0.307       | 0.347       | 0.416       | 0.582       | 0.813       | 0.947       | 1.020       | 1.043       | 1.077       |
| Ethiopia                   | 0.345       | 0.401       | 0.420       | 0.475       | 0.525       | 0.611       | 0.765       | 0.869       | 1.016       | 0.950       | 1.055       |
| Iraq                       | 0.231       | 0.218       | 0.226       | 0.287       | 0.356       | 0.549       | 0.453       | 0.644       | 0.831       | 0.961       | 1.051       |
| Colombia                   | 0.440       | 0.498       | 0.550       | 0.561       | 0.581       | 0.670       | 0.809       | 0.861       | 0.951       | 1.000       | 1.020       |
| Chile                      | 0.415       | 0.430       | 0.470       | 0.499       | 0.564       | 0.626       | 0.748       | 0.872       | 0.932       | 0.968       | 1.017       |

| <b>Year</b>          | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ireland              | 0.224       | 0.255       | 0.273       | 0.302       | 0.364       | 0.419       | 0.576       | 0.798       | 0.904       | 0.965       | 1.002       |
| Israel               | 0.216       | 0.262       | 0.271       | 0.302       | 0.352       | 0.408       | 0.534       | 0.657       | 0.761       | 0.814       | 0.872       |
| Nigeria              | 0.342       | 0.352       | 0.383       | 0.412       | 0.449       | 0.522       | 0.657       | 0.726       | 0.789       | 0.799       | 0.836       |
| New Zealand          | 0.188       | 0.233       | 0.242       | 0.292       | 0.322       | 0.383       | 0.453       | 0.545       | 0.674       | 0.755       | 0.829       |
| Bangladesh           | 0.278       | 0.299       | 0.333       | 0.364       | 0.377       | 0.428       | 0.546       | 0.686       | 0.778       | 0.781       | 0.824       |
| United Arab Emirates | 0.159       | 0.175       | 0.220       | 0.243       | 0.275       | 0.346       | 0.451       | 0.600       | 0.723       | 0.778       | 0.823       |
| Croatia              | 0.199       | 0.265       | 0.355       | 0.396       | 0.470       | 0.546       | 0.640       | 0.728       | 0.793       | 0.825       | 0.821       |
| Nauru                |             | 0.405       | 0.810       |             |             |             |             |             | 0.810       | 0.810       | 0.810       |
| Slovenia             | 0.219       | 0.264       | 0.290       | 0.294       | 0.368       | 0.458       | 0.571       | 0.685       | 0.741       | 0.787       | 0.809       |
| Slovakia             | 0.237       | 0.269       | 0.330       | 0.365       | 0.419       | 0.518       | 0.627       | 0.733       | 0.734       | 0.756       | 0.796       |
| Serbia               | 0.365       | 0.364       | 0.391       | 0.419       | 0.462       | 0.563       | 0.589       | 0.686       | 0.770       | 0.803       | 0.795       |
| Jordan               | 0.194       | 0.202       | 0.226       | 0.212       | 0.285       | 0.352       | 0.456       | 0.510       | 0.682       | 0.741       | 0.791       |
| Peru                 | 0.284       | 0.368       | 0.382       | 0.420       | 0.449       | 0.540       | 0.621       | 0.662       | 0.705       | 0.767       | 0.784       |
| Viet Nam             | 0.193       | 0.218       | 0.242       | 0.252       | 0.326       | 0.485       | 0.611       | 0.627       | 0.649       | 0.703       | 0.752       |
| Kenya                | 0.347       | 0.368       | 0.391       | 0.444       | 0.463       | 0.532       | 0.612       | 0.682       | 0.719       | 0.727       | 0.743       |
| Lithuania            | 0.319       | 0.315       | 0.359       | 0.419       | 0.464       | 0.536       | 0.598       | 0.665       | 0.713       | 0.743       | 0.737       |
| Kazakhstan           | 0.104       | 0.250       | 0.159       | 0.181       | 0.230       | 0.332       | 0.396       | 0.524       | 0.607       | 0.662       | 0.731       |
| Uganda               | 0.354       | 0.413       | 0.427       | 0.475       | 0.465       | 0.522       | 0.564       | 0.656       | 0.683       | 0.696       | 0.730       |
| Ecuador              | 0.281       | 0.267       | 0.319       | 0.331       | 0.363       | 0.403       | 0.490       | 0.536       | 0.621       | 0.675       | 0.723       |
| Kiribati             | 0.232       | 0.270       | 0.324       | 0.540       | 0.540       | 0.405       | 0.486       | 0.324       | 0.540       | 0.516       | 0.720       |
| Bulgaria             | 0.169       | 0.192       | 0.227       | 0.271       | 0.291       | 0.332       | 0.393       | 0.483       | 0.574       | 0.673       | 0.717       |
| Equatorial Guinea    | 0.125       | 0.382       | 0.343       | 0.347       | 0.324       | 0.555       | 0.703       | 0.487       | 0.670       | 0.568       | 0.715       |
| Ghana                | 0.304       | 0.344       | 0.364       | 0.380       | 0.407       | 0.439       | 0.517       | 0.581       | 0.653       | 0.665       | 0.704       |
| Argentina            | 0.287       | 0.307       | 0.332       | 0.375       | 0.433       | 0.481       | 0.559       | 0.655       | 0.702       | 0.727       | 0.703       |
| Singapore            | 0.226       | 0.275       | 0.311       | 0.343       | 0.363       | 0.434       | 0.521       | 0.605       | 0.649       | 0.662       | 0.692       |
| Qatar                | 0.216       | 0.225       | 0.236       | 0.263       | 0.283       | 0.368       | 0.484       | 0.604       | 0.613       | 0.664       | 0.684       |
| Morocco              | 0.244       | 0.272       | 0.259       | 0.290       | 0.316       | 0.368       | 0.433       | 0.515       | 0.571       | 0.606       | 0.675       |
| Somalia              | 0.213       | 0.256       | 0.125       | 0.380       | 0.421       | 0.328       | 0.490       | 0.465       | 0.645       | 0.664       | 0.673       |
| Sierra Leone         | 0.213       | 0.331       | 0.443       | 0.448       | 0.483       | 0.462       | 0.553       | 0.588       | 0.624       | 0.661       | 0.668       |
| Republic of Moldova  | 0.329       | 0.510       | 0.578       | 0.613       | 0.631       | 0.593       | 0.612       | 0.684       | 0.706       | 0.661       | 0.668       |
| Nepal                | 0.355       | 0.374       | 0.365       | 0.443       | 0.483       | 0.513       | 0.621       | 0.675       | 0.675       | 0.659       | 0.659       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United Republic of Tanzania      | 0.381       | 0.367       | 0.407       | 0.414       | 0.451       | 0.500       | 0.566       | 0.616       | 0.643       | 0.627       | 0.650       |
| Malawi                           | 0.302       | 0.373       | 0.390       | 0.446       | 0.462       | 0.501       | 0.559       | 0.578       | 0.622       | 0.640       | 0.645       |
| Rwanda                           | 0.333       | 0.309       | 0.336       | 0.373       | 0.353       | 0.434       | 0.489       | 0.565       | 0.590       | 0.615       | 0.645       |
| Angola                           | 0.362       | 0.320       | 0.445       | 0.359       | 0.323       | 0.360       | 0.366       | 0.488       | 0.601       | 0.633       | 0.644       |
| Latvia                           | 0.232       | 0.228       | 0.253       | 0.375       | 0.411       | 0.458       | 0.492       | 0.601       | 0.627       | 0.641       | 0.642       |
| Timor-Leste                      | 0.184       | 0.317       | 0.353       | 0.252       | 0.304       | 0.355       | 0.345       | 0.530       | 0.609       | 0.706       | 0.635       |
| Estonia                          | 0.227       | 0.257       | 0.281       | 0.336       | 0.352       | 0.397       | 0.467       | 0.530       | 0.574       | 0.599       | 0.632       |
| Guinea-Bissau                    | 0.384       | 0.348       | 0.406       | 0.406       | 0.245       | 0.372       | 0.442       | 0.575       | 0.600       | 0.508       | 0.632       |
| Gambia                           | 0.431       | 0.446       | 0.497       | 0.505       | 0.527       | 0.589       | 0.637       | 0.631       | 0.647       | 0.660       | 0.628       |
| Afghanistan                      | 0.281       | 0.350       | 0.163       | 0.259       | 0.289       | 0.335       | 0.450       | 0.600       | 0.603       | 0.594       | 0.628       |
| Solomon Islands                  | 0.361       | 0.318       | 0.398       | 0.318       | 0.436       | 0.422       | 0.453       | 0.485       | 0.498       | 0.632       | 0.625       |
| South Sudan                      | 0.216       | 0.442       | 0.540       | 0.432       | 0.519       | 0.502       | 0.359       | 0.580       | 0.562       | 0.605       | 0.623       |
| Philippines                      | 0.200       | 0.244       | 0.231       | 0.258       | 0.284       | 0.346       | 0.428       | 0.493       | 0.557       | 0.582       | 0.617       |
| Zambia                           | 0.320       | 0.379       | 0.370       | 0.434       | 0.423       | 0.481       | 0.532       | 0.573       | 0.565       | 0.598       | 0.615       |
| Sudan                            | 0.277       | 0.294       | 0.312       | 0.341       | 0.370       | 0.406       | 0.479       | 0.495       | 0.616       | 0.613       | 0.614       |
| Mozambique                       | 0.406       | 0.387       | 0.390       | 0.431       | 0.482       | 0.490       | 0.543       | 0.547       | 0.583       | 0.561       | 0.612       |
| Bosnia and Herzegovina           | 0.225       | 0.259       | 0.284       | 0.334       | 0.395       | 0.453       | 0.493       | 0.543       | 0.581       | 0.591       | 0.609       |
| Suriname                         | 0.256       | 0.285       | 0.343       | 0.290       | 0.315       | 0.431       | 0.510       | 0.456       | 0.592       | 0.488       | 0.606       |
| Cyprus                           | 0.171       | 0.171       | 0.219       | 0.266       | 0.285       | 0.355       | 0.401       | 0.455       | 0.521       | 0.563       | 0.605       |
| Seychelles                       | 0.244       | 0.219       | 0.363       | 0.280       | 0.348       | 0.375       | 0.257       | 0.487       | 0.434       | 0.610       | 0.598       |
| Democratic Republic of the Congo | 0.276       | 0.290       | 0.293       | 0.355       | 0.302       | 0.422       | 0.510       | 0.568       | 0.574       | 0.589       | 0.595       |
| Cambodia                         | 0.305       | 0.342       | 0.389       | 0.364       | 0.404       | 0.411       | 0.480       | 0.518       | 0.572       | 0.575       | 0.593       |
| Honduras                         | 0.232       | 0.235       | 0.401       | 0.326       | 0.452       | 0.436       | 0.479       | 0.493       | 0.538       | 0.590       | 0.593       |
| Guinea                           | 0.189       | 0.304       | 0.298       | 0.440       | 0.379       | 0.491       | 0.500       | 0.558       | 0.634       | 0.571       | 0.590       |
| Cabo Verde                       | 0.090       | 0.348       | 0.393       | 0.290       | 0.445       | 0.387       | 0.522       | 0.471       | 0.542       | 0.613       | 0.588       |
| Micronesia (Federated States of) | 0.338       | 0.162       | 0.598       | 0.406       | 0.616       | 0.463       | 0.497       | 0.525       | 0.512       | 0.527       | 0.586       |
| Albania                          | 0.449       | 0.371       | 0.212       | 0.297       | 0.340       | 0.350       | 0.400       | 0.482       | 0.537       | 0.549       | 0.579       |
| Niger                            | 0.228       | 0.332       | 0.411       | 0.331       | 0.313       | 0.475       | 0.495       | 0.537       | 0.542       | 0.573       | 0.577       |
| Central African Republic         | 0.343       | 0.365       | 0.244       | 0.348       | 0.320       | 0.421       | 0.423       | 0.417       | 0.539       | 0.492       | 0.576       |
| Madagascar                       | 0.273       | 0.268       | 0.316       | 0.332       | 0.346       | 0.399       | 0.412       | 0.499       | 0.514       | 0.549       | 0.575       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Sao Tome and Principe            | 0.405       | 0.270       | 0.270       | 0.405       | 0.135       | 0.090       | 0.221       | 0.561       | 0.640       | 0.620       | 0.570       |
| Haiti                            | 0.243       | 0.234       | 0.283       | 0.362       | 0.365       | 0.447       | 0.471       | 0.508       | 0.598       | 0.498       | 0.570       |
| North Macedonia                  | 0.276       | 0.271       | 0.302       | 0.317       | 0.383       | 0.369       | 0.432       | 0.488       | 0.504       | 0.539       | 0.570       |
| Syrian Arab Republic             | 0.155       | 0.167       | 0.226       | 0.249       | 0.342       | 0.365       | 0.431       | 0.489       | 0.578       | 0.554       | 0.569       |
| Burundi                          | 0.284       | 0.311       | 0.305       | 0.290       | 0.333       | 0.358       | 0.425       | 0.439       | 0.486       | 0.535       | 0.567       |
| Andorra                          | 0.101       | 0.238       | 0.081       | 0.125       | 0.249       | 0.374       | 0.391       | 0.467       | 0.510       | 0.484       | 0.565       |
| Senegal                          | 0.288       | 0.275       | 0.308       | 0.337       | 0.346       | 0.415       | 0.445       | 0.490       | 0.536       | 0.544       | 0.564       |
| Dominican Republic               | 0.179       | 0.197       | 0.199       | 0.216       | 0.301       | 0.361       | 0.399       | 0.473       | 0.485       | 0.496       | 0.564       |
| Burkina Faso                     | 0.329       | 0.362       | 0.361       | 0.375       | 0.419       | 0.500       | 0.503       | 0.553       | 0.582       | 0.597       | 0.562       |
| Lebanon                          | 0.167       | 0.193       | 0.194       | 0.225       | 0.259       | 0.309       | 0.366       | 0.402       | 0.475       | 0.519       | 0.559       |
| Lao People's Democratic Republic | 0.276       | 0.300       | 0.300       | 0.369       | 0.364       | 0.431       | 0.467       | 0.520       | 0.573       | 0.552       | 0.559       |
| Gabon                            | 0.299       | 0.340       | 0.361       | 0.313       | 0.301       | 0.422       | 0.457       | 0.497       | 0.545       | 0.517       | 0.558       |
| Sri Lanka                        | 0.344       | 0.359       | 0.386       | 0.401       | 0.424       | 0.462       | 0.461       | 0.507       | 0.535       | 0.548       | 0.555       |
| Costa Rica                       | 0.235       | 0.248       | 0.301       | 0.325       | 0.350       | 0.414       | 0.453       | 0.468       | 0.512       | 0.544       | 0.555       |
| Namibia                          | 0.277       | 0.239       | 0.279       | 0.287       | 0.265       | 0.324       | 0.377       | 0.418       | 0.532       | 0.522       | 0.554       |
| Iceland                          | 0.185       | 0.183       | 0.223       | 0.253       | 0.275       | 0.314       | 0.385       | 0.454       | 0.511       | 0.540       | 0.554       |
| Montenegro                       | 0.304       | 0.224       | 0.293       | 0.321       | 0.352       | 0.453       | 0.512       | 0.524       | 0.516       | 0.570       | 0.553       |
| Tonga                            | 0.232       | 0.203       | 0.324       | 0.334       | 0.270       | 0.429       | 0.448       | 0.406       | 0.529       | 0.600       | 0.552       |
| Lesotho                          | 0.186       | 0.212       | 0.300       | 0.432       | 0.381       | 0.367       | 0.469       | 0.451       | 0.532       | 0.559       | 0.550       |
| Zimbabwe                         | 0.317       | 0.316       | 0.332       | 0.318       | 0.370       | 0.407       | 0.459       | 0.501       | 0.517       | 0.540       | 0.548       |
| Yemen                            | 0.228       | 0.274       | 0.230       | 0.253       | 0.261       | 0.316       | 0.436       | 0.526       | 0.588       | 0.545       | 0.547       |
| Congo                            | 0.294       | 0.292       | 0.352       | 0.369       | 0.371       | 0.485       | 0.480       | 0.547       | 0.555       | 0.569       | 0.547       |
| Togo                             | 0.260       | 0.269       | 0.325       | 0.348       | 0.321       | 0.403       | 0.430       | 0.453       | 0.474       | 0.511       | 0.545       |
| Panama                           | 0.248       | 0.251       | 0.275       | 0.287       | 0.306       | 0.328       | 0.416       | 0.432       | 0.474       | 0.501       | 0.544       |
| Saint Vincent and the Grenadines | 0.486       | 0.810       | 0.324       | 0.270       | 0.405       | 0.338       | 0.232       | 0.260       | 0.427       | 0.507       | 0.540       |
| Chad                             | 0.355       | 0.286       | 0.333       | 0.363       | 0.481       | 0.505       | 0.498       | 0.501       | 0.520       | 0.442       | 0.539       |
| Paraguay                         | 0.240       | 0.225       | 0.240       | 0.270       | 0.340       | 0.457       | 0.427       | 0.467       | 0.510       | 0.497       | 0.535       |
| Tunisia                          | 0.141       | 0.147       | 0.161       | 0.186       | 0.205       | 0.252       | 0.319       | 0.410       | 0.488       | 0.480       | 0.533       |
| Mali                             | 0.258       | 0.315       | 0.377       | 0.373       | 0.416       | 0.483       | 0.494       | 0.513       | 0.530       | 0.553       | 0.533       |

| Year                               | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Djibouti                           | 0.270 | 0.203 | 0.238 | 0.191 | 0.135 | 0.270 | 0.406 | 0.231 | 0.449 | 0.558 | 0.533 |
| Benin                              | 0.260 | 0.301 | 0.319 | 0.363 | 0.360 | 0.396 | 0.465 | 0.518 | 0.509 | 0.549 | 0.533 |
| Mongolia                           | 0.173 | 0.160 | 0.254 | 0.308 | 0.346 | 0.407 | 0.413 | 0.479 | 0.494 | 0.537 | 0.532 |
| Botswana                           | 0.265 | 0.258 | 0.264 | 0.314 | 0.304 | 0.307 | 0.364 | 0.419 | 0.467 | 0.483 | 0.530 |
| Kuwait                             | 0.170 | 0.179 | 0.193 | 0.224 | 0.252 | 0.277 | 0.375 | 0.461 | 0.501 | 0.508 | 0.526 |
| Nicaragua                          | 0.250 | 0.346 | 0.247 | 0.347 | 0.374 | 0.394 | 0.411 | 0.512 | 0.528 | 0.498 | 0.526 |
| Luxembourg                         | 0.173 | 0.208 | 0.211 | 0.258 | 0.283 | 0.311 | 0.409 | 0.484 | 0.527 | 0.525 | 0.524 |
| Guatemala                          | 0.238 | 0.231 | 0.290 | 0.265 | 0.338 | 0.357 | 0.446 | 0.493 | 0.495 | 0.510 | 0.524 |
| Saint Kitts and Nevis              | 0.282 | 0.325 | 0.326 | 0.315 | 0.376 | 0.395 | 0.485 | 0.565 | 0.554 | 0.522 | 0.523 |
| Bolivia (Plurinational State of)   | 0.219 | 0.261 | 0.229 | 0.322 | 0.332 | 0.468 | 0.475 | 0.485 | 0.504 | 0.557 | 0.521 |
| Saint Lucia                        |       | 0.203 | 0.290 | 0.304 | 0.450 | 0.221 | 0.270 | 0.203 | 0.341 | 0.608 | 0.521 |
| Eritrea                            | 0.150 | 0.252 | 0.451 | 0.279 | 0.423 | 0.386 | 0.529 | 0.521 | 0.563 | 0.533 | 0.519 |
| Libya                              | 0.195 | 0.186 | 0.232 | 0.260 | 0.295 | 0.349 | 0.370 | 0.436 | 0.516 | 0.515 | 0.517 |
| Kyrgyzstan                         | 0.111 | 0.173 | 0.239 | 0.252 | 0.310 | 0.369 | 0.403 | 0.453 | 0.485 | 0.514 | 0.516 |
| Venezuela (Bolivarian Republic of) | 0.144 | 0.159 | 0.186 | 0.182 | 0.251 | 0.268 | 0.364 | 0.446 | 0.465 | 0.488 | 0.516 |
| Oman                               | 0.206 | 0.235 | 0.260 | 0.279 | 0.262 | 0.314 | 0.347 | 0.439 | 0.470 | 0.474 | 0.515 |
| Côte d'Ivoire                      | 0.239 | 0.258 | 0.265 | 0.286 | 0.336 | 0.418 | 0.437 | 0.466 | 0.478 | 0.508 | 0.515 |
| Vanuatu                            | 0.343 | 0.270 | 0.128 | 0.252 | 0.174 | 0.238 | 0.371 | 0.439 | 0.462 | 0.487 | 0.514 |
| Bhutan                             | 0.276 | 0.372 | 0.335 | 0.399 | 0.398 | 0.388 | 0.483 | 0.507 | 0.561 | 0.564 | 0.511 |
| Papua New Guinea                   | 0.231 | 0.264 | 0.313 | 0.324 | 0.264 | 0.367 | 0.369 | 0.404 | 0.468 | 0.496 | 0.510 |
| Samoa                              | 0.150 | 0.203 | 0.116 | 0.224 | 0.135 | 0.208 | 0.354 | 0.449 | 0.423 | 0.539 | 0.510 |
| Malta                              | 0.121 | 0.166 | 0.193 | 0.187 | 0.220 | 0.291 | 0.299 | 0.419 | 0.435 | 0.488 | 0.509 |
| Dominica                           | 0.203 | 0.293 | 0.203 | 0.187 | 0.203 | 0.218 | 0.439 | 0.270 | 0.584 | 0.519 | 0.507 |
| Maldives                           | 0.122 | 0.203 | 0.315 | 0.131 | 0.379 | 0.406 | 0.362 | 0.417 | 0.492 | 0.537 | 0.505 |
| Algeria                            | 0.123 | 0.139 | 0.154 | 0.173 | 0.218 | 0.259 | 0.303 | 0.383 | 0.432 | 0.475 | 0.502 |
| Liechtenstein                      | 0.111 | 0.116 | 0.126 | 0.102 | 0.144 | 0.237 | 0.244 | 0.401 | 0.435 | 0.496 | 0.493 |
| Myanmar                            | 0.193 | 0.313 | 0.334 | 0.409 | 0.382 | 0.436 | 0.454 | 0.476 | 0.509 | 0.486 | 0.490 |
| Mauritania                         | 0.192 | 0.209 | 0.261 | 0.371 | 0.399 | 0.401 | 0.369 | 0.407 | 0.378 | 0.497 | 0.490 |
| Cameroon                           | 0.264 | 0.290 | 0.317 | 0.361 | 0.359 | 0.384 | 0.415 | 0.455 | 0.486 | 0.493 | 0.489 |
| El Salvador                        | 0.327 | 0.184 | 0.246 | 0.288 | 0.400 | 0.386 | 0.378 | 0.468 | 0.542 | 0.530 | 0.488 |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Antigua and Barbuda                   | 0.304       | 0.243       | 0.631       | 0.355       | 0.304       | 0.341       | 0.442       | 0.355       | 0.505       | 0.441       | 0.488       |
| Tuvalu                                | 0.135       |             |             | 0.270       | 0.203       | 0.405       | 0.810       | 0.405       | 0.675       | 0.405       | 0.486       |
| Barbados                              | 0.116       | 0.199       | 0.170       | 0.226       | 0.242       | 0.363       | 0.356       | 0.387       | 0.451       | 0.490       | 0.479       |
| Brunei Darussalam                     | 0.174       | 0.184       | 0.156       | 0.186       | 0.294       | 0.322       | 0.347       | 0.418       | 0.493       | 0.501       | 0.474       |
| Grenada                               | 0.140       | 0.129       | 0.211       | 0.199       | 0.215       | 0.251       | 0.340       | 0.405       | 0.412       | 0.478       | 0.468       |
| Trinidad and Tobago                   | 0.138       | 0.218       | 0.222       | 0.282       | 0.260       | 0.307       | 0.314       | 0.402       | 0.412       | 0.467       | 0.467       |
| Belize                                | 0.258       | 0.348       | 0.281       | 0.325       | 0.304       | 0.284       | 0.532       | 0.472       | 0.420       | 0.619       | 0.450       |
| Georgia                               | 0.255       | 0.244       | 0.264       | 0.249       | 0.280       | 0.274       | 0.297       | 0.344       | 0.368       | 0.439       | 0.449       |
| Fiji                                  | 0.214       | 0.163       | 0.221       | 0.237       | 0.244       | 0.326       | 0.351       | 0.360       | 0.418       | 0.427       | 0.449       |
| Liberia                               | 0.196       | 0.297       | 0.396       | 0.350       | 0.443       | 0.465       | 0.539       | 0.518       | 0.485       | 0.447       | 0.448       |
| Uzbekistan                            | 0.082       | 0.084       | 0.145       | 0.152       | 0.192       | 0.304       | 0.307       | 0.350       | 0.386       | 0.430       | 0.448       |
| Armenia                               | 0.272       | 0.288       | 0.312       | 0.312       | 0.347       | 0.381       | 0.341       | 0.400       | 0.374       | 0.436       | 0.445       |
| Bahrain                               | 0.120       | 0.154       | 0.223       | 0.234       | 0.253       | 0.290       | 0.334       | 0.421       | 0.487       | 0.481       | 0.443       |
| Azerbaijan                            | 0.211       | 0.231       | 0.209       | 0.201       | 0.244       | 0.264       | 0.309       | 0.347       | 0.330       | 0.424       | 0.440       |
| Uruguay                               | 0.212       | 0.206       | 0.241       | 0.255       | 0.288       | 0.330       | 0.368       | 0.432       | 0.468       | 0.476       | 0.436       |
| Palau                                 | 0.135       | 0.095       | 0.203       | 0.221       | 0.315       | 0.493       | 0.300       | 0.481       | 0.377       | 0.541       | 0.435       |
| Monaco                                | 0.189       | 0.162       | 0.204       | 0.255       | 0.216       | 0.317       | 0.332       | 0.363       | 0.382       | 0.401       | 0.434       |
| The Bahamas                           | 0.155       | 0.171       | 0.271       | 0.197       | 0.251       | 0.239       | 0.261       | 0.350       | 0.365       | 0.395       | 0.433       |
| Comoros                               | 0.203       | 0.405       | 0.432       | 0.473       | 0.572       | 0.405       | 0.405       | 0.695       | 0.586       | 0.416       | 0.428       |
| San Marino                            | 0.162       | 0.125       | 0.193       | 0.262       | 0.208       | 0.304       | 0.312       | 0.333       | 0.413       | 0.380       | 0.427       |
| Tajikistan                            | 0.133       | 0.111       | 0.126       | 0.230       | 0.253       | 0.334       | 0.380       | 0.364       | 0.417       | 0.444       | 0.424       |
| Marshall Islands                      | 0.135       | 0.101       | 0.486       | 0.405       | 0.243       | 0.709       | 0.405       | 0.648       | 0.540       | 0.648       | 0.405       |
| Turkmenistan                          | 0.331       | 0.450       | 0.101       | 0.152       | 0.347       | 0.405       | 0.324       | 0.564       | 0.232       | 0.417       | 0.391       |
| Jamaica                               | 0.178       | 0.209       | 0.173       | 0.210       | 0.202       | 0.234       | 0.260       | 0.394       | 0.414       | 0.384       | 0.389       |
| Guyana                                | 0.232       | 0.431       | 0.197       | 0.382       | 0.262       | 0.105       | 0.346       | 0.324       | 0.345       | 0.329       | 0.380       |
| Cuba                                  | 0.125       | 0.139       | 0.176       | 0.189       | 0.209       | 0.218       | 0.254       | 0.279       | 0.321       | 0.357       | 0.374       |
| Mauritius                             | 0.166       | 0.129       | 0.228       | 0.199       | 0.195       | 0.244       | 0.306       | 0.390       | 0.370       | 0.333       | 0.360       |
| Belarus                               | 0.177       | 0.203       | 0.230       | 0.275       | 0.293       | 0.357       | 0.365       | 0.402       | 0.365       | 0.317       | 0.286       |
| Democratic People's Republic of Korea | 0.135       | 0.063       | 0.125       | 0.103       | 0.120       | 0.153       | 0.142       | 0.121       | 0.148       | 0.115       | 0.156       |
| Eswatini                              |             |             |             |             |             |             |             |             |             |             |             |

Table S2-1-2 Inclusiveness ( $R_{incl}$ ) (2014-2024)

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United States                | 8.416       | 8.992       | 9.456       | 9.934       | 10.526      | 10.932      | 11.690      | 12.272      | 11.798      | 11.203      | 11.590      |
| China                        | 3.652       | 4.189       | 4.698       | 5.288       | 6.166       | 7.100       | 7.995       | 8.397       | 8.982       | 8.636       | 9.560       |
| United Kingdom               | 3.991       | 4.338       | 4.597       | 4.886       | 5.249       | 5.526       | 6.129       | 6.774       | 6.613       | 6.454       | 6.732       |
| Germany                      | 3.485       | 3.692       | 3.841       | 4.013       | 4.204       | 4.358       | 4.725       | 5.132       | 4.941       | 4.803       | 4.963       |
| Australia                    | 2.079       | 2.293       | 2.460       | 2.651       | 2.890       | 3.116       | 3.415       | 3.698       | 3.635       | 3.426       | 3.566       |
| Italy                        | 2.062       | 2.208       | 2.348       | 2.471       | 2.659       | 2.770       | 3.165       | 3.446       | 3.379       | 3.333       | 3.528       |
| Canada                       | 2.288       | 2.407       | 2.546       | 2.664       | 2.855       | 3.041       | 3.314       | 3.587       | 3.589       | 3.436       | 3.515       |
| France                       | 2.684       | 2.824       | 2.956       | 3.065       | 3.170       | 3.239       | 3.495       | 3.657       | 3.480       | 3.390       | 3.500       |
| India                        | 0.959       | 1.029       | 1.124       | 1.217       | 1.365       | 1.538       | 1.877       | 2.398       | 2.849       | 2.924       | 3.289       |
| Saudi Arabia                 | 1.045       | 1.169       | 1.212       | 1.222       | 1.284       | 1.404       | 1.752       | 2.229       | 2.669       | 2.744       | 3.127       |
| Spain                        | 1.901       | 2.006       | 2.134       | 2.227       | 2.357       | 2.490       | 2.806       | 3.010       | 2.917       | 2.974       | 3.089       |
| Netherlands (Kingdom of the) | 1.697       | 1.786       | 1.876       | 1.962       | 2.074       | 2.154       | 2.327       | 2.522       | 2.458       | 2.397       | 2.471       |
| Switzerland                  | 1.592       | 1.681       | 1.762       | 1.842       | 1.917       | 1.950       | 2.117       | 2.305       | 2.250       | 2.221       | 2.288       |
| Japan                        | 1.495       | 1.566       | 1.660       | 1.725       | 1.830       | 1.915       | 2.142       | 2.207       | 2.101       | 2.022       | 2.127       |
| Republic of Korea            | 1.072       | 1.137       | 1.178       | 1.213       | 1.299       | 1.377       | 1.528       | 1.672       | 1.738       | 1.771       | 1.962       |
| Sweden                       | 1.303       | 1.407       | 1.493       | 1.557       | 1.639       | 1.705       | 1.813       | 1.954       | 1.905       | 1.871       | 1.932       |
| Pakistan                     | 0.516       | 0.582       | 0.644       | 0.736       | 0.846       | 0.979       | 1.222       | 1.500       | 1.749       | 1.731       | 1.850       |
| Brazil                       | 0.970       | 1.078       | 1.224       | 1.295       | 1.402       | 1.486       | 1.669       | 1.862       | 1.757       | 1.701       | 1.781       |
| Belgium                      | 1.243       | 1.318       | 1.356       | 1.400       | 1.488       | 1.489       | 1.630       | 1.760       | 1.720       | 1.693       | 1.738       |
| Malaysia                     | 0.674       | 0.710       | 0.748       | 0.782       | 0.847       | 0.939       | 1.104       | 1.261       | 1.415       | 1.457       | 1.655       |
| Egypt                        | 0.661       | 0.703       | 0.733       | 0.788       | 0.838       | 0.933       | 1.162       | 1.398       | 1.597       | 1.564       | 1.615       |
| Denmark                      | 0.988       | 1.074       | 1.134       | 1.178       | 1.256       | 1.308       | 1.418       | 1.508       | 1.474       | 1.478       | 1.514       |
| Austria                      | 0.999       | 1.055       | 1.096       | 1.126       | 1.186       | 1.232       | 1.329       | 1.437       | 1.406       | 1.398       | 1.472       |
| Singapore                    | 0.870       | 0.930       | 0.960       | 1.013       | 1.063       | 1.127       | 1.220       | 1.262       | 1.304       | 1.327       | 1.444       |
| Poland                       | 0.689       | 0.737       | 0.802       | 0.853       | 0.920       | 0.973       | 1.132       | 1.260       | 1.300       | 1.330       | 1.425       |
| Iran (Islamic Republic of)   | 0.517       | 0.547       | 0.595       | 0.695       | 0.805       | 0.988       | 1.215       | 1.395       | 1.448       | 1.376       | 1.396       |
| Türkiye                      | 0.456       | 0.504       | 0.564       | 0.588       | 0.626       | 0.697       | 0.855       | 0.988       | 1.098       | 1.184       | 1.326       |
| Norway                       | 0.844       | 0.890       | 0.953       | 0.999       | 1.047       | 1.080       | 1.195       | 1.283       | 1.286       | 1.284       | 1.294       |

| <b>Year</b>          | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| South Africa         | 0.687       | 0.746       | 0.812       | 0.862       | 0.929       | 0.980       | 1.089       | 1.193       | 1.232       | 1.213       | 1.259       |
| United Arab Emirates | 0.552       | 0.585       | 0.641       | 0.664       | 0.702       | 0.740       | 0.829       | 0.956       | 1.069       | 1.165       | 1.247       |
| Portugal             | 0.797       | 0.844       | 0.901       | 0.932       | 0.991       | 1.032       | 1.134       | 1.207       | 1.210       | 1.196       | 1.241       |
| Finland              | 0.818       | 0.874       | 0.899       | 0.939       | 0.966       | 1.026       | 1.091       | 1.160       | 1.152       | 1.117       | 1.173       |
| Czechia              | 0.658       | 0.705       | 0.727       | 0.775       | 0.830       | 0.872       | 0.982       | 1.051       | 1.026       | 1.032       | 1.092       |
| Ireland              | 0.666       | 0.697       | 0.740       | 0.764       | 0.828       | 0.853       | 0.932       | 1.013       | 1.004       | 1.020       | 1.072       |
| Chile                | 0.651       | 0.686       | 0.740       | 0.764       | 0.821       | 0.843       | 0.935       | 0.984       | 0.963       | 0.986       | 1.035       |
| Russia               | 0.791       | 0.880       | 0.929       | 1.020       | 1.094       | 1.195       | 1.347       | 1.435       | 1.290       | 1.064       | 0.988       |
| Greece               | 0.667       | 0.700       | 0.736       | 0.759       | 0.790       | 0.827       | 0.871       | 0.928       | 0.920       | 0.919       | 0.951       |
| Thailand             | 0.519       | 0.542       | 0.577       | 0.592       | 0.617       | 0.655       | 0.728       | 0.809       | 0.867       | 0.834       | 0.939       |
| New Zealand          | 0.706       | 0.731       | 0.748       | 0.796       | 0.839       | 0.881       | 0.927       | 0.969       | 0.965       | 0.907       | 0.933       |
| Indonesia            | 0.435       | 0.393       | 0.367       | 0.353       | 0.405       | 0.443       | 0.508       | 0.596       | 0.701       | 0.776       | 0.933       |
| Israel               | 0.682       | 0.737       | 0.756       | 0.764       | 0.815       | 0.829       | 0.889       | 0.918       | 0.910       | 0.912       | 0.912       |
| Mexico               | 0.607       | 0.630       | 0.684       | 0.722       | 0.766       | 0.799       | 0.878       | 0.935       | 0.900       | 0.863       | 0.895       |
| Nigeria              | 0.307       | 0.353       | 0.415       | 0.448       | 0.475       | 0.520       | 0.604       | 0.701       | 0.782       | 0.808       | 0.882       |
| Jordan               | 0.373       | 0.407       | 0.416       | 0.417       | 0.435       | 0.450       | 0.503       | 0.586       | 0.642       | 0.736       | 0.877       |
| Lebanon              | 0.492       | 0.504       | 0.523       | 0.538       | 0.533       | 0.547       | 0.579       | 0.615       | 0.660       | 0.806       | 0.864       |
| Bangladesh           | 0.487       | 0.491       | 0.533       | 0.586       | 0.594       | 0.630       | 0.674       | 0.779       | 0.841       | 0.799       | 0.829       |
| Hungary              | 0.554       | 0.577       | 0.609       | 0.604       | 0.633       | 0.649       | 0.666       | 0.717       | 0.705       | 0.720       | 0.767       |
| Qatar                | 0.654       | 0.689       | 0.701       | 0.705       | 0.709       | 0.696       | 0.695       | 0.716       | 0.736       | 0.741       | 0.767       |
| Colombia             | 0.479       | 0.509       | 0.518       | 0.572       | 0.600       | 0.618       | 0.681       | 0.746       | 0.721       | 0.743       | 0.761       |
| Viet Nam             | 0.611       | 0.642       | 0.639       | 0.695       | 0.734       | 0.825       | 0.971       | 0.919       | 0.840       | 0.763       | 0.756       |
| Kenya                | 0.644       | 0.636       | 0.646       | 0.678       | 0.673       | 0.690       | 0.703       | 0.738       | 0.753       | 0.741       | 0.740       |
| Oman                 | 0.455       | 0.502       | 0.506       | 0.521       | 0.574       | 0.588       | 0.595       | 0.643       | 0.681       | 0.681       | 0.738       |
| Iraq                 | 0.459       | 0.487       | 0.420       | 0.413       | 0.330       | 0.329       | 0.373       | 0.453       | 0.575       | 0.632       | 0.735       |
| Argentina            | 0.539       | 0.549       | 0.568       | 0.574       | 0.603       | 0.613       | 0.683       | 0.713       | 0.692       | 0.697       | 0.727       |
| Kuwait               | 0.412       | 0.406       | 0.452       | 0.461       | 0.453       | 0.489       | 0.527       | 0.571       | 0.608       | 0.642       | 0.714       |
| Tunisia              | 0.451       | 0.494       | 0.525       | 0.539       | 0.537       | 0.580       | 0.624       | 0.657       | 0.700       | 0.694       | 0.711       |
| Comoros              | 0.694       | 0.607       | 0.694       | 0.694       | 0.694       | 0.695       | 0.695       | 0.662       | 0.695       | 0.679       | 0.695       |
| Palau                | 0.463       | 0.613       | 0.694       | 0.663       | 0.617       | 0.670       | 0.644       | 0.695       | 0.695       | 0.695       | 0.695       |
| Tonga                | 0.694       | 0.694       | 0.625       | 0.613       | 0.617       | 0.613       | 0.695       | 0.663       | 0.695       | 0.695       | 0.695       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Micronesia (Federated States of) | 0.694       | 0.509       | 0.695       | 0.695       | 0.647       | 0.645       | 0.605       | 0.694       | 0.658       | 0.660       | 0.695       |
| Kiribati                         | 0.694       | 0.694       | 0.694       | 0.694       | 0.694       | 0.645       | 0.694       | 0.694       | 0.694       | 0.694       | 0.694       |
| Marshall Islands                 | 0.694       | 0.607       | 0.694       | 0.694       | 0.625       | 0.607       | 0.694       | 0.625       | 0.617       | 0.694       | 0.694       |
| Tuvalu                           | 0.694       | 0.694       | 0.694       | 0.694       | 0.347       | 0.694       | 0.694       | 0.694       | 0.578       | 0.694       | 0.694       |
| Nauru                            | 0.694       | 0.694       | 0.694       |             |             | 0.694       | 0.347       |             | 0.694       | 0.694       | 0.694       |
| Yemen                            | 0.538       | 0.587       | 0.592       | 0.633       | 0.631       | 0.670       | 0.656       | 0.700       | 0.733       | 0.707       | 0.692       |
| Lao People's Democratic Republic | 0.689       | 0.689       | 0.682       | 0.681       | 0.663       | 0.689       | 0.702       | 0.694       | 0.684       | 0.692       | 0.691       |
| Cyprus                           | 0.492       | 0.524       | 0.532       | 0.520       | 0.547       | 0.575       | 0.627       | 0.657       | 0.673       | 0.681       | 0.691       |
| Uganda                           | 0.631       | 0.621       | 0.629       | 0.653       | 0.647       | 0.649       | 0.669       | 0.684       | 0.686       | 0.695       | 0.685       |
| Mozambique                       | 0.648       | 0.646       | 0.659       | 0.651       | 0.659       | 0.681       | 0.674       | 0.683       | 0.671       | 0.680       | 0.685       |
| Guinea-Bissau                    | 0.684       | 0.676       | 0.696       | 0.696       | 0.696       | 0.685       | 0.660       | 0.686       | 0.697       | 0.696       | 0.683       |
| Seychelles                       | 0.678       | 0.656       | 0.622       | 0.661       | 0.668       | 0.669       | 0.618       | 0.668       | 0.667       | 0.675       | 0.681       |
| Sudan                            | 0.538       | 0.581       | 0.554       | 0.602       | 0.634       | 0.633       | 0.646       | 0.676       | 0.681       | 0.675       | 0.679       |
| Sao Tome and Principe            | 0.694       | 0.463       | 0.694       | 0.694       | 0.694       | 0.694       | 0.694       | 0.641       | 0.695       | 0.694       | 0.677       |
| Suriname                         | 0.512       | 0.564       | 0.665       | 0.613       | 0.611       | 0.644       | 0.614       | 0.655       | 0.595       | 0.663       | 0.675       |
| Antigua and Barbuda              | 0.607       | 0.555       | 0.656       | 0.651       | 0.637       | 0.585       | 0.632       | 0.630       | 0.677       | 0.649       | 0.673       |
| Gambia                           | 0.672       | 0.681       | 0.677       | 0.662       | 0.667       | 0.678       | 0.651       | 0.676       | 0.673       | 0.666       | 0.671       |
| Monaco                           | 0.609       | 0.613       | 0.679       | 0.657       | 0.656       | 0.656       | 0.665       | 0.673       | 0.656       | 0.666       | 0.670       |
| Mongolia                         | 0.653       | 0.643       | 0.639       | 0.672       | 0.640       | 0.672       | 0.676       | 0.643       | 0.663       | 0.648       | 0.670       |
| Maldives                         | 0.590       | 0.660       | 0.656       | 0.695       | 0.649       | 0.663       | 0.629       | 0.606       | 0.615       | 0.615       | 0.668       |
| Timor-Leste                      | 0.663       | 0.665       | 0.665       | 0.647       | 0.643       | 0.630       | 0.643       | 0.666       | 0.672       | 0.666       | 0.665       |
| Zambia                           | 0.641       | 0.632       | 0.629       | 0.636       | 0.632       | 0.627       | 0.633       | 0.649       | 0.657       | 0.675       | 0.664       |
| Djibouti                         | 0.617       | 0.608       | 0.694       | 0.654       | 0.656       | 0.656       | 0.614       | 0.676       | 0.586       | 0.642       | 0.662       |
| The Bahamas                      | 0.629       | 0.622       | 0.553       | 0.612       | 0.615       | 0.657       | 0.646       | 0.666       | 0.642       | 0.659       | 0.661       |
| Cabo Verde                       | 0.695       | 0.656       | 0.695       | 0.629       | 0.650       | 0.679       | 0.655       | 0.642       | 0.655       | 0.649       | 0.659       |
| Haiti                            | 0.669       | 0.661       | 0.668       | 0.663       | 0.633       | 0.650       | 0.668       | 0.687       | 0.680       | 0.648       | 0.659       |
| Luxembourg                       | 0.586       | 0.610       | 0.596       | 0.617       | 0.638       | 0.631       | 0.642       | 0.654       | 0.674       | 0.663       | 0.659       |
| Madagascar                       | 0.569       | 0.620       | 0.632       | 0.626       | 0.649       | 0.628       | 0.605       | 0.645       | 0.630       | 0.657       | 0.658       |
| Saint Kitts and Nevis            | 0.635       | 0.611       | 0.662       | 0.628       | 0.631       | 0.630       | 0.637       | 0.663       | 0.645       | 0.642       | 0.658       |
| Democratic Republic of the Congo | 0.548       | 0.546       | 0.601       | 0.619       | 0.599       | 0.608       | 0.636       | 0.661       | 0.666       | 0.672       | 0.657       |
| Angola                           | 0.612       | 0.631       | 0.612       | 0.655       | 0.664       | 0.661       | 0.643       | 0.666       | 0.649       | 0.655       | 0.657       |

| <b>Year</b>              | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|--------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Grenada                  | 0.627       | 0.660       | 0.653       | 0.666       | 0.672       | 0.633       | 0.669       | 0.662       | 0.665       | 0.681       | 0.655       |
| Equatorial Guinea        | 0.694       | 0.694       | 0.615       | 0.694       | 0.660       | 0.695       | 0.602       | 0.626       | 0.695       | 0.672       | 0.654       |
| Papua New Guinea         | 0.586       | 0.619       | 0.620       | 0.612       | 0.601       | 0.624       | 0.624       | 0.647       | 0.658       | 0.657       | 0.653       |
| Chad                     | 0.674       | 0.654       | 0.660       | 0.659       | 0.639       | 0.655       | 0.645       | 0.655       | 0.615       | 0.599       | 0.653       |
| Malawi                   | 0.613       | 0.631       | 0.652       | 0.657       | 0.665       | 0.657       | 0.675       | 0.669       | 0.678       | 0.657       | 0.652       |
| Sierra Leone             | 0.600       | 0.643       | 0.651       | 0.671       | 0.671       | 0.641       | 0.660       | 0.680       | 0.665       | 0.664       | 0.652       |
| Andorra                  | 0.694       | 0.654       | 0.625       | 0.641       | 0.694       | 0.668       | 0.669       | 0.653       | 0.631       | 0.622       | 0.651       |
| Cambodia                 | 0.652       | 0.647       | 0.670       | 0.679       | 0.662       | 0.687       | 0.684       | 0.679       | 0.676       | 0.665       | 0.649       |
| Romania                  | 0.419       | 0.435       | 0.467       | 0.470       | 0.498       | 0.516       | 0.578       | 0.598       | 0.637       | 0.641       | 0.648       |
| Bahrain                  | 0.391       | 0.410       | 0.428       | 0.404       | 0.443       | 0.430       | 0.477       | 0.528       | 0.605       | 0.606       | 0.645       |
| Dominican Republic       | 0.552       | 0.632       | 0.649       | 0.611       | 0.653       | 0.626       | 0.648       | 0.642       | 0.631       | 0.653       | 0.644       |
| Panama                   | 0.654       | 0.633       | 0.656       | 0.642       | 0.663       | 0.672       | 0.639       | 0.649       | 0.644       | 0.645       | 0.642       |
| Central African Republic | 0.557       | 0.591       | 0.538       | 0.568       | 0.623       | 0.593       | 0.640       | 0.644       | 0.622       | 0.645       | 0.642       |
| Myanmar                  | 0.634       | 0.602       | 0.658       | 0.654       | 0.645       | 0.640       | 0.665       | 0.646       | 0.669       | 0.636       | 0.641       |
| Liechtenstein            | 0.617       | 0.592       | 0.597       | 0.598       | 0.655       | 0.617       | 0.562       | 0.624       | 0.635       | 0.643       | 0.638       |
| Guatemala                | 0.577       | 0.638       | 0.609       | 0.613       | 0.607       | 0.646       | 0.628       | 0.653       | 0.656       | 0.668       | 0.638       |
| Samoa                    | 0.438       | 0.521       | 0.562       | 0.503       | 0.560       | 0.599       | 0.616       | 0.666       | 0.611       | 0.622       | 0.638       |
| Libya                    | 0.588       | 0.593       | 0.612       | 0.629       | 0.619       | 0.623       | 0.620       | 0.642       | 0.630       | 0.644       | 0.635       |
| Rwanda                   | 0.617       | 0.624       | 0.623       | 0.658       | 0.662       | 0.633       | 0.645       | 0.664       | 0.653       | 0.648       | 0.635       |
| Serbia                   | 0.385       | 0.415       | 0.427       | 0.462       | 0.492       | 0.526       | 0.551       | 0.603       | 0.604       | 0.600       | 0.635       |
| Iceland                  | 0.565       | 0.578       | 0.589       | 0.605       | 0.605       | 0.630       | 0.628       | 0.632       | 0.645       | 0.632       | 0.633       |
| Afghanistan              | 0.610       | 0.649       | 0.543       | 0.577       | 0.592       | 0.586       | 0.501       | 0.570       | 0.638       | 0.614       | 0.630       |
| Dominica                 | 0.579       | 0.580       | 0.674       | 0.517       | 0.587       | 0.641       | 0.637       | 0.637       | 0.667       | 0.695       | 0.630       |
| Solomon Islands          | 0.669       | 0.681       | 0.668       | 0.681       | 0.683       | 0.696       | 0.697       | 0.697       | 0.680       | 0.665       | 0.629       |
| Honduras                 | 0.627       | 0.613       | 0.573       | 0.594       | 0.615       | 0.590       | 0.615       | 0.588       | 0.532       | 0.591       | 0.626       |
| Ecuador                  | 0.597       | 0.614       | 0.594       | 0.597       | 0.578       | 0.583       | 0.604       | 0.621       | 0.581       | 0.615       | 0.626       |
| Vanuatu                  | 0.695       | 0.695       | 0.677       | 0.647       | 0.596       | 0.645       | 0.666       | 0.640       | 0.683       | 0.656       | 0.625       |
| Guinea                   | 0.560       | 0.635       | 0.662       | 0.656       | 0.674       | 0.654       | 0.637       | 0.640       | 0.652       | 0.645       | 0.625       |
| Nicaragua                | 0.611       | 0.670       | 0.635       | 0.659       | 0.618       | 0.642       | 0.675       | 0.632       | 0.668       | 0.648       | 0.624       |
| Belize                   | 0.663       | 0.670       | 0.668       | 0.656       | 0.630       | 0.626       | 0.595       | 0.697       | 0.629       | 0.635       | 0.622       |
| Ghana                    | 0.478       | 0.489       | 0.487       | 0.506       | 0.536       | 0.545       | 0.558       | 0.592       | 0.635       | 0.597       | 0.621       |

| Year                             | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Burundi                          | 0.557 | 0.637 | 0.624 | 0.659 | 0.631 | 0.557 | 0.619 | 0.628 | 0.636 | 0.631 | 0.620 |
| Estonia                          | 0.454 | 0.471 | 0.508 | 0.507 | 0.549 | 0.575 | 0.581 | 0.615 | 0.612 | 0.608 | 0.618 |
| Slovakia                         | 0.425 | 0.450 | 0.469 | 0.480 | 0.508 | 0.535 | 0.582 | 0.583 | 0.574 | 0.592 | 0.617 |
| Congo                            | 0.548 | 0.563 | 0.611 | 0.610 | 0.644 | 0.620 | 0.647 | 0.649 | 0.645 | 0.618 | 0.612 |
| Mali                             | 0.613 | 0.648 | 0.637 | 0.629 | 0.635 | 0.654 | 0.626 | 0.616 | 0.628 | 0.642 | 0.611 |
| Mauritania                       | 0.659 | 0.636 | 0.604 | 0.635 | 0.633 | 0.579 | 0.584 | 0.656 | 0.615 | 0.645 | 0.611 |
| Guyana                           | 0.496 | 0.587 | 0.632 | 0.573 | 0.508 | 0.367 | 0.545 | 0.583 | 0.535 | 0.599 | 0.608 |
| Brunei Darussalam                | 0.402 | 0.460 | 0.475 | 0.512 | 0.522 | 0.562 | 0.534 | 0.548 | 0.583 | 0.600 | 0.605 |
| Senegal                          | 0.528 | 0.540 | 0.532 | 0.568 | 0.601 | 0.569 | 0.557 | 0.589 | 0.598 | 0.595 | 0.605 |
| Saint Vincent and the Grenadines | 0.694 | 0.694 | 0.555 | 0.636 | 0.694 | 0.521 | 0.645 | 0.584 | 0.585 | 0.564 | 0.602 |
| Algeria                          | 0.414 | 0.434 | 0.454 | 0.484 | 0.496 | 0.494 | 0.521 | 0.568 | 0.574 | 0.551 | 0.600 |
| Slovenia                         | 0.419 | 0.452 | 0.469 | 0.475 | 0.514 | 0.504 | 0.534 | 0.574 | 0.545 | 0.557 | 0.599 |
| Barbados                         | 0.473 | 0.435 | 0.468 | 0.493 | 0.523 | 0.541 | 0.536 | 0.559 | 0.571 | 0.570 | 0.598 |
| Namibia                          | 0.599 | 0.610 | 0.609 | 0.620 | 0.580 | 0.590 | 0.573 | 0.606 | 0.620 | 0.579 | 0.597 |
| Bolivia (Plurinational State of) | 0.654 | 0.645 | 0.632 | 0.620 | 0.648 | 0.597 | 0.580 | 0.622 | 0.619 | 0.591 | 0.593 |
| Uzbekistan                       | 0.363 | 0.338 | 0.379 | 0.402 | 0.412 | 0.284 | 0.214 | 0.371 | 0.440 | 0.502 | 0.593 |
| Gabon                            | 0.622 | 0.612 | 0.624 | 0.620 | 0.629 | 0.602 | 0.600 | 0.638 | 0.605 | 0.587 | 0.589 |
| Ethiopia                         | 0.433 | 0.461 | 0.487 | 0.501 | 0.476 | 0.466 | 0.448 | 0.504 | 0.580 | 0.542 | 0.584 |
| Botswana                         | 0.490 | 0.483 | 0.549 | 0.516 | 0.543 | 0.576 | 0.577 | 0.577 | 0.570 | 0.573 | 0.582 |
| El Salvador                      | 0.546 | 0.531 | 0.541 | 0.509 | 0.544 | 0.569 | 0.621 | 0.585 | 0.613 | 0.556 | 0.582 |
| Azerbaijan                       | 0.362 | 0.368 | 0.368 | 0.337 | 0.374 | 0.331 | 0.345 | 0.361 | 0.334 | 0.385 | 0.581 |
| South Sudan                      | 0.602 | 0.505 | 0.555 | 0.694 | 0.667 | 0.662 | 0.549 | 0.654 | 0.591 | 0.590 | 0.580 |
| Liberia                          | 0.599 | 0.669 | 0.662 | 0.600 | 0.660 | 0.666 | 0.637 | 0.656 | 0.644 | 0.631 | 0.580 |
| Benin                            | 0.588 | 0.566 | 0.580 | 0.582 | 0.568 | 0.525 | 0.535 | 0.579 | 0.564 | 0.573 | 0.572 |
| Montenegro                       | 0.430 | 0.422 | 0.411 | 0.418 | 0.455 | 0.462 | 0.520 | 0.508 | 0.508 | 0.545 | 0.566 |
| Zimbabwe                         | 0.478 | 0.459 | 0.512 | 0.531 | 0.545 | 0.517 | 0.560 | 0.582 | 0.581 | 0.564 | 0.566 |
| Morocco                          | 0.366 | 0.387 | 0.380 | 0.376 | 0.395 | 0.409 | 0.445 | 0.496 | 0.513 | 0.528 | 0.566 |
| Costa Rica                       | 0.558 | 0.566 | 0.531 | 0.553 | 0.574 | 0.523 | 0.539 | 0.543 | 0.564 | 0.580 | 0.565 |
| Fiji                             | 0.486 | 0.519 | 0.516 | 0.547 | 0.564 | 0.567 | 0.557 | 0.576 | 0.566 | 0.583 | 0.564 |
| Cameroon                         | 0.517 | 0.518 | 0.520 | 0.519 | 0.539 | 0.533 | 0.543 | 0.559 | 0.565 | 0.545 | 0.562 |
| Lesotho                          | 0.497 | 0.499 | 0.378 | 0.474 | 0.540 | 0.483 | 0.550 | 0.512 | 0.563 | 0.538 | 0.558 |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Georgia                            | 0.439       | 0.478       | 0.482       | 0.523       | 0.568       | 0.557       | 0.556       | 0.546       | 0.569       | 0.577       | 0.556       |
| Niger                              | 0.635       | 0.608       | 0.603       | 0.573       | 0.584       | 0.587       | 0.559       | 0.619       | 0.577       | 0.601       | 0.551       |
| Kazakhstan                         | 0.282       | 0.326       | 0.334       | 0.394       | 0.402       | 0.487       | 0.495       | 0.547       | 0.531       | 0.531       | 0.550       |
| Saint Lucia                        | 0.694       | 0.694       | 0.595       | 0.694       | 0.540       | 0.631       | 0.636       | 0.636       | 0.658       | 0.636       | 0.546       |
| Togo                               | 0.451       | 0.458       | 0.517       | 0.480       | 0.517       | 0.538       | 0.535       | 0.533       | 0.522       | 0.517       | 0.542       |
| Venezuela (Bolivarian Republic of) | 0.362       | 0.382       | 0.435       | 0.458       | 0.513       | 0.476       | 0.522       | 0.525       | 0.525       | 0.545       | 0.541       |
| United Republic of Tanzania        | 0.608       | 0.616       | 0.618       | 0.620       | 0.636       | 0.629       | 0.630       | 0.633       | 0.607       | 0.570       | 0.541       |
| Trinidad and Tobago                | 0.381       | 0.455       | 0.384       | 0.378       | 0.381       | 0.412       | 0.421       | 0.457       | 0.452       | 0.508       | 0.539       |
| Nepal                              | 0.488       | 0.494       | 0.486       | 0.528       | 0.507       | 0.508       | 0.491       | 0.506       | 0.529       | 0.531       | 0.539       |
| San Marino                         | 0.694       | 0.615       | 0.629       | 0.516       | 0.566       | 0.591       | 0.522       | 0.537       | 0.538       | 0.518       | 0.531       |
| Burkina Faso                       | 0.604       | 0.586       | 0.612       | 0.620       | 0.624       | 0.586       | 0.591       | 0.590       | 0.584       | 0.535       | 0.531       |
| Uruguay                            | 0.501       | 0.531       | 0.509       | 0.505       | 0.525       | 0.518       | 0.536       | 0.537       | 0.511       | 0.527       | 0.531       |
| Ukraine                            | 0.411       | 0.420       | 0.431       | 0.432       | 0.442       | 0.438       | 0.452       | 0.466       | 0.484       | 0.516       | 0.529       |
| North Macedonia                    | 0.370       | 0.360       | 0.385       | 0.423       | 0.426       | 0.436       | 0.471       | 0.518       | 0.511       | 0.508       | 0.526       |
| Philippines                        | 0.452       | 0.434       | 0.451       | 0.466       | 0.441       | 0.398       | 0.455       | 0.495       | 0.507       | 0.506       | 0.524       |
| Sri Lanka                          | 0.428       | 0.439       | 0.442       | 0.481       | 0.467       | 0.472       | 0.472       | 0.480       | 0.502       | 0.520       | 0.523       |
| Jamaica                            | 0.357       | 0.456       | 0.438       | 0.420       | 0.467       | 0.484       | 0.518       | 0.490       | 0.517       | 0.493       | 0.522       |
| Malta                              | 0.400       | 0.403       | 0.426       | 0.409       | 0.444       | 0.458       | 0.447       | 0.504       | 0.500       | 0.526       | 0.516       |
| Bosnia and Herzegovina             | 0.403       | 0.440       | 0.438       | 0.438       | 0.457       | 0.412       | 0.414       | 0.458       | 0.483       | 0.473       | 0.515       |
| Côte d'Ivoire                      | 0.461       | 0.459       | 0.493       | 0.515       | 0.539       | 0.510       | 0.540       | 0.535       | 0.550       | 0.510       | 0.515       |
| Peru                               | 0.561       | 0.550       | 0.548       | 0.536       | 0.529       | 0.485       | 0.497       | 0.535       | 0.517       | 0.532       | 0.513       |
| Croatia                            | 0.356       | 0.378       | 0.397       | 0.405       | 0.441       | 0.452       | 0.475       | 0.495       | 0.498       | 0.484       | 0.505       |
| Kyrgyzstan                         | 0.509       | 0.578       | 0.440       | 0.492       | 0.536       | 0.502       | 0.537       | 0.555       | 0.562       | 0.549       | 0.504       |
| Tajikistan                         | 0.479       | 0.458       | 0.426       | 0.502       | 0.510       | 0.538       | 0.554       | 0.550       | 0.527       | 0.479       | 0.504       |
| Lithuania                          | 0.322       | 0.342       | 0.374       | 0.405       | 0.439       | 0.431       | 0.465       | 0.482       | 0.451       | 0.472       | 0.498       |
| Mauritius                          | 0.374       | 0.426       | 0.402       | 0.464       | 0.522       | 0.523       | 0.545       | 0.532       | 0.504       | 0.475       | 0.497       |
| Eritrea                            | 0.618       | 0.575       | 0.592       | 0.521       | 0.508       | 0.413       | 0.354       | 0.502       | 0.525       | 0.501       | 0.495       |
| Bhutan                             | 0.560       | 0.598       | 0.559       | 0.582       | 0.539       | 0.621       | 0.599       | 0.557       | 0.507       | 0.537       | 0.491       |
| Armenia                            | 0.460       | 0.468       | 0.475       | 0.490       | 0.511       | 0.511       | 0.468       | 0.508       | 0.487       | 0.498       | 0.486       |
| Paraguay                           | 0.512       | 0.571       | 0.540       | 0.547       | 0.584       | 0.527       | 0.544       | 0.550       | 0.533       | 0.531       | 0.486       |
| Latvia                             | 0.343       | 0.363       | 0.405       | 0.447       | 0.446       | 0.431       | 0.480       | 0.452       | 0.436       | 0.436       | 0.470       |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Republic of Moldova                   | 0.465       | 0.489       | 0.476       | 0.459       | 0.458       | 0.462       | 0.470       | 0.434       | 0.423       | 0.455       | 0.465       |
| Belarus                               | 0.451       | 0.480       | 0.508       | 0.508       | 0.514       | 0.458       | 0.471       | 0.464       | 0.461       | 0.425       | 0.452       |
| Somalia                               | 0.548       | 0.658       | 0.694       | 0.674       | 0.618       | 0.648       | 0.563       | 0.534       | 0.375       | 0.490       | 0.445       |
| Bulgaria                              | 0.400       | 0.406       | 0.439       | 0.455       | 0.443       | 0.387       | 0.411       | 0.425       | 0.428       | 0.418       | 0.425       |
| Albania                               | 0.259       | 0.354       | 0.488       | 0.524       | 0.528       | 0.495       | 0.517       | 0.490       | 0.499       | 0.436       | 0.422       |
| Cuba                                  | 0.327       | 0.352       | 0.384       | 0.402       | 0.446       | 0.407       | 0.390       | 0.390       | 0.385       | 0.377       | 0.414       |
| Syrian Arab Republic                  | 0.311       | 0.271       | 0.270       | 0.309       | 0.280       | 0.299       | 0.298       | 0.323       | 0.383       | 0.390       | 0.359       |
| Turkmenistan                          | 0.541       | 0.694       | 0.607       | 0.391       | 0.397       | 0.607       | 0.509       | 0.634       | 0.364       | 0.377       | 0.309       |
| Democratic People's Republic of Korea | 0.579       | 0.519       | 0.522       | 0.485       | 0.397       | 0.323       | 0.240       | 0.184       | 0.219       | 0.247       | 0.218       |
| Eswatini                              |             |             |             |             |             |             |             |             |             |             |             |

#### Assessment of Open Data Readiness ( $R_{OD}$ )

Table S2-2-1 Shareable Data ( $S_{OD}$ ) (2014-2024)

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United States                | 28.049      | 26.297      | 24.923      | 24.745      | 23.359      | 23.656      | 22.248      | 21.399      | 20.114      | 19.880      | 19.252      |
| China                        | 2.854       | 2.814       | 3.387       | 4.169       | 4.767       | 6.011       | 6.778       | 7.792       | 9.036       | 9.996       | 11.303      |
| United Kingdom               | 5.182       | 5.339       | 5.440       | 5.362       | 5.073       | 4.692       | 4.570       | 4.296       | 4.487       | 4.568       | 4.597       |
| Germany                      | 2.825       | 3.286       | 3.337       | 3.223       | 3.472       | 3.175       | 3.291       | 3.124       | 3.124       | 2.955       | 2.997       |
| Australia                    | 1.576       | 2.022       | 2.070       | 2.184       | 2.378       | 2.532       | 2.716       | 2.839       | 2.658       | 2.607       | 2.648       |
| Canada                       | 1.736       | 1.799       | 1.966       | 1.867       | 1.808       | 1.910       | 1.968       | 1.948       | 1.978       | 1.954       | 1.948       |
| Netherlands (Kingdom of the) | 1.505       | 1.710       | 1.899       | 1.879       | 1.952       | 1.765       | 1.860       | 2.006       | 1.847       | 1.800       | 1.770       |
| Italy                        | 1.088       | 1.169       | 1.199       | 1.076       | 1.163       | 1.165       | 1.216       | 1.303       | 1.262       | 1.360       | 1.322       |
| France                       | 1.730       | 1.613       | 1.910       | 1.715       | 1.758       | 1.726       | 1.729       | 1.605       | 1.427       | 1.457       | 1.302       |
| Spain                        | 1.173       | 1.303       | 1.326       | 1.317       | 1.445       | 1.445       | 1.366       | 1.396       | 1.254       | 1.301       | 1.269       |
| Switzerland                  | 1.397       | 1.448       | 1.544       | 1.582       | 1.478       | 1.605       | 1.586       | 1.240       | 1.225       | 1.187       | 1.206       |
| Japan                        | 1.869       | 1.764       | 1.615       | 1.549       | 1.207       | 1.224       | 1.240       | 1.206       | 1.131       | 1.114       | 1.063       |
| Singapore                    | 0.565       | 0.553       | 0.498       | 0.742       | 0.904       | 0.864       | 0.925       | 0.963       | 0.979       | 1.003       | 1.020       |
| Republic of Korea            | 0.704       | 0.791       | 0.900       | 0.817       | 0.945       | 0.847       | 0.852       | 0.905       | 0.945       | 0.919       | 1.000       |
| Belgium                      | 0.800       | 0.872       | 0.965       | 0.943       | 0.929       | 0.921       | 0.945       | 0.966       | 0.946       | 0.982       | 0.974       |

|              | <b>Year</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|--------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Sweden       |             | 0.815       | 0.867       | 0.869       | 0.887       | 0.969       | 0.891       | 0.925       | 0.881       | 0.952       | 0.914       | 0.905       |
| Denmark      |             | 0.695       | 0.775       | 0.777       | 0.810       | 0.959       | 0.824       | 0.873       | 0.840       | 0.835       | 0.815       | 0.815       |
| Austria      |             | 0.690       | 0.705       | 0.747       | 0.754       | 0.781       | 0.780       | 0.770       | 0.816       | 0.784       | 0.761       | 0.813       |
| Ireland      |             | 0.396       | 0.539       | 0.460       | 0.534       | 0.631       | 0.616       | 0.664       | 0.682       | 0.676       | 0.669       | 0.670       |
| Israel       |             | 0.524       | 0.545       | 0.517       | 0.411       | 0.533       | 0.608       | 0.625       | 0.661       | 0.633       | 0.653       | 0.666       |
| Norway       |             | 0.563       | 0.600       | 0.627       | 0.652       | 0.667       | 0.660       | 0.670       | 0.693       | 0.681       | 0.678       | 0.639       |
| Brazil       |             | 0.581       | 0.607       | 0.544       | 0.557       | 0.646       | 0.648       | 0.702       | 0.703       | 0.666       | 0.663       | 0.632       |
| Finland      |             | 0.633       | 0.640       | 0.637       | 0.681       | 0.683       | 0.614       | 0.623       | 0.614       | 0.590       | 0.577       | 0.583       |
| Poland       |             | 0.578       | 0.588       | 0.615       | 0.596       | 0.579       | 0.575       | 0.615       | 0.631       | 0.604       | 0.621       | 0.582       |
| Portugal     |             | 0.457       | 0.496       | 0.494       | 0.494       | 0.535       | 0.518       | 0.523       | 0.563       | 0.577       | 0.580       | 0.577       |
| South Africa |             | 0.588       | 0.565       | 0.542       | 0.533       | 0.547       | 0.554       | 0.559       | 0.559       | 0.553       | 0.558       | 0.563       |
| New Zealand  |             | 0.415       | 0.509       | 0.502       | 0.535       | 0.498       | 0.488       | 0.522       | 0.528       | 0.511       | 0.539       | 0.553       |
| Russia       |             | 0.525       | 0.514       | 0.506       | 0.257       | 0.262       | 0.241       | 0.299       | 0.477       | 0.531       | 0.542       | 0.525       |
| Czechia      |             | 0.409       | 0.511       | 0.521       | 0.218       | 0.541       | 0.535       | 0.545       | 0.546       | 0.521       | 0.517       | 0.521       |
| Mexico       |             | 0.449       | 0.477       | 0.459       | 0.507       | 0.521       | 0.500       | 0.500       | 0.512       | 0.493       | 0.480       | 0.498       |
| Greece       |             | 0.422       | 0.524       | 0.502       | 0.541       | 0.542       | 0.512       | 0.364       | 0.547       | 0.527       | 0.543       | 0.492       |
| Serbia       |             | 0.320       | 0.220       | 0.229       | 0.345       | 0.294       | 0.302       | 0.349       | 0.474       | 0.474       | 0.474       | 0.474       |
| Hungary      |             | 0.435       | 0.142       | 0.427       | 0.430       | 0.437       | 0.441       | 0.459       | 0.475       | 0.445       | 0.468       | 0.467       |
| Colombia     |             | 0.431       | 0.428       | 0.445       | 0.444       | 0.446       | 0.441       | 0.308       | 0.449       | 0.446       | 0.451       | 0.463       |
| Indonesia    |             | 0.112       | 0.113       | 0.344       | 0.407       | 0.205       | 0.442       | 0.446       | 0.457       | 0.448       | 0.457       | 0.461       |
| Chile        |             | 0.111       | 0.418       | 0.423       | 0.421       | 0.429       | 0.442       | 0.453       | 0.472       | 0.453       | 0.462       | 0.453       |
| Thailand     |             | 0.309       | 0.295       | 0.395       | 0.459       | 0.407       | 0.488       | 0.482       | 0.453       | 0.476       | 0.453       | 0.450       |
| Argentina    |             | 0.407       | 0.408       | 0.416       | 0.418       | 0.432       | 0.422       | 0.420       | 0.419       | 0.429       | 0.432       | 0.438       |
| Lithuania    |             | 0.148       | 0.151       | 0.156       | 0.157       | 0.165       | 0.428       | 0.443       | 0.175       | 0.427       | 0.426       | 0.423       |
| Ukraine      |             | 0.347       | 0.363       | 0.106       | 0.390       | 0.406       | 0.409       | 0.416       | 0.417       | 0.407       | 0.416       | 0.417       |
| Slovenia     |             | 0.144       | 0.391       | 0.387       | 0.165       | 0.154       | 0.141       | 0.416       | 0.426       | 0.410       | 0.418       | 0.416       |
| Romania      |             | 0.249       | 0.359       | 0.199       | 0.172       | 0.192       | 0.394       | 0.408       | 0.416       | 0.408       | 0.409       | 0.410       |
| Estonia      |             | 0.138       | 0.151       | 0.179       | 0.436       | 0.229       | 0.175       | 0.425       | 0.407       | 0.390       | 0.396       | 0.408       |
| Saudi Arabia |             | 0.630       | 1.004       | 0.875       | 0.929       | 0.911       | 0.851       | 1.070       | 1.139       | 0.898       | 0.744       | 0.407       |
| Croatia      |             | 0.337       | 0.371       | 0.373       | 0.113       | 0.401       | 0.253       | 0.394       | 0.407       | 0.400       | 0.403       | 0.398       |
| Kenya        |             | 0.251       | 0.313       | 0.370       | 0.377       | 0.383       | 0.383       | 0.392       | 0.380       | 0.393       | 0.381       | 0.398       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Türkiye                          | 0.524       | 0.548       | 0.499       | 0.484       | 0.524       | 0.505       | 0.467       | 0.493       | 0.496       | 0.510       | 0.392       |
| Slovakia                         | 0.376       | 0.385       | 0.132       | 0.396       | 0.389       | 0.399       | 0.409       | 0.423       | 0.393       | 0.390       | 0.390       |
| Peru                             | 0.133       | 0.087       | 0.335       | 0.091       | 0.090       | 0.106       | 0.204       | 0.378       | 0.374       | 0.386       | 0.386       |
| Nigeria                          | 0.179       | 0.280       | 0.177       | 0.352       | 0.375       | 0.379       | 0.390       | 0.392       | 0.381       | 0.383       | 0.385       |
| Cyprus                           | 0.167       | 0.105       | 0.235       | 0.340       | 0.350       | 0.354       | 0.128       | 0.376       | 0.369       | 0.375       | 0.378       |
| Morocco                          | 0.149       | 0.295       | 0.330       | 0.331       | 0.337       | 0.340       | 0.349       | 0.364       | 0.367       | 0.368       | 0.378       |
| Qatar                            | 0.120       | 0.186       | 0.257       | 0.089       | 0.330       | 0.277       | 0.366       | 0.375       | 0.372       | 0.372       | 0.374       |
| India                            | 0.496       | 0.474       | 0.411       | 0.436       | 0.502       | 0.567       | 0.566       | 0.619       | 0.453       | 0.605       | 0.374       |
| Bulgaria                         | 0.192       | 0.083       | 0.080       | 0.082       | 0.329       | 0.327       | 0.335       | 0.340       | 0.340       | 0.345       | 0.357       |
| Ecuador                          | 0.145       | 0.074       | 0.079       | 0.102       | 0.105       | 0.346       | 0.356       | 0.357       | 0.356       | 0.365       | 0.357       |
| Algeria                          | 0.127       | 0.126       | 0.312       | 0.200       | 0.159       | 0.327       | 0.332       | 0.341       | 0.340       | 0.345       | 0.354       |
| Cameroon                         | 0.125       | 0.077       | 0.309       | 0.111       | 0.288       | 0.327       | 0.338       | 0.338       | 0.337       | 0.336       | 0.349       |
| Malaysia                         | 0.353       | 0.450       | 0.439       | 0.448       | 0.239       | 0.530       | 0.502       | 0.524       | 0.398       | 0.432       | 0.348       |
| Azerbaijan                       | 0.103       | 0.171       | 0.080       | 0.211       | 0.203       | 0.136       | 0.226       | 0.299       | 0.246       | 0.306       | 0.334       |
| United Republic of Tanzania      | 0.146       | 0.087       | 0.088       | 0.315       | 0.088       | 0.317       | 0.085       | 0.084       | 0.082       | 0.322       | 0.332       |
| Sri Lanka                        | 0.081       | 0.254       | 0.140       | 0.315       | 0.318       | 0.313       | 0.318       | 0.238       | 0.321       | 0.321       | 0.329       |
| United Arab Emirates             | 0.085       | 0.244       | 0.321       | 0.327       | 0.348       | 0.360       | 0.370       | 0.390       | 0.293       | 0.410       | 0.329       |
| Costa Rica                       | 0.134       | 0.065       | 0.079       | 0.077       | 0.082       | 0.075       | 0.299       | 0.077       | 0.071       | 0.073       | 0.308       |
| Bosnia and Herzegovina           | 0.057       | 0.155       | 0.073       | 0.215       | 0.073       | 0.289       | 0.296       | 0.306       | 0.282       | 0.301       | 0.305       |
| Philippines                      | 0.082       | 0.316       | 0.315       | 0.093       | 0.326       | 0.334       | 0.264       | 0.177       | 0.349       | 0.199       | 0.301       |
| Armenia                          | 0.075       | 0.076       | 0.233       | 0.150       | 0.294       | 0.286       | 0.153       | 0.076       | 0.075       | 0.073       | 0.293       |
| Libya                            | 0.075       | 0.065       | 0.055       | 0.070       | 0.072       | 0.061       | 0.171       | 0.074       | 0.197       | 0.267       | 0.290       |
| Syrian Arab Republic             | 0.050       | 0.067       | 0.079       | 0.050       | 0.147       | 0.159       | 0.063       | 0.074       | 0.078       | 0.284       | 0.285       |
| North Macedonia                  | 0.068       | 0.065       | 0.170       | 0.072       | 0.073       | 0.246       | 0.075       | 0.080       | 0.079       | 0.285       | 0.282       |
| Malta                            | 0.055       | 0.060       | 0.133       | 0.067       | 0.069       | 0.196       | 0.125       | 0.084       | 0.195       | 0.081       | 0.282       |
| Zimbabwe                         | 0.069       | 0.066       | 0.073       | 0.068       | 0.069       | 0.073       | 0.073       | 0.263       | 0.284       | 0.072       | 0.281       |
| Kuwait                           | 0.111       | 0.129       | 0.231       | 0.071       | 0.122       | 0.266       | 0.308       | 0.225       | 0.305       | 0.285       | 0.281       |
| Jordan                           | 0.171       | 0.198       | 0.302       | 0.316       | 0.327       | 0.334       | 0.352       | 0.371       | 0.300       | 0.259       | 0.271       |
| Democratic Republic of the Congo | 0.029       | 0.041       | 0.062       | 0.051       | 0.050       | 0.078       | 0.114       | 0.072       | 0.190       | 0.275       | 0.269       |
| Iran (Islamic Republic of)       | 0.386       | 0.306       | 0.265       | 0.351       | 0.362       | 0.328       | 0.324       | 0.450       | 0.427       | 0.455       | 0.259       |
| Tunisia                          | 0.146       | 0.322       | 0.326       | 0.234       | 0.210       | 0.334       | 0.213       | 0.354       | 0.359       | 0.336       | 0.248       |

| Year                             | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Viet Nam                         | 0.320 | 0.267 | 0.361 | 0.366 | 0.387 | 0.413 | 0.428 | 0.436 | 0.412 | 0.428 | 0.243 |
| Mongolia                         | 0.048 | 0.053 | 0.055 | 0.062 | 0.059 | 0.064 | 0.063 | 0.065 | 0.155 | 0.271 | 0.241 |
| Uzbekistan                       | 0.041 | 0.058 | 0.044 | 0.050 | 0.078 | 0.140 | 0.265 | 0.132 | 0.214 | 0.280 | 0.229 |
| Georgia                          | 0.169 | 0.236 | 0.081 | 0.080 | 0.268 | 0.081 | 0.082 | 0.087 | 0.294 | 0.298 | 0.224 |
| Nepal                            | 0.115 | 0.218 | 0.163 | 0.122 | 0.257 | 0.299 | 0.262 | 0.339 | 0.331 | 0.179 | 0.224 |
| Kyrgyzstan                       | 0.040 | 0.043 | 0.062 | 0.072 | 0.120 | 0.130 | 0.167 | 0.094 | 0.097 | 0.098 | 0.217 |
| Ghana                            | 0.101 | 0.106 | 0.281 | 0.351 | 0.357 | 0.319 | 0.369 | 0.373 | 0.376 | 0.253 | 0.217 |
| Egypt                            | 0.223 | 0.229 | 0.249 | 0.362 | 0.353 | 0.401 | 0.369 | 0.456 | 0.291 | 0.316 | 0.215 |
| Belarus                          | 0.069 | 0.175 | 0.137 | 0.164 | 0.227 | 0.305 | 0.302 | 0.077 | 0.263 | 0.273 | 0.212 |
| Lebanon                          | 0.158 | 0.210 | 0.250 | 0.312 | 0.252 | 0.093 | 0.334 | 0.348 | 0.341 | 0.364 | 0.211 |
| Kazakhstan                       | 0.052 | 0.286 | 0.281 | 0.100 | 0.114 | 0.142 | 0.279 | 0.339 | 0.155 | 0.255 | 0.210 |
| Congo                            | 0.086 | 0.071 | 0.062 | 0.075 | 0.079 | 0.150 | 0.061 | 0.064 | 0.063 | 0.240 | 0.202 |
| Pakistan                         | 0.326 | 0.200 | 0.239 | 0.327 | 0.320 | 0.263 | 0.338 | 0.434 | 0.245 | 0.262 | 0.201 |
| Zambia                           | 0.068 | 0.080 | 0.081 | 0.081 | 0.079 | 0.072 | 0.077 | 0.072 | 0.279 | 0.283 | 0.191 |
| Bangladesh                       | 0.248 | 0.165 | 0.225 | 0.339 | 0.250 | 0.173 | 0.276 | 0.386 | 0.384 | 0.217 | 0.187 |
| Iraq                             | 0.236 | 0.078 | 0.305 | 0.150 | 0.203 | 0.370 | 0.365 | 0.374 | 0.253 | 0.253 | 0.187 |
| Dominican Republic               | 0.036 | 0.045 | 0.043 | 0.042 | 0.049 | 0.054 | 0.108 | 0.064 | 0.061 | 0.061 | 0.186 |
| Oman                             | 0.103 | 0.078 | 0.184 | 0.129 | 0.236 | 0.080 | 0.316 | 0.328 | 0.163 | 0.217 | 0.182 |
| Albania                          | 0.097 | 0.056 | 0.073 | 0.062 | 0.060 | 0.062 | 0.062 | 0.268 | 0.069 | 0.071 | 0.178 |
| Myanmar                          | 0.044 | 0.049 | 0.098 | 0.075 | 0.147 | 0.065 | 0.067 | 0.070 | 0.221 | 0.201 | 0.166 |
| Ethiopia                         | 0.083 | 0.089 | 0.271 | 0.260 | 0.354 | 0.337 | 0.374 | 0.370 | 0.384 | 0.127 | 0.163 |
| Brunei Darussalam                | 0.048 | 0.054 | 0.055 | 0.059 | 0.074 | 0.062 | 0.072 | 0.258 | 0.075 | 0.151 | 0.161 |
| Sudan                            | 0.072 | 0.075 | 0.064 | 0.066 | 0.215 | 0.069 | 0.204 | 0.293 | 0.239 | 0.130 | 0.160 |
| Honduras                         | 0.036 | 0.043 | 0.045 | 0.043 | 0.053 | 0.051 | 0.066 | 0.067 | 0.140 | 0.236 | 0.156 |
| Yemen                            | 0.080 | 0.065 | 0.053 | 0.071 | 0.073 | 0.181 | 0.082 | 0.301 | 0.307 | 0.119 | 0.136 |
| Iceland                          | 0.183 | 0.261 | 0.245 | 0.165 | 0.382 | 0.335 | 0.128 | 0.126 | 0.342 | 0.346 | 0.129 |
| Mali                             | 0.051 | 0.063 | 0.061 | 0.062 | 0.110 | 0.061 | 0.058 | 0.062 | 0.130 | 0.060 | 0.124 |
| Lao People's Democratic Republic | 0.055 | 0.057 | 0.069 | 0.067 | 0.070 | 0.129 | 0.071 | 0.072 | 0.071 | 0.071 | 0.122 |
| Bahrain                          | 0.051 | 0.096 | 0.078 | 0.070 | 0.074 | 0.136 | 0.168 | 0.278 | 0.104 | 0.225 | 0.118 |
| Latvia                           | 0.069 | 0.073 | 0.077 | 0.279 | 0.308 | 0.309 | 0.099 | 0.343 | 0.336 | 0.102 | 0.112 |
| Grenada                          | 0.038 | 0.033 | 0.047 | 0.044 | 0.046 | 0.075 | 0.046 | 0.054 | 0.072 | 0.052 | 0.110 |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Luxembourg                         | 0.195       | 0.165       | 0.091       | 0.101       | 0.091       | 0.099       | 0.321       | 0.331       | 0.108       | 0.329       | 0.107       |
| Burundi                            | 0.033       | 0.037       | 0.036       | 0.055       | 0.047       | 0.041       | 0.044       | 0.069       | 0.056       | 0.056       | 0.103       |
| Gambia                             | 0.058       | 0.079       | 0.072       | 0.064       | 0.065       | 0.061       | 0.065       | 0.066       | 0.123       | 0.080       | 0.101       |
| Afghanistan                        | 0.061       | 0.066       | 0.040       | 0.061       | 0.064       | 0.054       | 0.052       | 0.063       | 0.259       | 0.081       | 0.101       |
| Malawi                             | 0.081       | 0.086       | 0.096       | 0.093       | 0.088       | 0.261       | 0.087       | 0.093       | 0.090       | 0.303       | 0.099       |
| El Salvador                        | 0.044       | 0.043       | 0.042       | 0.045       | 0.042       | 0.046       | 0.053       | 0.050       | 0.048       | 0.052       | 0.099       |
| Panama                             | 0.079       | 0.075       | 0.087       | 0.090       | 0.089       | 0.082       | 0.094       | 0.169       | 0.086       | 0.275       | 0.098       |
| Uganda                             | 0.143       | 0.109       | 0.090       | 0.090       | 0.314       | 0.319       | 0.087       | 0.335       | 0.328       | 0.088       | 0.094       |
| Burkina Faso                       | 0.120       | 0.082       | 0.082       | 0.080       | 0.082       | 0.084       | 0.081       | 0.086       | 0.291       | 0.087       | 0.093       |
| Rwanda                             | 0.062       | 0.075       | 0.076       | 0.075       | 0.078       | 0.064       | 0.079       | 0.073       | 0.071       | 0.180       | 0.092       |
| Uruguay                            | 0.181       | 0.079       | 0.077       | 0.073       | 0.288       | 0.072       | 0.278       | 0.302       | 0.075       | 0.080       | 0.092       |
| Cambodia                           | 0.062       | 0.065       | 0.115       | 0.065       | 0.063       | 0.084       | 0.064       | 0.213       | 0.167       | 0.261       | 0.092       |
| Benin                              | 0.077       | 0.092       | 0.093       | 0.097       | 0.097       | 0.085       | 0.090       | 0.089       | 0.282       | 0.285       | 0.091       |
| Somalia                            | 0.023       | 0.030       | 0.016       | 0.031       | 0.031       | 0.038       | 0.040       | 0.047       | 0.053       | 0.236       | 0.090       |
| Namibia                            | 0.055       | 0.051       | 0.057       | 0.058       | 0.073       | 0.059       | 0.060       | 0.063       | 0.232       | 0.074       | 0.089       |
| Senegal                            | 0.071       | 0.071       | 0.104       | 0.073       | 0.075       | 0.075       | 0.263       | 0.278       | 0.118       | 0.278       | 0.087       |
| Botswana                           | 0.070       | 0.069       | 0.057       | 0.128       | 0.067       | 0.122       | 0.229       | 0.067       | 0.168       | 0.273       | 0.086       |
| Trinidad and Tobago                | 0.043       | 0.051       | 0.049       | 0.051       | 0.067       | 0.059       | 0.059       | 0.168       | 0.126       | 0.156       | 0.086       |
| Guatemala                          | 0.056       | 0.078       | 0.055       | 0.054       | 0.059       | 0.079       | 0.065       | 0.072       | 0.192       | 0.072       | 0.084       |
| Bolivia (Plurinational State of)   | 0.053       | 0.089       | 0.056       | 0.061       | 0.057       | 0.062       | 0.070       | 0.192       | 0.063       | 0.258       | 0.081       |
| Togo                               | 0.041       | 0.040       | 0.068       | 0.048       | 0.066       | 0.052       | 0.049       | 0.053       | 0.151       | 0.053       | 0.079       |
| Republic of Moldova                | 0.060       | 0.064       | 0.078       | 0.075       | 0.067       | 0.066       | 0.068       | 0.079       | 0.073       | 0.068       | 0.079       |
| Gabon                              | 0.056       | 0.059       | 0.054       | 0.050       | 0.050       | 0.052       | 0.052       | 0.058       | 0.107       | 0.057       | 0.079       |
| Haiti                              | 0.042       | 0.038       | 0.044       | 0.046       | 0.045       | 0.048       | 0.046       | 0.060       | 0.050       | 0.050       | 0.077       |
| Fiji                               | 0.074       | 0.072       | 0.070       | 0.071       | 0.064       | 0.071       | 0.074       | 0.074       | 0.073       | 0.076       | 0.073       |
| Barbados                           | 0.047       | 0.053       | 0.046       | 0.053       | 0.044       | 0.079       | 0.064       | 0.091       | 0.054       | 0.052       | 0.072       |
| Montenegro                         | 0.054       | 0.047       | 0.094       | 0.063       | 0.058       | 0.162       | 0.185       | 0.215       | 0.073       | 0.184       | 0.071       |
| Mozambique                         | 0.061       | 0.061       | 0.076       | 0.082       | 0.082       | 0.072       | 0.209       | 0.078       | 0.269       | 0.075       | 0.071       |
| Côte d'Ivoire                      | 0.064       | 0.080       | 0.130       | 0.070       | 0.070       | 0.071       | 0.071       | 0.075       | 0.071       | 0.073       | 0.068       |
| Niger                              | 0.044       | 0.059       | 0.053       | 0.048       | 0.050       | 0.064       | 0.063       | 0.065       | 0.135       | 0.142       | 0.067       |
| Venezuela (Bolivarian Republic of) | 0.218       | 0.060       | 0.268       | 0.169       | 0.065       | 0.129       | 0.175       | 0.220       | 0.067       | 0.275       | 0.065       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Chad                             | 0.036       | 0.026       | 0.035       | 0.037       | 0.045       | 0.044       | 0.039       | 0.041       | 0.071       | 0.098       | 0.065       |
| Cuba                             | 0.057       | 0.059       | 0.064       | 0.271       | 0.252       | 0.058       | 0.060       | 0.281       | 0.059       | 0.272       | 0.064       |
| Central African Republic         | 0.036       | 0.035       | 0.044       | 0.034       | 0.039       | 0.039       | 0.042       | 0.041       | 0.048       | 0.041       | 0.062       |
| Mauritius                        | 0.053       | 0.045       | 0.050       | 0.057       | 0.051       | 0.057       | 0.062       | 0.072       | 0.065       | 0.056       | 0.061       |
| Madagascar                       | 0.053       | 0.056       | 0.056       | 0.058       | 0.061       | 0.117       | 0.057       | 0.064       | 0.130       | 0.062       | 0.061       |
| Monaco                           | 0.039       | 0.042       | 0.048       | 0.062       | 0.048       | 0.061       | 0.061       | 0.062       | 0.057       | 0.063       | 0.058       |
| Paraguay                         | 0.042       | 0.050       | 0.052       | 0.057       | 0.048       | 0.065       | 0.066       | 0.169       | 0.061       | 0.062       | 0.057       |
| Angola                           | 0.039       | 0.037       | 0.066       | 0.046       | 0.041       | 0.043       | 0.043       | 0.058       | 0.112       | 0.170       | 0.057       |
| Sierra Leone                     | 0.048       | 0.055       | 0.057       | 0.056       | 0.059       | 0.053       | 0.057       | 0.059       | 0.063       | 0.058       | 0.056       |
| Antigua and Barbuda              | 0.016       | 0.016       | 0.032       | 0.022       | 0.026       | 0.023       | 0.025       | 0.028       | 0.037       | 0.035       | 0.055       |
| Guyana                           | 0.028       | 0.038       | 0.025       | 0.032       | 0.037       | 0.029       | 0.041       | 0.045       | 0.050       | 0.041       | 0.055       |
| Maldives                         | 0.017       | 0.022       | 0.025       | 0.021       | 0.032       | 0.036       | 0.044       | 0.042       | 0.044       | 0.063       | 0.055       |
| Jamaica                          | 0.049       | 0.051       | 0.058       | 0.061       | 0.058       | 0.060       | 0.114       | 0.064       | 0.057       | 0.057       | 0.055       |
| Micronesia (Federated States of) | 0.025       | 0.015       | 0.060       | 0.056       | 0.066       | 0.036       | 0.057       | 0.041       | 0.041       | 0.026       | 0.054       |
| San Marino                       | 0.019       | 0.019       | 0.033       | 0.040       | 0.041       | 0.039       | 0.047       | 0.056       | 0.054       | 0.049       | 0.054       |
| Seychelles                       | 0.035       | 0.033       | 0.056       | 0.050       | 0.036       | 0.045       | 0.038       | 0.056       | 0.045       | 0.048       | 0.054       |
| Cabo Verde                       | 0.017       | 0.033       | 0.031       | 0.032       | 0.032       | 0.035       | 0.041       | 0.053       | 0.046       | 0.047       | 0.053       |
| Lesotho                          | 0.026       | 0.039       | 0.031       | 0.036       | 0.036       | 0.039       | 0.041       | 0.044       | 0.090       | 0.123       | 0.053       |
| Liberia                          | 0.035       | 0.042       | 0.047       | 0.046       | 0.073       | 0.059       | 0.047       | 0.050       | 0.104       | 0.054       | 0.052       |
| Eritrea                          | 0.021       | 0.027       | 0.032       | 0.031       | 0.037       | 0.038       | 0.043       | 0.038       | 0.044       | 0.042       | 0.052       |
| Papua New Guinea                 | 0.053       | 0.068       | 0.065       | 0.053       | 0.052       | 0.053       | 0.058       | 0.055       | 0.092       | 0.087       | 0.051       |
| Bhutan                           | 0.034       | 0.047       | 0.044       | 0.067       | 0.054       | 0.049       | 0.051       | 0.061       | 0.061       | 0.052       | 0.051       |
| Nicaragua                        | 0.041       | 0.048       | 0.044       | 0.054       | 0.050       | 0.050       | 0.048       | 0.047       | 0.051       | 0.049       | 0.051       |
| Samoa                            | 0.022       | 0.021       | 0.016       | 0.025       | 0.021       | 0.026       | 0.038       | 0.046       | 0.048       | 0.044       | 0.049       |
| Tajikistan                       | 0.028       | 0.035       | 0.029       | 0.038       | 0.043       | 0.051       | 0.064       | 0.049       | 0.045       | 0.050       | 0.049       |
| Liechtenstein                    | 0.035       | 0.035       | 0.037       | 0.033       | 0.039       | 0.043       | 0.046       | 0.048       | 0.051       | 0.049       | 0.047       |
| Guinea                           | 0.045       | 0.051       | 0.051       | 0.057       | 0.048       | 0.051       | 0.048       | 0.052       | 0.055       | 0.049       | 0.046       |
| South Sudan                      | 0.017       | 0.024       | 0.029       | 0.025       | 0.033       | 0.028       | 0.033       | 0.043       | 0.050       | 0.040       | 0.044       |
| Mauritania                       | 0.027       | 0.023       | 0.031       | 0.034       | 0.042       | 0.034       | 0.039       | 0.041       | 0.038       | 0.045       | 0.043       |
| Saint Kitts and Nevis            | 0.035       | 0.044       | 0.048       | 0.042       | 0.042       | 0.042       | 0.045       | 0.048       | 0.047       | 0.045       | 0.043       |
| Timor-Leste                      | 0.021       | 0.025       | 0.029       | 0.026       | 0.032       | 0.036       | 0.032       | 0.039       | 0.038       | 0.041       | 0.043       |

| Year                                  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Suriname                              | 0.021 | 0.030 | 0.038 | 0.045 | 0.036 | 0.042 | 0.043 | 0.039 | 0.039 | 0.045 | 0.042 |
| The Bahamas                           | 0.027 | 0.025 | 0.032 | 0.033 | 0.040 | 0.039 | 0.037 | 0.045 | 0.051 | 0.042 | 0.041 |
| Guinea-Bissau                         | 0.043 | 0.036 | 0.040 | 0.042 | 0.032 | 0.038 | 0.040 | 0.041 | 0.041 | 0.039 | 0.039 |
| Andorra                               | 0.016 | 0.021 | 0.013 | 0.014 | 0.020 | 0.034 | 0.037 | 0.034 | 0.037 | 0.038 | 0.039 |
| Solomon Islands                       | 0.033 | 0.037 | 0.042 | 0.048 | 0.043 | 0.042 | 0.040 | 0.053 | 0.035 | 0.037 | 0.039 |
| Djibouti                              | 0.023 | 0.017 | 0.017 | 0.019 | 0.015 | 0.021 | 0.034 | 0.033 | 0.034 | 0.037 | 0.038 |
| Saint Lucia                           |       | 0.028 | 0.026 | 0.017 | 0.017 | 0.013 | 0.021 | 0.014 | 0.026 | 0.025 | 0.037 |
| Democratic People's Republic of Korea | 0.019 | 0.022 | 0.030 | 0.030 | 0.052 | 0.067 | 0.038 | 0.088 | 0.039 | 0.038 | 0.037 |
| Tonga                                 | 0.012 | 0.015 | 0.032 | 0.038 | 0.023 | 0.030 | 0.029 | 0.029 | 0.032 | 0.033 | 0.036 |
| Vanuatu                               | 0.029 | 0.028 | 0.024 | 0.025 | 0.023 | 0.027 | 0.037 | 0.035 | 0.038 | 0.041 | 0.036 |
| Belize                                | 0.038 | 0.054 | 0.027 | 0.044 | 0.027 | 0.031 | 0.040 | 0.042 | 0.048 | 0.040 | 0.035 |
| Comoros                               | 0.008 | 0.017 | 0.026 | 0.022 | 0.030 | 0.034 | 0.025 | 0.030 | 0.031 | 0.038 | 0.035 |
| Turkmenistan                          | 0.032 | 0.024 | 0.006 | 0.015 | 0.015 | 0.024 | 0.020 | 0.035 | 0.019 | 0.032 | 0.033 |
| Sao Tome and Principe                 | 0.012 | 0.008 | 0.006 | 0.021 | 0.007 | 0.007 | 0.016 | 0.024 | 0.035 | 0.026 | 0.033 |
| Palau                                 | 0.014 | 0.014 | 0.019 | 0.021 | 0.024 | 0.033 | 0.028 | 0.032 | 0.029 | 0.031 | 0.031 |
| Dominica                              | 0.024 | 0.032 | 0.027 | 0.028 | 0.025 | 0.023 | 0.025 | 0.023 | 0.038 | 0.031 | 0.030 |
| Equatorial Guinea                     | 0.011 | 0.026 | 0.033 | 0.036 | 0.027 | 0.031 | 0.025 | 0.032 | 0.032 | 0.038 | 0.028 |
| Saint Vincent and the Grenadines      | 0.017 | 0.012 | 0.018 | 0.016 | 0.016 | 0.021 | 0.025 | 0.023 | 0.027 | 0.026 | 0.026 |
| Kiribati                              | 0.013 | 0.013 | 0.012 | 0.021 | 0.012 | 0.018 | 0.027 | 0.019 | 0.023 | 0.024 | 0.023 |
| Marshall Islands                      | 0.007 | 0.009 | 0.015 | 0.008 | 0.018 | 0.022 | 0.015 | 0.024 | 0.018 | 0.015 | 0.013 |
| Tuvalu                                | 0.008 |       |       | 0.008 | 0.006 | 0.009 | 0.012 | 0.008 | 0.020 | 0.006 | 0.012 |
| Nauru                                 |       | 0.007 | 0.009 |       |       |       |       |       | 0.011 | 0.016 | 0.007 |
| Eswatini                              |       |       |       |       |       |       |       |       |       |       |       |

Table S2-2-2 Academic quality by country, 2014–2024

| 年份      | 2014  | 2015  | 2016  | 2017   | 2018   | 2019   | 2020   | 2021   |
|---------|-------|-------|-------|--------|--------|--------|--------|--------|
| China   | 7.334 | 7.553 | 9.198 | 11.419 | 12.813 | 16.473 | 19.300 | 22.612 |
| Germany | 8.241 | 9.180 | 9.324 | 8.897  | 9.691  | 8.687  | 8.891  | 8.296  |
| India   | 0.762 | 0.575 | 0.476 | 0.428  | 0.667  | 0.634  | 0.762  | 0.924  |
| Japan   | 5.169 | 4.372 | 3.965 | 3.690  | 2.739  | 2.873  | 2.630  | 2.517  |

|                                  |        |        |        |        |        |        |        |        |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|
| Russia                           | 0.605  | 0.466  | 0.411  | 0.408  | 0.461  | 0.452  | 0.506  | 0.502  |
| United Kingdom                   | 15.146 | 15.800 | 15.852 | 15.449 | 14.542 | 13.473 | 13.050 | 12.128 |
| United States                    | 82.529 | 77.362 | 73.140 | 72.388 | 68.211 | 69.549 | 65.426 | 62.974 |
| Afghanistan                      | 0.594  | 0.644  | 0.421  | 0.537  | 0.519  | 0.400  | 0.368  | 0.401  |
| Albania                          | 0.323  | 0.370  | 0.440  | 0.449  | 0.413  | 0.421  | 0.395  | 0.419  |
| Algeria                          | 0.422  | 0.375  | 0.403  | 0.452  | 0.402  | 0.389  | 0.396  | 0.400  |
| Andorra                          | 0.481  | 0.388  | 0.417  | 0.426  | 0.423  | 0.466  | 0.504  | 0.423  |
| Angola                           | 0.357  | 0.358  | 0.562  | 0.391  | 0.381  | 0.395  | 0.371  | 0.466  |
| Antigua and Barbuda              | 0.388  | 0.385  | 0.403  | 0.365  | 0.392  | 0.376  | 0.356  | 0.381  |
| Argentina                        | 0.449  | 0.459  | 0.456  | 0.451  | 0.486  | 0.451  | 0.434  | 0.430  |
| Armenia                          | 0.443  | 0.445  | 0.447  | 0.442  | 0.482  | 0.420  | 0.426  | 0.444  |
| Australia                        | 4.009  | 5.561  | 6.007  | 6.103  | 6.747  | 7.288  | 7.925  | 8.312  |
| Austria                          | 1.309  | 1.337  | 1.398  | 1.407  | 1.474  | 1.473  | 1.398  | 1.536  |
| Azerbaijan                       | 0.433  | 0.423  | 0.435  | 0.404  | 0.414  | 0.384  | 0.414  | 0.425  |
| The Bahamas                      | 0.405  | 0.385  | 0.408  | 0.402  | 0.452  | 0.421  | 0.409  | 0.436  |
| Bahrain                          | 0.427  | 0.537  | 0.517  | 0.499  | 0.509  | 0.414  | 0.466  | 0.437  |
| Bangladesh                       | 0.414  | 0.424  | 0.439  | 0.438  | 0.438  | 0.427  | 0.442  | 0.463  |
| Barbados                         | 0.568  | 0.562  | 0.484  | 0.529  | 0.433  | 0.532  | 0.554  | 0.489  |
| Belarus                          | 0.403  | 0.427  | 0.429  | 0.418  | 0.415  | 0.380  | 0.387  | 0.402  |
| Belgium                          | 2.039  | 1.940  | 2.305  | 2.206  | 2.120  | 2.114  | 2.164  | 2.210  |
| Belize                           | 0.607  | 0.718  | 0.405  | 0.565  | 0.371  | 0.411  | 0.406  | 0.429  |
| Benin                            | 0.430  | 0.512  | 0.529  | 0.515  | 0.516  | 0.426  | 0.446  | 0.419  |
| Bhutan                           | 0.382  | 0.458  | 0.414  | 0.591  | 0.489  | 0.423  | 0.396  | 0.452  |
| Bolivia (Plurinational State of) | 0.411  | 0.439  | 0.437  | 0.454  | 0.413  | 0.415  | 0.455  | 0.402  |
| Bosnia and Herzegovina           | 0.368  | 0.386  | 0.451  | 0.430  | 0.413  | 0.377  | 0.406  | 0.430  |
| Botswana                         | 0.485  | 0.495  | 0.390  | 0.410  | 0.432  | 0.418  | 0.486  | 0.412  |
| Brazil                           | 0.628  | 0.641  | 0.492  | 0.439  | 0.726  | 0.743  | 0.856  | 0.892  |
| Brunei Darussalam                | 0.394  | 0.418  | 0.438  | 0.450  | 0.528  | 0.429  | 0.479  | 0.445  |
| Bulgaria                         | 0.399  | 0.432  | 0.409  | 0.411  | 0.426  | 0.400  | 0.406  | 0.412  |
| Burkina Faso                     | 0.408  | 0.406  | 0.408  | 0.397  | 0.396  | 0.395  | 0.377  | 0.399  |
| Burundi                          | 0.407  | 0.419  | 0.418  | 0.622  | 0.461  | 0.403  | 0.386  | 0.416  |
| Cabo Verde                       | 0.419  | 0.405  | 0.374  | 0.403  | 0.389  | 0.412  | 0.391  | 0.510  |

|                                          |       |       |       |       |       |       |       |       |
|------------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Cambodia                                 | 0.453 | 0.452 | 0.435 | 0.441 | 0.412 | 0.549 | 0.405 | 0.430 |
| Cameroon                                 | 0.407 | 0.439 | 0.469 | 0.456 | 0.455 | 0.410 | 0.439 | 0.414 |
| Canada                                   | 4.632 | 4.715 | 5.291 | 4.913 | 4.679 | 5.058 | 5.220 | 5.109 |
| Central African Republic                 | 0.396 | 0.407 | 0.427 | 0.381 | 0.409 | 0.346 | 0.419 | 0.407 |
| Chad                                     | 0.446 | 0.345 | 0.418 | 0.394 | 0.462 | 0.422 | 0.380 | 0.371 |
| Chile                                    | 0.460 | 0.468 | 0.472 | 0.464 | 0.476 | 0.437 | 0.463 | 0.531 |
| Colombia                                 | 0.448 | 0.413 | 0.457 | 0.451 | 0.455 | 0.396 | 0.421 | 0.418 |
| Comoros                                  | 0.363 | 0.357 | 0.399 | 0.358 | 0.385 | 0.503 | 0.382 | 0.382 |
| Congo                                    | 0.450 | 0.485 | 0.407 | 0.499 | 0.521 | 0.426 | 0.404 | 0.419 |
| Costa Rica                               | 0.416 | 0.412 | 0.477 | 0.453 | 0.478 | 0.421 | 0.445 | 0.425 |
| Côte d'Ivoire                            | 0.414 | 0.520 | 0.531 | 0.442 | 0.408 | 0.388 | 0.396 | 0.404 |
| Croatia                                  | 0.395 | 0.447 | 0.401 | 0.411 | 0.467 | 0.451 | 0.414 | 0.455 |
| Cuba                                     | 0.334 | 0.350 | 0.370 | 0.369 | 0.340 | 0.329 | 0.338 | 0.356 |
| Cyprus                                   | 0.453 | 0.482 | 0.457 | 0.492 | 0.516 | 0.486 | 0.504 | 0.522 |
| Czechia                                  | 0.504 | 0.608 | 0.648 | 0.584 | 0.666 | 0.636 | 0.660 | 0.652 |
| Democratic People's Republic of<br>Korea | 0.353 | 0.381 | 0.378 | 0.387 | 0.397 | 0.381 | 0.371 | 0.360 |
| Democratic Republic of the Congo         | 0.346 | 0.399 | 0.590 | 0.414 | 0.419 | 0.401 | 0.451 | 0.436 |
| Denmark                                  | 1.709 | 1.752 | 1.601 | 1.726 | 2.305 | 1.766 | 1.922 | 1.767 |
| Djibouti                                 | 0.396 | 0.365 | 0.329 | 0.407 | 0.375 | 0.381 | 0.431 | 0.403 |
| Dominica                                 | 0.407 | 0.413 | 0.427 | 0.416 | 0.392 | 0.387 | 0.350 | 0.384 |
| Dominican Republic                       | 0.398 | 0.443 | 0.425 | 0.387 | 0.409 | 0.412 | 0.417 | 0.443 |
| Ecuador                                  | 0.415 | 0.421 | 0.421 | 0.429 | 0.426 | 0.383 | 0.394 | 0.392 |
| Egypt                                    | 0.389 | 0.403 | 0.451 | 0.458 | 0.466 | 0.440 | 0.446 | 0.521 |
| El Salvador                              | 0.407 | 0.431 | 0.413 | 0.438 | 0.371 | 0.427 | 0.503 | 0.409 |
| Equatorial Guinea                        | 0.342 | 0.399 | 0.455 | 0.647 | 0.433 | 0.419 | 0.338 | 0.405 |
| Eritrea                                  | 0.396 | 0.396 | 0.391 | 0.429 | 0.396 | 0.405 | 0.418 | 0.363 |
| Estonia                                  | 0.465 | 0.527 | 0.664 | 0.733 | 0.884 | 0.601 | 0.624 | 0.509 |
| Eswatini                                 |       |       |       |       |       |       |       |       |
| Ethiopia                                 | 0.423 | 0.450 | 0.441 | 0.454 | 0.436 | 0.420 | 0.416 | 0.417 |
| Fiji                                     | 0.521 | 0.576 | 0.478 | 0.468 | 0.408 | 0.418 | 0.423 | 0.428 |
| Finland                                  | 1.171 | 1.195 | 1.166 | 1.326 | 1.295 | 0.973 | 0.967 | 0.900 |

|                                  |       |       |       |       |       |       |       |       |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| France                           | 4.428 | 4.008 | 5.041 | 4.330 | 4.466 | 4.365 | 4.350 | 3.911 |
| Gabon                            | 0.443 | 0.466 | 0.433 | 0.407 | 0.413 | 0.402 | 0.403 | 0.419 |
| Gambia                           | 0.446 | 0.591 | 0.531 | 0.466 | 0.502 | 0.438 | 0.454 | 0.447 |
| Georgia                          | 0.491 | 0.490 | 0.461 | 0.458 | 0.463 | 0.445 | 0.459 | 0.490 |
| Ghana                            | 0.432 | 0.439 | 0.448 | 0.452 | 0.443 | 0.421 | 0.430 | 0.420 |
| Greece                           | 0.673 | 0.785 | 0.864 | 0.830 | 0.796 | 0.658 | 0.708 | 0.720 |
| Grenada                          | 0.396 | 0.386 | 0.411 | 0.386 | 0.395 | 0.376 | 0.360 | 0.407 |
| Guatemala                        | 0.477 | 0.441 | 0.421 | 0.413 | 0.443 | 0.414 | 0.445 | 0.476 |
| Guinea                           | 0.567 | 0.477 | 0.464 | 0.464 | 0.452 | 0.423 | 0.392 | 0.398 |
| Guinea-Bissau                    | 0.434 | 0.435 | 0.417 | 0.427 | 0.390 | 0.406 | 0.414 | 0.398 |
| Guyana                           | 0.430 | 0.450 | 0.396 | 0.385 | 0.426 | 0.358 | 0.384 | 0.439 |
| Haiti                            | 0.418 | 0.387 | 0.433 | 0.398 | 0.414 | 0.413 | 0.385 | 0.486 |
| Honduras                         | 0.397 | 0.446 | 0.421 | 0.378 | 0.408 | 0.408 | 0.433 | 0.449 |
| Hungary                          | 0.561 | 0.421 | 0.482 | 0.479 | 0.478 | 0.448 | 0.476 | 0.496 |
| Iceland                          | 1.007 | 0.994 | 0.929 | 0.847 | 0.799 | 0.505 | 0.523 | 0.498 |
| Indonesia                        | 0.393 | 0.390 | 0.388 | 0.431 | 0.373 | 0.356 | 0.367 | 0.401 |
| Iran (Islamic Republic of)       | 0.920 | 0.693 | 0.684 | 0.707 | 0.815 | 0.606 | 0.602 | 0.761 |
| Iraq                             | 0.383 | 0.432 | 0.410 | 0.414 | 0.380 | 0.353 | 0.373 | 0.387 |
| Ireland                          | 1.022 | 0.947 | 1.028 | 1.019 | 1.321 | 1.148 | 1.281 | 1.280 |
| Israel                           | 0.917 | 0.987 | 0.868 | 0.921 | 0.901 | 1.215 | 1.245 | 1.366 |
| Italy                            | 2.795 | 2.621 | 2.716 | 2.451 | 2.798 | 2.474 | 2.517 | 2.765 |
| Jamaica                          | 0.385 | 0.403 | 0.488 | 0.481 | 0.459 | 0.473 | 0.408 | 0.455 |
| Jordan                           | 0.504 | 0.482 | 0.477 | 0.489 | 0.431 | 0.413 | 0.429 | 0.497 |
| Kazakhstan                       | 0.323 | 0.345 | 0.363 | 0.401 | 0.403 | 0.374 | 0.393 | 0.405 |
| Kenya                            | 0.448 | 0.459 | 0.459 | 0.458 | 0.476 | 0.453 | 0.459 | 0.448 |
| Kiribati                         | 0.392 | 0.390 | 0.365 | 0.451 | 0.386 | 0.316 | 0.421 | 0.427 |
| Kuwait                           | 0.409 | 0.398 | 0.423 | 0.425 | 0.462 | 0.428 | 0.450 | 0.466 |
| Kyrgyzstan                       | 0.454 | 0.432 | 0.509 | 0.577 | 0.564 | 0.451 | 0.527 | 0.516 |
| Lao People's Democratic Republic | 0.454 | 0.438 | 0.436 | 0.419 | 0.421 | 0.420 | 0.413 | 0.408 |
| Latvia                           | 0.413 | 0.435 | 0.446 | 0.453 | 0.452 | 0.443 | 0.425 | 0.440 |
| Lebanon                          | 0.436 | 0.451 | 0.472 | 0.500 | 0.522 | 0.477 | 0.489 | 0.549 |
| Lesotho                          | 0.393 | 0.516 | 0.368 | 0.386 | 0.394 | 0.367 | 0.364 | 0.382 |

|                                  |       |       |       |       |       |       |       |       |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Liberia                          | 0.563 | 0.469 | 0.435 | 0.445 | 0.646 | 0.506 | 0.430 | 0.424 |
| Libya                            | 0.390 | 0.519 | 0.423 | 0.387 | 0.515 | 0.422 | 0.466 | 0.460 |
| Liechtenstein                    | 0.436 | 0.438 | 0.443 | 0.428 | 0.476 | 0.439 | 0.479 | 0.431 |
| Lithuania                        | 0.458 | 0.416 | 0.432 | 0.426 | 0.453 | 0.463 | 0.515 | 0.478 |
| Luxembourg                       | 0.442 | 0.453 | 0.540 | 0.579 | 0.509 | 0.554 | 0.533 | 0.536 |
| Madagascar                       | 0.395 | 0.416 | 0.411 | 0.414 | 0.431 | 0.410 | 0.390 | 0.416 |
| Malawi                           | 0.438 | 0.447 | 0.495 | 0.451 | 0.417 | 0.413 | 0.403 | 0.425 |
| Malaysia                         | 0.538 | 0.546 | 0.682 | 0.750 | 0.786 | 0.829 | 0.729 | 0.797 |
| Maldives                         | 0.403 | 0.411 | 0.413 | 0.402 | 0.409 | 0.410 | 0.438 | 0.413 |
| Mali                             | 0.414 | 0.468 | 0.441 | 0.437 | 0.437 | 0.417 | 0.390 | 0.412 |
| Malta                            | 0.445 | 0.445 | 0.482 | 0.471 | 0.471 | 0.456 | 0.454 | 0.482 |
| Marshall Islands                 | 0.343 | 0.450 | 0.363 | 0.403 | 0.443 | 0.370 | 0.400 | 0.406 |
| Mauritania                       | 0.389 | 0.342 | 0.368 | 0.376 | 0.437 | 0.338 | 0.383 | 0.388 |
| Mauritius                        | 0.402 | 0.455 | 0.419 | 0.475 | 0.428 | 0.440 | 0.461 | 0.507 |
| Mexico                           | 0.391 | 0.494 | 0.398 | 0.573 | 0.600 | 0.497 | 0.494 | 0.540 |
| Micronesia (Federated States of) | 0.459 | 0.377 | 0.754 | 0.711 | 0.738 | 0.576 | 0.696 | 0.611 |
| Monaco                           | 0.427 | 0.445 | 0.462 | 0.549 | 0.449 | 0.491 | 0.488 | 0.494 |
| Mongolia                         | 0.397 | 0.449 | 0.402 | 0.435 | 0.400 | 0.405 | 0.406 | 0.403 |
| Montenegro                       | 0.383 | 0.370 | 0.376 | 0.430 | 0.394 | 0.408 | 0.429 | 0.490 |
| Morocco                          | 0.378 | 0.405 | 0.413 | 0.396 | 0.410 | 0.393 | 0.401 | 0.436 |
| Mozambique                       | 0.430 | 0.417 | 0.512 | 0.529 | 0.512 | 0.449 | 0.495 | 0.460 |
| Myanmar                          | 0.405 | 0.400 | 0.579 | 0.513 | 0.468 | 0.413 | 0.406 | 0.426 |
| Namibia                          | 0.433 | 0.404 | 0.438 | 0.448 | 0.542 | 0.417 | 0.407 | 0.418 |
| Nauru                            | 0.391 | 0.357 | 0.289 |       |       | 0.208 | 0.289 |       |
| Nepal                            | 0.400 | 0.400 | 0.423 | 0.466 | 0.461 | 0.421 | 0.430 | 0.420 |
| Netherlands (Kingdom of the)     | 4.163 | 4.581 | 5.164 | 5.018 | 5.237 | 4.595 | 4.891 | 5.389 |
| New Zealand                      | 0.626 | 0.890 | 0.869 | 0.971 | 0.802 | 0.743 | 0.883 | 0.889 |
| Nicaragua                        | 0.409 | 0.430 | 0.419 | 0.455 | 0.435 | 0.433 | 0.411 | 0.389 |
| Niger                            | 0.402 | 0.475 | 0.411 | 0.401 | 0.410 | 0.397 | 0.397 | 0.406 |
| Nigeria                          | 0.365 | 0.396 | 0.406 | 0.406 | 0.427 | 0.417 | 0.422 | 0.426 |
| North Macedonia                  | 0.419 | 0.404 | 0.435 | 0.445 | 0.438 | 0.407 | 0.447 | 0.469 |
| Norway                           | 0.783 | 0.898 | 0.975 | 0.975 | 1.012 | 0.951 | 0.941 | 1.017 |

|                                  |       |       |       |       |       |       |       |       |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| Oman                             | 0.406 | 0.453 | 0.420 | 0.441 | 0.468 | 0.441 | 0.501 | 0.484 |
| Pakistan                         | 0.396 | 0.453 | 0.412 | 0.460 | 0.467 | 0.420 | 0.478 | 0.548 |
| Palau                            | 0.438 | 0.427 | 0.464 | 0.373 | 0.403 | 0.411 | 0.417 | 0.411 |
| Panama                           | 0.499 | 0.464 | 0.537 | 0.548 | 0.533 | 0.482 | 0.528 | 0.483 |
| Papua New Guinea                 | 0.466 | 0.583 | 0.538 | 0.433 | 0.443 | 0.420 | 0.461 | 0.429 |
| Paraguay                         | 0.393 | 0.448 | 0.447 | 0.457 | 0.380 | 0.436 | 0.451 | 0.407 |
| Peru                             | 0.446 | 0.452 | 0.511 | 0.453 | 0.442 | 0.406 | 0.403 | 0.406 |
| Philippines                      | 0.415 | 0.438 | 0.450 | 0.443 | 0.439 | 0.404 | 0.421 | 0.417 |
| Poland                           | 0.587 | 0.596 | 0.685 | 0.623 | 0.556 | 0.497 | 0.496 | 0.545 |
| Portugal                         | 0.522 | 0.677 | 0.668 | 0.652 | 0.791 | 0.677 | 0.674 | 0.805 |
| Qatar                            | 0.459 | 0.520 | 0.514 | 0.458 | 0.491 | 0.496 | 0.532 | 0.528 |
| Republic of Korea                | 1.417 | 1.598 | 1.783 | 1.855 | 1.901 | 1.545 | 1.538 | 1.722 |
| Republic of Moldova              | 0.402 | 0.411 | 0.470 | 0.457 | 0.416 | 0.399 | 0.419 | 0.473 |
| Romania                          | 0.393 | 0.494 | 0.452 | 0.457 | 0.437 | 0.428 | 0.468 | 0.440 |
| Rwanda                           | 0.453 | 0.543 | 0.531 | 0.514 | 0.520 | 0.411 | 0.472 | 0.424 |
| Saint Kitts and Nevis            | 0.415 | 0.448 | 0.446 | 0.416 | 0.390 | 0.384 | 0.370 | 0.381 |
| Saint Lucia                      | 0.695 | 0.678 | 0.497 | 0.417 | 0.325 | 0.333 | 0.475 | 0.361 |
| Saint Vincent and the Grenadines | 0.406 | 0.373 | 0.380 | 0.333 | 0.414 | 0.423 | 0.555 | 0.386 |
| Samoa                            | 0.401 | 0.403 | 0.400 | 0.391 | 0.381 | 0.374 | 0.400 | 0.438 |
| San Marino                       | 0.465 | 0.394 | 0.629 | 0.583 | 0.575 | 0.498 | 0.566 | 0.633 |
| Sao Tome and Principe            | 0.356 | 0.406 | 0.283 | 0.454 | 0.363 | 0.350 | 0.419 | 0.380 |
| Saudi Arabia                     | 1.874 | 3.119 | 2.816 | 2.940 | 2.807 | 2.504 | 2.988 | 2.964 |
| Senegal                          | 0.400 | 0.403 | 0.402 | 0.398 | 0.419 | 0.407 | 0.404 | 0.398 |
| Serbia                           | 0.503 | 0.466 | 0.514 | 0.506 | 0.421 | 0.402 | 0.419 | 0.443 |
| Seychelles                       | 0.459 | 0.410 | 0.619 | 0.568 | 0.401 | 0.492 | 0.400 | 0.517 |
| Sierra Leone                     | 0.555 | 0.493 | 0.451 | 0.446 | 0.466 | 0.420 | 0.422 | 0.417 |
| Singapore                        | 1.178 | 1.598 | 1.647 | 1.727 | 2.414 | 2.225 | 2.451 | 2.603 |
| Slovakia                         | 0.446 | 0.464 | 0.467 | 0.458 | 0.413 | 0.429 | 0.448 | 0.500 |
| Slovenia                         | 0.462 | 0.418 | 0.432 | 0.555 | 0.487 | 0.419 | 0.434 | 0.451 |
| Solomon Islands                  | 0.428 | 0.422 | 0.441 | 0.559 | 0.443 | 0.448 | 0.412 | 0.537 |
| Somalia                          | 0.423 | 0.527 | 0.513 | 0.384 | 0.396 | 0.429 | 0.360 | 0.411 |
| South Africa                     | 0.804 | 0.772 | 0.711 | 0.600 | 0.654 | 0.646 | 0.644 | 0.637 |

|                                    |       |       |       |       |       |       |       |       |
|------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| South Sudan                        | 0.354 | 0.420 | 0.413 | 0.388 | 0.406 | 0.380 | 0.377 | 0.391 |
| Spain                              | 2.546 | 3.010 | 3.041 | 2.970 | 3.383 | 3.351 | 2.949 | 3.019 |
| Sri Lanka                          | 0.450 | 0.473 | 0.459 | 0.464 | 0.464 | 0.427 | 0.441 | 0.430 |
| Sudan                              | 0.376 | 0.477 | 0.396 | 0.408 | 0.398 | 0.405 | 0.396 | 0.407 |
| Suriname                           | 0.363 | 0.385 | 0.431 | 0.563 | 0.414 | 0.420 | 0.426 | 0.392 |
| Sweden                             | 1.799 | 1.742 | 1.734 | 1.763 | 2.042 | 1.710 | 1.794 | 1.613 |
| Switzerland                        | 3.683 | 3.988 | 4.164 | 4.271 | 3.874 | 4.365 | 4.227 | 2.879 |
| Syrian Arab Republic               | 0.370 | 0.492 | 0.351 | 0.356 | 0.424 | 0.375 | 0.385 | 0.434 |
| Tajikistan                         | 0.345 | 0.336 | 0.348 | 0.370 | 0.348 | 0.407 | 0.378 | 0.380 |
| Thailand                           | 0.398 | 0.550 | 0.545 | 0.617 | 0.679 | 0.679 | 0.627 | 0.477 |
| Timor-Leste                        | 0.385 | 0.365 | 0.419 | 0.394 | 0.400 | 0.468 | 0.407 | 0.419 |
| Togo                               | 0.348 | 0.338 | 0.560 | 0.403 | 0.536 | 0.395 | 0.367 | 0.388 |
| Tonga                              | 0.375 | 0.460 | 0.683 | 0.631 | 0.417 | 0.458 | 0.376 | 0.431 |
| Trinidad and Tobago                | 0.357 | 0.402 | 0.387 | 0.370 | 0.491 | 0.422 | 0.418 | 0.397 |
| Tunisia                            | 0.382 | 0.405 | 0.403 | 0.398 | 0.404 | 0.389 | 0.412 | 0.411 |
| Türkiye                            | 0.865 | 0.833 | 0.577 | 0.654 | 0.654 | 0.572 | 0.429 | 0.498 |
| Turkmenistan                       | 0.435 | 0.453 | 0.320 | 0.386 | 0.371 | 0.524 | 0.370 | 0.461 |
| Tuvalu                             | 0.394 | 0.000 | 0.368 | 0.410 | 0.289 | 0.469 | 0.387 | 0.407 |
| Uganda                             | 0.436 | 0.572 | 0.473 | 0.459 | 0.422 | 0.419 | 0.434 | 0.432 |
| Ukraine                            | 0.357 | 0.373 | 0.376 | 0.378 | 0.425 | 0.354 | 0.376 | 0.379 |
| United Arab Emirates               | 0.468 | 0.440 | 0.438 | 0.435 | 0.491 | 0.488 | 0.469 | 0.497 |
| United Republic of Tanzania        | 0.424 | 0.466 | 0.469 | 0.461 | 0.456 | 0.417 | 0.429 | 0.416 |
| Uruguay                            | 0.409 | 0.475 | 0.448 | 0.426 | 0.420 | 0.400 | 0.391 | 0.411 |
| Uzbekistan                         | 0.354 | 0.340 | 0.333 | 0.384 | 0.388 | 0.354 | 0.367 | 0.427 |
| Vanuatu                            | 0.385 | 0.412 | 0.417 | 0.381 | 0.411 | 0.381 | 0.429 | 0.392 |
| Venezuela (Bolivarian Republic of) | 0.363 | 0.361 | 0.404 | 0.392 | 0.381 | 0.382 | 0.375 | 0.381 |
| Viet Nam                           | 0.460 | 0.438 | 0.439 | 0.435 | 0.433 | 0.429 | 0.436 | 0.500 |
| Yemen                              | 0.380 | 0.477 | 0.397 | 0.501 | 0.501 | 0.435 | 0.473 | 0.449 |
| Zambia                             | 0.454 | 0.516 | 0.514 | 0.491 | 0.490 | 0.438 | 0.451 | 0.416 |
| Zimbabwe                           | 0.426 | 0.415 | 0.449 | 0.419 | 0.407 | 0.425 | 0.417 | 0.417 |

Table S2-2-3 Data quality by country, 2014–2024

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United States                | 0.655       | 0.659       | 0.662       | 0.663       | 0.664       | 0.665       | 0.665       | 0.666       | 0.666       | 0.666       | 0.666       |
| Germany                      | 0.586       | 0.599       | 0.612       | 0.625       | 0.637       | 0.646       | 0.650       | 0.653       | 0.656       | 0.659       | 0.662       |
| United Kingdom               | 0.496       | 0.506       | 0.509       | 0.510       | 0.510       | 0.512       | 0.514       | 0.515       | 0.514       | 0.514       | 0.514       |
| France                       | 0.477       | 0.475       | 0.480       | 0.486       | 0.491       | 0.494       | 0.494       | 0.496       | 0.506       | 0.510       | 0.511       |
| Poland                       | 0.315       | 0.334       | 0.337       | 0.336       | 0.335       | 0.352       | 0.462       | 0.469       | 0.472       | 0.504       | 0.504       |
| Canada                       | 0.439       | 0.443       | 0.457       | 0.463       | 0.463       | 0.464       | 0.489       | 0.488       | 0.488       | 0.488       | 0.489       |
| Spain                        | 0.359       | 0.362       | 0.396       | 0.400       | 0.397       | 0.396       | 0.481       | 0.486       | 0.485       | 0.485       | 0.485       |
| Australia                    | 0.456       | 0.470       | 0.471       | 0.472       | 0.471       | 0.473       | 0.474       | 0.479       | 0.479       | 0.479       | 0.483       |
| Netherlands (Kingdom of the) | 0.417       | 0.419       | 0.421       | 0.434       | 0.442       | 0.441       | 0.440       | 0.446       | 0.447       | 0.464       | 0.464       |
| Norway                       | 0.314       | 0.350       | 0.349       | 0.434       | 0.433       | 0.434       | 0.434       | 0.434       | 0.434       | 0.433       | 0.433       |
| Serbia                       | 0           | 0.144       | 0.144       | 0.325       | 0.362       | 0.377       | 0.404       | 0.416       | 0.416       | 0.416       | 0.416       |
| Italy                        | 0.278       | 0.284       | 0.284       | 0.290       | 0.317       | 0.334       | 0.391       | 0.405       | 0.406       | 0.410       | 0.412       |
| Switzerland                  | 0.362       | 0.361       | 0.370       | 0.390       | 0.390       | 0.393       | 0.392       | 0.411       | 0.411       | 0.411       | 0.411       |
| Austria                      | 0.281       | 0.291       | 0.358       | 0.357       | 0.357       | 0.356       | 0.361       | 0.376       | 0.385       | 0.389       | 0.395       |
| Sweden                       | 0.334       | 0.333       | 0.332       | 0.331       | 0.331       | 0.368       | 0.373       | 0.373       | 0.372       | 0.372       | 0.372       |
| China                        | 0.324       | 0.337       | 0.341       | 0.346       | 0.349       | 0.360       | 0.363       | 0.366       | 0.370       | 0.370       | 0.369       |
| Japan                        | 0.349       | 0.354       | 0.363       | 0.363       | 0.364       | 0.363       | 0.366       | 0.365       | 0.365       | 0.365       | 0.365       |
| Brazil                       | 0.107       | 0.192       | 0.204       | 0.243       | 0.258       | 0.258       | 0.346       | 0.344       | 0.351       | 0.359       | 0.359       |
| South Africa                 | 0.272       | 0.271       | 0.270       | 0.296       | 0.295       | 0.316       | 0.326       | 0.325       | 0.325       | 0.325       | 0.325       |
| Lithuania                    | 0.263       | 0.327       | 0.326       | 0.325       | 0.325       | 0.324       | 0.324       | 0.324       | 0.323       | 0.323       | 0.323       |
| Finland                      | 0.289       | 0.288       | 0.287       | 0.287       | 0.286       | 0.296       | 0.307       | 0.307       | 0.305       | 0.305       | 0.315       |
| India                        | 0.296       | 0.295       | 0.311       | 0.311       | 0.310       | 0.311       | 0.311       | 0.311       | 0.310       | 0.310       | 0.310       |
| Belgium                      | 0.285       | 0.285       | 0.284       | 0.284       | 0.283       | 0.283       | 0.282       | 0.297       | 0.304       | 0.304       | 0.310       |
| Ireland                      | 0.274       | 0.309       | 0.308       | 0.307       | 0.306       | 0.306       | 0.305       | 0.305       | 0.305       | 0.305       | 0.305       |
| Czechia                      | 0.262       | 0.261       | 0.260       | 0.294       | 0.303       | 0.303       | 0.302       | 0.302       | 0.302       | 0.302       | 0.302       |
| Denmark                      | 0.262       | 0.272       | 0.289       | 0.289       | 0.288       | 0.296       | 0.295       | 0.295       | 0.295       | 0.295       | 0.295       |
| Russia                       | 0.287       | 0.286       | 0.285       | 0.285       | 0.284       | 0.284       | 0.283       | 0.283       | 0.283       | 0.283       | 0.283       |
| Estonia                      | 0.261       | 0.260       | 0.259       | 0.270       | 0.269       | 0.269       | 0.268       | 0.268       | 0.282       | 0.281       | 0.281       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Greece                           | 0.281       | 0.281       | 0.280       | 0.279       | 0.279       | 0.278       | 0.278       | 0.278       | 0.278       | 0.277       | 0.277       |
| Mexico                           | 0.214       | 0.214       | 0.230       | 0.230       | 0.237       | 0.250       | 0.249       | 0.249       | 0.249       | 0.249       | 0.272       |
| Colombia                         | 0.183       | 0.182       | 0.182       | 0.181       | 0.181       | 0.210       | 0.210       | 0.209       | 0.209       | 0.233       | 0.253       |
| Hungary                          | 0.209       | 0.209       | 0.208       | 0.208       | 0.207       | 0.207       | 0.207       | 0.240       | 0.240       | 0.240       | 0.240       |
| Slovenia                         | 0.225       | 0.224       | 0.223       | 0.223       | 0.222       | 0.222       | 0.222       | 0.222       | 0.221       | 0.221       | 0.221       |
| Argentina                        | 0.091       | 0.091       | 0.126       | 0.126       | 0.126       | 0.125       | 0.125       | 0.125       | 0.165       | 0.196       | 0.221       |
| Republic of Korea                | 0.154       | 0.154       | 0.153       | 0.153       | 0.180       | 0.192       | 0.209       | 0.209       | 0.209       | 0.208       | 0.208       |
| Singapore                        | 0.119       | 0.119       | 0.119       | 0.204       | 0.204       | 0.203       | 0.203       | 0.203       | 0.203       | 0.203       | 0.203       |
| Portugal                         | 0.133       | 0.132       | 0.132       | 0.132       | 0.131       | 0.164       | 0.163       | 0.163       | 0.190       | 0.190       | 0.190       |
| Iceland                          | 0.109       | 0.108       | 0.108       | 0.108       | 0.184       | 0.184       | 0.183       | 0.183       | 0.183       | 0.183       | 0.183       |
| Thailand                         | 0.137       | 0.137       | 0.136       | 0.136       | 0.136       | 0.136       | 0.135       | 0.135       | 0.170       | 0.170       | 0.170       |
| Chile                            | 0           | 0.068       | 0.068       | 0.068       | 0.068       | 0.166       | 0.165       | 0.165       | 0.165       | 0.165       | 0.165       |
| New Zealand                      | 0.142       | 0.167       | 0.167       | 0.166       | 0.166       | 0.166       | 0.165       | 0.165       | 0.165       | 0.165       | 0.165       |
| Kenya                            | 0.159       | 0.159       | 0.159       | 0.158       | 0.158       | 0.158       | 0.157       | 0.157       | 0.157       | 0.157       | 0.157       |
| Israel                           | 0.152       | 0.151       | 0.151       | 0.151       | 0.150       | 0.150       | 0.150       | 0.150       | 0.150       | 0.150       | 0.150       |
| Cameroon                         | 0           | 0           | 0.144       | 0.144       | 0.143       | 0.143       | 0.143       | 0.143       | 0.143       | 0.143       | 0.143       |
| Viet Nam                         | 0           | 0           | 0.144       | 0.144       | 0.143       | 0.143       | 0.143       | 0.143       | 0.143       | 0.143       | 0.143       |
| Cyprus                           | 0.145       | 0.144       | 0.144       | 0.144       | 0.143       | 0.143       | 0.143       | 0.143       | 0.143       | 0.143       | 0.143       |
| Türkiye                          | 0.109       | 0.108       | 0.108       | 0.108       | 0.108       | 0.107       | 0.107       | 0.135       | 0.135       | 0.135       | 0.135       |
| Slovakia                         | 0.122       | 0.132       | 0.132       | 0.132       | 0.131       | 0.131       | 0.131       | 0.131       | 0.131       | 0.131       | 0.131       |
| Indonesia                        | 0.122       | 0.122       | 0.121       | 0.121       | 0.121       | 0.121       | 0.120       | 0.120       | 0.120       | 0.120       | 0.120       |
| Ghana                            | 0.118       | 0.117       | 0.117       | 0.117       | 0.117       | 0.116       | 0.116       | 0.116       | 0.116       | 0.116       | 0.116       |
| Benin                            | 0.109       | 0.108       | 0.108       | 0.108       | 0.108       | 0.107       | 0.107       | 0.107       | 0.107       | 0.107       | 0.107       |
| Burkina Faso                     | 0.107       | 0.106       | 0.106       | 0.106       | 0.106       | 0.105       | 0.105       | 0.105       | 0.105       | 0.105       | 0.105       |
| Croatia                          | 0.034       | 0.099       | 0.099       | 0.099       | 0.099       | 0.099       | 0.098       | 0.098       | 0.098       | 0.098       | 0.098       |
| Ecuador                          | 0           | 0           | 0           | 0.091       | 0.091       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       |
| Fiji                             | 0.091       | 0.091       | 0.091       | 0.091       | 0.091       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       |
| Lao People's Democratic Republic | 0           | 0           | 0.091       | 0.091       | 0.091       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       |
| Latvia                           | 0           | 0           | 0           | 0           | 0           | 0           | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       |
| Malawi                           | 0.091       | 0.091       | 0.091       | 0.091       | 0.091       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       |
| Peru                             | 0           | 0           | 0           | 0           | 0           | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       |

|                                  | <b>Year</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ukraine                          |             | 0.091       | 0.091       | 0.091       | 0.091       | 0.091       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       | 0.090       |
| Uruguay                          |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0.090       |
| Azerbaijan                       |             | 0.069       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       |
| Costa Rica                       |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0.068       |
| El Salvador                      |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0.068       |
| Malaysia                         |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0.068       | 0.068       |
| Niger                            |             | 0           | 0           | 0           | 0           | 0           | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       |
| Pakistan                         |             | 0.069       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       | 0.068       |
| Côte d'Ivoire                    |             | 0.046       | 0.046       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       |
| Egypt                            |             | 0.046       | 0.046       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       |
| Panama                           |             | 0.046       | 0.046       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       |
| Philippines                      |             | 0.046       | 0.046       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       |
| Romania                          |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0.045       | 0.045       | 0.045       | 0.045       |
| Senegal                          |             | 0.046       | 0.046       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       |
| Tunisia                          |             | 0.046       | 0.046       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       | 0.045       |
| Saudi Arabia                     |             | 0.023       | 0.023       | 0.023       | 0.023       | 0.023       | 0.023       | 0.023       | 0.023       | 0.023       | 0.023       | 0.023       |
| Afghanistan                      |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Albania                          |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Algeria                          |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Andorra                          |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Angola                           |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Antigua and Barbuda              |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Armenia                          |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Bahrain                          |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Bangladesh                       |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Barbados                         |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Belarus                          |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Belize                           |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Bhutan                           |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Bolivia (Plurinational State of) |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Bosnia and Herzegovina           |             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |

| Year                                  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Botswana                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Brunei Darussalam                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bulgaria                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Burundi                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cabo Verde                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cambodia                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Central African Republic              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Chad                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Comoros                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Congo                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cuba                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic People's Republic of Korea | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic Republic of the Congo      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Djibouti                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominica                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominican Republic                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Equatorial Guinea                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Eritrea                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Eswatini                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ethiopia                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Gabon                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Gambia                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Georgia                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grenada                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guatemala                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guinea                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guinea-Bissau                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guyana                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Haiti                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Honduras                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Iran (Islamic Republic of)            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Iraq                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Jamaica                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Jordan                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kazakhstan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kiribati                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kuwait                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kyrgyzstan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lebanon                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lesotho                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liberia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Libya                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liechtenstein                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Luxembourg                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Madagascar                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Maldives                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mali                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Malta                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Marshall Islands                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritania                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritius                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Micronesia (Federated States of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Monaco                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mongolia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Montenegro                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Morocco                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mozambique                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Myanmar                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Namibia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nauru                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nepal                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nicaragua                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Nigeria                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| North Macedonia                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Oman                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Palau                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Papua New Guinea                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Paraguay                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Qatar                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Republic of Moldova              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Rwanda                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Kitts and Nevis            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Lucia                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Vincent and the Grenadines | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Samoa                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| San Marino                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sao Tome and Principe            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Seychelles                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sierra Leone                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Solomon Islands                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Somalia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| South Sudan                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sri Lanka                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sudan                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Suriname                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Syrian Arab Republic             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tajikistan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| The Bahamas                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Timor-Leste                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Togo                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tonga                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Trinidad and Tobago              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Turkmenistan                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Tuvalu                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Uganda                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| United Arab Emirates               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| United Republic of Tanzania        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Uzbekistan                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Vanuatu                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Venezuela (Bolivarian Republic of) | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Yemen                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Zambia                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Zimbabwe                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |

Table S2-2-4 Data integrity by country, 2014–2024

| <b>Year</b>         | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| China               | 0.852       | 1.200       | 1.170       | 1.152       | 0.716       | 0.830       | 1.200       | 1.200       | 1.200       | 1.200       | 1.200       |
| Germany             | 1.200       | 0.702       | 0.654       | 0.414       | 0.413       | 0.319       | 0.636       | 0.383       | 0.367       | 0.159       | 0.363       |
| India               | 1.200       | 1.200       | 1.200       | 1.200       | 1.200       | 1.041       | 1.145       | 1.129       | 1.200       | 1.040       | 1.200       |
| Japan               | 1.200       | 0.853       | 0.940       | 0.885       | 1.067       | 1.109       | 0.733       | 0.348       | 0.798       | 0.282       | 0.545       |
| Russia              | 0.150       | 0.221       | 0.217       | 1.200       | 1.200       | 1.200       | 1.200       | 1.133       | 0.546       | 0.224       | 0.391       |
| United Kingdom      | 0.868       | 1.113       | 0.925       | 0.638       | 0.657       | 0.559       | 0.828       | 0.372       | 0.365       | 0.245       | 0.380       |
| United States       | 1.038       | 1.151       | 1.033       | 0.845       | 0.737       | 0.704       | 0.820       | 0.493       | 0.460       | 0.246       | 0.478       |
| Afghanistan         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.827       | 1.200       | 1.200       |
| Albania             | 1.200       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 0.752       | 0.000       | 0.000       | 1.200       |
| Algeria             | 1.200       | 1.200       | 0.647       | 1.200       | 1.200       | 0.125       | 0.444       | 0.147       | 0.450       | 0.183       | 0.467       |
| Andorra             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Angola              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 1.149       | 0.000       |
| Antigua and Barbuda | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Argentina           | 0.155       | 0.106       | 0.480       | 0.767       | 0.315       | 0.288       | 0.396       | 0.150       | 0.033       | 0.143       | 0.324       |
| Armenia             | 0.000       | 0.000       | 1.114       | 1.200       | 0.750       | 0.661       | 1.200       | 0.000       | 0.000       | 0.000       | 0.783       |
| Australia           | 0.620       | 0.803       | 1.093       | 0.607       | 0.314       | 0.367       | 0.430       | 0.429       | 0.385       | 0.295       | 0.430       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Austria                          | 0.100       | 0.599       | 0.481       | 0.182       | 0.122       | 0.187       | 0.197       | 0.204       | 0.253       | 0.065       | 0.144       |
| Azerbaijan                       | 1.200       | 1.200       | 0.000       | 1.167       | 1.200       | 1.200       | 1.200       | 0.344       | 1.072       | 0.204       | 0.827       |
| The Bahamas                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Bahrain                          | 0.000       | 1.200       | 1.200       | 0.000       | 0.000       | 1.200       | 1.200       | 0.549       | 1.200       | 1.200       | 1.200       |
| Bangladesh                       | 1.200       | 1.200       | 1.200       | 0.349       | 1.200       | 1.200       | 1.200       | 0.555       | 0.653       | 1.200       | 1.200       |
| Barbados                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       |
| Belarus                          | 0.000       | 1.200       | 1.200       | 1.200       | 1.200       | 0.644       | 0.310       | 0.000       | 0.966       | 0.607       | 1.164       |
| Belgium                          | 1.164       | 0.373       | 0.128       | 0.689       | 0.235       | 0.253       | 0.472       | 0.312       | 0.464       | 0.137       | 0.177       |
| Belize                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       |
| Benin                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.562       | 0.551       | 0.000       |
| Bhutan                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Bolivia (Plurinational State of) | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.185       | 0.000       | 0.465       | 0.000       |
| Bosnia and Herzegovina           | 0.000       | 1.200       | 0.000       | 1.200       | 0.000       | 0.617       | 0.544       | 0.355       | 0.902       | 0.144       | 0.324       |
| Botswana                         | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 1.200       | 1.050       | 0.000       | 1.200       | 0.517       | 0.000       |
| Brazil                           | 0.471       | 0.420       | 0.875       | 0.391       | 0.387       | 0.208       | 0.429       | 0.140       | 0.191       | 0.102       | 0.481       |
| Brunei Darussalam                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.847       | 0.000       | 1.200       | 1.200       |
| Bulgaria                         | 1.200       | 0.000       | 0.000       | 0.000       | 0.417       | 0.183       | 0.302       | 0.114       | 0.093       | 0.123       | 0.089       |
| Burkina Faso                     | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.510       | 0.000       | 0.000       |
| Burundi                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 1.200       | 1.200       |
| Cabo Verde                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Cambodia                         | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 1.087       | 1.200       | 0.425       | 0.000       |
| Cameroon                         | 1.200       | 0.000       | 0.900       | 0.000       | 1.049       | 0.449       | 0.363       | 0.479       | 0.372       | 0.169       | 0.692       |
| Canada                           | 0.948       | 0.752       | 0.830       | 0.549       | 0.446       | 0.532       | 0.507       | 0.424       | 0.398       | 0.194       | 0.355       |
| Central African Republic         | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Chad                             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 1.200       | 1.200       |
| Chile                            | 0.000       | 0.357       | 0.501       | 0.398       | 0.127       | 0.279       | 0.141       | 0.131       | 0.172       | 0.093       | 0.342       |
| Colombia                         | 0.273       | 0.337       | 0.132       | 0.373       | 0.628       | 0.265       | 1.200       | 0.626       | 0.453       | 0.211       | 0.238       |
| Comoros                          | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Congo                            | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 0.551       | 1.064       |
| Costa Rica                       | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.554       | 0.000       | 0.000       | 0.000       | 0.356       |
| Côte d'Ivoire                    | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Croatia                               | 0.335       | 0.469       | 0.626       | 0.000       | 0.130       | 1.200       | 0.405       | 0.206       | 0.454       | 0.027       | 0.250       |
| Cuba                                  | 0.000       | 0.000       | 0.000       | 0.644       | 0.903       | 0.000       | 0.000       | 0.225       | 0.000       | 0.108       | 0.000       |
| Cyprus                                | 1.200       | 0.000       | 1.200       | 0.582       | 0.730       | 0.313       | 0.000       | 0.648       | 0.644       | 0.178       | 0.394       |
| Czechia                               | 1.097       | 0.424       | 0.381       | 0.000       | 0.219       | 0.237       | 0.322       | 0.178       | 0.783       | 0.118       | 0.286       |
| Democratic People's Republic of Korea | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 1.200       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       |
| Democratic Republic of the Congo      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 1.200       | 0.000       | 1.200       | 0.315       | 0.697       |
| Denmark                               | 1.200       | 0.925       | 0.364       | 0.312       | 0.494       | 0.554       | 0.434       | 0.184       | 0.326       | 0.122       | 0.369       |
| Djibouti                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Dominica                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       |
| Dominican Republic                    | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 1.200       |
| Ecuador                               | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 0.208       | 0.175       | 0.247       | 0.456       | 0.161       | 0.899       |
| Egypt                                 | 1.200       | 1.200       | 1.200       | 1.017       | 1.093       | 0.899       | 1.069       | 0.855       | 1.200       | 1.200       | 1.200       |
| El Salvador                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       |
| Equatorial Guinea                     | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Eritrea                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       |
| Estonia                               | 0.000       | 0.000       | 0.000       | 0.460       | 0.000       | 0.000       | 0.242       | 0.328       | 0.140       | 0.066       | 0.309       |
| Eswatini                              |             |             |             |             |             |             |             |             |             |             |             |
| Ethiopia                              | 0.000       | 0.000       | 1.103       | 1.200       | 0.723       | 0.908       | 0.738       | 0.866       | 0.815       | 1.200       | 1.200       |
| Fiji                                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Finland                               | 0.236       | 0.476       | 0.799       | 0.444       | 0.051       | 0.321       | 0.250       | 0.236       | 0.315       | 0.107       | 0.363       |
| France                                | 0.655       | 0.630       | 0.484       | 0.434       | 0.617       | 0.496       | 0.702       | 0.309       | 0.574       | 0.158       | 1.200       |
| Gabon                                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 1.200       |
| Gambia                                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 1.200       |
| Georgia                               | 1.200       | 1.112       | 0.000       | 0.000       | 0.977       | 0.000       | 0.000       | 0.000       | 0.789       | 0.351       | 1.200       |
| Ghana                                 | 0.000       | 0.000       | 1.145       | 0.522       | 0.304       | 0.985       | 0.380       | 0.362       | 0.493       | 1.200       | 1.200       |
| Greece                                | 1.156       | 0.459       | 0.991       | 0.593       | 0.396       | 0.717       | 1.200       | 0.562       | 0.753       | 0.162       | 0.208       |
| Grenada                               | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 1.200       | 0.000       | 1.200       |
| Guatemala                             | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 1.148       | 0.000       | 0.000       |
| Guinea                                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Guinea-Bissau                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

| Year                             | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Guyana                           | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Haiti                            | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 |
| Honduras                         | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 | 1.200 | 1.200 | 0.645 | 1.200 |
| Hungary                          | 0.204 | 0.000 | 0.510 | 0.386 | 0.258 | 0.078 | 0.206 | 0.047 | 0.917 | 0.121 | 0.443 |
| Iceland                          | 0.000 | 1.200 | 1.200 | 0.000 | 0.583 | 0.515 | 0.000 | 0.000 | 0.276 | 0.132 | 0.000 |
| Indonesia                        | 0.000 | 0.000 | 0.993 | 0.874 | 1.200 | 0.272 | 0.357 | 0.313 | 0.293 | 0.205 | 0.386 |
| Iran (Islamic Republic of)       | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.106 | 1.053 | 0.749 | 1.200 |
| Iraq                             | 1.085 | 0.000 | 0.836 | 1.200 | 1.200 | 0.409 | 0.362 | 0.580 | 1.200 | 1.200 | 1.200 |
| Ireland                          | 1.200 | 0.872 | 1.200 | 0.974 | 0.910 | 0.314 | 0.267 | 0.249 | 0.459 | 0.249 | 0.162 |
| Israel                           | 0.564 | 0.839 | 0.476 | 1.200 | 0.607 | 0.783 | 0.580 | 0.136 | 0.407 | 0.033 | 0.202 |
| Italy                            | 1.200 | 0.706 | 0.780 | 0.999 | 1.104 | 0.695 | 0.477 | 0.355 | 0.512 | 0.163 | 0.663 |
| Jamaica                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 | 0.000 | 0.000 | 0.000 | 0.000 |
| Jordan                           | 1.200 | 1.200 | 0.886 | 0.416 | 0.674 | 0.523 | 0.781 | 0.423 | 1.152 | 1.200 | 1.200 |
| Kazakhstan                       | 0.000 | 0.642 | 0.414 | 1.200 | 1.200 | 1.200 | 1.040 | 0.618 | 1.200 | 1.200 | 1.200 |
| Kenya                            | 1.200 | 1.070 | 0.459 | 0.433 | 0.560 | 0.238 | 0.380 | 0.880 | 0.100 | 0.241 | 0.447 |
| Kiribati                         | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Kuwait                           | 1.200 | 1.200 | 0.997 | 0.000 | 1.200 | 0.928 | 0.372 | 1.200 | 0.886 | 0.984 | 1.100 |
| Kyrgyzstan                       | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 | 1.200 |
| Lao People's Democratic Republic | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 |
| Latvia                           | 0.000 | 0.000 | 0.000 | 0.932 | 0.583 | 0.512 | 0.000 | 0.257 | 0.421 | 0.000 | 0.000 |
| Lebanon                          | 1.200 | 1.200 | 1.079 | 0.509 | 1.200 | 0.000 | 0.842 | 0.159 | 0.514 | 0.262 | 1.200 |
| Lesotho                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 | 1.200 | 0.000 |
| Liberia                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 | 0.000 | 0.000 |
| Libya                            | 1.200 | 0.000 | 0.000 | 1.200 | 0.000 | 0.000 | 1.200 | 0.000 | 1.200 | 0.873 | 0.592 |
| Liechtenstein                    | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Lithuania                        | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.205 | 0.345 | 0.000 | 0.202 | 0.142 | 0.728 |
| Luxembourg                       | 1.200 | 1.200 | 0.000 | 0.000 | 0.000 | 0.000 | 0.838 | 0.277 | 0.000 | 0.101 | 0.000 |
| Madagascar                       | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 | 0.000 | 0.000 | 1.200 | 0.000 | 0.000 |
| Malawi                           | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.997 | 0.000 | 0.000 | 0.000 | 0.408 | 0.000 |
| Malaysia                         | 1.195 | 0.798 | 0.958 | 0.967 | 1.200 | 0.597 | 0.667 | 0.466 | 1.167 | 1.097 | 1.200 |
| Maldives                         | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1.200 | 0.000 |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Mali                             | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 1.200       |
| Malta                            | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 1.200       | 1.200       | 1.200       | 1.200       | 0.000       | 0.526       |
| Marshall Islands                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mauritania                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mauritius                        | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mexico                           | 0.526       | 0.490       | 0.245       | 0.353       | 0.269       | 0.366       | 0.260       | 0.311       | 0.192       | 0.154       | 0.363       |
| Micronesia (Federated States of) | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Monaco                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mongolia                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.814       | 1.074       |
| Montenegro                       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 1.200       | 1.200       | 1.136       | 0.000       | 1.200       | 0.000       |
| Morocco                          | 1.200       | 0.969       | 0.809       | 0.264       | 0.175       | 0.279       | 0.324       | 0.344       | 0.456       | 0.063       | 0.487       |
| Mozambique                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.679       | 0.000       | 0.000       |
| Myanmar                          | 1.200       | 0.000       | 1.200       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 0.953       | 1.036       | 1.200       |
| Namibia                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.909       | 0.000       | 0.000       |
| Nauru                            | 0.000       | 0.000       | 0.000       |             |             | 0.000       | 0.000       |             | 0.000       | 0.000       | 0.000       |
| Nepal                            | 1.200       | 1.200       | 1.200       | 1.200       | 1.141       | 0.898       | 1.186       | 0.372       | 0.734       | 1.200       | 1.200       |
| Netherlands (Kingdom of the)     | 1.049       | 0.801       | 0.580       | 0.514       | 0.365       | 0.403       | 0.767       | 0.334       | 0.319       | 0.086       | 0.202       |
| New Zealand                      | 0.909       | 0.103       | 0.747       | 0.551       | 0.312       | 0.449       | 0.514       | 0.297       | 0.218       | 0.097       | 0.301       |
| Nicaragua                        | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Niger                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 1.200       | 1.200       |
| Nigeria                          | 1.200       | 1.149       | 1.200       | 0.872       | 0.506       | 0.391       | 0.585       | 0.358       | 0.222       | 0.209       | 0.726       |
| North Macedonia                  | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.936       | 0.000       | 0.000       | 0.000       | 0.221       | 0.504       |
| Norway                           | 0.237       | 0.723       | 0.416       | 0.544       | 0.445       | 0.484       | 0.318       | 0.196       | 0.351       | 0.308       | 0.376       |
| Oman                             | 1.200       | 0.000       | 1.200       | 1.200       | 1.133       | 0.000       | 0.708       | 0.207       | 1.200       | 1.200       | 1.200       |
| Pakistan                         | 1.031       | 1.200       | 1.200       | 1.177       | 1.200       | 1.200       | 1.200       | 0.955       | 1.200       | 1.200       | 1.200       |
| Palau                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Panama                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.282       | 0.000       |
| Papua New Guinea                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 1.200       | 0.000       |
| Paraguay                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       |
| Peru                             | 1.200       | 0.000       | 0.599       | 0.000       | 0.000       | 0.000       | 1.200       | 0.488       | 0.136       | 0.230       | 0.828       |
| Philippines                      | 0.000       | 0.577       | 0.501       | 0.000       | 0.297       | 0.211       | 1.200       | 1.200       | 0.785       | 1.200       | 1.093       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Poland                           | 0.426       | 0.349       | 0.401       | 0.447       | 0.345       | 0.275       | 0.184       | 0.184       | 0.369       | 0.077       | 0.525       |
| Portugal                         | 0.829       | 0.280       | 0.621       | 0.188       | 0.249       | 0.574       | 0.335       | 0.292       | 0.529       | 0.057       | 0.297       |
| Qatar                            | 1.200       | 1.200       | 1.200       | 0.000       | 0.275       | 1.145       | 0.347       | 0.575       | 0.668       | 0.409       | 0.673       |
| Republic of Korea                | 1.099       | 0.990       | 0.728       | 1.190       | 0.795       | 0.507       | 0.704       | 0.556       | 0.437       | 0.829       | 0.753       |
| Republic of Moldova              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Romania                          | 1.200       | 0.891       | 1.200       | 1.200       | 1.200       | 0.327       | 0.296       | 0.478       | 0.376       | 0.133       | 0.168       |
| Rwanda                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       |
| Saint Kitts and Nevis            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Saint Lucia                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Saint Vincent and the Grenadines | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Samoa                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       |
| San Marino                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sao Tome and Principe            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Saudi Arabia                     | 1.200       | 1.088       | 1.200       | 1.200       | 1.200       | 1.200       | 0.993       | 0.811       | 1.200       | 1.200       | 1.200       |
| Senegal                          | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       | 0.000       | 0.900       | 0.670       | 1.200       | 0.467       | 1.200       |
| Serbia                           | 1.120       | 1.200       | 1.200       | 1.200       | 1.200       | 1.200       | 1.200       | 0.765       | 0.433       | 0.297       | 0.392       |
| Seychelles                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sierra Leone                     | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Singapore                        | 0.869       | 1.200       | 1.200       | 0.587       | 0.501       | 0.364       | 0.745       | 0.288       | 0.186       | 0.283       | 0.306       |
| Slovakia                         | 0.655       | 0.444       | 0.000       | 0.761       | 0.134       | 0.117       | 0.402       | 0.144       | 0.634       | 0.088       | 0.405       |
| Slovenia                         | 0.000       | 0.703       | 0.861       | 0.000       | 0.000       | 0.000       | 0.234       | 0.161       | 0.071       | 0.068       | 0.074       |
| Solomon Islands                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Somalia                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.763       | 0.000       |
| South Africa                     | 0.733       | 0.726       | 0.864       | 0.361       | 0.634       | 0.274       | 0.327       | 0.405       | 0.239       | 0.177       | 0.553       |
| South Sudan                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Spain                            | 0.297       | 0.426       | 0.734       | 0.492       | 0.622       | 0.345       | 0.487       | 0.228       | 0.484       | 0.157       | 0.472       |
| Sri Lanka                        | 0.000       | 1.082       | 1.200       | 0.789       | 0.514       | 0.446       | 0.704       | 1.200       | 0.165       | 0.166       | 0.715       |
| Sudan                            | 1.200       | 0.000       | 0.000       | 0.000       | 1.115       | 0.000       | 1.200       | 0.405       | 1.145       | 1.200       | 1.200       |
| Suriname                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sweden                           | 1.049       | 0.545       | 0.664       | 0.736       | 0.646       | 0.530       | 0.526       | 0.273       | 0.306       | 0.118       | 0.369       |
| Switzerland                      | 0.627       | 0.949       | 0.599       | 0.684       | 0.513       | 0.522       | 0.483       | 0.225       | 0.331       | 0.073       | 0.316       |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Syrian Arab Republic               | 0.000       | 0.000       | 1.200       | 0.000       | 1.200       | 1.200       | 0.000       | 0.000       | 0.000       | 0.387       | 0.412       |
| Tajikistan                         | 0.000       | 1.200       | 0.000       | 0.000       | 1.200       | 1.200       | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       |
| Thailand                           | 1.200       | 1.200       | 0.988       | 0.290       | 1.124       | 0.104       | 0.475       | 0.166       | 0.305       | 0.810       | 0.862       |
| Timor-Leste                        | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Togo                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       |
| Tonga                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Trinidad and Tobago                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 1.200       | 1.200       | 0.000       |
| Tunisia                            | 1.200       | 0.696       | 0.591       | 1.200       | 1.200       | 0.764       | 1.200       | 0.398       | 0.485       | 0.890       | 1.200       |
| Türkiye                            | 0.984       | 0.882       | 0.741       | 0.926       | 0.491       | 0.536       | 0.539       | 0.521       | 0.438       | 0.360       | 1.177       |
| Turkmenistan                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.000       |
| Tuvalu                             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Uganda                             | 1.200       | 0.000       | 0.000       | 0.000       | 0.510       | 0.425       | 0.000       | 0.427       | 0.167       | 0.000       | 0.000       |
| Ukraine                            | 0.201       | 0.139       | 0.000       | 0.123       | 0.076       | 0.537       | 0.137       | 0.167       | 0.176       | 0.116       | 0.354       |
| United Arab Emirates               | 0.000       | 1.164       | 0.634       | 0.837       | 0.669       | 0.261       | 0.670       | 0.174       | 1.200       | 0.622       | 1.200       |
| United Republic of Tanzania        | 1.200       | 0.000       | 0.000       | 0.802       | 0.000       | 0.421       | 0.000       | 0.000       | 0.000       | 0.702       | 0.474       |
| Uruguay                            | 1.200       | 0.000       | 0.000       | 0.000       | 0.555       | 0.000       | 0.879       | 0.281       | 0.000       | 0.000       | 0.000       |
| Uzbekistan                         | 0.000       | 1.200       | 0.000       | 0.000       | 1.200       | 1.200       | 0.941       | 1.200       | 1.200       | 0.954       | 1.200       |
| Vanuatu                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Venezuela (Bolivarian Republic of) | 1.063       | 0.000       | 0.805       | 1.200       | 0.000       | 1.200       | 1.200       | 1.187       | 0.000       | 0.187       | 0.000       |
| Viet Nam                           | 0.572       | 1.083       | 0.268       | 0.700       | 0.242       | 0.307       | 0.722       | 0.485       | 0.717       | 0.758       | 1.200       |
| Yemen                              | 1.200       | 0.000       | 0.000       | 0.000       | 0.000       | 1.200       | 0.000       | 0.428       | 0.567       | 1.200       | 1.200       |
| Zambia                             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.476       | 0.450       | 1.200       |
| Zimbabwe                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.947       | 0.376       | 0.000       | 0.430       |

Table S2-2-5 Accessible Data (A<sub>0D</sub>) (2014-2024)

| <b>Year</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ireland     | 343152.22   | 383928.34   | 436347.15   | 518160.75   | 607466.43   | 784864.32   | 995477.06   | 1256909.1   | 1509454.2   | 1502485.4   | 1616451.1   |

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Poland                       | 364113.24   | 422637.16   | 461830.54   | 536611.58   | 645921.28   | 829406.52   | 1039309.2   | 1303325.6   | 1478875.9   | 1491251.9   | 1604365.5   |
| Croatia                      | 314753.41   | 393013.06   | 449312.39   | 514060.57   | 615878.43   | 800991.67   | 1012035.9   | 1277674.4   | 1474706.2   | 1477210     | 1589258.5   |
| Israel                       | 346194.94   | 401702.8    | 463618.85   | 531998.87   | 624290.42   | 804063.54   | 1017880.2   | 1275231.4   | 1460807     | 1470189     | 1581705     |
| Romania                      | 332671.7    | 445546.46   | 484184.39   | 555062.41   | 641715.28   | 805599.48   | 1002295.4   | 1258130.6   | 1424669     | 1450530.3   | 1560555.2   |
| Latvia                       | 374593.75   | 396172.96   | 402816.38   | 496634.79   | 617080.14   | 781024.47   | 997425.15   | 1255687.6   | 1430228.7   | 1440701     | 1549980.3   |
| New Zealand                  | 326248.17   | 408812.58   | 462724.7    | 535074.01   | 627294.71   | 800223.7    | 1014958     | 1258130.6   | 1431618.6   | 1440701     | 1549980.3   |
| Slovakia                     | 358027.78   | 473590.61   | 457359.77   | 536099.06   | 616479.28   | 781792.44   | 991580.86   | 1245915.7   | 1421889.2   | 1439296.8   | 1548469.6   |
| Republic of Korea            | 347209.19   | 393803.04   | 445288.69   | 520723.37   | 614075.85   | 782560.41   | 989632.77   | 1242251.3   | 1417719.4   | 1429467.5   | 1537894.6   |
| Belgium                      | 337404.84   | 396962.94   | 451100.69   | 520210.85   | 614676.71   | 794079.95   | 999373.25   | 1254466.1   | 1414939.6   | 1426659.1   | 1534873.2   |
| United States                | 336052.51   | 392618.07   | 444394.54   | 512523      | 606865.57   | 781792.44   | 993528.96   | 1245915.7   | 1410769.8   | 1425254.9   | 1533362.5   |
| Lithuania                    | 367832.13   | 411972.48   | 430535.15   | 507397.77   | 602058.71   | 778720.57   | 999373.25   | 1250801.7   | 1410769.8   | 1418233.9   | 1525809     |
| Spain                        | 322191.19   | 383138.36   | 433217.61   | 502272.54   | 592445      | 757985.4    | 958463.23   | 1209271.1   | 1382971.4   | 1404192     | 1510702     |
| Estonia                      | 278916.83   | 361809.01   | 398345.61   | 476646.39   | 579827.01   | 764897.12   | 973073.95   | 1230036.4   | 1392700.8   | 1402787.8   | 1509191.3   |
| Sweden                       | 318472.3    | 392618.07   | 443947.46   | 513035.52   | 597852.72   | 765665.09   | 967229.66   | 1214157.1   | 1381581.5   | 1397171     | 1503148.5   |
| Singapore                    | 367494.05   | 419872.24   | 458701      | 513035.52   | 595449.29   | 764897.12   | 978918.24   | 1220264.5   | 1381581.5   | 1395766.8   | 1501637.8   |
| Netherlands (Kingdom of the) | 333347.87   | 386298.26   | 438582.54   | 505860.2    | 591243.29   | 757985.4    | 960411.33   | 1208049.7   | 1374631.9   | 1392958.5   | 1498616.4   |
| Switzerland                  | 326248.17   | 396172.96   | 448418.23   | 508422.82   | 596050.14   | 764129.16   | 969177.76   | 1216600.1   | 1384361.3   | 1392958.5   | 1498616.4   |
| Germany                      | 338419.08   | 394988      | 445735.77   | 514573.09   | 602659.57   | 768736.97   | 964307.52   | 1210492.6   | 1374631.9   | 1387341.7   | 1492573.6   |
| Austria                      | 343490.3    | 391038.12   | 444841.62   | 506885.25   | 595449.29   | 761057.28   | 956515.14   | 1205606.7   | 1373241.9   | 1385937.5   | 1491062.9   |
| Canada                       | 326248.17   | 370103.76   | 431429.31   | 497147.31   | 591243.29   | 756449.47   | 962359.42   | 1212935.6   | 1380191.6   | 1388745.9   | 1491062.9   |
| Czechia                      | 347209.19   | 398937.88   | 429193.92   | 506372.72   | 603260.43   | 771808.85   | 969177.76   | 1215378.6   | 1380191.6   | 1385937.5   | 1491062.9   |
| Hungary                      | 330305.14   | 389853.16   | 423829      | 508422.82   | 596050.14   | 761057.28   | 966255.62   | 1225150.5   | 1369072.2   | 1377512.4   | 1481998.7   |
| United Kingdom               | 326248.17   | 391433.11   | 445735.77   | 510472.91   | 598453.57   | 759521.34   | 956515.14   | 1209271.1   | 1370462.1   | 1377512.4   | 1481998.7   |
| Italy                        | 335714.43   | 388668.19   | 439923.77   | 504322.63   | 595449.29   | 761825.25   | 951644.9    | 1195834.8   | 1360732.7   | 1374704     | 1478977.3   |
| Slovenia                     | 308667.95   | 361414.02   | 408628.38   | 472033.68   | 569011.58   | 739554.15   | 938982.27   | 1189727.4   | 1353783.1   | 1370491.4   | 1474445.2   |
| Japan                        | 336052.51   | 382743.37   | 427852.69   | 496122.26   | 581629.58   | 741858.05   | 937034.18   | 1179955.5   | 1351003.2   | 1367683     | 1471423.7   |
| France                       | 326248.17   | 377213.54   | 430982.23   | 496122.26   | 584033      | 748001.81   | 939956.32   | 1186062.9   | 1353783.1   | 1364874.6   | 1468402.3   |
| Luxembourg                   | 330305.14   | 393408.05   | 449759.46   | 509447.86   | 588839.86   | 755681.5    | 944826.56   | 1186062.9   | 1351003.2   | 1363470.4   | 1466891.6   |
| Finland                      | 312724.93   | 357464.14   | 409969.61   | 480234.05   | 569011.58   | 733410.4    | 933137.98   | 1179955.5   | 1342663.7   | 1359257.9   | 1462359.5   |
| Bahrain                      | 326248.17   | 381163.42   | 431429.31   | 494584.7    | 579827.01   | 741090.09   | 939956.32   | 1178734     | 1341273.8   | 1355045.3   | 1457827.4   |
| Brunei Darussalam            | 326248.17   | 381163.42   | 431429.31   | 494584.7    | 579827.01   | 741090.09   | 939956.32   | 1178734     | 1341273.8   | 1355045.3   | 1457827.4   |

| Year                | 2014      | 2015      | 2016      | 2017      | 2018      | 2019      | 2020      | 2021      | 2022      | 2023      | 2024      |
|---------------------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| Liechtenstein       | 326248.17 | 381163.42 | 431429.31 | 494584.7  | 579827.01 | 741090.09 | 939956.32 | 1178734   | 1341273.8 | 1355045.3 | 1457827.4 |
| Malta               | 326248.17 | 381163.42 | 431429.31 | 494584.7  | 579827.01 | 741090.09 | 939956.32 | 1178734   | 1341273.8 | 1355045.3 | 1457827.4 |
| Nauru               | 326248.17 | 381163.42 | 431429.31 | 494584.7  | 579827.01 | 741090.09 | 939956.32 | 1178734   | 1341273.8 | 1355045.3 | 1457827.4 |
| San Marino          | 326248.17 | 381163.42 | 431429.31 | 494584.7  | 579827.01 | 741090.09 | 939956.32 | 1178734   | 1341273.8 | 1355045.3 | 1457827.4 |
| Trinidad and Tobago | 326248.17 | 381163.42 | 431429.31 | 494584.7  | 579827.01 | 741090.09 | 939956.32 | 1178734   | 1341273.8 | 1355045.3 | 1457827.4 |
| Uruguay             | 326248.17 | 381163.42 | 431429.31 | 494584.7  | 579827.01 | 741090.09 | 939956.32 | 1178734   | 1341273.8 | 1355045.3 | 1457827.4 |
| Australia           | 326248.17 | 370498.74 | 419358.23 | 487921.9  | 572015.86 | 737250.24 | 935086.08 | 1172626.6 | 1334324.2 | 1348024.3 | 1450273.9 |
| Türkiye             | 231085.13 | 281105.06 | 318175.76 | 362456.27 | 421849.68 | 530820.17 | 667028.07 | 839600.62 | 942922.41 | 956198.58 | 1028727.6 |
| China               | 226974.06 | 265179.14 | 300721.87 | 343759.43 | 402622.26 | 516566.67 | 655807.04 | 823183.85 | 934916.46 | 944515.71 | 1016158.6 |
| Iceland             | 243418.32 | 285149.74 | 310164.14 | 348023.62 | 401084.07 | 521481.67 | 651443.3  | 825529.1  | 932247.81 | 940920.98 | 1012291.2 |
| Greece              | 216371.84 | 266190.31 | 296143.81 | 346383.54 | 404545    | 515583.67 | 652066.69 | 814584.58 | 927800.07 | 933731.51 | 1004556.4 |
| Bulgaria            | 262675.41 | 305120.33 | 307016.72 | 342119.35 | 398776.77 | 515583.67 | 644586    | 799731.31 | 905561.33 | 916656.54 | 986186.27 |
| Colombia            | 256833.37 | 301328.45 | 297002.19 | 332934.94 | 403391.36 | 513617.67 | 630248.02 | 790350.3  | 899334.48 | 908568.39 | 977484.62 |
| Portugal            | 204904.13 | 239394.33 | 277259.27 | 322766.48 | 380703    | 489534.16 | 623390.72 | 787223.3  | 899334.48 | 906771.03 | 975550.92 |
| Norway              | 215939.1  | 259870.51 | 290993.48 | 334903.03 | 389547.61 | 496415.16 | 623390.72 | 780187.54 | 887770.34 | 894189.47 | 962015.03 |
| Denmark             | 208149.71 | 252539.53 | 286701.54 | 323750.53 | 380318.45 | 483636.16 | 611546.3  | 764552.52 | 873537.55 | 887000    | 954280.24 |
| Russia              | 219617.42 | 251022.77 | 281837.34 | 323422.51 | 371473.83 | 480195.66 | 610299.52 | 765334.27 | 870868.9  | 879810.54 | 946545.45 |
| Chile               | 208798.83 | 253297.91 | 286701.54 | 318830.31 | 382241.19 | 477246.66 | 594714.75 | 745790.49 | 866421.16 | 875317.13 | 941711.2  |
| South Africa        | 226757.69 | 259870.51 | 290993.48 | 331622.88 | 378780.25 | 474297.65 | 595338.14 | 753608    | 859304.76 | 868127.66 | 933976.4  |
| Afghanistan         | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Albania             | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Algeria             | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Andorra             | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Angola              | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Antigua and Barbuda | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Argentina           | 193869.17 | 244197.38 | 261522.16 | 310301.93 | 355322.8  | 453163.15 | 580376.76 | 737191.23 | 851298.81 | 867228.98 | 933009.56 |
| Armenia             | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Azerbaijan          | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Bangladesh          | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Barbados            | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |
| Belarus             | 208798.83 | 243944.59 | 276114.76 | 316534.21 | 371089.28 | 474297.65 | 601572.05 | 754389.75 | 858415.21 | 867228.98 | 933009.56 |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Belize                                | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Benin                                 | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Bhutan                                | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Bolivia (Plurinational State of)      | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Bosnia and Herzegovina                | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Botswana                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Brazil                                | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Burkina Faso                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Burundi                               | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Cabo Verde                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Cambodia                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Cameroon                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Central African Republic              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Chad                                  | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Comoros                               | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Congo                                 | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Cuba                                  | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Cyprus                                | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Côte d'Ivoire                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Democratic People's Republic of Korea | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Democratic Republic of the Congo      | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Djibouti                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Dominica                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Dominican Republic                    | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Ecuador                               | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Egypt                                 | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| El Salvador                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Equatorial Guinea                     | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Eritrea                               | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Eswatini                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Ethiopia                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Fiji                             | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Gabon                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Gambia                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Georgia                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Ghana                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Grenada                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Guatemala                        | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Guinea                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Guinea-Bissau                    | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Guyana                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Haiti                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Honduras                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| India                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Indonesia                        | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Iran (Islamic Republic of)       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Iraq                             | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Jamaica                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Jordan                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Kazakhstan                       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Kenya                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Kiribati                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Kuwait                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Kyrgyzstan                       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Lao People's Democratic Republic | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Lebanon                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Lesotho                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Liberia                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Libya                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Madagascar                       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Malawi                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Malaysia                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Maldives                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Mali                             | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Marshall Islands                 | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Mauritania                       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Mauritius                        | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Micronesia (Federated States of) | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Monaco                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Mongolia                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Montenegro                       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Morocco                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Mozambique                       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Myanmar                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Namibia                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Nepal                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Nicaragua                        | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Niger                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Nigeria                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| North Macedonia                  | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Oman                             | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Pakistan                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Palau                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Panama                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Papua New Guinea                 | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Paraguay                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Peru                             | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Philippines                      | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Qatar                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Republic of Moldova              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Rwanda                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Saint Kitts and Nevis            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Saint Lucia                      | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Saint Vincent and the Grenadines   | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Samoa                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Sao Tome and Principe              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Saudi Arabia                       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Senegal                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Serbia                             | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Seychelles                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Sierra Leone                       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Solomon Islands                    | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Somalia                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| South Sudan                        | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Sri Lanka                          | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Sudan                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Suriname                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Syrian Arab Republic               | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Tajikistan                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Thailand                           | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| The Bahamas                        | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Timor-Leste                        | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Togo                               | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Tonga                              | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Tunisia                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Turkmenistan                       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Tuvalu                             | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Uganda                             | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Ukraine                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| United Arab Emirates               | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| United Republic of Tanzania        | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Uzbekistan                         | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Vanuatu                            | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Venezuela (Bolivarian Republic of) | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |

| <b>Year</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Viet Nam    | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Yemen       | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Zambia      | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Zimbabwe    | 208798.83   | 243944.59   | 276114.76   | 316534.21   | 371089.28   | 474297.65   | 601572.05   | 754389.75   | 858415.21   | 867228.98   | 933009.56   |
| Mexico      | 220050.16   | 252539.53   | 275542.5    | 305381.7    | 358014.64   | 457586.65   | 580376.76   | 727810.22   | 828170.53   | 836673.76   | 900136.68   |
| Costa Rica  | 208798.83   | 220940.49   | 256657.96   | 302757.59   | 348400.92   | 445299.15   | 564168.6    | 702012.43   | 798815.4    | 807017.23   | 868230.65   |

Table S2-2-6 Financial sustainability of open data by country, 2014–2024

| <b>Year</b>         | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| China               | 1.049       | 1.049       | 1.051       | 1.048       | 1.047       | 1.051       | 1.052       | 1.053       | 1.051       | 1.051       | 1.051       |
| Germany             | 1.001       | 1           | 0.997       | 1.004       | 1.003       | 1.001       | 0.99        | 0.991       | 0.989       | 0.988       | 0.988       |
| India               | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Japan               | 0.994       | 0.969       | 0.957       | 0.968       | 0.968       | 0.966       | 0.962       | 0.966       | 0.972       | 0.974       | 0.974       |
| Russia              | 1.015       | 0.993       | 0.985       | 0.986       | 0.966       | 0.977       | 0.979       | 0.979       | 0.979       | 0.979       | 0.979       |
| United Kingdom      | 0.965       | 0.991       | 0.997       | 0.996       | 0.996       | 0.989       | 0.982       | 0.99        | 0.986       | 0.981       | 0.981       |
| United States       | 0.994       | 0.994       | 0.994       | 1           | 1.01        | 1.018       | 1.02        | 1.02        | 1.015       | 1.015       | 1.015       |
| Afghanistan         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Albania             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Algeria             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Andorra             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Angola              | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Antigua and Barbuda | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Argentina           | 0.896       | 0.966       | 0.914       | 0.946       | 0.924       | 0.922       | 0.931       | 0.943       | 0.957       | 0.965       | 0.965       |
| Armenia             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Australia           | 0.965       | 0.938       | 0.938       | 0.952       | 0.952       | 0.96        | 0.96        | 0.96        | 0.96        | 0.96        | 0.96        |
| Austria             | 1.016       | 0.99        | 0.995       | 0.989       | 0.991       | 0.991       | 0.982       | 0.987       | 0.988       | 0.987       | 0.987       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Azerbaijan                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| The Bahamas                      | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Bahrain                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Bangladesh                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Barbados                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Belarus                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Belgium                          | 0.998       | 1.005       | 1.009       | 1.015       | 1.023       | 1.034       | 1.026       | 1.027       | 1.018       | 1.016       | 1.016       |
| Belize                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Benin                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Bhutan                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Bolivia (Plurinational State of) | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Bosnia and Herzegovina           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Botswana                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Brazil                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Brunei Darussalam                | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Bulgaria                         | 1.214       | 1.207       | 1.073       | 1.043       | 1.037       | 1.049       | 1.034       | 1.023       | 1.018       | 1.02        | 1.02        |
| Burkina Faso                     | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Burundi                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Cabo Verde                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Cambodia                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Cameroon                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Canada                           | 0.965       | 0.937       | 0.965       | 0.97        | 0.984       | 0.985       | 0.988       | 0.993       | 0.993       | 0.989       | 0.987       |
| Central African Republic         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Chad                             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Chile                            | 0.965       | 1.002       | 1.002       | 0.972       | 0.994       | 0.971       | 0.954       | 0.954       | 0.974       | 0.974       | 0.974       |
| Colombia                         | 1.187       | 1.192       | 1.038       | 1.015       | 1.049       | 1.045       | 1.011       | 1.011       | 1.011       | 1.011       | 1.011       |
| Comoros                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Congo                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Costa Rica                       | 0.965       | 0.874       | 0.897       | 0.923       | 0.906       | 0.906       | 0.905       | 0.898       | 0.898       | 0.898       | 0.898       |
| Côte d'Ivoire                    | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Croatia                          | 0.931       | 0.995       | 1.005       | 1.003       | 1.025       | 1.043       | 1.039       | 1.046       | 1.061       | 1.052       | 1.052       |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Cuba                                  | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Cyprus                                | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Czechia                               | 1.027       | 1.01        | 0.96        | 0.988       | 1.004       | 1.005       | 0.995       | 0.995       | 0.993       | 0.987       | 0.987       |
| Democratic People's Republic of Korea | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Democratic Republic of the Congo      | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Denmark                               | 0.962       | 0.999       | 1.002       | 0.987       | 0.989       | 0.984       | 0.981       | 0.978       | 0.982       | 0.987       | 0.987       |
| Djibouti                              | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Dominica                              | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Dominican Republic                    | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Ecuador                               | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Egypt                                 | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| El Salvador                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Equatorial Guinea                     | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Eritrea                               | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Estonia                               | 0.825       | 0.916       | 0.891       | 0.93        | 0.965       | 0.996       | 0.999       | 1.007       | 1.002       | 0.999       | 0.999       |
| Eswatini                              | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Ethiopia                              | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Fiji                                  | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Finland                               | 0.925       | 0.905       | 0.917       | 0.937       | 0.947       | 0.955       | 0.958       | 0.966       | 0.966       | 0.968       | 0.968       |
| France                                | 0.965       | 0.955       | 0.964       | 0.968       | 0.972       | 0.974       | 0.965       | 0.971       | 0.974       | 0.972       | 0.972       |
| Gabon                                 | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Gambia                                | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Georgia                               | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Ghana                                 | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Greece                                | 1           | 1.053       | 1.035       | 1.056       | 1.052       | 1.049       | 1.046       | 1.042       | 1.043       | 1.039       | 1.039       |
| Grenada                               | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Guatemala                             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Guinea                                | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Guinea-Bissau                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Guyana                                | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Haiti                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Honduras                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Hungary                          | 0.977       | 0.987       | 0.948       | 0.992       | 0.992       | 0.991       | 0.992       | 1.003       | 0.985       | 0.981       | 0.981       |
| Iceland                          | 1.125       | 1.128       | 1.084       | 1.061       | 1.043       | 1.061       | 1.045       | 1.056       | 1.048       | 1.047       | 1.047       |
| Indonesia                        | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Iran (Islamic Republic of)       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Iraq                             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Ireland                          | 1.015       | 0.972       | 0.976       | 1.011       | 1.011       | 1.022       | 1.022       | 1.029       | 1.086       | 1.07        | 1.07        |
| Israel                           | 1.024       | 1.017       | 1.037       | 1.038       | 1.039       | 1.047       | 1.045       | 1.044       | 1.051       | 1.047       | 1.047       |
| Italy                            | 0.993       | 0.984       | 0.984       | 0.984       | 0.991       | 0.992       | 0.977       | 0.979       | 0.979       | 0.979       | 0.979       |
| Jamaica                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Jordan                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Kazakhstan                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Kenya                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Kiribati                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Kuwait                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Kyrgyzstan                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Lao People's Democratic Republic | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Latvia                           | 1.108       | 1.003       | 0.901       | 0.969       | 1.027       | 1.017       | 1.024       | 1.028       | 1.029       | 1.026       | 1.026       |
| Lebanon                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Lesotho                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Liberia                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Libya                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Liechtenstein                    | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Lithuania                        | 1.088       | 1.043       | 0.963       | 0.99        | 1.002       | 1.014       | 1.026       | 1.024       | 1.015       | 1.01        | 1.01        |
| Luxembourg                       | 0.977       | 0.996       | 1.006       | 0.994       | 0.98        | 0.984       | 0.97        | 0.971       | 0.972       | 0.971       | 0.971       |
| Madagascar                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Malawi                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Malaysia                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Maldives                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Mali                             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Malta                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Marshall Islands                 | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Mauritania                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Mauritius                        | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Mexico                           | 1.017       | 0.999       | 0.963       | 0.931       | 0.931       | 0.931       | 0.931       | 0.931       | 0.931       | 0.931       | 0.931       |
| Micronesia (Federated States of) | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Monaco                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Mongolia                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Montenegro                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Morocco                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Mozambique                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Myanmar                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Namibia                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Nauru                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Nepal                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Netherlands (Kingdom of the)     | 0.986       | 0.978       | 0.981       | 0.987       | 0.984       | 0.987       | 0.986       | 0.989       | 0.989       | 0.992       | 0.992       |
| New Zealand                      | 0.965       | 1.035       | 1.035       | 1.044       | 1.044       | 1.042       | 1.042       | 1.03        | 1.03        | 1.026       | 1.026       |
| Nicaragua                        | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Niger                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Nigeria                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| North Macedonia                  | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Norway                           | 0.998       | 1.028       | 1.017       | 1.021       | 1.013       | 1.01        | 1           | 0.998       | 0.998       | 0.995       | 0.995       |
| Oman                             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Pakistan                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Palau                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Panama                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Papua New Guinea                 | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Paraguay                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Peru                             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Philippines                      | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Poland                           | 1.077       | 1.07        | 1.033       | 1.047       | 1.075       | 1.08        | 1.067       | 1.067       | 1.064       | 1.062       | 1.062       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Portugal                         | 0.947       | 0.947       | 0.969       | 0.984       | 0.99        | 0.996       | 1           | 1.007       | 1.011       | 1.009       | 1.009       |
| Qatar                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Republic of Korea                | 1.027       | 0.997       | 0.996       | 1.016       | 1.022       | 1.019       | 1.016       | 1.017       | 1.02        | 1.018       | 1.018       |
| Republic of Moldova              | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Romania                          | 0.984       | 1.128       | 1.083       | 1.083       | 1.068       | 1.049       | 1.029       | 1.03        | 1.025       | 1.033       | 1.033       |
| Rwanda                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Saint Kitts and Nevis            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Saint Lucia                      | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Saint Vincent and the Grenadines | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Samoa                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| San Marino                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Sao Tome and Principe            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Saudi Arabia                     | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Senegal                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Serbia                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Seychelles                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Sierra Leone                     | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Singapore                        | 1.087       | 1.063       | 1.026       | 1.001       | 0.991       | 0.996       | 1.005       | 0.999       | 0.994       | 0.994       | 0.994       |
| Slovakia                         | 1.059       | 1.199       | 1.023       | 1.046       | 1.026       | 1.018       | 1.018       | 1.02        | 1.023       | 1.025       | 1.025       |
| Slovenia                         | 0.913       | 0.915       | 0.914       | 0.921       | 0.947       | 0.963       | 0.964       | 0.974       | 0.974       | 0.976       | 0.976       |
| Solomon Islands                  | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Somalia                          | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| South Africa                     | 1.048       | 1.028       | 1.017       | 1.011       | 0.985       | 0.965       | 0.955       | 0.964       | 0.966       | 0.966       | 0.966       |
| South Sudan                      | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Spain                            | 0.953       | 0.97        | 0.969       | 0.98        | 0.986       | 0.987       | 0.984       | 0.99        | 0.995       | 1           | 1           |
| Sri Lanka                        | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Sudan                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Suriname                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Sweden                           | 0.942       | 0.994       | 0.993       | 1.001       | 0.995       | 0.997       | 0.993       | 0.994       | 0.994       | 0.995       | 0.995       |
| Switzerland                      | 0.965       | 1.003       | 1.003       | 0.992       | 0.992       | 0.995       | 0.995       | 0.996       | 0.996       | 0.992       | 0.992       |
| Syrian Arab Republic             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Tajikistan                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Thailand                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Timor-Leste                        | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Togo                               | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Tonga                              | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Trinidad and Tobago                | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Tunisia                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Türkiye                            | 1.068       | 1.112       | 1.112       | 1.105       | 1.097       | 1.08        | 1.07        | 1.074       | 1.06        | 1.064       | 1.064       |
| Turkmenistan                       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Tuvalu                             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Uganda                             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Ukraine                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| United Arab Emirates               | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| United Republic of Tanzania        | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Uruguay                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Uzbekistan                         | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Vanuatu                            | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Venezuela (Bolivarian Republic of) | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Viet Nam                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Yemen                              | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Zambia                             | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |
| Zimbabwe                           | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       | 0.965       |

## Assessment of Open Policy Readiness ( $R_{OP}$ )

Table S2-3-1 Legal Environment  $S_{law}$  (2014-2024)

| <b>Year</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Finland     | 1.063       | 1.041       | 1.047       | 1.078       | 1.087       | 1.089       | 1.082       | 1.010       | 1.022       | 1.011       | 1.010       |

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Singapore                    | 1.025       | 1.015       | 1.016       | 1.045       | 1.051       | 1.058       | 1.060       | 1.011       | 0.996       | 0.995       | 0.993       |
| Denmark                      | 0.988       | 0.987       | 0.992       | 1.020       | 1.020       | 1.022       | 1.026       | 0.991       | 0.976       | 0.977       | 0.972       |
| Netherlands (Kingdom of the) | 1.013       | 0.988       | 1.003       | 1.037       | 1.041       | 1.034       | 1.035       | 0.995       | 0.972       | 0.982       | 0.972       |
| Luxembourg                   | 1.013       | 1.018       | 1.032       | 1.057       | 1.037       | 1.034       | 1.030       | 0.999       | 0.986       | 0.971       | 0.969       |
| Sweden                       | 1.038       | 0.999       | 1.012       | 1.076       | 1.050       | 1.035       | 1.023       | 0.977       | 0.950       | 0.971       | 0.966       |
| New Zealand                  | 1.038       | 1.026       | 1.033       | 1.079       | 1.079       | 1.064       | 1.053       | 1.010       | 0.991       | 0.974       | 0.965       |
| Australia                    | 0.975       | 0.964       | 0.991       | 1.031       | 1.041       | 1.045       | 1.045       | 0.988       | 0.952       | 0.961       | 0.961       |
| Norway                       | 1.038       | 1.028       | 1.032       | 1.067       | 1.056       | 1.035       | 1.031       | 0.995       | 0.975       | 0.972       | 0.961       |
| Germany                      | 0.975       | 0.951       | 0.965       | 0.995       | 0.989       | 0.981       | 0.968       | 0.930       | 0.934       | 0.969       | 0.960       |
| Switzerland                  | 1.025       | 1.006       | 1.020       | 1.070       | 1.077       | 1.071       | 1.066       | 1.019       | 0.993       | 0.952       | 0.952       |
| Japan                        | 0.975       | 0.997       | 1.012       | 1.041       | 1.029       | 1.040       | 1.045       | 0.987       | 0.960       | 0.948       | 0.949       |
| Austria                      | 0.975       | 0.944       | 0.949       | 1.002       | 1.001       | 1.011       | 1.018       | 0.991       | 0.958       | 0.954       | 0.945       |
| United States                | 0.963       | 0.951       | 0.967       | 1.009       | 1.016       | 1.025       | 1.006       | 0.999       | 0.946       | 0.941       | 0.937       |
| United Kingdom               | 0.975       | 0.961       | 0.969       | 1.016       | 1.018       | 1.006       | 0.960       | 0.940       | 0.912       | 0.936       | 0.932       |
| Canada                       | 1.000       | 0.991       | 1.002       | 1.022       | 1.037       | 1.033       | 1.006       | 0.969       | 0.934       | 0.928       | 0.926       |
| Ireland                      | 0.938       | 0.929       | 0.947       | 0.984       | 0.957       | 0.952       | 0.941       | 0.917       | 0.900       | 0.927       | 0.926       |
| Belgium                      | 0.938       | 0.921       | 0.932       | 0.980       | 0.960       | 0.959       | 0.963       | 0.925       | 0.910       | 0.918       | 0.912       |
| Iceland                      | 0.900       | 0.880       | 0.901       | 0.963       | 0.952       | 0.946       | 0.952       | 0.929       | 0.885       | 0.900       | 0.888       |
| France                       | 0.913       | 0.901       | 0.907       | 0.917       | 0.898       | 0.923       | 0.902       | 0.872       | 0.848       | 0.882       | 0.875       |
| Czechia                      | 0.813       | 0.784       | 0.817       | 0.858       | 0.873       | 0.879       | 0.876       | 0.841       | 0.800       | 0.822       | 0.818       |
| Spain                        | 0.788       | 0.716       | 0.731       | 0.803       | 0.815       | 0.807       | 0.825       | 0.820       | 0.781       | 0.813       | 0.800       |
| Uruguay                      | 0.763       | 0.739       | 0.763       | 0.802       | 0.774       | 0.791       | 0.775       | 0.778       | 0.761       | 0.793       | 0.796       |
| Qatar                        | 0.925       | 0.937       | 0.923       | 0.919       | 0.897       | 0.865       | 0.888       | 0.849       | 0.814       | 0.795       | 0.794       |
| Lithuania                    | 0.763       | 0.733       | 0.747       | 0.740       | 0.803       | 0.808       | 0.815       | 0.795       | 0.756       | 0.795       | 0.792       |
| Portugal                     | 0.850       | 0.820       | 0.825       | 0.856       | 0.867       | 0.872       | 0.867       | 0.848       | 0.777       | 0.798       | 0.789       |
| Israel                       | 0.813       | 0.780       | 0.801       | 0.872       | 0.891       | 0.898       | 0.890       | 0.866       | 0.829       | 0.799       | 0.789       |
| Malaysia                     | 0.813       | 0.825       | 0.844       | 0.826       | 0.811       | 0.828       | 0.840       | 0.837       | 0.788       | 0.772       | 0.774       |
| United Arab Emirates         | 0.906       | 0.913       | 0.911       | 0.935       | 0.947       | 0.919       | 0.937       | 0.892       | 0.849       | 0.770       | 0.770       |
| Latvia                       | 0.702       | 0.692       | 0.712       | 0.668       | 0.715       | 0.742       | 0.754       | 0.784       | 0.743       | 0.773       | 0.769       |
| Oman                         | 0.798       | 0.771       | 0.749       | 0.785       | 0.791       | 0.841       | 0.832       | 0.820       | 0.775       | 0.760       | 0.762       |
| Malta                        | 0.875       | 0.858       | 0.841       | 0.860       | 0.842       | 0.844       | 0.829       | 0.787       | 0.722       | 0.761       | 0.758       |

|                     | <b>Year</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Slovenia            |             | 0.699       | 0.648       | 0.693       | 0.749       | 0.761       | 0.763       | 0.769       | 0.790       | 0.750       | 0.753       | 0.758       |
| Italy               |             | 0.750       | 0.699       | 0.707       | 0.747       | 0.749       | 0.766       | 0.769       | 0.762       | 0.707       | 0.755       | 0.749       |
| Cyprus              |             | 0.800       | 0.756       | 0.765       | 0.681       | 0.780       | 0.801       | 0.794       | 0.793       | 0.730       | 0.747       | 0.744       |
| Chile               |             | 0.850       | 0.831       | 0.841       | 0.866       | 0.860       | 0.860       | 0.872       | 0.824       | 0.767       | 0.743       | 0.741       |
| Costa Rica          |             | 0.750       | 0.717       | 0.727       | 0.758       | 0.821       | 0.811       | 0.801       | 0.761       | 0.713       | 0.728       | 0.729       |
| Saudi Arabia        |             | 0.775       | 0.747       | 0.763       | 0.767       | 0.773       | 0.785       | 0.808       | 0.803       | 0.758       | 0.714       | 0.729       |
| Slovakia            |             | 0.775       | 0.734       | 0.752       | 0.800       | 0.784       | 0.798       | 0.796       | 0.758       | 0.710       | 0.735       | 0.729       |
| Romania             |             | 0.663       | 0.661       | 0.681       | 0.630       | 0.727       | 0.754       | 0.735       | 0.749       | 0.685       | 0.723       | 0.720       |
| Bahrain             |             | 0.770       | 0.727       | 0.746       | 0.770       | 0.772       | 0.774       | 0.799       | 0.790       | 0.745       | 0.715       | 0.715       |
| Mauritius           |             | 0.788       | 0.766       | 0.768       | 0.789       | 0.781       | 0.787       | 0.795       | 0.777       | 0.726       | 0.719       | 0.713       |
| Botswana            |             | 0.788       | 0.741       | 0.742       | 0.766       | 0.750       | 0.745       | 0.742       | 0.719       | 0.661       | 0.696       | 0.695       |
| Brunei Darussalam   |             | 0.679       | 0.646       | 0.612       | 0.579       | 0.596       | 0.595       | 0.599       | 0.609       | 0.689       | 0.691       | 0.692       |
| Jordan              |             | 0.750       | 0.731       | 0.733       | 0.783       | 0.774       | 0.773       | 0.786       | 0.772       | 0.715       | 0.679       | 0.682       |
| Poland              |             | 0.763       | 0.738       | 0.743       | 0.782       | 0.762       | 0.750       | 0.708       | 0.686       | 0.677       | 0.682       | 0.678       |
| Rwanda              |             | 0.756       | 0.737       | 0.774       | 0.814       | 0.820       | 0.783       | 0.780       | 0.743       | 0.677       | 0.674       | 0.666       |
| Hungary             |             | 0.763       | 0.728       | 0.708       | 0.749       | 0.762       | 0.777       | 0.782       | 0.753       | 0.677       | 0.678       | 0.663       |
| Jamaica             |             | 0.688       | 0.669       | 0.697       | 0.751       | 0.749       | 0.750       | 0.742       | 0.717       | 0.647       | 0.656       | 0.662       |
| China               |             | 0.688       | 0.674       | 0.676       | 0.714       | 0.738       | 0.754       | 0.756       | 0.761       | 0.699       | 0.667       | 0.661       |
| Morocco             |             | 0.650       | 0.644       | 0.661       | 0.688       | 0.706       | 0.720       | 0.741       | 0.731       | 0.668       | 0.654       | 0.654       |
| Armenia             |             | 0.554       | 0.533       | 0.525       | 0.516       | 0.589       | 0.602       | 0.629       | 0.675       | 0.623       | 0.656       | 0.652       |
| Croatia             |             | 0.630       | 0.609       | 0.617       | 0.594       | 0.646       | 0.645       | 0.654       | 0.678       | 0.615       | 0.649       | 0.650       |
| Kuwait              |             | 0.688       | 0.650       | 0.645       | 0.673       | 0.686       | 0.696       | 0.710       | 0.727       | 0.679       | 0.654       | 0.644       |
| Bulgaria            |             | 0.663       | 0.617       | 0.627       | 0.602       | 0.675       | 0.696       | 0.715       | 0.698       | 0.622       | 0.642       | 0.642       |
| Greece              |             | 0.663       | 0.660       | 0.670       | 0.674       | 0.658       | 0.651       | 0.654       | 0.665       | 0.602       | 0.647       | 0.639       |
| India               |             | 0.688       | 0.644       | 0.653       | 0.696       | 0.705       | 0.728       | 0.714       | 0.693       | 0.643       | 0.634       | 0.636       |
| South Africa        |             | 0.838       | 0.823       | 0.823       | 0.875       | 0.794       | 0.759       | 0.777       | 0.746       | 0.692       | 0.649       | 0.635       |
| Panama              |             | 0.700       | 0.658       | 0.673       | 0.725       | 0.729       | 0.711       | 0.704       | 0.664       | 0.596       | 0.637       | 0.629       |
| Azerbaijan          |             | 0.537       | 0.511       | 0.510       | 0.493       | 0.630       | 0.640       | 0.669       | 0.686       | 0.630       | 0.637       | 0.626       |
| Indonesia           |             | 0.625       | 0.613       | 0.627       | 0.646       | 0.667       | 0.676       | 0.668       | 0.659       | 0.600       | 0.625       | 0.625       |
| Trinidad and Tobago |             | 0.682       | 0.652       | 0.651       | 0.688       | 0.714       | 0.727       | 0.707       | 0.669       | 0.623       | 0.622       | 0.621       |
| Ghana               |             | 0.725       | 0.702       | 0.682       | 0.706       | 0.704       | 0.719       | 0.702       | 0.680       | 0.625       | 0.618       | 0.618       |

| <b>Year</b>                 | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Georgia                     | 0.528       | 0.531       | 0.575       | 0.588       | 0.643       | 0.656       | 0.655       | 0.666       | 0.584       | 0.615       | 0.616       |
| Montenegro                  | 0.615       | 0.592       | 0.569       | 0.524       | 0.581       | 0.602       | 0.619       | 0.665       | 0.631       | 0.647       | 0.608       |
| Thailand                    | 0.663       | 0.615       | 0.630       | 0.652       | 0.665       | 0.682       | 0.684       | 0.680       | 0.592       | 0.597       | 0.601       |
| Senegal                     | 0.588       | 0.571       | 0.601       | 0.618       | 0.626       | 0.642       | 0.633       | 0.622       | 0.561       | 0.592       | 0.589       |
| Dominican Republic          | 0.613       | 0.545       | 0.568       | 0.603       | 0.605       | 0.612       | 0.629       | 0.626       | 0.549       | 0.578       | 0.588       |
| Sri Lanka                   | 0.625       | 0.595       | 0.624       | 0.674       | 0.655       | 0.645       | 0.645       | 0.649       | 0.587       | 0.605       | 0.588       |
| Republic of Moldova         | 0.482       | 0.452       | 0.465       | 0.397       | 0.500       | 0.528       | 0.541       | 0.602       | 0.524       | 0.590       | 0.586       |
| Tunisia                     | 0.620       | 0.581       | 0.606       | 0.635       | 0.637       | 0.643       | 0.637       | 0.637       | 0.578       | 0.588       | 0.582       |
| Kenya                       | 0.575       | 0.567       | 0.576       | 0.607       | 0.623       | 0.643       | 0.625       | 0.623       | 0.551       | 0.577       | 0.581       |
| Kazakhstan                  | 0.562       | 0.561       | 0.595       | 0.554       | 0.604       | 0.607       | 0.626       | 0.659       | 0.579       | 0.580       | 0.581       |
| Serbia                      | 0.520       | 0.489       | 0.503       | 0.506       | 0.576       | 0.598       | 0.603       | 0.644       | 0.572       | 0.584       | 0.579       |
| Mexico                      | 0.650       | 0.594       | 0.599       | 0.649       | 0.647       | 0.654       | 0.658       | 0.658       | 0.578       | 0.578       | 0.574       |
| North Macedonia             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.588       | 0.601       | 0.598       | 0.539       | 0.575       | 0.572       |
| Colombia                    | 0.625       | 0.594       | 0.615       | 0.669       | 0.690       | 0.695       | 0.695       | 0.651       | 0.580       | 0.570       | 0.571       |
| Brazil                      | 0.688       | 0.637       | 0.643       | 0.679       | 0.718       | 0.696       | 0.685       | 0.652       | 0.578       | 0.558       | 0.568       |
| United Republic of Tanzania | 0.638       | 0.577       | 0.572       | 0.631       | 0.647       | 0.649       | 0.658       | 0.639       | 0.573       | 0.564       | 0.568       |
| Albania                     | 0.495       | 0.464       | 0.501       | 0.478       | 0.566       | 0.568       | 0.537       | 0.587       | 0.515       | 0.562       | 0.564       |
| Malawi                      | 0.638       | 0.566       | 0.576       | 0.584       | 0.583       | 0.598       | 0.595       | 0.589       | 0.542       | 0.574       | 0.564       |
| Philippines                 | 0.628       | 0.632       | 0.644       | 0.666       | 0.652       | 0.664       | 0.665       | 0.627       | 0.562       | 0.550       | 0.553       |
| Viet Nam                    | 0.600       | 0.561       | 0.582       | 0.616       | 0.634       | 0.636       | 0.642       | 0.624       | 0.562       | 0.552       | 0.551       |
| Paraguay                    | 0.513       | 0.467       | 0.507       | 0.560       | 0.565       | 0.571       | 0.568       | 0.562       | 0.504       | 0.549       | 0.544       |
| Egypt                       | 0.575       | 0.517       | 0.543       | 0.554       | 0.633       | 0.660       | 0.688       | 0.672       | 0.590       | 0.544       | 0.541       |
| Peru                        | 0.625       | 0.575       | 0.600       | 0.652       | 0.654       | 0.642       | 0.632       | 0.616       | 0.532       | 0.546       | 0.540       |
| Zambia                      | 0.638       | 0.592       | 0.599       | 0.615       | 0.592       | 0.574       | 0.563       | 0.557       | 0.491       | 0.540       | 0.540       |
| El Salvador                 | 0.613       | 0.602       | 0.598       | 0.618       | 0.597       | 0.588       | 0.591       | 0.582       | 0.521       | 0.539       | 0.534       |
| Uganda                      | 0.588       | 0.542       | 0.579       | 0.638       | 0.607       | 0.632       | 0.608       | 0.591       | 0.523       | 0.534       | 0.533       |
| Türkiye                     | 0.700       | 0.658       | 0.649       | 0.616       | 0.660       | 0.658       | 0.676       | 0.669       | 0.570       | 0.530       | 0.532       |
| Benin                       | 0.600       | 0.582       | 0.564       | 0.573       | 0.564       | 0.566       | 0.581       | 0.574       | 0.541       | 0.535       | 0.532       |
| Argentina                   | 0.550       | 0.500       | 0.515       | 0.571       | 0.628       | 0.636       | 0.639       | 0.588       | 0.537       | 0.525       | 0.523       |
| Nepal                       | 0.563       | 0.521       | 0.558       | 0.618       | 0.618       | 0.605       | 0.614       | 0.591       | 0.530       | 0.523       | 0.519       |
| Bosnia and Herzegovina      | 0.538       | 0.527       | 0.515       | 0.490       | 0.552       | 0.552       | 0.541       | 0.573       | 0.503       | 0.522       | 0.518       |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Algeria                            | 0.513       | 0.510       | 0.514       | 0.520       | 0.518       | 0.554       | 0.549       | 0.576       | 0.526       | 0.513       | 0.518       |
| Ecuador                            | 0.625       | 0.610       | 0.594       | 0.578       | 0.589       | 0.600       | 0.625       | 0.589       | 0.514       | 0.527       | 0.518       |
| Guatemala                          | 0.600       | 0.558       | 0.578       | 0.635       | 0.626       | 0.627       | 0.621       | 0.589       | 0.503       | 0.509       | 0.514       |
| Burkina Faso                       | 0.588       | 0.518       | 0.556       | 0.594       | 0.631       | 0.669       | 0.655       | 0.576       | 0.519       | 0.524       | 0.511       |
| Honduras                           | 0.563       | 0.546       | 0.589       | 0.613       | 0.590       | 0.604       | 0.608       | 0.592       | 0.499       | 0.494       | 0.500       |
| Ukraine                            | 0.538       | 0.491       | 0.492       | 0.428       | 0.535       | 0.554       | 0.558       | 0.557       | 0.498       | 0.501       | 0.478       |
| Russia                             | 0.600       | 0.569       | 0.572       | 0.505       | 0.611       | 0.624       | 0.625       | 0.632       | 0.558       | 0.492       | 0.475       |
| Gabon                              | 0.602       | 0.554       | 0.583       | 0.587       | 0.591       | 0.596       | 0.601       | 0.525       | 0.468       | 0.477       | 0.470       |
| Mozambique                         | 0.600       | 0.527       | 0.539       | 0.578       | 0.561       | 0.548       | 0.543       | 0.541       | 0.465       | 0.472       | 0.469       |
| Pakistan                           | 0.538       | 0.445       | 0.461       | 0.434       | 0.455       | 0.484       | 0.518       | 0.526       | 0.477       | 0.478       | 0.468       |
| Burundi                            | 0.450       | 0.415       | 0.430       | 0.429       | 0.472       | 0.475       | 0.551       | 0.540       | 0.482       | 0.462       | 0.467       |
| Bangladesh                         | 0.425       | 0.321       | 0.347       | 0.390       | 0.421       | 0.414       | 0.412       | 0.424       | 0.447       | 0.466       | 0.457       |
| Cameroon                           | 0.538       | 0.488       | 0.506       | 0.537       | 0.540       | 0.538       | 0.526       | 0.499       | 0.440       | 0.454       | 0.455       |
| Lebanon                            | 0.479       | 0.434       | 0.479       | 0.541       | 0.543       | 0.548       | 0.544       | 0.530       | 0.466       | 0.451       | 0.454       |
| Nicaragua                          | 0.575       | 0.507       | 0.498       | 0.499       | 0.533       | 0.542       | 0.517       | 0.504       | 0.433       | 0.455       | 0.452       |
| Madagascar                         | 0.550       | 0.478       | 0.481       | 0.508       | 0.505       | 0.500       | 0.495       | 0.496       | 0.450       | 0.456       | 0.450       |
| Iran (Islamic Republic of)         | 0.517       | 0.496       | 0.530       | 0.565       | 0.594       | 0.572       | 0.531       | 0.518       | 0.455       | 0.451       | 0.445       |
| Mali                               | 0.563       | 0.530       | 0.572       | 0.602       | 0.590       | 0.571       | 0.567       | 0.521       | 0.452       | 0.455       | 0.442       |
| Nigeria                            | 0.463       | 0.422       | 0.445       | 0.494       | 0.490       | 0.473       | 0.465       | 0.457       | 0.414       | 0.421       | 0.440       |
| Zimbabwe                           | 0.475       | 0.405       | 0.425       | 0.470       | 0.481       | 0.467       | 0.495       | 0.479       | 0.389       | 0.426       | 0.430       |
| Bolivia (Plurinational State of)   | 0.563       | 0.531       | 0.515       | 0.496       | 0.494       | 0.491       | 0.506       | 0.464       | 0.411       | 0.424       | 0.421       |
| Mauritania                         | 0.563       | 0.471       | 0.466       | 0.511       | 0.521       | 0.522       | 0.519       | 0.484       | 0.403       | 0.404       | 0.405       |
| Angola                             | 0.354       | 0.331       | 0.346       | 0.360       | 0.375       | 0.389       | 0.420       | 0.392       | 0.392       | 0.406       | 0.403       |
| Ethiopia                           | 0.550       | 0.501       | 0.526       | 0.590       | 0.553       | 0.549       | 0.507       | 0.514       | 0.433       | 0.406       | 0.397       |
| Chad                               | 0.488       | 0.445       | 0.467       | 0.486       | 0.471       | 0.486       | 0.499       | 0.468       | 0.384       | 0.386       | 0.378       |
| Democratic Republic of the Congo   | 0.000       | 0.000       | 0.000       | 0.000       | 0.468       | 0.443       | 0.437       | 0.433       | 0.361       | 0.384       | 0.374       |
| Haiti                              | 0.379       | 0.334       | 0.355       | 0.349       | 0.342       | 0.338       | 0.332       | 0.331       | 0.354       | 0.342       | 0.321       |
| Yemen                              | 0.357       | 0.348       | 0.345       | 0.341       | 0.349       | 0.334       | 0.338       | 0.373       | 0.281       | 0.299       | 0.298       |
| Venezuela (Bolivarian Republic of) | 0.400       | 0.337       | 0.341       | 0.382       | 0.372       | 0.362       | 0.356       | 0.334       | 0.221       | 0.234       | 0.241       |
| Afghanistan                        | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Andorra                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Antigua and Barbuda                   | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Barbados                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Belarus                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Belize                                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Bhutan                                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Cabo Verde                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Cambodia                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Central African Republic              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Comoros                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Congo                                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Cuba                                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Côte d'Ivoire                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Democratic People's Republic of Korea | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Djibouti                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Dominica                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Equatorial Guinea                     | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Eritrea                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Estonia                               | 0.833       | 0.828       | 0.850       | 0.900       | 0.898       | 0.897       | 0.897       | 0.868       | 0.841       | 0.000       | 0.000       |
| Eswatini                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Fiji                                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Gambia                                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Grenada                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Guinea                                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Guinea-Bissau                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Guyana                                | 0.588       | 0.561       | 0.535       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Iraq                                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Kiribati                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Kyrgyzstan                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Lao People's Democratic Republic      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Lesotho                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Liberia                               | 0.643       | 0.624       | 0.604       | 0.612       | 0.577       | 0.582       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Libya                            | 0.383       | 0.341       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Liechtenstein                    | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Maldives                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Marshall Islands                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Micronesia (Federated States of) | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Monaco                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mongolia                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Myanmar                          | 0.281       | 0.317       | 0.345       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Namibia                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Nauru                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Niger                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Palau                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Papua New Guinea                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Republic of Korea                | 0.627       | 0.741       | 0.765       | 0.812       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Saint Kitts and Nevis            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Saint Lucia                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Saint Vincent and the Grenadines | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Samoa                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| San Marino                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sao Tome and Principe            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Seychelles                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sierra Leone                     | 0.571       | 0.542       | 0.528       | 0.565       | 0.580       | 0.608       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Solomon Islands                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Somalia                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| South Sudan                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sudan                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Suriname                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Syrian Arab Republic             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Tajikistan                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| The Bahamas                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Timor-Leste                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

| Year         | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|--------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Togo         | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Tonga        | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Turkmenistan | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Tuvalu       | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Uzbekistan   | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Vanuatu      | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

Table S2-3-2 Infrastructure  $S_{Platform}$  (2014-2024)

| Year                         | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| United States                | 1.25  | 1.25  | 1.25  | 1.25  | 1.25  | 1.25  | 1.25  | 1.25  | 1.25  | 1.25  | 1.25  |
| Germany                      | 1.063 | 1.067 | 1.071 | 1.08  | 1.087 | 1.094 | 1.096 | 1.099 | 1.103 | 1.107 | 1.11  |
| United Kingdom               | 0.992 | 1.004 | 1.005 | 1.006 | 1.005 | 1.007 | 1.007 | 1.008 | 1.007 | 1.007 | 1.007 |
| Canada                       | 0.918 | 0.92  | 0.934 | 0.938 | 0.942 | 0.945 | 0.95  | 0.95  | 0.952 | 0.953 | 0.954 |
| France                       | 0.843 | 0.847 | 0.845 | 0.847 | 0.853 | 0.86  | 0.859 | 0.862 | 0.864 | 0.867 | 0.868 |
| Australia                    | 0.763 | 0.777 | 0.776 | 0.777 | 0.778 | 0.78  | 0.781 | 0.786 | 0.785 | 0.785 | 0.79  |
| Switzerland                  | 0.733 | 0.734 | 0.75  | 0.758 | 0.756 | 0.768 | 0.766 | 0.777 | 0.777 | 0.776 | 0.776 |
| Netherlands (Kingdom of the) | 0.702 | 0.709 | 0.71  | 0.721 | 0.731 | 0.738 | 0.735 | 0.745 | 0.748 | 0.764 | 0.764 |
| China                        | 0.692 | 0.709 | 0.715 | 0.725 | 0.727 | 0.738 | 0.739 | 0.742 | 0.748 | 0.748 | 0.751 |
| Japan                        | 0.737 | 0.746 | 0.746 | 0.744 | 0.746 | 0.745 | 0.746 | 0.745 | 0.745 | 0.744 | 0.744 |
| Italy                        | 0.605 | 0.618 | 0.615 | 0.621 | 0.632 | 0.644 | 0.654 | 0.669 | 0.684 | 0.698 | 0.702 |
| India                        | 0.654 | 0.657 | 0.687 | 0.695 | 0.693 | 0.697 | 0.694 | 0.694 | 0.694 | 0.693 | 0.693 |
| Spain                        | 0.605 | 0.625 | 0.642 | 0.647 | 0.651 | 0.65  | 0.654 | 0.659 | 0.659 | 0.658 | 0.658 |
| Austria                      | 0.57  | 0.586 | 0.608 | 0.606 | 0.604 | 0.611 | 0.616 | 0.629 | 0.635 | 0.641 | 0.647 |
| Belgium                      | 0.597 | 0.603 | 0.6   | 0.598 | 0.597 | 0.596 | 0.594 | 0.601 | 0.608 | 0.608 | 0.615 |
| Poland                       | 0.341 | 0.369 | 0.393 | 0.392 | 0.39  | 0.412 | 0.493 | 0.506 | 0.529 | 0.577 | 0.585 |
| Denmark                      | 0.55  | 0.558 | 0.566 | 0.564 | 0.563 | 0.571 | 0.569 | 0.569 | 0.569 | 0.568 | 0.568 |
| Norway                       | 0.528 | 0.537 | 0.535 | 0.544 | 0.543 | 0.552 | 0.56  | 0.56  | 0.559 | 0.559 | 0.559 |
| Russia                       | 0.57  | 0.568 | 0.566 | 0.564 | 0.563 | 0.562 | 0.56  | 0.56  | 0.559 | 0.559 | 0.559 |
| Sweden                       | 0.539 | 0.537 | 0.535 | 0.533 | 0.532 | 0.542 | 0.551 | 0.55  | 0.55  | 0.549 | 0.549 |
| Brazil                       | 0.209 | 0.305 | 0.338 | 0.392 | 0.413 | 0.412 | 0.48  | 0.493 | 0.506 | 0.517 | 0.517 |

| <b>Year</b>       | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Mexico            | 0.438       | 0.437       | 0.453       | 0.452       | 0.467       | 0.481       | 0.48        | 0.479       | 0.479       | 0.479       | 0.492       |
| Finland           | 0.418       | 0.417       | 0.415       | 0.414       | 0.413       | 0.432       | 0.448       | 0.448       | 0.464       | 0.464       | 0.478       |
| Republic of Korea | 0.37        | 0.369       | 0.367       | 0.366       | 0.413       | 0.432       | 0.448       | 0.448       | 0.448       | 0.447       | 0.447       |
| Serbia            | 0           | 0.131       | 0.131       | 0.207       | 0.302       | 0.336       | 0.411       | 0.448       | 0.448       | 0.447       | 0.447       |
| South Africa      | 0.37        | 0.369       | 0.367       | 0.392       | 0.39        | 0.432       | 0.448       | 0.448       | 0.448       | 0.447       | 0.447       |
| Czechia           | 0.396       | 0.394       | 0.393       | 0.414       | 0.432       | 0.432       | 0.431       | 0.43        | 0.43        | 0.43        | 0.43        |
| Greece            | 0.438       | 0.437       | 0.435       | 0.434       | 0.432       | 0.432       | 0.431       | 0.43        | 0.43        | 0.43        | 0.43        |
| Estonia           | 0.341       | 0.34        | 0.338       | 0.366       | 0.365       | 0.365       | 0.364       | 0.364       | 0.388       | 0.388       | 0.388       |
| Ireland           | 0.37        | 0.394       | 0.393       | 0.392       | 0.39        | 0.39        | 0.389       | 0.388       | 0.388       | 0.388       | 0.388       |
| Israel            | 0.396       | 0.394       | 0.393       | 0.392       | 0.39        | 0.39        | 0.389       | 0.388       | 0.388       | 0.388       | 0.388       |
| Argentina         | 0.132       | 0.131       | 0.207       | 0.207       | 0.206       | 0.206       | 0.205       | 0.205       | 0.259       | 0.3         | 0.334       |
| Colombia          | 0.209       | 0.208       | 0.207       | 0.207       | 0.206       | 0.26        | 0.259       | 0.259       | 0.259       | 0.3         | 0.334       |
| Hungary           | 0.306       | 0.305       | 0.304       | 0.303       | 0.302       | 0.302       | 0.301       | 0.335       | 0.335       | 0.334       | 0.334       |
| Lithuania         | 0.264       | 0.34        | 0.338       | 0.337       | 0.336       | 0.336       | 0.335       | 0.335       | 0.335       | 0.334       | 0.334       |
| New Zealand       | 0.306       | 0.34        | 0.338       | 0.337       | 0.336       | 0.336       | 0.335       | 0.335       | 0.335       | 0.334       | 0.334       |
| Portugal          | 0.264       | 0.263       | 0.262       | 0.261       | 0.26        | 0.302       | 0.301       | 0.301       | 0.335       | 0.334       | 0.334       |
| Kenya             | 0.306       | 0.305       | 0.304       | 0.303       | 0.302       | 0.302       | 0.301       | 0.301       | 0.301       | 0.3         | 0.3         |
| Singapore         | 0.264       | 0.263       | 0.262       | 0.303       | 0.302       | 0.302       | 0.301       | 0.301       | 0.301       | 0.3         | 0.3         |
| Burkina Faso      | 0.264       | 0.263       | 0.262       | 0.261       | 0.26        | 0.26        | 0.259       | 0.259       | 0.259       | 0.259       | 0.259       |
| Indonesia         | 0.264       | 0.263       | 0.262       | 0.261       | 0.26        | 0.26        | 0.259       | 0.259       | 0.259       | 0.259       | 0.259       |
| Slovakia          | 0.209       | 0.263       | 0.262       | 0.261       | 0.26        | 0.26        | 0.259       | 0.259       | 0.259       | 0.259       | 0.259       |
| Slovenia          | 0.264       | 0.263       | 0.262       | 0.261       | 0.26        | 0.26        | 0.259       | 0.259       | 0.259       | 0.259       | 0.259       |
| Benin             | 0.209       | 0.208       | 0.207       | 0.207       | 0.206       | 0.206       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       |
| Chile             | 0           | 0.131       | 0.131       | 0.131       | 0.13        | 0.206       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       |
| Croatia           | 0.132       | 0.208       | 0.207       | 0.207       | 0.206       | 0.206       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       |
| Cyprus            | 0.209       | 0.208       | 0.207       | 0.207       | 0.206       | 0.206       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       |
| Ghana             | 0.209       | 0.208       | 0.207       | 0.207       | 0.206       | 0.206       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       |
| Iceland           | 0.132       | 0.131       | 0.131       | 0.131       | 0.206       | 0.206       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       |
| Thailand          | 0.132       | 0.131       | 0.131       | 0.131       | 0.13        | 0.13        | 0.13        | 0.129       | 0.205       | 0.205       | 0.205       |
| Türkiye           | 0.132       | 0.131       | 0.131       | 0.131       | 0.13        | 0.13        | 0.13        | 0.205       | 0.205       | 0.205       | 0.205       |
| Ukraine           | 0.209       | 0.208       | 0.207       | 0.207       | 0.206       | 0.206       | 0.205       | 0.205       | 0.205       | 0.205       | 0.205       |

| Year                             | 2014  | 2015  | 2016  | 2017  | 2018 | 2019 | 2020 | 2021  | 2022  | 2023  | 2024  |
|----------------------------------|-------|-------|-------|-------|------|------|------|-------|-------|-------|-------|
| Azerbaijan                       | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Cameroon                         | 0     | 0     | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Costa Rica                       | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0.129 |
| Côte d'Ivoire                    | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Ecuador                          | 0     | 0     | 0     | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Egypt                            | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| El Salvador                      | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0.129 |
| Fiji                             | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Lao People's Democratic Republic | 0     | 0     | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Latvia                           | 0     | 0     | 0     | 0     | 0    | 0    | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Malawi                           | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Malaysia                         | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0.129 | 0.129 |
| Niger                            | 0     | 0     | 0     | 0     | 0    | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Pakistan                         | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Panama                           | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Peru                             | 0     | 0     | 0     | 0     | 0    | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Philippines                      | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Romania                          | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0.129 | 0.129 | 0.129 | 0.129 |
| Saudi Arabia                     | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Senegal                          | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Tunisia                          | 0.132 | 0.131 | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Uruguay                          | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0.129 |
| Viet Nam                         | 0     | 0     | 0.131 | 0.131 | 0.13 | 0.13 | 0.13 | 0.129 | 0.129 | 0.129 | 0.129 |
| Afghanistan                      | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| Albania                          | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| Algeria                          | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| Andorra                          | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| Angola                           | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| Antigua and Barbuda              | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| Armenia                          | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0     |
| Bahrain                          | 0     | 0     | 0     | 0     | 0    | 0    | 0    | 0     | 0     | 0     | 0     |

| Year                                  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Bangladesh                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Barbados                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Belarus                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Belize                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bhutan                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bolivia (Plurinational State of)      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bosnia and Herzegovina                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Botswana                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Brunei Darussalam                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bulgaria                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Burundi                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cabo Verde                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cambodia                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Central African Republic              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Chad                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Comoros                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Congo                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cuba                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic People's Republic of Korea | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic Republic of the Congo      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Djibouti                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominica                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominican Republic                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Equatorial Guinea                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Eritrea                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Eswatini                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ethiopia                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Gabon                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Gambia                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Georgia                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grenada                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Guatemala                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guinea                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guinea-Bissau                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guyana                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Haiti                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Honduras                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Iran (Islamic Republic of)       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Iraq                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Jamaica                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Jordan                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kazakhstan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kiribati                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kuwait                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kyrgyzstan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lebanon                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lesotho                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liberia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Libya                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liechtenstein                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Luxembourg                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Madagascar                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Maldives                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mali                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Malta                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Marshall Islands                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritania                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritius                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Micronesia (Federated States of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Monaco                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mongolia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Montenegro                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Morocco                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mozambique                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Myanmar                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Namibia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nauru                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nepal                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nicaragua                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nigeria                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| North Macedonia                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Oman                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Palau                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Papua New Guinea                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Paraguay                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Qatar                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Republic of Moldova              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Rwanda                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Kitts and Nevis            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Lucia                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Vincent and the Grenadines | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Samoa                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| San Marino                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sao Tome and Principe            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Seychelles                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sierra Leone                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Solomon Islands                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Somalia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| South Sudan                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sri Lanka                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sudan                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Suriname                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Syrian Arab Republic             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Tajikistan                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| The Bahamas                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Timor-Leste                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Togo                               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Tonga                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Trinidad and Tobago                | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Turkmenistan                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Tuvalu                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Uganda                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| United Arab Emirates               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| United Republic of Tanzania        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Uzbekistan                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Vanuatu                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Venezuela (Bolivarian Republic of) | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Yemen                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Zambia                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Zimbabwe                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |

Table S2-3-3 Dissemination Channels S<sub>Journal</sub> (2014-2024)

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United States                | 710         | 727         | 749         | 763         | 777         | 782         | 799         | 804         | 806         | 810         | 812         |
| Germany                      | 265         | 276         | 290         | 308         | 325         | 339         | 350         | 357         | 366         | 376         | 382         |
| United Kingdom               | 182         | 198         | 204         | 208         | 210         | 213         | 217         | 219         | 219         | 219         | 220         |
| Canada                       | 123         | 127         | 140         | 145         | 150         | 153         | 160         | 161         | 163         | 164         | 165         |
| France                       | 83          | 86          | 87          | 89          | 93          | 97          | 98          | 100         | 101         | 103         | 104         |
| Australia                    | 54          | 59          | 60          | 61          | 62          | 63          | 64          | 66          | 66          | 66          | 68          |
| Switzerland                  | 46          | 47          | 52          | 55          | 55          | 59          | 59          | 63          | 63          | 63          | 63          |
| Netherlands (Kingdom of the) | 39          | 41          | 42          | 45          | 48          | 50          | 50          | 53          | 54          | 59          | 59          |
| China                        | 37          | 41          | 43          | 46          | 47          | 50          | 51          | 52          | 54          | 54          | 55          |
| Japan                        | 47          | 50          | 51          | 51          | 52          | 52          | 53          | 53          | 53          | 53          | 53          |

| <b>Year</b>       | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Italy             | 23          | 25          | 25          | 26          | 28          | 30          | 32          | 35          | 38          | 41          | 42          |
| India             | 30          | 31          | 37          | 39          | 39          | 40          | 40          | 40          | 40          | 40          | 40          |
| Spain             | 23          | 26          | 29          | 30          | 31          | 31          | 32          | 33          | 33          | 33          | 33          |
| Austria           | 19          | 21          | 24          | 24          | 24          | 25          | 26          | 28          | 29          | 30          | 31          |
| Belgium           | 22          | 23          | 23          | 23          | 23          | 23          | 23          | 24          | 25          | 25          | 26          |
| Poland            | 5           | 6           | 7           | 7           | 7           | 8           | 13          | 14          | 16          | 21          | 22          |
| Denmark           | 17          | 18          | 19          | 19          | 19          | 20          | 20          | 20          | 20          | 20          | 20          |
| Norway            | 15          | 16          | 16          | 17          | 17          | 18          | 19          | 19          | 19          | 19          | 19          |
| Russia            | 19          | 19          | 19          | 19          | 19          | 19          | 19          | 19          | 19          | 19          | 19          |
| Sweden            | 16          | 16          | 16          | 16          | 16          | 17          | 18          | 18          | 18          | 18          | 18          |
| Brazil            | 2           | 4           | 5           | 7           | 8           | 8           | 12          | 13          | 14          | 15          | 15          |
| Mexico            | 9           | 9           | 10          | 10          | 11          | 12          | 12          | 12          | 12          | 12          | 13          |
| Finland           | 8           | 8           | 8           | 8           | 8           | 9           | 10          | 10          | 11          | 11          | 12          |
| Republic of Korea | 6           | 6           | 6           | 6           | 8           | 9           | 10          | 10          | 10          | 10          | 10          |
| Serbia            | 0           | 1           | 1           | 2           | 4           | 5           | 8           | 10          | 10          | 10          | 10          |
| South Africa      | 6           | 6           | 6           | 7           | 7           | 9           | 10          | 10          | 10          | 10          | 10          |
| Czechia           | 7           | 7           | 7           | 8           | 9           | 9           | 9           | 9           | 9           | 9           | 9           |
| Greece            | 9           | 9           | 9           | 9           | 9           | 9           | 9           | 9           | 9           | 9           | 9           |
| Estonia           | 5           | 5           | 5           | 6           | 6           | 6           | 6           | 6           | 7           | 7           | 7           |
| Ireland           | 6           | 7           | 7           | 7           | 7           | 7           | 7           | 7           | 7           | 7           | 7           |
| Israel            | 7           | 7           | 7           | 7           | 7           | 7           | 7           | 7           | 7           | 7           | 7           |
| Argentina         | 1           | 1           | 2           | 2           | 2           | 2           | 2           | 2           | 3           | 4           | 5           |
| Colombia          | 2           | 2           | 2           | 2           | 2           | 3           | 3           | 3           | 3           | 4           | 5           |
| Hungary           | 4           | 4           | 4           | 4           | 4           | 4           | 4           | 5           | 5           | 5           | 5           |
| Lithuania         | 3           | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5           |
| New Zealand       | 4           | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5           |
| Portugal          | 3           | 3           | 3           | 3           | 3           | 4           | 4           | 4           | 5           | 5           | 5           |
| Kenya             | 4           | 4           | 4           | 4           | 4           | 4           | 4           | 4           | 4           | 4           | 4           |
| Singapore         | 3           | 3           | 3           | 4           | 4           | 4           | 4           | 4           | 4           | 4           | 4           |
| Burkina Faso      | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           |
| Indonesia         | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Slovakia                         | 2    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Slovenia                         | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Benin                            | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Chile                            | 0    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    |
| Croatia                          | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cyprus                           | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Ghana                            | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Iceland                          | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Thailand                         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    |
| Türkiye                          | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    |
| Ukraine                          | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Azerbaijan                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Cameroon                         | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Costa Rica                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |
| Côte d'Ivoire                    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Ecuador                          | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Egypt                            | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| El Salvador                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |
| Fiji                             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Lao People's Democratic Republic | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Latvia                           | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    |
| Malawi                           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Malaysia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    |
| Niger                            | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    |
| Pakistan                         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Panama                           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Peru                             | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    |
| Philippines                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Romania                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    |
| Saudi Arabia                     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Senegal                          | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |

| Year                                  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Tunisia                               | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Uruguay                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |
| Viet Nam                              | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Afghanistan                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Albania                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Algeria                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Andorra                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Angola                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Antigua and Barbuda                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Armenia                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bahrain                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bangladesh                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Barbados                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Belarus                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Belize                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bhutan                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bolivia (Plurinational State of)      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bosnia and Herzegovina                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Botswana                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Brunei Darussalam                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bulgaria                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Burundi                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cabo Verde                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cambodia                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Central African Republic              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Chad                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Comoros                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Congo                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cuba                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic People's Republic of Korea | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic Republic of the Congo      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                       | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Djibouti                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominica                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominican Republic         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Equatorial Guinea          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Eritrea                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Eswatini                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ethiopia                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Gabon                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Gambia                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Georgia                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grenada                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guatemala                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guinea                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guinea-Bissau              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guyana                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Haiti                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Honduras                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Iran (Islamic Republic of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Iraq                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Jamaica                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Jordan                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kazakhstan                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kiribati                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kuwait                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kyrgyzstan                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lebanon                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lesotho                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liberia                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Libya                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liechtenstein              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Luxembourg                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Madagascar                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Maldives                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mali                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Malta                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Marshall Islands                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritania                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritius                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Micronesia (Federated States of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Monaco                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mongolia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Montenegro                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Morocco                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mozambique                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Myanmar                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Namibia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nauru                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nepal                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nicaragua                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nigeria                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| North Macedonia                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Oman                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Palau                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Papua New Guinea                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Paraguay                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Qatar                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Republic of Moldova              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Rwanda                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Kitts and Nevis            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Lucia                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Vincent and the Grenadines | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Samoa                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                               | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| San Marino                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sao Tome and Principe              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Seychelles                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sierra Leone                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Solomon Islands                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Somalia                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| South Sudan                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sri Lanka                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sudan                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Suriname                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Syrian Arab Republic               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tajikistan                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| The Bahamas                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Timor-Leste                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Togo                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tonga                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Trinidad and Tobago                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Turkmenistan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tuvalu                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uganda                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| United Arab Emirates               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| United Republic of Tanzania        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uzbekistan                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Vanuatu                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Venezuela (Bolivarian Republic of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Yemen                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Zambia                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Zimbabwe                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

Table S2-3-4 Policy Effectiveness  $S_{policy}$  (2014-2024)

| Year                | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Türkiye             | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 | 1.000 |
| United Kingdom      | 0.801 | 0.920 | 0.956 | 0.940 | 0.929 | 0.868 | 0.849 | 0.841 | 0.841 | 0.841 | 0.841 |
| United States       | 0.631 | 0.807 | 0.862 | 0.871 | 0.880 | 0.824 | 0.821 | 0.820 | 0.820 | 1.025 | 0.827 |
| Germany             | 0.488 | 0.643 | 0.734 | 0.817 | 0.819 | 0.760 | 0.763 | 0.764 | 0.773 | 0.966 | 0.782 |
| Serbia              | 0.000 | 0.000 | 0.000 | 0.000 | 0.689 | 0.713 | 0.698 | 0.703 | 0.714 | 0.736 | 0.746 |
| Japan               | 0.000 | 0.449 | 0.528 | 0.657 | 0.707 | 0.686 | 0.698 | 0.703 | 0.703 | 0.703 | 0.714 |
| Spain               | 0.488 | 0.643 | 0.674 | 0.678 | 0.670 | 0.672 | 0.671 | 0.665 | 0.665 | 0.665 | 0.665 |
| Switzerland         | 0.000 | 0.387 | 0.528 | 0.514 | 0.649 | 0.621 | 0.642 | 0.635 | 0.650 | 0.813 | 0.665 |
| Brazil              | 0.333 | 0.387 | 0.436 | 0.581 | 0.649 | 0.621 | 0.608 | 0.602 | 0.602 | 0.752 | 0.650 |
| Italy               | 0.421 | 0.543 | 0.596 | 0.608 | 0.649 | 0.602 | 0.589 | 0.583 | 0.583 | 0.602 | 0.602 |
| Ukraine             | 0.333 | 0.500 | 0.650 | 0.634 | 0.626 | 0.581 | 0.568 | 0.583 | 0.583 | 0.583 | 0.602 |
| Austria             | 0.333 | 0.387 | 0.486 | 0.581 | 0.601 | 0.581 | 0.568 | 0.563 | 0.563 | 0.563 | 0.563 |
| Canada              | 0.000 | 0.449 | 0.436 | 0.514 | 0.508 | 0.558 | 0.546 | 0.540 | 0.540 | 0.540 | 0.563 |
| Kenya               | 0.421 | 0.449 | 0.436 | 0.473 | 0.574 | 0.558 | 0.546 | 0.540 | 0.540 | 0.675 | 0.540 |
| Republic of Moldova | 0.210 | 0.449 | 0.486 | 0.581 | 0.574 | 0.558 | 0.546 | 0.540 | 0.540 | 0.540 | 0.540 |
| Indonesia           | 0.000 | 0.449 | 0.486 | 0.473 | 0.468 | 0.434 | 0.493 | 0.488 | 0.488 | 0.488 | 0.488 |
| Portugal            | 0.210 | 0.387 | 0.376 | 0.514 | 0.508 | 0.471 | 0.461 | 0.456 | 0.488 | 0.488 | 0.488 |
| Lithuania           | 0.000 | 0.000 | 0.298 | 0.366 | 0.420 | 0.434 | 0.461 | 0.456 | 0.456 | 0.456 | 0.456 |
| Australia           | 0.333 | 0.387 | 0.376 | 0.425 | 0.420 | 0.434 | 0.425 | 0.420 | 0.420 | 0.525 | 0.420 |
| India               | 0.488 | 0.500 | 0.486 | 0.473 | 0.468 | 0.434 | 0.425 | 0.420 | 0.420 | 0.420 | 0.420 |
| Poland              | 0.210 | 0.193 | 0.298 | 0.290 | 0.420 | 0.390 | 0.381 | 0.420 | 0.420 | 0.420 | 0.420 |
| South Africa        | 0.210 | 0.387 | 0.376 | 0.366 | 0.420 | 0.390 | 0.381 | 0.378 | 0.420 | 0.525 | 0.420 |
| Colombia            | 0.000 | 0.193 | 0.298 | 0.290 | 0.420 | 0.390 | 0.381 | 0.378 | 0.378 | 0.378 | 0.378 |
| France              | 0.000 | 0.000 | 0.188 | 0.290 | 0.362 | 0.336 | 0.329 | 0.378 | 0.378 | 0.472 | 0.378 |
| Ireland             | 0.210 | 0.307 | 0.376 | 0.425 | 0.420 | 0.390 | 0.381 | 0.378 | 0.378 | 0.378 | 0.378 |
| Argentina           | 0.000 | 0.307 | 0.298 | 0.366 | 0.362 | 0.336 | 0.329 | 0.325 | 0.325 | 0.407 | 0.325 |
| Belgium             | 0.333 | 0.307 | 0.376 | 0.366 | 0.362 | 0.336 | 0.329 | 0.325 | 0.325 | 0.325 | 0.325 |
| China               | 0.333 | 0.307 | 0.376 | 0.366 | 0.362 | 0.336 | 0.329 | 0.325 | 0.325 | 0.407 | 0.325 |
| Czechia             | 0.210 | 0.307 | 0.376 | 0.366 | 0.362 | 0.336 | 0.329 | 0.325 | 0.325 | 0.325 | 0.325 |
| Iceland             | 0.210 | 0.387 | 0.376 | 0.366 | 0.362 | 0.336 | 0.329 | 0.325 | 0.325 | 0.325 | 0.325 |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Russia                             | 0.000       | 0.000       | 0.000       | 0.000       | 0.362       | 0.336       | 0.329       | 0.325       | 0.325       | 0.325       | 0.325       |
| Slovenia                           | 0.210       | 0.307       | 0.376       | 0.366       | 0.362       | 0.336       | 0.329       | 0.325       | 0.325       | 0.325       | 0.325       |
| Algeria                            | 0.210       | 0.193       | 0.298       | 0.290       | 0.287       | 0.266       | 0.260       | 0.258       | 0.258       | 0.258       | 0.258       |
| Belarus                            | 0.000       | 0.000       | 0.000       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.258       | 0.258       | 0.258       |
| Chile                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.168       | 0.164       | 0.163       | 0.258       | 0.258       | 0.258       |
| Denmark                            | 0.210       | 0.193       | 0.188       | 0.183       | 0.287       | 0.266       | 0.260       | 0.258       | 0.258       | 0.258       | 0.258       |
| Finland                            | 0.210       | 0.307       | 0.298       | 0.290       | 0.287       | 0.266       | 0.260       | 0.258       | 0.258       | 0.322       | 0.258       |
| Greece                             | 0.210       | 0.307       | 0.298       | 0.290       | 0.287       | 0.266       | 0.260       | 0.258       | 0.258       | 0.258       | 0.258       |
| Netherlands (Kingdom of the)       | 0.000       | 0.000       | 0.188       | 0.290       | 0.287       | 0.266       | 0.260       | 0.258       | 0.258       | 0.322       | 0.258       |
| New Zealand                        | 0.210       | 0.193       | 0.188       | 0.183       | 0.181       | 0.168       | 0.260       | 0.258       | 0.258       | 0.258       | 0.258       |
| Norway                             | 0.210       | 0.193       | 0.298       | 0.290       | 0.287       | 0.266       | 0.260       | 0.258       | 0.258       | 0.258       | 0.258       |
| Pakistan                           | 0.000       | 0.000       | 0.000       | 0.183       | 0.181       | 0.168       | 0.164       | 0.258       | 0.258       | 0.258       | 0.258       |
| Panama                             | 0.000       | 0.000       | 0.000       | 0.183       | 0.287       | 0.266       | 0.260       | 0.258       | 0.258       | 0.258       | 0.258       |
| Azerbaijan                         | 0.210       | 0.193       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Bulgaria                           | 0.000       | 0.000       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Croatia                            | 0.000       | 0.193       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Hungary                            | 0.000       | 0.193       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Israel                             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.163       | 0.163       | 0.163       | 0.163       |
| Latvia                             | 0.000       | 0.000       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Malaysia                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Malta                              | 0.000       | 0.000       | 0.000       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Peru                               | 0.000       | 0.000       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Republic of Korea                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.203       | 0.163       |
| Romania                            | 0.000       | 0.193       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Saudi Arabia                       | 0.210       | 0.193       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Venezuela (Bolivarian Republic of) | 0.000       | 0.193       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Zimbabwe                           | 0.210       | 0.193       | 0.188       | 0.183       | 0.181       | 0.168       | 0.164       | 0.163       | 0.163       | 0.163       | 0.163       |
| Afghanistan                        | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Albania                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Andorra                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Angola                             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Antigua and Barbuda                   | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Armenia                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Bahrain                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Bangladesh                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Barbados                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Belize                                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Benin                                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Bhutan                                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Bolivia (Plurinational State of)      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Bosnia and Herzegovina                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Botswana                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Brunei Darussalam                     | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Burkina Faso                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Burundi                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Cabo Verde                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Cambodia                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Cameroon                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Central African Republic              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Chad                                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Comoros                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Congo                                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Costa Rica                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Cuba                                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Cyprus                                | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Côte d'Ivoire                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Democratic People's Republic of Korea | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Democratic Republic of the Congo      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Djibouti                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Dominica                              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Dominican Republic                    | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Ecuador                               | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

| Year                             | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023  | 2024  |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| Egypt                            | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| El Salvador                      | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Equatorial Guinea                | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Eritrea                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Estonia                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Eswatini                         | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Ethiopia                         | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Fiji                             | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Gabon                            | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Gambia                           | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Georgia                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Ghana                            | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Grenada                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Guatemala                        | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Guinea                           | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Guinea-Bissau                    | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Guyana                           | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Haiti                            | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Honduras                         | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Iran (Islamic Republic of)       | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Iraq                             | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Jamaica                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Jordan                           | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Kazakhstan                       | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Kiribati                         | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Kuwait                           | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Kyrgyzstan                       | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Lao People's Democratic Republic | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Lebanon                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Lesotho                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |
| Liberia                          | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Libya                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Liechtenstein                    | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Luxembourg                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Madagascar                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Malawi                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Maldives                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mali                             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Marshall Islands                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mauritania                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mauritius                        | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mexico                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Micronesia (Federated States of) | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Monaco                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mongolia                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Montenegro                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Morocco                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Mozambique                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Myanmar                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Namibia                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Nauru                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Nepal                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Nicaragua                        | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Niger                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Nigeria                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| North Macedonia                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Oman                             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Palau                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Papua New Guinea                 | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Paraguay                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Philippines                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Qatar                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Rwanda                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Saint Kitts and Nevis            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Saint Lucia                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Saint Vincent and the Grenadines | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Samoa                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| San Marino                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sao Tome and Principe            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Senegal                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Seychelles                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sierra Leone                     | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Singapore                        | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Slovakia                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Solomon Islands                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Somalia                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| South Sudan                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sri Lanka                        | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sudan                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Suriname                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Sweden                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Syrian Arab Republic             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Tajikistan                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Thailand                         | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| The Bahamas                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Timor-Leste                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Togo                             | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Tonga                            | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Trinidad and Tobago              | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Tunisia                          | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Turkmenistan                     | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Tuvalu                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Uganda                           | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

| <b>Year</b>                 | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United Arab Emirates        | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| United Republic of Tanzania | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Uruguay                     | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Uzbekistan                  | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Vanuatu                     | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Viet Nam                    | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Yemen                       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |
| Zambia                      | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       | 0.000       |

### (3) Raw Data

Table S3-1-1 Total publication output by country, 2014–2024

| Year                         | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   | 2020   | 2021   | 2022   | 2023   | 2024    |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| China                        | 364321 | 392354 | 418708 | 449653 | 498218 | 596720 | 680548 | 757149 | 899276 | 909090 | 1033231 |
| United States                | 467173 | 478413 | 484123 | 496169 | 512296 | 522381 | 555936 | 588766 | 560473 | 529747 | 537884  |
| India                        | 99621  | 107935 | 111636 | 111285 | 120599 | 145567 | 150356 | 166325 | 187721 | 195019 | 220619  |
| United Kingdom               | 137115 | 143832 | 148040 | 152897 | 160844 | 165481 | 178678 | 194156 | 185474 | 177820 | 183506  |
| Germany                      | 122328 | 126123 | 129821 | 133539 | 136957 | 139773 | 149460 | 165033 | 157837 | 150002 | 151915  |
| Italy                        | 77881  | 80793  | 84121  | 87018  | 91866  | 97514  | 114343 | 125543 | 120821 | 118339 | 121363  |
| Japan                        | 95550  | 95309  | 97481  | 98250  | 100503 | 102778 | 111571 | 120929 | 115326 | 107972 | 109227  |
| Spain                        | 69813  | 71218  | 74065  | 76396  | 80162  | 87776  | 99254  | 108283 | 103286 | 102204 | 104552  |
| Canada                       | 76430  | 78982  | 80425  | 83473  | 87695  | 91394  | 98431  | 107815 | 105663 | 99365  | 101177  |
| Australia                    | 69519  | 73989  | 76630  | 79388  | 84632  | 89095  | 95967  | 103897 | 101407 | 94345  | 97357   |
| France                       | 86949  | 88619  | 91176  | 92039  | 92957  | 93333  | 99890  | 105062 | 100044 | 95607  | 96002   |
| Republic of Korea            | 64354  | 68577  | 69926  | 71096  | 73245  | 78677  | 85148  | 92053  | 90640  | 87945  | 92554   |
| Russia                       | 46004  | 54771  | 62720  | 66969  | 74418  | 88558  | 91591  | 95664  | 92447  | 91049  | 86402   |
| Brazil                       | 54969  | 57806  | 62064  | 66082  | 70954  | 76572  | 85352  | 90394  | 82803  | 77001  | 80271   |
| Iran (Islamic Republic of)   | 40304  | 41955  | 47986  | 50864  | 54552  | 62154  | 68891  | 73495  | 73731  | 69099  | 69661   |
| Türkiye                      | 33329  | 35747  | 38197  | 35526  | 37219  | 43135  | 50603  | 58923  | 63218  | 64518  | 68784   |
| Saudi Arabia                 | 14945  | 16719  | 17972  | 18344  | 20003  | 23919  | 33720  | 43817  | 53146  | 55631  | 64490   |
| Netherlands (Kingdom of the) | 44408  | 45412  | 46801  | 47996  | 50152  | 51486  | 55861  | 61365  | 58957  | 56718  | 58312   |
| Poland                       | 32395  | 34732  | 36706  | 36813  | 38547  | 43462  | 50841  | 55656  | 52307  | 51086  | 53052   |
| Switzerland                  | 33046  | 34489  | 35913  | 37796  | 38880  | 39725  | 43587  | 48070  | 46385  | 44615  | 45864   |
| Indonesia                    | 4339   | 5856   | 7982   | 10758  | 14566  | 23417  | 28374  | 28807  | 32088  | 37274  | 43057   |
| Sweden                       | 29600  | 31170  | 32370  | 33507  | 34742  | 36141  | 38504  | 41918  | 40404  | 39323  | 40638   |
| Egypt                        | 13398  | 14630  | 16570  | 16179  | 19020  | 22177  | 29148  | 35212  | 39940  | 38134  | 38851   |
| Malaysia                     | 18774  | 21284  | 22456  | 23085  | 24421  | 28048  | 29190  | 32323  | 34767  | 34276  | 37963   |
| Pakistan                     | 10044  | 10755  | 12463  | 14971  | 17389  | 21563  | 27182  | 32775  | 36550  | 34953  | 36737   |
| Belgium                      | 25197  | 26042  | 26569  | 27269  | 28312  | 28393  | 31369  | 34784  | 33046  | 32291  | 33329   |
| South Africa                 | 16478  | 16707  | 18344  | 19502  | 20999  | 23242  | 26187  | 28263  | 28927  | 27577  | 29108   |

| <b>Year</b>          | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Denmark              | 19966       | 20972       | 21795       | 22614       | 23558       | 24463       | 26927       | 29499       | 28855       | 28549       | 29018       |
| Portugal             | 16648       | 17343       | 18220       | 18733       | 20056       | 22226       | 25547       | 28827       | 29014       | 28531       | 28904       |
| Mexico               | 16410       | 17312       | 18479       | 19979       | 21626       | 23998       | 26959       | 29046       | 28350       | 27210       | 28095       |
| Thailand             | 9642        | 10228       | 11459       | 12175       | 14059       | 15390       | 18050       | 21708       | 24302       | 22628       | 26127       |
| Austria              | 17327       | 18213       | 18828       | 19376       | 20395       | 21341       | 23772       | 26598       | 25375       | 24973       | 26011       |
| Norway               | 14564       | 15096       | 16334       | 17266       | 18697       | 19772       | 22025       | 24513       | 23972       | 24103       | 24228       |
| Singapore            | 13895       | 14817       | 15247       | 16003       | 16609       | 17532       | 19874       | 20887       | 21282       | 20505       | 22799       |
| Czechia              | 15725       | 17159       | 17809       | 18510       | 18963       | 20148       | 21785       | 23621       | 22108       | 21586       | 22478       |
| Iraq                 | 1590        | 1773        | 2707        | 3517        | 7547        | 11691       | 15075       | 13496       | 16679       | 19559       | 22070       |
| Israel               | 15296       | 15900       | 16630       | 16825       | 17803       | 18321       | 20148       | 22161       | 21852       | 21110       | 21184       |
| Finland              | 14636       | 15286       | 15590       | 15872       | 16438       | 17394       | 18702       | 20412       | 20407       | 19586       | 20679       |
| Greece               | 13430       | 13205       | 13702       | 13861       | 14715       | 15575       | 17436       | 20340       | 20366       | 20104       | 20663       |
| Chile                | 9302        | 10185       | 11297       | 11818       | 13113       | 14291       | 16591       | 18445       | 17263       | 17504       | 18815       |
| Ukraine              | 8590        | 8747        | 8922        | 9551        | 10938       | 14843       | 17027       | 17983       | 16845       | 17934       | 18198       |
| Viet Nam             | 3017        | 3361        | 4218        | 5034        | 6860        | 10402       | 15109       | 14909       | 14483       | 15002       | 17077       |
| Ireland              | 9724        | 9732        | 10407       | 10860       | 11879       | 12681       | 14580       | 16943       | 16174       | 15872       | 16504       |
| Nigeria              | 5269        | 5279        | 6044        | 6735        | 8220        | 10209       | 13328       | 15128       | 15632       | 15582       | 16251       |
| United Arab Emirates | 2421        | 3127        | 3571        | 4209        | 4968        | 6118        | 8141        | 10376       | 12305       | 14175       | 16163       |
| Romania              | 10246       | 10889       | 10604       | 10183       | 10546       | 12186       | 13159       | 15110       | 15769       | 15712       | 15957       |
| Colombia             | 6321        | 7198        | 8562        | 9455        | 10599       | 12046       | 14333       | 15385       | 15301       | 15367       | 15759       |
| Argentina            | 11123       | 11430       | 11794       | 12254       | 13215       | 13859       | 15719       | 16004       | 14994       | 14634       | 14881       |
| Hungary              | 8462        | 8717        | 8877        | 9139        | 9681        | 10211       | 11356       | 12867       | 12951       | 13416       | 14521       |
| New Zealand          | 11389       | 11723       | 12125       | 12792       | 13306       | 14193       | 15170       | 16201       | 15894       | 14283       | 14248       |
| Morocco              | 3614        | 3755        | 4199        | 4456        | 4764        | 5709        | 7224        | 8744        | 9762        | 11019       | 13211       |
| Jordan               | 2187        | 2188        | 2555        | 2823        | 3700        | 4574        | 5982        | 7111        | 8587        | 9977        | 12237       |
| Bangladesh           | 2805        | 2866        | 3005        | 3367        | 3797        | 4866        | 6783        | 9769        | 10604       | 10399       | 12234       |
| Ethiopia             | 1730        | 1756        | 2053        | 2762        | 3451        | 4392        | 6334        | 8338        | 10932       | 9926        | 11898       |
| Algeria              | 3660        | 4233        | 5252        | 5323        | 5971        | 6381        | 7026        | 8202        | 8801        | 8869        | 10342       |
| Serbia               | 6160        | 6187        | 6402        | 6519        | 6784        | 7559        | 7697        | 8662        | 9142        | 9389        | 9577        |
| Tunisia              | 4536        | 5225        | 5741        | 5927        | 5895        | 6264        | 6594        | 7563        | 8153        | 7822        | 8760        |

| <b>Year</b>                 | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Croatia                     | 5145        | 5170        | 5420        | 5831        | 6390        | 6710        | 7686        | 8785        | 8715        | 8640        | 8562        |
| Peru                        | 1416        | 1667        | 1888        | 2233        | 2586        | 3531        | 5028        | 6168        | 7269        | 8081        | 8415        |
| Slovakia                    | 5266        | 5469        | 6207        | 6177        | 6226        | 6827        | 7756        | 8336        | 7801        | 7933        | 7946        |
| Kazakhstan                  | 1855        | 1890        | 2731        | 2769        | 3117        | 3936        | 4496        | 4872        | 5445        | 5925        | 7650        |
| Slovenia                    | 5019        | 5178        | 5259        | 5314        | 5559        | 5851        | 6646        | 7463        | 6975        | 6789        | 7274        |
| Philippines                 | 1716        | 2103        | 2261        | 2464        | 2795        | 3783        | 4405        | 5224        | 5674        | 5819        | 6869        |
| Ghana                       | 1318        | 1583        | 1977        | 2250        | 2739        | 3239        | 4100        | 4988        | 6015        | 6084        | 6726        |
| Ecuador                     | 783         | 1192        | 1748        | 2495        | 3161        | 3842        | 4453        | 4873        | 5419        | 5770        | 6556        |
| Lebanon                     | 1659        | 1792        | 2098        | 2308        | 2680        | 3016        | 3700        | 3790        | 3848        | 5310        | 6510        |
| Bulgaria                    | 3165        | 3210        | 3365        | 3609        | 3985        | 4352        | 5166        | 5300        | 5301        | 5677        | 6012        |
| Qatar                       | 1740        | 2285        | 2804        | 2840        | 3023        | 3482        | 4485        | 5238        | 5184        | 5107        | 5579        |
| Lithuania                   | 2712        | 2865        | 2920        | 2992        | 3394        | 3894        | 4514        | 4885        | 4888        | 4895        | 5153        |
| Kenya                       | 2187        | 2267        | 2467        | 2713        | 2972        | 3344        | 4103        | 4787        | 4955        | 4809        | 4801        |
| Oman                        | 1078        | 1288        | 1407        | 1359        | 1468        | 1796        | 2202        | 2902        | 3309        | 3405        | 4335        |
| Uzbekistan                  | 478         | 427         | 517         | 499         | 565         | 1133        | 2484        | 1600        | 2205        | 2920        | 4297        |
| Cyprus                      | 1364        | 1472        | 1663        | 2020        | 2277        | 2550        | 3155        | 3715        | 3842        | 3918        | 4087        |
| Kuwait                      | 991         | 1009        | 1135        | 1263        | 1420        | 1718        | 2097        | 2532        | 2792        | 3067        | 3898        |
| Azerbaijan                  | 610         | 726         | 923         | 1007        | 1211        | 1585        | 1842        | 1751        | 1846        | 2281        | 3888        |
| Estonia                     | 2231        | 2290        | 2457        | 2552        | 2679        | 3030        | 3224        | 3674        | 3545        | 3527        | 3469        |
| Nepal                       | 870         | 989         | 1099        | 1297        | 1458        | 1776        | 2628        | 3240        | 3372        | 3085        | 3425        |
| Uganda                      | 1161        | 1304        | 1396        | 1597        | 1631        | 1877        | 2237        | 2817        | 2958        | 3173        | 3408        |
| United Republic of Tanzania | 1206        | 1255        | 1335        | 1465        | 1593        | 1894        | 2203        | 2542        | 2766        | 2976        | 3394        |
| Cameroon                    | 1073        | 1149        | 1257        | 1469        | 1585        | 1776        | 2148        | 2516        | 2663        | 2748        | 3100        |
| Sri Lanka                   | 1009        | 1121        | 1326        | 1490        | 1617        | 1788        | 2212        | 2795        | 3005        | 2796        | 2999        |
| Latvia                      | 942         | 1085        | 1215        | 1261        | 1426        | 1556        | 1989        | 2339        | 2351        | 2557        | 2473        |
| Luxembourg                  | 1260        | 1273        | 1343        | 1397        | 1574        | 1673        | 1859        | 2170        | 2281        | 2295        | 2324        |
| Belarus                     | 1460        | 1437        | 1574        | 1708        | 2010        | 2475        | 2515        | 2652        | 2560        | 2295        | 2302        |
| Cuba                        | 2116        | 1984        | 1906        | 1824        | 1842        | 2126        | 2359        | 2672        | 2414        | 2144        | 2150        |
| Georgia                     | 888         | 1091        | 1367        | 1391        | 1702        | 2100        | 1945        | 1887        | 1881        | 1986        | 2093        |
| Armenia                     | 865         | 971         | 1016        | 1020        | 1109        | 1207        | 1133        | 1189        | 1371        | 1625        | 2055        |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Uruguay                            | 1138        | 1149        | 1280        | 1309        | 1498        | 1683        | 1772        | 2140        | 2014        | 1976        | 1987        |
| Iceland                            | 1095        | 1192        | 1343        | 1325        | 1426        | 1548        | 1615        | 1773        | 1790        | 1759        | 1821        |
| Sudan                              | 567         | 568         | 662         | 661         | 746         | 900         | 1166        | 1487        | 1728        | 1572        | 1714        |
| Bosnia and Herzegovina             | 641         | 712         | 760         | 964         | 1078        | 1293        | 1431        | 1698        | 1646        | 1608        | 1655        |
| Yemen                              | 348         | 307         | 345         | 420         | 500         | 598         | 1039        | 1407        | 1745        | 1601        | 1617        |
| Bahrain                            | 351         | 315         | 412         | 439         | 535         | 732         | 891         | 1097        | 1326        | 1508        | 1518        |
| Costa Rica                         | 731         | 699         | 797         | 912         | 967         | 1171        | 1407        | 1570        | 1489        | 1445        | 1507        |
| Syrian Arab Republic               | 494         | 487         | 470         | 412         | 461         | 530         | 766         | 961         | 1168        | 1198        | 1300        |
| Zimbabwe                           | 583         | 550         | 676         | 748         | 832         | 917         | 1059        | 1272        | 1316        | 1235        | 1248        |
| Rwanda                             | 239         | 280         | 326         | 345         | 430         | 503         | 732         | 908         | 981         | 1015        | 1185        |
| Malawi                             | 456         | 505         | 575         | 687         | 753         | 800         | 943         | 1170        | 1150        | 1138        | 1157        |
| Albania                            | 453         | 377         | 295         | 314         | 385         | 441         | 614         | 801         | 866         | 952         | 1148        |
| Venezuela (Bolivarian Republic of) | 1623        | 1503        | 1406        | 1470        | 1326        | 1472        | 1446        | 1521        | 1302        | 1244        | 1146        |
| Burkina Faso                       | 441         | 520         | 524         | 524         | 578         | 656         | 719         | 847         | 970         | 991         | 1108        |
| Senegal                            | 569         | 664         | 666         | 712         | 681         | 749         | 866         | 899         | 986         | 994         | 1071        |
| Zambia                             | 370         | 409         | 484         | 574         | 563         | 610         | 784         | 925         | 1040        | 1032        | 1071        |
| North Macedonia                    | 656         | 692         | 696         | 699         | 763         | 852         | 894         | 976         | 1046        | 1052        | 1064        |
| Malta                              | 403         | 485         | 526         | 595         | 637         | 657         | 813         | 990         | 1053        | 1000        | 1019        |
| Mongolia                           | 271         | 282         | 344         | 359         | 427         | 541         | 590         | 708         | 757         | 855         | 998         |
| Brunei Darussalam                  | 260         | 340         | 381         | 400         | 360         | 428         | 574         | 711         | 928         | 961         | 944         |
| Benin                              | 378         | 410         | 389         | 481         | 521         | 613         | 685         | 864         | 880         | 843         | 939         |
| Libya                              | 321         | 310         | 287         | 323         | 378         | 413         | 525         | 741         | 735         | 798         | 906         |
| Botswana                           | 387         | 343         | 453         | 506         | 601         | 608         | 742         | 845         | 862         | 897         | 904         |
| Côte d'Ivoire                      | 349         | 392         | 391         | 409         | 531         | 657         | 679         | 874         | 799         | 818         | 875         |
| Kyrgyzstan                         | 132         | 137         | 216         | 241         | 276         | 363         | 462         | 524         | 572         | 618         | 846         |
| Panama                             | 414         | 474         | 496         | 540         | 568         | 650         | 768         | 888         | 830         | 823         | 828         |
| Democratic Republic of the Congo   | 47          | 87          | 100         | 154         | 176         | 265         | 446         | 644         | 713         | 736         | 769         |
| Mozambique                         | 222         | 311         | 341         | 400         | 451         | 503         | 603         | 780         | 729         | 683         | 756         |
| Afghanistan                        | 87          | 72          | 125         | 158         | 213         | 295         | 306         | 440         | 598         | 538         | 700         |
| Cambodia                           | 259         | 308         | 368         | 380         | 429         | 459         | 516         | 554         | 608         | 546         | 603         |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Republic of Moldova                   | 374         | 322         | 407         | 390         | 367         | 488         | 494         | 569         | 528         | 585         | 598         |
| Bolivia (Plurinational State of)      | 266         | 280         | 287         | 268         | 313         | 371         | 455         | 508         | 516         | 499         | 584         |
| Montenegro                            | 295         | 268         | 332         | 408         | 397         | 496         | 560         | 530         | 475         | 512         | 581         |
| Namibia                               | 195         | 237         | 247         | 246         | 336         | 378         | 476         | 504         | 544         | 557         | 570         |
| Paraguay                              | 119         | 156         | 181         | 219         | 200         | 354         | 403         | 439         | 461         | 508         | 528         |
| Somalia                               | 19          | 19          | 13          | 32          | 27          | 57          | 88          | 114         | 256         | 304         | 523         |
| Congo                                 | 415         | 411         | 414         | 409         | 454         | 429         | 411         | 437         | 467         | 421         | 504         |
| Mali                                  | 187         | 242         | 246         | 300         | 281         | 316         | 365         | 402         | 445         | 372         | 450         |
| Dominican Republic                    | 91          | 124         | 123         | 155         | 171         | 239         | 293         | 367         | 389         | 380         | 440         |
| Madagascar                            | 256         | 282         | 273         | 323         | 327         | 329         | 410         | 494         | 454         | 471         | 436         |
| Guatemala                             | 168         | 231         | 241         | 270         | 255         | 274         | 371         | 436         | 431         | 423         | 432         |
| Trinidad and Tobago                   | 317         | 275         | 278         | 331         | 372         | 397         | 423         | 455         | 458         | 441         | 430         |
| Togo                                  | 157         | 161         | 156         | 143         | 189         | 220         | 248         | 287         | 345         | 316         | 426         |
| Fiji                                  | 207         | 191         | 249         | 274         | 290         | 350         | 425         | 440         | 465         | 433         | 408         |
| Myanmar                               | 97          | 162         | 201         | 306         | 421         | 520         | 714         | 758         | 519         | 448         | 402         |
| Honduras                              | 70          | 90          | 73          | 125         | 161         | 163         | 268         | 267         | 300         | 360         | 364         |
| Gambia                                | 146         | 165         | 166         | 188         | 144         | 196         | 232         | 303         | 312         | 321         | 354         |
| Jamaica                               | 314         | 284         | 281         | 302         | 335         | 324         | 363         | 393         | 355         | 346         | 346         |
| Mauritius                             | 167         | 178         | 205         | 248         | 257         | 348         | 362         | 393         | 360         | 337         | 339         |
| Gabon                                 | 175         | 178         | 163         | 178         | 182         | 200         | 197         | 283         | 330         | 259         | 334         |
| Sierra Leone                          | 65          | 101         | 140         | 142         | 142         | 161         | 206         | 264         | 294         | 275         | 317         |
| Lao People's Democratic Republic      | 166         | 219         | 241         | 209         | 269         | 312         | 300         | 335         | 306         | 274         | 311         |
| Tajikistan                            | 86          | 110         | 110         | 124         | 129         | 196         | 255         | 257         | 222         | 293         | 307         |
| Niger                                 | 129         | 165         | 157         | 153         | 178         | 226         | 227         | 237         | 267         | 261         | 288         |
| Liberia                               | 29          | 52          | 78          | 79          | 92          | 107         | 80          | 126         | 201         | 246         | 266         |
| Democratic People's Republic of Korea | 30          | 78          | 91          | 111         | 150         | 209         | 220         | 300         | 324         | 346         | 253         |
| Papua New Guinea                      | 152         | 161         | 162         | 164         | 180         | 203         | 202         | 240         | 260         | 220         | 251         |
| Grenada                               | 134         | 107         | 120         | 206         | 214         | 209         | 249         | 278         | 255         | 251         | 249         |
| Angola                                | 81          | 84          | 97          | 125         | 101         | 111         | 145         | 159         | 214         | 202         | 246         |
| Bhutan                                | 56          | 70          | 90          | 102         | 92          | 124         | 183         | 233         | 252         | 218         | 218         |

| Year                     | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|--------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Monaco                   | 86   | 121  | 132  | 157  | 155  | 217  | 227  | 240  | 254  | 202  | 206  |
| Barbados                 | 105  | 98   | 115  | 112  | 111  | 128  | 149  | 167  | 196  | 165  | 188  |
| El Salvador              | 87   | 124  | 106  | 96   | 104  | 97   | 99   | 157  | 172  | 187  | 186  |
| Guinea                   | 56   | 99   | 112  | 128  | 88   | 123  | 142  | 179  | 169  | 172  | 172  |
| Guyana                   | 28   | 32   | 33   | 34   | 59   | 124  | 113  | 108  | 123  | 144  | 172  |
| Chad                     | 32   | 34   | 39   | 56   | 49   | 66   | 67   | 96   | 116  | 118  | 170  |
| Burundi                  | 40   | 47   | 48   | 56   | 83   | 84   | 121  | 117  | 131  | 122  | 147  |
| Lesotho                  | 35   | 46   | 46   | 47   | 49   | 91   | 99   | 123  | 152  | 146  | 147  |
| Nicaragua                | 88   | 99   | 119  | 134  | 120  | 122  | 135  | 134  | 164  | 146  | 146  |
| Mauritania               | 38   | 35   | 53   | 46   | 55   | 71   | 86   | 98   | 84   | 128  | 140  |
| Haiti                    | 94   | 94   | 92   | 115  | 96   | 113  | 130  | 148  | 160  | 146  | 136  |
| Maldives                 | 20   | 20   | 18   | 31   | 30   | 42   | 81   | 84   | 116  | 123  | 131  |
| Saint Kitts and Nevis    | 46   | 65   | 95   | 80   | 93   | 101  | 133  | 146  | 149  | 133  | 131  |
| Liechtenstein            | 103  | 98   | 110  | 104  | 96   | 110  | 107  | 120  | 139  | 135  | 114  |
| South Sudan              | 15   | 11   | 15   | 15   | 25   | 21   | 52   | 80   | 116  | 78   | 106  |
| Timor-Leste              | 22   | 23   | 23   | 29   | 40   | 32   | 40   | 46   | 56   | 68   | 104  |
| Central African Republic | 45   | 40   | 70   | 49   | 66   | 54   | 73   | 78   | 83   | 91   | 99   |
| Cabo Verde               | 27   | 35   | 33   | 42   | 31   | 42   | 67   | 76   | 81   | 85   | 90   |
| Seychelles               | 40   | 52   | 47   | 58   | 49   | 52   | 95   | 92   | 90   | 64   | 83   |
| The Bahamas              | 42   | 38   | 39   | 66   | 68   | 85   | 81   | 107  | 87   | 72   | 77   |
| Eritrea                  | 27   | 29   | 27   | 32   | 48   | 59   | 63   | 75   | 81   | 64   | 69   |
| Suriname                 | 19   | 37   | 45   | 42   | 49   | 66   | 59   | 66   | 48   | 80   | 63   |
| Djibouti                 | 18   | 16   | 17   | 17   | 18   | 18   | 34   | 67   | 38   | 51   | 61   |
| Antigua and Barbuda      | 8    | 10   | 18   | 16   | 24   | 19   | 22   | 32   | 37   | 59   | 60   |
| Samoa                    | 27   | 20   | 21   | 29   | 36   | 43   | 69   | 87   | 73   | 74   | 59   |
| San Marino               | 15   | 26   | 21   | 31   | 43   | 40   | 52   | 61   | 57   | 47   | 59   |
| Belize                   | 22   | 28   | 26   | 35   | 32   | 40   | 55   | 62   | 62   | 67   | 56   |
| Guinea-Bissau            | 55   | 35   | 52   | 56   | 53   | 59   | 57   | 65   | 65   | 56   | 54   |
| Turkmenistan             | 27   | 9    | 8    | 16   | 7    | 8    | 15   | 23   | 21   | 35   | 54   |
| Solomon Islands          | 27   | 46   | 49   | 46   | 54   | 52   | 61   | 62   | 44   | 45   | 52   |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Vanuatu                          | 26   | 27   | 38   | 29   | 28   | 41   | 46   | 50   | 51   | 35   | 49   |
| Andorra                          | 16   | 17   | 20   | 13   | 13   | 26   | 27   | 33   | 43   | 47   | 46   |
| Sao Tome and Principe            | 4    | 3    | 3    | 8    | 6    | 9    | 11   | 13   | 19   | 17   | 37   |
| Comoros                          | 4    | 8    | 15   | 12   | 17   | 20   | 20   | 21   | 18   | 41   | 36   |
| Dominica                         | 24   | 36   | 32   | 39   | 32   | 26   | 24   | 24   | 25   | 25   | 32   |
| Palau                            | 12   | 17   | 12   | 22   | 18   | 28   | 27   | 27   | 28   | 21   | 28   |
| Tonga                            | 7    | 8    | 10   | 17   | 18   | 17   | 29   | 22   | 23   | 23   | 25   |
| Micronesia (Federated States of) | 12   | 15   | 19   | 28   | 29   | 14   | 31   | 17   | 19   | 20   | 18   |
| Equatorial Guinea                | 13   | 17   | 26   | 14   | 20   | 19   | 15   | 30   | 23   | 30   | 17   |
| Saint Vincent and the Grenadines | 5    | 2    | 10   | 12   | 6    | 12   | 14   | 25   | 19   | 16   | 15   |
| Saint Lucia                      | 3    | 12   | 14   | 8    | 9    | 11   | 12   | 12   | 19   | 12   | 14   |
| Kiribati                         | 7    | 6    | 5    | 6    | 3    | 14   | 15   | 10   | 12   | 11   | 9    |
| Marshall Islands                 | 6    | 8    | 5    | 2    | 10   | 8    | 6    | 10   | 9    | 5    | 8    |
| Tuvalu                           | 6    | 1    | 3    | 3    | 4    | 2    | 2    | 2    | 6    | 2    | 5    |
| Nauru                            | 3    | 2    | 2    | 0    | 0    | 1    | 2    | 0    | 2    | 3    | 1    |
| Eswatini                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

Table S3-1-2 OA publication output by country, 2014–2024

| Year           | 2014  | 2015  | 2016  | 2017  | 2018   | 2019   | 2020   | 2021   | 2022   | 2023   | 2024   |
|----------------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|
| China          | 47354 | 57546 | 68992 | 88491 | 107018 | 140843 | 179254 | 224907 | 316038 | 302400 | 339090 |
| United States  | 66542 | 78660 | 88907 | 99193 | 112351 | 130792 | 162463 | 199021 | 215472 | 216458 | 232309 |
| United Kingdom | 29171 | 36167 | 42738 | 48288 | 53694  | 59229  | 75619  | 96082  | 105634 | 111835 | 118391 |
| Germany        | 20888 | 24928 | 28134 | 32020 | 36583  | 45358  | 67405  | 87594  | 91242  | 90690  | 98636  |
| Italy          | 12999 | 15164 | 17340 | 20364 | 24102  | 30958  | 46102  | 61417  | 66040  | 71483  | 75183  |
| India          | 16197 | 19296 | 22841 | 23452 | 27268  | 39000  | 38369  | 48616  | 59464  | 63870  | 71778  |
| Spain          | 13677 | 15340 | 17631 | 20839 | 24978  | 32472  | 44502  | 58324  | 63472  | 66643  | 68369  |
| Japan          | 21327 | 24707 | 27941 | 30193 | 33636  | 36968  | 45465  | 55411  | 56704  | 54053  | 57114  |
| Australia      | 10602 | 12809 | 14369 | 16206 | 19021  | 23202  | 28826  | 36535  | 43894  | 49722  | 56422  |
| Canada         | 12597 | 14320 | 15924 | 17966 | 20892  | 24472  | 30785  | 39906  | 44071  | 44760  | 50416  |

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| France                       | 12617       | 14740       | 16569       | 18691       | 21234       | 25146       | 32183       | 39463       | 41984       | 43056       | 46157       |
| Republic of Korea            | 12815       | 16081       | 18286       | 19885       | 23093       | 28618       | 36156       | 43794       | 45132       | 42727       | 44495       |
| Brazil                       | 22340       | 24193       | 24846       | 27242       | 30397       | 35390       | 40214       | 43397       | 42458       | 40747       | 41778       |
| Netherlands (Kingdom of the) | 8640        | 11270       | 14302       | 17128       | 19964       | 23503       | 30729       | 37959       | 39388       | 39770       | 41367       |
| Poland                       | 9471        | 11335       | 12935       | 13747       | 15571       | 21629       | 30803       | 37730       | 36500       | 35768       | 37375       |
| Saudi Arabia                 | 3583        | 4274        | 4794        | 5235        | 6356        | 9201        | 15768       | 23408       | 31672       | 33230       | 34927       |
| Russia                       | 4301        | 7411        | 9124        | 12814       | 17124       | 27966       | 32985       | 39318       | 39580       | 39958       | 34713       |
| Türkiye                      | 6502        | 7510        | 8578        | 8638        | 11174       | 14113       | 17315       | 20789       | 24123       | 26560       | 31827       |
| Switzerland                  | 7155        | 8635        | 9937        | 11143       | 12519       | 14482       | 19746       | 27111       | 29316       | 29578       | 31452       |
| Sweden                       | 6642        | 7767        | 8950        | 10909       | 12896       | 15817       | 21365       | 27454       | 28503       | 28858       | 30357       |
| Indonesia                    | 1437        | 1813        | 2344        | 3960        | 6806        | 11939       | 14553       | 18482       | 21986       | 26116       | 30130       |
| Iran (Islamic Republic of)   | 5125        | 6474        | 7626        | 8669        | 10084       | 13261       | 16808       | 21579       | 23811       | 23520       | 25863       |
| Egypt                        | 3174        | 3493        | 4225        | 4487        | 5624        | 7511        | 11934       | 16576       | 22168       | 22097       | 20982       |
| Malaysia                     | 5171        | 6043        | 5943        | 5841        | 8285        | 10863       | 12543       | 16460       | 18832       | 18779       | 20077       |
| South Africa                 | 5505        | 4986        | 5757        | 6438        | 7197        | 9093        | 11502       | 14150       | 16179       | 17139       | 19454       |
| Portugal                     | 3674        | 4213        | 4673        | 5370        | 6553        | 8269        | 11125       | 14643       | 16912       | 18898       | 19222       |
| Denmark                      | 3928        | 4654        | 5400        | 5954        | 6785        | 7991        | 10608       | 13695       | 16131       | 17143       | 18619       |
| Austria                      | 3764        | 4586        | 5665        | 6477        | 7971        | 9464        | 12557       | 16224       | 16472       | 16940       | 18212       |
| Norway                       | 3528        | 3994        | 4874        | 5581        | 6654        | 8837        | 12588       | 15816       | 16370       | 17373       | 17975       |
| Pakistan                     | 1932        | 2223        | 2764        | 3578        | 5035        | 7328        | 10802       | 15564       | 19645       | 18361       | 17826       |
| Belgium                      | 4349        | 5499        | 6051        | 6794        | 8045        | 8986        | 12122       | 15342       | 15909       | 16232       | 17119       |
| Mexico                       | 3960        | 4671        | 5285        | 6271        | 7530        | 9343        | 11306       | 13589       | 14760       | 15339       | 16507       |
| Finland                      | 2787        | 3167        | 3685        | 4249        | 5245        | 6943        | 9276        | 12553       | 14072       | 14173       | 15276       |
| Thailand                     | 2229        | 2276        | 2873        | 3311        | 4151        | 5485        | 7428        | 10347       | 13117       | 12472       | 14576       |
| Czechia                      | 3344        | 4250        | 4641        | 5267        | 5962        | 7328        | 9429        | 11758       | 11483       | 12374       | 13608       |
| Iraq                         | 417         | 435         | 657         | 1041        | 2334        | 4805        | 4583        | 6131        | 8883        | 11113       | 12865       |
| Greece                       | 2255        | 2490        | 2881        | 3260        | 4046        | 5044        | 6903        | 9832        | 10855       | 12341       | 12838       |
| Ukraine                      | 1120        | 1611        | 2392        | 3202        | 3845        | 6962        | 8559        | 10195       | 10438       | 11918       | 12173       |
| Chile                        | 3142        | 3455        | 4024        | 4394        | 5282        | 6153        | 7971        | 9806        | 10132       | 10604       | 11545       |
| Romania                      | 1509        | 1821        | 1928        | 3136        | 3926        | 5488        | 7140        | 9302        | 10808       | 10923       | 11455       |
| Hungary                      | 1553        | 1992        | 2254        | 2596        | 3231        | 4683        | 6984        | 8768        | 9487        | 9895        | 10682       |

| <b>Year</b>          | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ireland              | 1749        | 1991        | 2223        | 2528        | 3215        | 3847        | 5728        | 8594        | 9510        | 10045       | 10644       |
| Colombia             | 2540        | 3158        | 3937        | 4290        | 4780        | 5964        | 7968        | 8818        | 9706        | 10228       | 10582       |
| Israel               | 2203        | 2732        | 2886        | 3243        | 3885        | 4575        | 6270        | 8058        | 9265        | 9766        | 10471       |
| Ethiopia             | 673         | 792         | 956         | 1404        | 1876        | 2664        | 4427        | 6111        | 8530        | 7499        | 9330        |
| Nigeria              | 1722        | 1775        | 2138        | 2494        | 3127        | 4198        | 6211        | 7368        | 8148        | 8241        | 8813        |
| United Arab Emirates | 418         | 576         | 809         | 1022        | 1322        | 1951        | 3123        | 4871        | 6525        | 7617        | 8648        |
| Singapore            | 2186        | 2757        | 3169        | 3585        | 3875        | 4754        | 6069        | 7224        | 7816        | 7828        | 8586        |
| New Zealand          | 1621        | 2041        | 2161        | 2696        | 3043        | 3749        | 4598        | 5731        | 7020        | 7425        | 8137        |
| Viet Nam             | 615         | 761         | 1020        | 1222        | 1999        | 3948        | 6190        | 6306        | 6433        | 7095        | 8134        |
| Bangladesh           | 834         | 911         | 1058        | 1273        | 1460        | 2024        | 3323        | 5362        | 6412        | 6357        | 7407        |
| Jordan               | 468         | 486         | 623         | 640         | 1081        | 1586        | 2528        | 3209        | 4892        | 5873        | 7109        |
| Argentina            | 2437        | 2645        | 2918        | 3373        | 4070        | 4644        | 5790        | 6849        | 7083        | 7241        | 7071        |
| Morocco              | 908         | 1043        | 1088        | 1280        | 1471        | 1967        | 2755        | 3743        | 4458        | 5109        | 6344        |
| Serbia               | 2066        | 2068        | 2280        | 2476        | 2809        | 3698        | 3917        | 4951        | 5765        | 6114        | 6133        |
| Croatia              | 982         | 1312        | 1826        | 2155        | 2736        | 3294        | 4258        | 5308        | 5746        | 5942        | 5880        |
| Peru                 | 461         | 694         | 806         | 1030        | 1254        | 1968        | 3014        | 3753        | 4505        | 5282        | 5549        |
| Slovakia             | 1193        | 1394        | 1878        | 2073        | 2393        | 3167        | 4194        | 5152        | 4928        | 5135        | 5414        |
| Slovenia             | 1060        | 1308        | 1456        | 1489        | 1930        | 2494        | 3419        | 4458        | 4598        | 4788        | 5176        |
| Kazakhstan           | 216         | 528         | 466         | 537         | 755         | 1323        | 1758        | 2479        | 3132        | 3641        | 4844        |
| Ecuador              | 260         | 369         | 628         | 895         | 1206        | 1575        | 2158        | 2536        | 3193        | 3643        | 4287        |
| Ghana                | 461         | 618         | 801         | 937         | 1194        | 1488        | 2133        | 2801        | 3635        | 3735        | 4255        |
| Algeria              | 461         | 590         | 773         | 879         | 1208        | 1508        | 1892        | 2667        | 3154        | 3483        | 4070        |
| Bulgaria             | 560         | 647         | 795         | 1005        | 1171        | 1435        | 1946        | 2442        | 2901        | 3586        | 3991        |
| Tunisia              | 632         | 737         | 867         | 1026        | 1126        | 1444        | 1901        | 2695        | 3377        | 3232        | 3879        |
| Philippines          | 387         | 568         | 572         | 689         | 847         | 1334        | 1870        | 2462        | 2967        | 3160        | 3789        |
| Lithuania            | 929         | 960         | 1114        | 1327        | 1636        | 2118        | 2663        | 3153        | 3382        | 3528        | 3646        |
| Qatar                | 424         | 562         | 708         | 796         | 903         | 1324        | 2144        | 3027        | 3045        | 3262        | 3595        |
| Kenya                | 835         | 914         | 1048        | 1292        | 1458        | 1853        | 2526        | 3185        | 3446        | 3407        | 3475        |
| Lebanon              | 314         | 388         | 450         | 568         | 747         | 986         | 1386        | 1555        | 1859        | 2625        | 3301        |
| Uganda               | 477         | 620         | 683         | 861         | 858         | 1096        | 1385        | 1971        | 2141        | 2319        | 2583        |
| Cyprus               | 268         | 288         | 412         | 596         | 711         | 979         | 1328        | 1731        | 2035        | 2236        | 2489        |

| <b>Year</b>                 | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Nepal                       | 364         | 433         | 467         | 661         | 804         | 1024        | 1758        | 2288        | 2368        | 2143        | 2340        |
| United Republic of Tanzania | 531         | 532         | 625         | 692         | 815         | 1057        | 1371        | 1694        | 1902        | 1976        | 2292        |
| Estonia                     | 557         | 645         | 749         | 926         | 1013        | 1270        | 1575        | 1998        | 2097        | 2179        | 2270        |
| Oman                        | 259         | 348         | 419         | 435         | 439         | 633         | 841         | 1354        | 1622        | 1675        | 2222        |
| Kuwait                      | 197         | 211         | 254         | 327         | 409         | 536         | 869         | 1262        | 1494        | 1643        | 2082        |
| Uzbekistan                  | 47          | 43          | 90          | 91          | 130         | 400         | 826         | 634         | 936         | 1334        | 1918        |
| Sri Lanka                   | 406         | 468         | 588         | 681         | 776         | 927         | 1122        | 1514        | 1702        | 1636        | 1762        |
| Azerbaijan                  | 154         | 199         | 227         | 237         | 342         | 474         | 637         | 684         | 683         | 1060        | 1737        |
| Latvia                      | 256         | 288         | 355         | 546         | 671         | 809         | 1087        | 1535        | 1610        | 1772        | 1722        |
| Cameroon                    | 330         | 386         | 460         | 605         | 646         | 767         | 983         | 1239        | 1392        | 1452        | 1596        |
| Luxembourg                  | 252         | 305         | 326         | 413         | 506         | 587         | 850         | 1157        | 1318        | 1319        | 1332        |
| Sudan                       | 188         | 200         | 246         | 268         | 327         | 430         | 648         | 839         | 1199        | 1094        | 1186        |
| Bosnia and Herzegovina      | 172         | 219         | 256         | 377         | 496         | 674         | 806         | 1040        | 1082        | 1077        | 1140        |
| Iceland                     | 236         | 253         | 344         | 386         | 449         | 553         | 705         | 904         | 1027        | 1069        | 1131        |
| Georgia                     | 266         | 310         | 414         | 397         | 537         | 636         | 644         | 726         | 774         | 969         | 1040        |
| Armenia                     | 277         | 328         | 370         | 372         | 447         | 532         | 449         | 551         | 588         | 803         | 1013        |
| Yemen                       | 96          | 102         | 96          | 128         | 157         | 226         | 529         | 847         | 1154        | 989         | 1002        |
| Uruguay                     | 280         | 275         | 355         | 384         | 492         | 627         | 733         | 1019        | 1046        | 1047        | 964         |
| Costa Rica                  | 204         | 206         | 284         | 348         | 397         | 562         | 729         | 835         | 869         | 898         | 953         |
| Cuba                        | 291         | 306         | 374         | 386         | 431         | 511         | 654         | 802         | 844         | 844         | 886         |
| Rwanda                      | 97          | 105         | 133         | 156         | 183         | 262         | 425         | 603         | 677         | 729         | 885         |
| Malawi                      | 166         | 226         | 268         | 364         | 412         | 474         | 618         | 784         | 830         | 846         | 866         |
| Syrian Arab Republic        | 92          | 98          | 128         | 124         | 190         | 232         | 391         | 551         | 783         | 768         | 851         |
| Zimbabwe                    | 221         | 208         | 267         | 282         | 363         | 438         | 567         | 735         | 783         | 770         | 789         |
| Albania                     | 245         | 169         | 76          | 113         | 158         | 186         | 293         | 456         | 548         | 613         | 771         |
| Zambia                      | 143         | 187         | 215         | 298         | 285         | 350         | 493         | 622         | 686         | 721         | 768         |
| Bahrain                     | 51          | 59          | 111         | 124         | 162         | 252         | 350         | 538         | 742         | 826         | 766         |
| Burkina Faso                | 175         | 226         | 227         | 236         | 290         | 391         | 429         | 552         | 661         | 692         | 724         |
| Belarus                     | 295         | 334         | 411         | 529         | 655         | 958         | 993         | 1148        | 1009        | 797         | 721         |
| North Macedonia             | 216         | 223         | 250         | 263         | 346         | 371         | 454         | 558         | 615         | 661         | 707         |
| Senegal                     | 196         | 217         | 244         | 285         | 280         | 368         | 454         | 518         | 618         | 633         | 704         |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Venezuela (Bolivarian Republic of) | 264         | 273         | 300         | 305         | 383         | 450         | 601         | 772         | 697         | 701         | 686         |
| Mongolia                           | 57          | 55          | 106         | 134         | 178         | 264         | 291         | 403         | 443         | 541         | 621         |
| Malta                              | 59          | 97          | 122         | 133         | 167         | 228         | 287         | 485         | 534         | 571         | 606         |
| Benin                              | 119         | 149         | 150         | 210         | 225         | 290         | 379         | 527         | 527         | 546         | 587         |
| Botswana                           | 124         | 107         | 144         | 191         | 218         | 223         | 320         | 417         | 474         | 509         | 563         |
| Libya                              | 76          | 70          | 81          | 102         | 135         | 174         | 233         | 383         | 450         | 486         | 550         |
| Mozambique                         | 110         | 146         | 161         | 208         | 262         | 296         | 391         | 505         | 504         | 456         | 548         |
| Democratic Republic of the Congo   | 16          | 31          | 36          | 67          | 65          | 136         | 274         | 436         | 486         | 514         | 542         |
| Panama                             | 124         | 143         | 164         | 186         | 208         | 254         | 378         | 451         | 464         | 487         | 532         |
| Côte d'Ivoire                      | 101         | 122         | 125         | 141         | 214         | 327         | 353         | 479         | 451         | 491         | 530         |
| Brunei Darussalam                  | 55          | 76          | 72          | 90          | 128         | 166         | 238         | 353         | 537         | 564         | 525         |
| Afghanistan                        | 30          | 31          | 25          | 50          | 75          | 120         | 167         | 318         | 431         | 383         | 522         |
| Kyrgyzstan                         | 18          | 29          | 63          | 74          | 104         | 162         | 224         | 285         | 332         | 379         | 515         |
| Republic of Moldova                | 149         | 199         | 284         | 289         | 280         | 348         | 363         | 466         | 447         | 462         | 477         |
| Cambodia                           | 96          | 128         | 173         | 167         | 209         | 227         | 297         | 344         | 415         | 376         | 427         |
| Somalia                            | 5           | 6           | 2           | 15          | 14          | 23          | 53          | 65          | 201         | 245         | 422         |
| Montenegro                         | 109         | 73          | 118         | 158         | 169         | 270         | 343         | 333         | 295         | 350         | 384         |
| Namibia                            | 66          | 69          | 84          | 86          | 108         | 148         | 216         | 253         | 347         | 348         | 378         |
| Bolivia (Plurinational State of)   | 71          | 89          | 80          | 105         | 126         | 210         | 260         | 296         | 312         | 334         | 364         |
| Paraguay                           | 35          | 43          | 53          | 72          | 83          | 196         | 208         | 247         | 283         | 303         | 339         |
| Congo                              | 147         | 145         | 176         | 182         | 203         | 251         | 238         | 288         | 312         | 289         | 331         |
| Madagascar                         | 85          | 92          | 105         | 130         | 137         | 159         | 204         | 296         | 281         | 311         | 302         |
| Dominican Republic                 | 20          | 30          | 30          | 41          | 63          | 105         | 142         | 210         | 228         | 228         | 299         |
| Mali                               | 59          | 93          | 113         | 136         | 142         | 185         | 218         | 249         | 284         | 249         | 289         |
| Togo                               | 50          | 53          | 62          | 61          | 74          | 108         | 130         | 158         | 198         | 196         | 280         |
| Guatemala                          | 49          | 65          | 85          | 87          | 105         | 119         | 200         | 259         | 257         | 260         | 273         |
| Gambia                             | 77          | 90          | 101         | 116         | 93          | 141         | 180         | 232         | 245         | 257         | 269         |
| Honduras                           | 20          | 26          | 36          | 50          | 89          | 87          | 156         | 160         | 196         | 257         | 261         |
| Sierra Leone                       | 17          | 41          | 76          | 78          | 84          | 91          | 139         | 189         | 223         | 221         | 257         |
| Trinidad and Tobago                | 53          | 73          | 75          | 113         | 117         | 147         | 160         | 220         | 227         | 248         | 242         |
| Myanmar                            | 23          | 62          | 82          | 152         | 194         | 272         | 385         | 427         | 317         | 262         | 238         |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Gabon                            | 64   | 74   | 72   | 68   | 67   | 103  | 110  | 171  | 218  | 163  | 226  |
| Fiji                             | 54   | 38   | 67   | 79   | 86   | 138  | 180  | 191  | 234  | 223  | 221  |
| Lao People's Democratic Republic | 56   | 80   | 88   | 94   | 119  | 163  | 170  | 211  | 213  | 184  | 211  |
| Niger                            | 36   | 67   | 79   | 62   | 68   | 131  | 137  | 155  | 176  | 182  | 202  |
| Angola                           | 36   | 33   | 53   | 55   | 40   | 49   | 65   | 95   | 157  | 156  | 193  |
| Jamaica                          | 68   | 72   | 59   | 77   | 82   | 92   | 114  | 187  | 178  | 161  | 163  |
| Tajikistan                       | 14   | 15   | 17   | 35   | 40   | 80   | 118  | 114  | 113  | 158  | 158  |
| Papua New Guinea                 | 43   | 52   | 62   | 65   | 58   | 91   | 91   | 118  | 148  | 133  | 156  |
| Mauritius                        | 34   | 28   | 57   | 60   | 61   | 103  | 134  | 185  | 161  | 136  | 148  |
| Liberia                          | 7    | 19   | 38   | 34   | 50   | 61   | 53   | 80   | 119  | 134  | 145  |
| Grenada                          | 23   | 17   | 31   | 50   | 56   | 64   | 103  | 137  | 128  | 146  | 142  |
| Bhutan                           | 19   | 32   | 37   | 50   | 45   | 59   | 108  | 144  | 172  | 150  | 136  |
| Guinea                           | 13   | 37   | 41   | 69   | 41   | 74   | 87   | 122  | 131  | 120  | 124  |
| Chad                             | 14   | 12   | 16   | 25   | 29   | 41   | 41   | 59   | 74   | 64   | 112  |
| El Salvador                      | 35   | 28   | 32   | 34   | 51   | 46   | 46   | 90   | 114  | 121  | 111  |
| Barbados                         | 15   | 24   | 24   | 31   | 33   | 57   | 65   | 79   | 108  | 99   | 110  |
| Monaco                           | 20   | 24   | 33   | 49   | 41   | 84   | 92   | 106  | 118  | 99   | 109  |
| Burundi                          | 14   | 18   | 18   | 20   | 34   | 37   | 63   | 63   | 78   | 80   | 102  |
| Lesotho                          | 8    | 12   | 17   | 25   | 23   | 41   | 57   | 68   | 99   | 100  | 99   |
| Haiti                            | 28   | 27   | 32   | 51   | 43   | 62   | 75   | 92   | 117  | 89   | 95   |
| Nicaragua                        | 27   | 42   | 36   | 57   | 55   | 59   | 68   | 84   | 106  | 89   | 94   |
| Mauritania                       | 9    | 9    | 17   | 21   | 27   | 35   | 39   | 49   | 39   | 78   | 84   |
| Saint Kitts and Nevis            | 16   | 26   | 38   | 31   | 43   | 49   | 79   | 101  | 101  | 85   | 84   |
| Maldives                         | 3    | 5    | 7    | 5    | 14   | 21   | 36   | 43   | 70   | 81   | 81   |
| South Sudan                      | 4    | 6    | 10   | 8    | 16   | 13   | 23   | 57   | 80   | 58   | 81   |
| Timor-Leste                      | 5    | 9    | 10   | 9    | 15   | 14   | 17   | 30   | 42   | 59   | 81   |
| Guyana                           | 8    | 17   | 8    | 16   | 19   | 16   | 48   | 43   | 52   | 58   | 80   |
| Central African Republic         | 19   | 18   | 21   | 21   | 26   | 28   | 38   | 40   | 55   | 55   | 70   |
| Liechtenstein                    | 14   | 14   | 17   | 13   | 17   | 32   | 32   | 59   | 74   | 82   | 69   |
| Cabo Verde                       | 3    | 15   | 16   | 15   | 17   | 20   | 43   | 44   | 54   | 64   | 65   |
| Seychelles                       | 12   | 14   | 21   | 20   | 21   | 24   | 30   | 55   | 48   | 48   | 61   |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Democratic People's Republic of Korea | 5           | 6           | 14          | 14          | 22          | 39          | 38          | 44          | 58          | 48          | 48          |
| Suriname                              | 6           | 13          | 19          | 15          | 19          | 35          | 37          | 37          | 35          | 48          | 47          |
| Eritrea                               | 5           | 9           | 15          | 11          | 25          | 28          | 41          | 48          | 56          | 42          | 44          |
| Guinea-Bissau                         | 26          | 15          | 26          | 28          | 16          | 27          | 31          | 46          | 48          | 35          | 42          |
| The Bahamas                           | 8           | 8           | 13          | 16          | 21          | 25          | 26          | 46          | 39          | 35          | 41          |
| Djibouti                              | 6           | 4           | 5           | 4           | 3           | 6           | 17          | 19          | 21          | 35          | 40          |
| Solomon Islands                       | 12          | 18          | 24          | 18          | 29          | 27          | 34          | 37          | 27          | 35          | 40          |
| Samoa                                 | 5           | 5           | 3           | 8           | 6           | 11          | 30          | 48          | 38          | 49          | 37          |
| Antigua and Barbuda                   | 3           | 3           | 14          | 7           | 9           | 8           | 12          | 14          | 23          | 32          | 36          |
| Andorra                               | 2           | 5           | 2           | 2           | 4           | 12          | 13          | 19          | 27          | 28          | 32          |
| Belize                                | 7           | 12          | 9           | 14          | 12          | 14          | 36          | 36          | 32          | 51          | 31          |
| San Marino                            | 3           | 4           | 5           | 10          | 11          | 15          | 20          | 25          | 29          | 22          | 31          |
| Vanuatu                               | 11          | 9           | 6           | 9           | 6           | 12          | 21          | 27          | 29          | 21          | 31          |
| Sao Tome and Principe                 | 2           | 1           | 1           | 4           | 1           | 1           | 3           | 9           | 15          | 13          | 26          |
| Turkmenistan                          | 11          | 5           | 1           | 3           | 3           | 4           | 6           | 16          | 6           | 18          | 26          |
| Dominica                              | 6           | 13          | 8           | 9           | 8           | 7           | 13          | 8           | 18          | 16          | 20          |
| Comoros                               | 1           | 4           | 8           | 7           | 12          | 10          | 10          | 18          | 13          | 21          | 19          |
| Tonga                                 | 2           | 2           | 4           | 7           | 6           | 9           | 16          | 11          | 15          | 17          | 17          |
| Equatorial Guinea                     | 2           | 8           | 11          | 6           | 8           | 13          | 13          | 18          | 19          | 21          | 15          |
| Palau                                 | 2           | 2           | 3           | 6           | 7           | 17          | 10          | 16          | 13          | 14          | 15          |
| Micronesia (Federated States of)      | 5           | 3           | 14          | 14          | 22          | 8           | 19          | 11          | 12          | 13          | 13          |
| Saint Vincent and the Grenadines      | 3           | 2           | 4           | 4           | 3           | 5           | 4           | 8           | 10          | 10          | 10          |
| Saint Lucia                           |             | 3           | 5           | 3           | 5           | 3           | 4           | 3           | 8           | 9           | 9           |
| Kiribati                              | 2           | 2           | 2           | 4           | 2           | 7           | 9           | 4           | 8           | 7           | 8           |
| Marshall Islands                      | 1           | 1           | 3           | 1           | 3           | 7           | 3           | 8           | 6           | 4           | 4           |
| Tuvalu                                | 1           |             |             | 1           | 1           | 1           | 2           | 1           | 5           | 1           | 3           |
| Nauru                                 |             | 1           | 2           |             |             |             |             |             | 2           | 3           | 1           |
| Eswatini                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |

Table S3-1-3 Internationally co-authored publication output by country, 2014–2024

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United States                | 160920      | 172047      | 180986      | 190255      | 201764      | 209651      | 224541      | 236034      | 226658      | 214935      | 222444      |
| China                        | 69275       | 79664       | 89526       | 101001      | 118113      | 136596      | 154241      | 162312      | 174107      | 167440      | 185687      |
| United Kingdom               | 71424       | 77962       | 82827       | 88265       | 95218       | 100462      | 112057      | 124552      | 121225      | 117960      | 123314      |
| Germany                      | 61689       | 65557       | 68400       | 71655       | 75234       | 78134       | 85193       | 93272       | 89491       | 86634       | 89615       |
| Italy                        | 34522       | 37176       | 39753       | 42030       | 45565       | 47815       | 55638       | 61167       | 59745       | 58799       | 62405       |
| Australia                    | 34199       | 38099       | 41097       | 44513       | 48968       | 53173       | 58836       | 64327       | 63053       | 58891       | 61547       |
| India                        | 16590       | 17973       | 19714       | 21338       | 24132       | 27678       | 33862       | 43606       | 52266       | 53772       | 60952       |
| Canada                       | 38208       | 40382       | 42840       | 45051       | 48622       | 52075       | 57269       | 62650       | 62541       | 59447       | 60941       |
| France                       | 45658       | 48150       | 50592       | 52532       | 54403       | 55610       | 60510       | 63683       | 60266       | 58385       | 60303       |
| Spain                        | 31289       | 33127       | 35457       | 37178       | 39634       | 42407       | 48535       | 52598       | 50702       | 51625       | 53773       |
| Saudi Arabia                 | 10743       | 12666       | 13551       | 13791       | 15016       | 17588       | 24538       | 33453       | 41786       | 43355       | 50779       |
| Netherlands (Kingdom of the) | 25544       | 27020       | 28589       | 30056       | 32075       | 33506       | 36803       | 40607       | 39283       | 38015       | 39396       |
| Japan                        | 25746       | 26962       | 28648       | 29801       | 31715       | 33271       | 37566       | 39021       | 36972       | 35317       | 37206       |
| Switzerland                  | 22177       | 23701       | 25122       | 26633       | 27922       | 28564       | 31726       | 35335       | 34216       | 33475       | 34701       |
| Republic of Korea            | 17403       | 18658       | 19401       | 20029       | 21547       | 23086       | 25919       | 28656       | 29731       | 30171       | 33643       |
| Brazil                       | 15295       | 17155       | 19752       | 21117       | 23137       | 24814       | 28315       | 31836       | 29683       | 28431       | 29963       |
| Sweden                       | 17550       | 19261       | 20673       | 21771       | 23156       | 24358       | 26337       | 29007       | 28016       | 27326       | 28457       |
| Pakistan                     | 4304        | 5051        | 6053        | 7577        | 9325        | 11802       | 16011       | 20841       | 25066       | 24496       | 26545       |
| Belgium                      | 15869       | 17015       | 17622       | 18357       | 19760       | 19793       | 22353       | 24869       | 23957       | 23420       | 24265       |
| Malaysia                     | 7682        | 8518        | 9149        | 9670        | 10691       | 12430       | 14808       | 17444       | 19998       | 20512       | 23951       |
| Egypt                        | 6448        | 7157        | 7908        | 8408        | 9598        | 11370       | 15578       | 19823       | 23427       | 22672       | 23513       |
| Iran (Islamic Republic of)   | 7597        | 8129        | 9116        | 10784       | 12670       | 15948       | 19956       | 23151       | 24041       | 22612       | 22976       |
| Poland                       | 9538        | 10416       | 11498       | 12250       | 13371       | 14575       | 17557       | 19909       | 20290       | 20652       | 22304       |
| Türkiye                      | 6366        | 7172        | 8178        | 8359        | 9020        | 10426       | 13253       | 15790       | 17775       | 19236       | 21772       |
| Denmark                      | 11553       | 12800       | 13723       | 14456       | 15648       | 16516       | 18519       | 20290       | 19686       | 19673       | 20265       |
| Austria                      | 11002       | 11872       | 12501       | 13003       | 13987       | 14789       | 16619       | 18694       | 17990       | 17786       | 18997       |
| Singapore                    | 8638        | 9522        | 9972        | 10757       | 11482       | 12474       | 14235       | 15025       | 15638       | 15682       | 17780       |
| South Africa                 | 7391        | 8081        | 9163        | 9975        | 11075       | 12155       | 14092       | 15832       | 16468       | 15970       | 16864       |

| <b>Year</b>          | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Russia               | 12004       | 13867       | 15018       | 16667       | 18199       | 20371       | 23073       | 24710       | 22121       | 18204       | 16784       |
| Portugal             | 8620        | 9289        | 10136       | 10607       | 11608       | 12579       | 14541       | 16121       | 16190       | 15918       | 16586       |
| Norway               | 8572        | 9201        | 10212       | 10977       | 11912       | 12576       | 14519       | 16220       | 16121       | 16127       | 16290       |
| Indonesia            | 2067        | 2323        | 2668        | 3063        | 4114        | 5507        | 6756        | 7957        | 9682        | 11175       | 13946       |
| Finland              | 8330        | 9090        | 9433        | 9940        | 10391       | 11317       | 12408       | 13675       | 13579       | 12954       | 13908       |
| Czechia              | 6933        | 7726        | 8097        | 8783        | 9499        | 10227       | 11884       | 13103       | 12483       | 12444       | 13367       |
| United Arab Emirates | 1635        | 2145        | 2615        | 3079        | 3688        | 4509        | 6098        | 8126        | 9972        | 11682       | 13308       |
| Thailand             | 4225        | 4573        | 5180        | 5497        | 6162        | 6826        | 8154        | 9776        | 10929       | 10241       | 12139       |
| Mexico               | 6517        | 6928        | 7744        | 8446        | 9238        | 10025       | 11469       | 12519       | 11952       | 11313       | 11848       |
| Chile                | 5194        | 5768        | 6591        | 6976        | 7919        | 8481        | 10092       | 11129       | 10585       | 10897       | 11802       |
| Ireland              | 5452        | 5712        | 6297        | 6659        | 7585        | 8084        | 9469        | 11043       | 10710       | 10796       | 11548       |
| Greece               | 6507        | 6772        | 7252        | 7522        | 8066        | 8673        | 9614        | 10931       | 10844       | 10767       | 11265       |
| Israel               | 7089        | 7802        | 8173        | 8296        | 9082        | 9349        | 10426       | 11180       | 11018       | 10895       | 10915       |
| Nigeria              | 1683        | 1936        | 2505        | 2913        | 3517        | 4382        | 5868        | 7252        | 8213        | 8480        | 9436        |
| New Zealand          | 6323        | 6648        | 6922        | 7579        | 8147        | 8841        | 9603        | 10354       | 10213       | 9126        | 9381        |
| Iraq                 | 942         | 1101        | 1369        | 1665        | 2315        | 2990        | 3854        | 4431        | 6218        | 7322        | 8933        |
| Viet Nam             | 2178        | 2497        | 2969        | 3684        | 4832        | 7018        | 10040       | 9443        | 8515        | 7857        | 8270        |
| Jordan               | 1013        | 1106        | 1290        | 1406        | 1827        | 2222        | 3015        | 3953        | 4882        | 6119        | 8163        |
| Colombia             | 2982        | 3457        | 3926        | 4603        | 5158        | 5702        | 6864        | 7782        | 7501        | 7739        | 8021        |
| Hungary              | 4172        | 4428        | 4724        | 4769        | 5169        | 5463        | 5950        | 6842        | 6754        | 7020        | 7781        |
| Bangladesh           | 1633        | 1676        | 1891        | 2282        | 2544        | 3258        | 4403        | 6394        | 7239        | 6797        | 7715        |
| Argentina            | 4762        | 4921        | 5183        | 5339        | 5836        | 6076        | 7191        | 7574        | 7125        | 7098        | 7458        |
| Romania              | 3532        | 3795        | 4017        | 3956        | 4270        | 4794        | 5579        | 6181        | 6716        | 6748        | 6870        |
| Ukraine              | 3124        | 3231        | 3349        | 3499        | 3867        | 4487        | 4933        | 5210        | 5262        | 5764        | 5945        |
| Lebanon              | 1050        | 1150        | 1371        | 1530        | 1723        | 1948        | 2428        | 2632        | 2855        | 4445        | 5490        |
| Morocco              | 1506        | 1645        | 1757        | 1820        | 2013        | 2376        | 3032        | 3815        | 4213        | 4643        | 5477        |
| Tunisia              | 2214        | 2690        | 3058        | 3212        | 3186        | 3590        | 4000        | 4608        | 5148        | 4978        | 5469        |
| Ethiopia             | 959         | 1035        | 1252        | 1659        | 1892        | 2232        | 2792        | 3764        | 5076        | 4489        | 5354        |
| Serbia               | 2359        | 2545        | 2684        | 2940        | 3215        | 3687        | 3909        | 4605        | 4766        | 4811        | 5151        |
| Algeria              | 1721        | 2021        | 2480        | 2670        | 2972        | 3094        | 3486        | 4193        | 4425        | 4270        | 5089        |
| Slovakia             | 2327        | 2536        | 2886        | 2944        | 3132        | 3512        | 4153        | 4347        | 4107        | 4279        | 4469        |

|                             | <b>Year</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Qatar                       |             | 1455        | 1943        | 2350        | 2390        | 2529        | 2782        | 3384        | 3905        | 3987        | 3969        | 4377        |
| Slovenia                    |             | 2218        | 2448        | 2566        | 2620        | 2928        | 2978        | 3441        | 3992        | 3627        | 3643        | 4099        |
| Ghana                       |             | 829         | 1001        | 1213        | 1410        | 1764        | 2057        | 2537        | 3120        | 3822        | 3624        | 4037        |
| Ecuador                     |             | 637         | 971         | 1328        | 1816        | 2137        | 2519        | 2925        | 3215        | 3247        | 3597        | 3994        |
| Kazakhstan                  |             | 663         | 780         | 1095        | 1307        | 1472        | 2145        | 2415        | 2833        | 2978        | 3161        | 3884        |
| Peru                        |             | 1037        | 1179        | 1310        | 1482        | 1657        | 1961        | 2635        | 3278        | 3536        | 3896        | 3850        |
| Croatia                     |             | 1916        | 2041        | 2218        | 2383        | 2766        | 2934        | 3370        | 3815        | 3821        | 3689        | 3831        |
| Kenya                       |             | 1751        | 1782        | 1945        | 2212        | 2369        | 2672        | 3198        | 3770        | 3946        | 3798        | 3791        |
| Oman                        |             | 655         | 852         | 930         | 929         | 1096        | 1345        | 1626        | 2219        | 2616        | 2675        | 3499        |
| Philippines                 |             | 994         | 1140        | 1260        | 1401        | 1476        | 1701        | 2186        | 2695        | 2931        | 2977        | 3449        |
| Cyprus                      |             | 880         | 1004        | 1137        | 1318        | 1539        | 1782        | 2318        | 2766        | 2910        | 2987        | 3132        |
| Kuwait                      |             | 549         | 550         | 683         | 768         | 840         | 1076        | 1380        | 1757        | 2031        | 2319        | 3123        |
| Uzbekistan                  |             | 242         | 202         | 272         | 279         | 322         | 429         | 649         | 765         | 1205        | 1742        | 2795        |
| Uganda                      |             | 974         | 1065        | 1149        | 1347        | 1360        | 1544        | 1855        | 2302        | 2406        | 2579        | 2693        |
| Lithuania                   |             | 1049        | 1166        | 1296        | 1433        | 1722        | 1882        | 2273        | 2500        | 2339        | 2453        | 2687        |
| Bulgaria                    |             | 1482        | 1521        | 1710        | 1872        | 1970        | 1843        | 2222        | 2339        | 2357        | 2418        | 2556        |
| Azerbaijan                  |             | 305         | 366         | 459         | 455         | 599         | 677         | 808         | 807         | 784         | 1084        | 2536        |
| Estonia                     |             | 1254        | 1331        | 1526        | 1572        | 1773        | 2054        | 2183        | 2567        | 2483        | 2458        | 2466        |
| Nepal                       |             | 576         | 657         | 712         | 902         | 963         | 1150        | 1560        | 1909        | 2061        | 1925        | 2126        |
| United Republic of Tanzania |             | 971         | 1021        | 1084        | 1182        | 1308        | 1509        | 1724        | 1955        | 2013        | 2008        | 2121        |
| Cameroon                    |             | 741         | 791         | 863         | 993         | 1103        | 1208        | 1453        | 1711        | 1816        | 1797        | 2047        |
| Luxembourg                  |             | 975         | 1024        | 1051        | 1127        | 1298        | 1356        | 1514        | 1765        | 1898        | 1877        | 1887        |
| Sri Lanka                   |             | 580         | 656         | 771         | 931         | 973         | 1075        | 1295        | 1606        | 1784        | 1739        | 1855        |
| Sudan                       |             | 422         | 457         | 504         | 547         | 647         | 770         | 1000        | 1307        | 1507        | 1371        | 1490        |
| Iceland                     |             | 826         | 914         | 1038        | 1053        | 1127        | 1263        | 1307        | 1430        | 1471        | 1419        | 1467        |
| Georgia                     |             | 528         | 696         | 864         | 952         | 1239        | 1461        | 1364        | 1304        | 1357        | 1442        | 1456        |
| Yemen                       |             | 263         | 254         | 287         | 372         | 439         | 553         | 913         | 1288        | 1634        | 1461        | 1442        |
| Latvia                      |             | 436         | 526         | 652         | 744         | 830         | 868         | 1202        | 1301        | 1261        | 1354        | 1420        |
| Uruguay                     |             | 758         | 811         | 858         | 869         | 1021        | 1118        | 1213        | 1431        | 1293        | 1311        | 1327        |
| Belarus                     |             | 858         | 900         | 1033        | 1112        | 1298        | 1382        | 1443        | 1485        | 1433        | 1203        | 1285        |
| Bahrain                     |             | 193         | 182         | 247         | 248         | 329         | 431         | 575         | 773         | 1055        | 1186        | 1271        |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Armenia                            | 539         | 612         | 648         | 670         | 756         | 817         | 706         | 801         | 875         | 1043        | 1252        |
| Cuba                               | 865         | 880         | 927         | 933         | 1044        | 1079        | 1130        | 1255        | 1140        | 1006        | 1109        |
| Costa Rica                         | 558         | 543         | 577         | 681         | 747         | 813         | 991         | 1102        | 1092        | 1092        | 1106        |
| Bosnia and Herzegovina             | 356         | 429         | 455         | 568         | 658         | 701         | 774         | 997         | 1023        | 982         | 1097        |
| Malawi                             | 390         | 443         | 519         | 620         | 684         | 716         | 858         | 1040        | 1037        | 995         | 1003        |
| Rwanda                             | 209         | 247         | 286         | 319         | 398         | 443         | 646         | 815         | 862         | 883         | 998         |
| Zambia                             | 333         | 362         | 424         | 505         | 493         | 528         | 677         | 810         | 916         | 934         | 950         |
| Zimbabwe                           | 385         | 350         | 475         | 543         | 616         | 641         | 793         | 976         | 1005        | 921         | 933         |
| Mongolia                           | 250         | 256         | 309         | 339         | 382         | 504         | 551         | 624         | 686         | 752         | 898         |
| Senegal                            | 416         | 493         | 487         | 554         | 562         | 582         | 654         | 716         | 793         | 795         | 866         |
| Venezuela (Bolivarian Republic of) | 757         | 745         | 799         | 876         | 894         | 912         | 984         | 1036        | 900         | 896         | 825         |
| Burkina Faso                       | 372         | 423         | 445         | 451         | 499         | 529         | 582         | 678         | 763         | 713         | 785         |
| Libya                              | 266         | 259         | 248         | 286         | 328         | 360         | 452         | 651         | 633         | 700         | 778         |
| Brunei Darussalam                  | 148         | 220         | 254         | 287         | 264         | 336         | 424         | 534         | 730         | 776         | 770         |
| North Macedonia                    | 334         | 342         | 368         | 406         | 444         | 504         | 570         | 680         | 716         | 715         | 748         |
| Benin                              | 312         | 325         | 316         | 390         | 411         | 444         | 503         | 678         | 672         | 656         | 724         |
| Panama                             | 379         | 418         | 453         | 481         | 521         | 601         | 670         | 780         | 726         | 722         | 723         |
| Botswana                           | 266         | 233         | 347         | 363         | 451         | 483         | 585         | 662         | 666         | 695         | 712         |
| Mozambique                         | 204         | 283         | 316         | 365         | 415         | 476         | 561         | 727         | 669         | 638         | 707         |
| Malta                              | 226         | 272         | 311         | 336         | 390         | 414         | 495         | 671         | 705         | 706         | 706         |
| Democratic Republic of the Congo   | 37          | 68          | 86          | 136         | 150         | 228         | 396         | 586         | 651         | 677         | 690         |
| Albania                            | 164         | 187         | 203         | 232         | 285         | 305         | 438         | 534         | 586         | 560         | 645         |
| Syrian Arab Republic               | 214         | 184         | 177         | 178         | 180         | 220         | 312         | 418         | 594         | 620         | 614         |
| Côte d'Ivoire                      | 226         | 252         | 270         | 295         | 397         | 461         | 504         | 634         | 598         | 568         | 610         |
| Afghanistan                        | 76          | 67          | 97          | 130         | 179         | 244         | 216         | 350         | 527         | 458         | 605         |
| Kyrgyzstan                         | 96          | 113         | 135         | 168         | 209         | 256         | 346         | 404         | 445         | 468         | 579         |
| Cambodia                           | 239         | 281         | 346         | 362         | 397         | 440         | 490         | 521         | 567         | 503         | 540         |
| Bolivia (Plurinational State of)   | 246         | 255         | 256         | 235         | 286         | 311         | 368         | 439         | 444         | 410         | 479         |
| Namibia                            | 166         | 205         | 213         | 216         | 274         | 313         | 380         | 425         | 468         | 447         | 471         |
| Montenegro                         | 179         | 160         | 192         | 239         | 253         | 319         | 403         | 374         | 336         | 388         | 455         |
| Congo                              | 318         | 324         | 354         | 349         | 408         | 372         | 372         | 396         | 420         | 364         | 429         |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Madagascar                       | 206         | 247         | 244         | 285         | 299         | 291         | 347         | 443         | 399         | 431         | 401         |
| Dominican Republic               | 72          | 112         | 114         | 135         | 159         | 212         | 268         | 331         | 344         | 348         | 396         |
| Guatemala                        | 138         | 209         | 208         | 234         | 219         | 250         | 327         | 398         | 395         | 395         | 385         |
| Mali                             | 163         | 222         | 222         | 266         | 252         | 291         | 321         | 347         | 390         | 335         | 384         |
| Republic of Moldova              | 244         | 222         | 271         | 251         | 236         | 314         | 323         | 342         | 310         | 368         | 384         |
| Myanmar                          | 88          | 139         | 188         | 282         | 380         | 462         | 651         | 669         | 482         | 398         | 361         |
| Paraguay                         | 87          | 127         | 139         | 170         | 166         | 262         | 307         | 337         | 343         | 375         | 356         |
| Gambia                           | 140         | 160         | 160         | 177         | 137         | 189         | 214         | 289         | 296         | 301         | 334         |
| Trinidad and Tobago              | 170         | 177         | 151         | 176         | 199         | 229         | 249         | 290         | 289         | 313         | 324         |
| Somalia                          | 15          | 18          | 13          | 31          | 24          | 53          | 71          | 87          | 136         | 210         | 323         |
| Togo                             | 101         | 105         | 115         | 98          | 139         | 168         | 188         | 216         | 253         | 230         | 323         |
| Fiji                             | 143         | 141         | 182         | 212         | 231         | 279         | 331         | 354         | 367         | 353         | 322         |
| Honduras                         | 63          | 79          | 60          | 106         | 141         | 137         | 233         | 222         | 225         | 299         | 320         |
| Lao People's Democratic Republic | 163         | 214         | 233         | 202         | 252         | 303         | 297         | 327         | 295         | 268         | 303         |
| Sierra Leone                     | 56          | 93          | 130         | 136         | 136         | 147         | 193         | 254         | 276         | 258         | 291         |
| Gabon                            | 155         | 155         | 145         | 157         | 163         | 171         | 168         | 255         | 281         | 215         | 277         |
| Jamaica                          | 158         | 183         | 174         | 179         | 220         | 221         | 264         | 270         | 258         | 240         | 254         |
| Mauritius                        | 89          | 108         | 117         | 163         | 190         | 256         | 277         | 293         | 255         | 225         | 237         |
| Papua New Guinea                 | 127         | 142         | 143         | 143         | 154         | 180         | 179         | 220         | 242         | 205         | 232         |
| Grenada                          | 120         | 101         | 112         | 195         | 204         | 188         | 236         | 260         | 240         | 242         | 231         |
| Angola                           | 71          | 76          | 85          | 117         | 96          | 105         | 133         | 151         | 197         | 188         | 229         |
| Niger                            | 117         | 143         | 135         | 125         | 148         | 188         | 180         | 208         | 218         | 222         | 224         |
| Liberia                          | 25          | 50          | 74          | 68          | 87          | 102         | 73          | 118         | 184         | 220         | 218         |
| Tajikistan                       | 59          | 72          | 67          | 89          | 94          | 150         | 200         | 200         | 166         | 198         | 218         |
| Monaco                           | 75          | 106         | 128         | 147         | 145         | 202         | 214         | 229         | 236         | 191         | 196         |
| Barbados                         | 71          | 61          | 77          | 79          | 83          | 99          | 114         | 133         | 159         | 134         | 160         |
| Chad                             | 31          | 32          | 37          | 53          | 45          | 62          | 62          | 90          | 102         | 101         | 158         |
| El Salvador                      | 68          | 94          | 82          | 70          | 81          | 79          | 88          | 131         | 150         | 148         | 154         |
| Guinea                           | 45          | 90          | 106         | 120         | 85          | 115         | 129         | 163         | 157         | 158         | 153         |
| Bhutan                           | 45          | 60          | 72          | 85          | 71          | 110         | 156         | 184         | 181         | 166         | 152         |
| Guyana                           | 20          | 27          | 30          | 28          | 43          | 65          | 88          | 90          | 94          | 123         | 149         |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Burundi                               | 32          | 43          | 43          | 53          | 75          | 67          | 107         | 105         | 119         | 110         | 130         |
| Nicaragua                             | 77          | 95          | 108         | 126         | 106         | 112         | 130         | 121         | 156         | 135         | 130         |
| Haiti                                 | 90          | 89          | 88          | 109         | 87          | 105         | 124         | 145         | 155         | 135         | 128         |
| Maldives                              | 17          | 19          | 17          | 31          | 28          | 40          | 73          | 73          | 102         | 108         | 125         |
| Saint Kitts and Nevis                 | 42          | 57          | 90          | 72          | 84          | 91          | 121         | 138         | 137         | 122         | 123         |
| Mauritania                            | 36          | 32          | 46          | 42          | 50          | 59          | 72          | 92          | 74          | 118         | 122         |
| Lesotho                               | 25          | 33          | 25          | 32          | 38          | 63          | 78          | 90          | 122         | 112         | 117         |
| Liechtenstein                         | 91          | 83          | 94          | 89          | 90          | 97          | 86          | 107         | 126         | 124         | 104         |
| Timor-Leste                           | 21          | 22          | 22          | 27          | 37          | 29          | 37          | 44          | 54          | 65          | 99          |
| Central African Republic              | 36          | 34          | 54          | 40          | 59          | 46          | 67          | 72          | 74          | 84          | 91          |
| South Sudan                           | 13          | 8           | 12          | 15          | 24          | 20          | 41          | 75          | 98          | 66          | 88          |
| Cabo Verde                            | 27          | 33          | 33          | 38          | 29          | 41          | 63          | 70          | 76          | 79          | 85          |
| Seychelles                            | 39          | 49          | 42          | 55          | 47          | 50          | 84          | 88          | 86          | 62          | 81          |
| Democratic People's Republic of Korea | 25          | 58          | 68          | 77          | 85          | 96          | 75          | 78          | 100         | 120         | 78          |
| The Bahamas                           | 38          | 34          | 31          | 58          | 60          | 80          | 75          | 102         | 80          | 68          | 73          |
| Suriname                              | 14          | 30          | 43          | 37          | 43          | 61          | 52          | 62          | 41          | 76          | 61          |
| Antigua and Barbuda                   | 7           | 8           | 17          | 15          | 22          | 16          | 20          | 29          | 36          | 55          | 58          |
| Djibouti                              | 16          | 14          | 17          | 16          | 17          | 17          | 30          | 65          | 32          | 47          | 58          |
| Samoa                                 | 17          | 15          | 17          | 21          | 29          | 37          | 61          | 83          | 64          | 66          | 54          |
| Guinea-Bissau                         | 54          | 34          | 52          | 56          | 53          | 58          | 54          | 64          | 65          | 56          | 53          |
| Belize                                | 21          | 27          | 25          | 33          | 29          | 36          | 47          | 62          | 56          | 61          | 50          |
| Eritrea                               | 24          | 24          | 23          | 24          | 35          | 35          | 32          | 54          | 61          | 46          | 49          |
| Solomon Islands                       | 26          | 45          | 47          | 45          | 53          | 52          | 61          | 62          | 43          | 43          | 47          |
| San Marino                            | 15          | 23          | 19          | 23          | 35          | 34          | 39          | 47          | 44          | 35          | 45          |
| Vanuatu                               | 26          | 27          | 37          | 27          | 24          | 38          | 44          | 46          | 50          | 33          | 44          |
| Andorra                               | 16          | 16          | 18          | 12          | 13          | 25          | 26          | 31          | 39          | 42          | 43          |
| Comoros                               | 4           | 7           | 15          | 12          | 17          | 20          | 20          | 20          | 18          | 40          | 36          |
| Sao Tome and Principe                 | 4           | 2           | 3           | 8           | 6           | 9           | 11          | 12          | 19          | 17          | 36          |
| Dominica                              | 20          | 30          | 31          | 29          | 27          | 24          | 22          | 22          | 24          | 25          | 29          |
| Palau                                 | 8           | 15          | 12          | 21          | 16          | 27          | 25          | 27          | 28          | 21          | 28          |
| Tonga                                 | 7           | 8           | 9           | 15          | 16          | 15          | 29          | 21          | 23          | 23          | 25          |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Turkmenistan                     | 21          | 9           | 7           | 9           | 4           | 7           | 11          | 21          | 11          | 19          | 24          |
| Micronesia (Federated States of) | 12          | 11          | 19          | 28          | 27          | 13          | 27          | 17          | 18          | 19          | 18          |
| Equatorial Guinea                | 13          | 17          | 23          | 14          | 19          | 19          | 13          | 27          | 23          | 29          | 16          |
| Saint Vincent and the Grenadines | 5           | 2           | 8           | 11          | 6           | 9           | 13          | 21          | 16          | 13          | 13          |
| Saint Lucia                      | 3           | 12          | 12          | 8           | 7           | 10          | 11          | 11          | 18          | 11          | 11          |
| Kiribati                         | 7           | 6           | 5           | 6           | 3           | 13          | 15          | 10          | 12          | 11          | 9           |
| Marshall Islands                 | 6           | 7           | 5           | 2           | 9           | 7           | 6           | 9           | 8           | 5           | 8           |
| Tuvalu                           | 6           | 1           | 3           | 3           | 2           | 2           | 2           | 2           | 5           | 2           | 5           |
| Nauru                            | 3           | 2           | 2           |             |             | 1           | 1           |             | 2           | 3           | 1           |
| Eswatini                         |             |             |             |             |             |             |             |             |             |             |             |

Table S3-2-1 Retraction data by country, 2014–2024

| <b>Year</b>                | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| China                      | 180         | 408         | 433         | 441         | 429         | 621         | 1299        | 3169        | 3274        | 10577       | 3397        |
| India                      | 89          | 118         | 161         | 125         | 197         | 190         | 221         | 312         | 1214        | 874         | 914         |
| Saudi Arabia               | 13          | 15          | 23          | 20          | 30          | 38          | 43          | 59          | 292         | 662         | 548         |
| United States              | 281         | 454         | 442         | 357         | 454         | 461         | 585         | 482         | 521         | 562         | 480         |
| Pakistan                   | 6           | 25          | 20          | 15          | 27          | 48          | 45          | 52          | 167         | 359         | 298         |
| Iran (Islamic Republic of) | 40          | 71          | 129         | 69          | 118         | 125         | 146         | 135         | 157         | 223         | 264         |
| France                     | 33          | 46          | 39          | 34          | 69          | 58          | 90          | 54          | 116         | 65          | 244         |
| Egypt                      | 16          | 24          | 28          | 14          | 25          | 25          | 40          | 50          | 142         | 250         | 212         |
| Türkiye                    | 19          | 26          | 25          | 28          | 22          | 29          | 35          | 51          | 56          | 100         | 151         |
| Italy                      | 60          | 47          | 58          | 74          | 122         | 85          | 70          | 74          | 125         | 83          | 150         |
| Republic of Korea          | 41          | 56          | 45          | 72          | 70          | 50          | 77          | 85          | 80          | 314         | 130         |
| United Kingdom             | 69          | 132         | 121         | 83          | 127         | 116         | 190         | 120         | 137         | 188         | 130         |
| Iraq                       | 1           | 0           | 2           | 9           | 17          | 6           | 7           | 13          | 51          | 134         | 120         |
| Japan                      | 76          | 67          | 81          | 74          | 129         | 143         | 105         | 70          | 186         | 131         | 111         |
| Germany                    | 112         | 73          | 75          | 47          | 68          | 56          | 122         | 105         | 117         | 103         | 103         |
| Malaysia                   | 13          | 14          | 19          | 19          | 212         | 21          | 25          | 25          | 82          | 162         | 93          |

| Year                         | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Spain                        | 12   | 25   | 48   | 32   | 60   | 38   | 62   | 41   | 101  | 69   | 92   |
| Ethiopia                     | 0    | 0    | 2    | 3    | 3    | 5    | 6    | 12   | 18   | 343  | 87   |
| Australia                    | 25   | 49   | 74   | 41   | 32   | 41   | 53   | 74   | 79   | 120  | 78   |
| Brazil                       | 15   | 20   | 48   | 22   | 33   | 20   | 47   | 21   | 32   | 34   | 72   |
| Viet Nam                     | 1    | 3    | 1    | 3    | 2    | 4    | 14   | 12   | 21   | 49   | 68   |
| Canada                       | 42   | 49   | 59   | 39   | 47   | 61   | 64   | 76   | 85   | 83   | 67   |
| Bangladesh                   | 2    | 6    | 4    | 1    | 6    | 16   | 11   | 9    | 14   | 95   | 66   |
| Russia                       | 4    | 10   | 12   | 231  | 467  | 1111 | 466  | 180  | 102  | 88   | 63   |
| Poland                       | 8    | 10   | 13   | 14   | 16   | 15   | 12   | 17   | 39   | 17   | 52   |
| Thailand                     | 7    | 14   | 10   | 3    | 19   | 2    | 11   | 6    | 15   | 79   | 42   |
| United Arab Emirates         | 0    | 3    | 2    | 3    | 4    | 2    | 7    | 3    | 32   | 38   | 37   |
| Jordan                       | 3    | 3    | 2    | 1    | 3    | 3    | 6    | 5    | 20   | 64   | 32   |
| Indonesia                    | 0    | 0    | 7    | 8    | 55   | 8    | 13   | 15   | 19   | 33   | 31   |
| South Africa                 | 7    | 10   | 14   | 6    | 16   | 8    | 11   | 19   | 14   | 21   | 30   |
| Ghana                        | 0    | 0    | 2    | 1    | 1    | 4    | 2    | 3    | 6    | 42   | 29   |
| Kazakhstan                   | 0    | 1    | 1    | 16   | 19   | 15   | 6    | 5    | 34   | 33   | 28   |
| Sweden                       | 18   | 14   | 19   | 21   | 27   | 24   | 26   | 19   | 25   | 20   | 28   |
| Senegal                      | 0    | 0    | 3    | 0    | 0    | 0    | 1    | 1    | 8    | 2    | 27   |
| Switzerland                  | 12   | 27   | 19   | 22   | 24   | 26   | 27   | 18   | 31   | 14   | 27   |
| Lebanon                      | 2    | 2    | 2    | 1    | 4    | 0    | 4    | 1    | 4    | 6    | 25   |
| Tunisia                      | 8    | 3    | 3    | 7    | 12   | 6    | 15   | 5    | 8    | 30   | 24   |
| Netherlands (Kingdom of the) | 27   | 30   | 24   | 21   | 22   | 26   | 55   | 34   | 38   | 21   | 22   |
| Nigeria                      | 7    | 5    | 14   | 5    | 5    | 5    | 10   | 9    | 7    | 14   | 22   |
| Denmark                      | 14   | 16   | 7    | 6    | 14   | 17   | 15   | 9    | 19   | 15   | 20   |
| Mexico                       | 5    | 7    | 4    | 6    | 7    | 11   | 9    | 15   | 11   | 18   | 19   |
| Oman                         | 3    | 0    | 2    | 4    | 2    | 0    | 2    | 1    | 17   | 23   | 19   |
| Bahrain                      | 0    | 1    | 8    | 0    | 0    | 2    | 2    | 1    | 17   | 8    | 18   |
| Norway                       | 2    | 9    | 6    | 8    | 10   | 12   | 9    | 8    | 17   | 32   | 17   |
| Portugal                     | 8    | 4    | 10   | 3    | 6    | 16   | 11   | 14   | 31   | 7    | 16   |
| Finland                      | 2    | 6    | 11   | 6    | 1    | 7    | 6    | 8    | 13   | 9    | 14   |
| Philippines                  | 0    | 1    | 1    | 0    | 1    | 1    | 7    | 23   | 9    | 53   | 14   |

| Year        | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|-------------|------|------|------|------|------|------|------|------|------|------|------|
| Peru        | 3    | 0    | 1    | 0    | 0    | 0    | 15   | 5    | 2    | 8    | 13   |
| Singapore   | 7    | 19   | 39   | 8    | 10   | 8    | 19   | 10   | 8    | 25   | 13   |
| Yemen       | 1    | 0    | 0    | 0    | 0    | 1    | 0    | 1    | 2    | 35   | 13   |
| Afghanistan | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 23   | 12   |
| Chile       | 0    | 3    | 5    | 4    | 2    | 5    | 3    | 4    | 6    | 7    | 12   |
| Czechia     | 10   | 6    | 6    | 0    | 5    | 6    | 9    | 7    | 35   | 11   | 12   |
| Hungary     | 1    | 0    | 4    | 3    | 3    | 1    | 3    | 1    | 24   | 7    | 12   |
| Morocco     | 6    | 3    | 3    | 1    | 1    | 2    | 3    | 5    | 9    | 3    | 12   |
| Ukraine     | 1    | 1    | 0    | 1    | 1    | 10   | 3    | 5    | 6    | 9    | 12   |
| Belgium     | 17   | 8    | 3    | 16   | 8    | 9    | 19   | 18   | 31   | 19   | 11   |
| Ecuador     | 1    | 0    | 0    | 0    | 0    | 1    | 1    | 2    | 5    | 4    | 11   |
| Niger       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 2    | 11   |
| Uzbekistan  | 0    | 2    | 0    | 0    | 4    | 3    | 3    | 8    | 6    | 12   | 11   |
| Nepal       | 2    | 1    | 2    | 6    | 2    | 2    | 4    | 2    | 5    | 31   | 10   |
| Algeria     | 8    | 12   | 3    | 8    | 19   | 1    | 4    | 2    | 8    | 7    | 9    |
| Argentina   | 1    | 1    | 5    | 8    | 5    | 5    | 8    | 4    | 1    | 9    | 9    |
| Sudan       | 4    | 0    | 0    | 0    | 1    | 0    | 2    | 1    | 4    | 26   | 9    |
| Gambia      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 0    | 8    |
| Greece      | 9    | 5    | 12   | 7    | 7    | 14   | 44   | 19   | 31   | 14   | 8    |
| Israel      | 5    | 11   | 7    | 21   | 13   | 18   | 15   | 5    | 18   | 3    | 8    |
| Kuwait      | 2    | 2    | 1    | 0    | 7    | 2    | 1    | 6    | 5    | 13   | 8    |
| New Zealand | 6    | 1    | 8    | 6    | 5    | 8    | 10   | 8    | 7    | 6    | 8    |
| Austria     | 1    | 9    | 8    | 3    | 3    | 5    | 6    | 9    | 13   | 7    | 7    |
| Colombia    | 1    | 2    | 1    | 3    | 8    | 4    | 30   | 16   | 14   | 14   | 7    |
| Lithuania   | 0    | 0    | 0    | 0    | 0    | 1    | 2    | 0    | 2    | 3    | 7    |
| Qatar       | 5    | 4    | 3    | 0    | 1    | 5    | 2    | 5    | 7    | 9    | 7    |
| Serbia      | 4    | 14   | 16   | 8    | 16   | 18   | 14   | 11   | 8    | 12   | 7    |
| Azerbaijan  | 2    | 1    | 0    | 1    | 2    | 6    | 3    | 1    | 4    | 2    | 6    |
| Slovakia    | 2    | 2    | 0    | 4    | 1    | 1    | 4    | 2    | 10   | 3    | 6    |
| Belarus     | 0    | 2    | 4    | 3    | 3    | 2    | 1    | 0    | 5    | 6    | 5    |
| Georgia     | 1    | 1    | 0    | 0    | 2    | 0    | 0    | 0    | 3    | 3    | 5    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Ireland                          | 12   | 7    | 13   | 9    | 13   | 5    | 5    | 7    | 15   | 17   | 5    |
| Romania                          | 8    | 8    | 21   | 31   | 34   | 5    | 5    | 12   | 12   | 9    | 5    |
| Albania                          | 1    | 0    | 2    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 4    |
| Brunei Darussalam                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 9    | 4    |
| Cameroon                         | 2    | 0    | 1    | 0    | 2    | 1    | 1    | 2    | 2    | 2    | 4    |
| Croatia                          | 1    | 2    | 3    | 0    | 1    | 15   | 4    | 3    | 8    | 1    | 4    |
| Gabon                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 0    | 4    |
| Kenya                            | 2    | 2    | 1    | 1    | 2    | 1    | 2    | 7    | 1    | 5    | 4    |
| Sri Lanka                        | 0    | 1    | 4    | 1    | 1    | 1    | 2    | 6    | 1    | 2    | 4    |
| Armenia                          | 0    | 0    | 1    | 2    | 1    | 1    | 3    | 0    | 0    | 0    | 3    |
| Cyprus                           | 2    | 0    | 2    | 1    | 2    | 1    | 0    | 4    | 5    | 3    | 3    |
| Eswatini                         | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    | 3    |
| United Republic of Tanzania      | 2    | 0    | 0    | 1    | 0    | 1    | 0    | 0    | 0    | 9    | 3    |
| Zambia                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 2    | 3    |
| Chad                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 2    |
| Estonia                          | 0    | 0    | 0    | 1    | 0    | 0    | 1    | 2    | 1    | 1    | 2    |
| Kyrgyzstan                       | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 9    | 9    | 21   | 2    |
| Lao People's Democratic Republic | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 2    |
| Mali                             | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 2    | 0    | 2    |
| Mongolia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 3    | 3    | 2    |
| Bosnia and Herzegovina           | 0    | 1    | 0    | 1    | 0    | 1    | 1    | 1    | 3    | 1    | 1    |
| Bulgaria                         | 3    | 0    | 0    | 0    | 2    | 1    | 2    | 1    | 1    | 3    | 1    |
| Burundi                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 18   | 1    |
| Congo                            | 2    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 1    | 1    |
| Costa Rica                       | 1    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 1    |
| Democratic Republic of the Congo | 0    | 0    | 0    | 0    | 0    | 2    | 2    | 0    | 2    | 1    | 1    |
| Dominican Republic               | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 1    |
| El Salvador                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |
| Eritrea                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |
| Grenada                          | 0    | 0    | 2    | 0    | 0    | 1    | 0    | 0    | 3    | 0    | 1    |
| Haiti                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |

| Year                                  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Honduras                              | 0    | 0    | 0    | 0    | 0    | 0    | 8    | 11   | 1    | 1    | 1    |
| Libya                                 | 1    | 0    | 0    | 2    | 0    | 0    | 1    | 0    | 2    | 3    | 1    |
| Malta                                 | 0    | 0    | 1    | 0    | 0    | 1    | 3    | 94   | 3    | 0    | 1    |
| Myanmar                               | 1    | 0    | 1    | 0    | 1    | 0    | 0    | 0    | 1    | 2    | 1    |
| North Macedonia                       | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 0    | 1    | 1    |
| Slovenia                              | 0    | 3    | 4    | 0    | 0    | 0    | 2    | 2    | 1    | 2    | 1    |
| Syrian Arab Republic                  | 0    | 0    | 2    | 0    | 1    | 1    | 0    | 0    | 0    | 2    | 1    |
| Zimbabwe                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 1    | 0    | 1    |
| Andorra                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Angola                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    |
| Antigua and Barbuda                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Barbados                              | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 1    | 0    | 0    | 0    |
| Belize                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    |
| Benin                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 2    | 0    |
| Bhutan                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bolivia (Plurinational State of)      | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 1    | 0    |
| Botswana                              | 0    | 0    | 0    | 1    | 0    | 2    | 1    | 0    | 3    | 2    | 0    |
| Burkina Faso                          | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    |
| Cabo Verde                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cambodia                              | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 1    | 2    | 1    | 0    |
| Central African Republic              | 0    | 0    | 1    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    |
| Comoros                               | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cuba                                  | 0    | 0    | 0    | 1    | 2    | 0    | 0    | 1    | 0    | 1    | 0    |
| Côte d'Ivoire                         | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic People's Republic of Korea | 0    | 0    | 0    | 0    | 1    | 1    | 0    | 1    | 0    | 0    | 0    |
| Djibouti                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominica                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    |
| Equatorial Guinea                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Fiji                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guatemala                             | 0    | 1    | 0    | 0    | 0    | 2    | 0    | 0    | 1    | 0    | 0    |
| Guinea                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Guinea-Bissau                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guyana                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Iceland                          | 0    | 2    | 3    | 0    | 1    | 1    | 0    | 0    | 1    | 1    | 0    |
| Jamaica                          | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 0    |
| Kiribati                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Latvia                           | 0    | 0    | 0    | 1    | 1    | 1    | 0    | 1    | 2    | 0    | 0    |
| Lesotho                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    |
| Liberia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    |
| Liechtenstein                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Luxembourg                       | 1    | 2    | 0    | 0    | 0    | 0    | 2    | 1    | 0    | 1    | 0    |
| Madagascar                       | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 2    | 0    | 0    |
| Malawi                           | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 2    | 0    |
| Maldives                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 4    | 0    |
| Marshall Islands                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritania                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritius                        | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Micronesia (Federated States of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Monaco                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Montenegro                       | 0    | 0    | 1    | 0    | 0    | 1    | 1    | 1    | 0    | 3    | 0    |
| Mozambique                       | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 1    | 0    | 0    |
| Namibia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    |
| Nauru                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nicaragua                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Palau                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Panama                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 3    | 0    | 1    | 0    |
| Papua New Guinea                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 4    | 0    |
| Paraguay                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    |
| Republic of Moldova              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Rwanda                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 7    | 0    |
| Saint Kitts and Nevis            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Lucia                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Saint Vincent and the Grenadines   | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Samoa                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 2           | 0           | 0           |
| San Marino                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Sao Tome and Principe              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Seychelles                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Sierra Leone                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Solomon Islands                    | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Somalia                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 1           | 0           |
| South Sudan                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Suriname                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Tajikistan                         | 0           | 1           | 0           | 0           | 3           | 42          | 3           | 0           | 0           | 0           | 0           |
| The Bahamas                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Timor-Leste                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Togo                               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 1           | 0           | 0           |
| Tonga                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Trinidad and Tobago                | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 1           | 2           | 3           | 0           |
| Turkmenistan                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 1           | 0           | 0           |
| Tuvalu                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Uganda                             | 2           | 0           | 0           | 0           | 1           | 1           | 0           | 2           | 1           | 0           | 0           |
| Uruguay                            | 1           | 0           | 0           | 0           | 1           | 0           | 2           | 1           | 0           | 0           | 0           |
| Vanuatu                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Venezuela (Bolivarian Republic of) | 1           | 0           | 1           | 2           | 0           | 5           | 3           | 3           | 0           | 1           | 0           |

Table S3-2-2 Number of top 1% scientists by country, 2014–2024

| <b>Year</b>    | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United States  | 1703        | 1548        | 1529        | 1640        | 2634        | 2737        | 2650        | 2623        | 2749        | 2661        | 2493        |
| China          | 144         | 144         | 185         | 251         | 482         | 636         | 770         | 931         | 1182        | 1301        | 1418        |
| United Kingdom | 305         | 309         | 324         | 342         | 548         | 516         | 514         | 490         | 577         | 574         | 561         |
| Germany        | 162         | 176         | 187         | 193         | 360         | 327         | 345         | 330         | 372         | 339         | 334         |

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Australia                    | 74          | 103         | 117         | 129         | 245         | 271         | 305         | 330         | 336         | 316         | 310         |
| Canada                       | 87          | 86          | 102         | 102         | 165         | 183         | 195         | 196         | 225         | 216         | 207         |
| Netherlands (Kingdom of the) | 77          | 83          | 99          | 104         | 186         | 164         | 181         | 207         | 208         | 195         | 185         |
| France                       | 83          | 72          | 97          | 89          | 157         | 156         | 160         | 146         | 136         | 137         | 129         |
| Italy                        | 49          | 44          | 48          | 46          | 92          | 81          | 85          | 98          | 105         | 116         | 107         |
| Singapore                    | 15          | 23          | 25          | 29          | 76          | 70          | 81          | 90          | 105         | 107         | 106         |
| Switzerland                  | 67          | 71          | 78          | 87          | 133         | 155         | 154         | 102         | 113         | 104         | 104         |
| Spain                        | 44          | 52          | 55          | 58          | 115         | 116         | 103         | 109         | 101         | 105         | 98          |
| Belgium                      | 33          | 30          | 39          | 40          | 65          | 66          | 70          | 74          | 81          | 85          | 81          |
| Japan                        | 99          | 80          | 75          | 75          | 91          | 98          | 91          | 89          | 90          | 86          | 76          |
| Republic of Korea            | 21          | 24          | 29          | 33          | 58          | 45          | 46          | 55          | 70          | 65          | 76          |
| Sweden                       | 28          | 26          | 27          | 30          | 62          | 50          | 55          | 49          | 69          | 61          | 58          |
| Denmark                      | 26          | 26          | 24          | 29          | 72          | 52          | 60          | 55          | 61          | 55          | 53          |
| Austria                      | 18          | 18          | 20          | 22          | 40          | 41          | 39          | 46          | 48          | 42          | 49          |
| Israel                       | 10          | 11          | 9           | 11          | 18          | 31          | 33          | 39          | 39          | 41          | 42          |
| Ireland                      | 12          | 10          | 12          | 13          | 34          | 28          | 34          | 35          | 39          | 36          | 35          |
| Saudi Arabia                 | 30          | 54          | 50          | 57          | 92          | 82          | 104         | 106         | 113         | 85          | 35          |
| New Zealand                  | 4           | 9           | 9           | 12          | 14          | 12          | 18          | 19          | 18          | 22          | 23          |
| Norway                       | 7           | 9           | 11          | 12          | 22          | 20          | 20          | 24          | 27          | 25          | 18          |
| Portugal                     | 2           | 5           | 5           | 5           | 14          | 10          | 10          | 16          | 20          | 19          | 18          |
| Finland                      | 15          | 15          | 15          | 20          | 33          | 21          | 21          | 19          | 18          | 15          | 15          |
| Brazil                       | 5           | 5           | 2           | 1           | 13          | 14          | 19          | 21          | 20          | 19          | 14          |
| South Africa                 | 8           | 7           | 6           | 4           | 9           | 9           | 9           | 9           | 10          | 10          | 10          |
| Czechia                      | 2           | 4           | 5           | 4           | 10          | 9           | 10          | 10          | 9           | 7           | 7           |
| India                        | 8           | 4           | 2           | 1           | 11          | 10          | 15          | 22          | 25          | 18          | 5           |
| United Arab Emirates         | 1           | 0           | 0           | 0           | 2           | 2           | 1           | 2           | 2           | 4           | 5           |
| Luxembourg                   | 0           | 0           | 1           | 2           | 1           | 4           | 3           | 3           | 5           | 4           | 4           |
| Malaysia                     | 3           | 3           | 6           | 8           | 15          | 17          | 13          | 16          | 12          | 12          | 4           |
| Mexico                       | 0           | 2           | 0           | 4           | 8           | 4           | 4           | 6           | 5           | 2           | 4           |
| Russia                       | 5           | 2           | 1           | 1           | 4           | 4           | 6           | 6           | 3           | 5           | 4           |
| Chile                        | 1           | 1           | 1           | 1           | 2           | 1           | 2           | 5           | 4           | 5           | 3           |

| Year                       | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Greece                     | 5    | 7    | 9    | 9    | 14   | 9    | 11   | 12   | 11   | 12   | 3    |
| Iran (Islamic Republic of) | 11   | 6    | 6    | 7    | 16   | 8    | 8    | 15   | 12   | 5    | 3    |
| Qatar                      | 0    | 1    | 1    | 0    | 1    | 2    | 3    | 3    | 5    | 4    | 3    |
| Argentina                  | 1    | 1    | 1    | 1    | 3    | 2    | 1    | 1    | 3    | 2    | 2    |
| Colombia                   | 1    | 0    | 1    | 1    | 2    | 0    | 1    | 1    | 2    | 1    | 2    |
| Estonia                    | 0    | 1    | 4    | 6    | 16   | 6    | 6    | 2    | 0    | 1    | 2    |
| Hungary                    | 3    | 0    | 1    | 1    | 2    | 1    | 2    | 3    | 4    | 3    | 2    |
| Kenya                      | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 2    | 0    | 2    |
| Pakistan                   | 0    | 1    | 0    | 1    | 2    | 0    | 2    | 5    | 0    | 4    | 2    |
| Thailand                   | 0    | 3    | 3    | 5    | 11   | 11   | 9    | 3    | 6    | 2    | 2    |
| Türkiye                    | 10   | 9    | 4    | 6    | 10   | 7    | 1    | 4    | 6    | 7    | 2    |
| Croatia                    | 0    | 1    | 0    | 0    | 2    | 2    | 0    | 2    | 2    | 2    | 1    |
| Cyprus                     | 0    | 0    | 0    | 1    | 3    | 2    | 2    | 3    | 2    | 2    | 1    |
| Iceland                    | 11   | 10   | 9    | 8    | 12   | 2    | 2    | 1    | 1    | 2    | 1    |
| Kuwait                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    | 1    |
| Lebanon                    | 0    | 0    | 0    | 1    | 3    | 2    | 2    | 3    | 4    | 4    | 1    |
| Lithuania                  | 1    | 0    | 0    | 0    | 1    | 2    | 4    | 2    | 2    | 1    | 1    |
| Morocco                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 2    | 1    | 1    |
| Serbia                     | 2    | 1    | 2    | 2    | 0    | 0    | 0    | 1    | 2    | 1    | 1    |
| Ukraine                    | 0    | 0    | 0    | 0    | 2    | 0    | 1    | 1    | 1    | 1    | 1    |
| Afghanistan                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Albania                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Algeria                    | 1    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Andorra                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Angola                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Antigua and Barbuda        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Armenia                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Azerbaijan                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bahrain                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bangladesh                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 0    |
| Barbados                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                                  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Belarus                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Belize                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Benin                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bhutan                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bolivia (Plurinational State of)      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bosnia and Herzegovina                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Botswana                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Brunei Darussalam                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bulgaria                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Burkina Faso                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Burundi                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cabo Verde                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cambodia                              | 0    | 0    | 0    | 0    | 0    | 5    | 0    | 1    | 1    | 0    | 0    |
| Cameroon                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Central African Republic              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Chad                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Comoros                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Congo                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Costa Rica                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cuba                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Côte d'Ivoire                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic People's Republic of Korea | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic Republic of the Congo      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Djibouti                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominica                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominican Republic                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ecuador                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Egypt                                 | 0    | 0    | 1    | 1    | 2    | 1    | 1    | 4    | 3    | 3    | 0    |
| El Salvador                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Equatorial Guinea                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Eritrea                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Eswatini                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Ethiopia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Fiji                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Gabon                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Gambia                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Georgia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    |
| Ghana                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Grenada                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guatemala                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guinea                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guinea-Bissau                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Guyana                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Haiti                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Honduras                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Indonesia                        | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 0    | 0    |
| Iraq                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Jamaica                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Jordan                           | 2    | 1    | 1    | 1    | 0    | 0    | 0    | 3    | 2    | 1    | 0    |
| Kazakhstan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kiribati                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Kyrgyzstan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lao People's Democratic Republic | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Latvia                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Lesotho                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liberia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Libya                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liechtenstein                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Madagascar                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Malawi                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Maldives                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mali                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Malta                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Marshall Islands                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritania                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritius                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 1    | 0    | 0    |
| Micronesia (Federated States of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Monaco                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mongolia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Montenegro                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mozambique                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Myanmar                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Namibia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nauru                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nepal                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    |
| Nicaragua                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Niger                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nigeria                          | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 0    | 0    | 0    |
| North Macedonia                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Oman                             | 0    | 0    | 0    | 0    | 2    | 1    | 2    | 2    | 0    | 1    | 0    |
| Palau                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Panama                           | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 0    | 0    |
| Papua New Guinea                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Paraguay                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Peru                             | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    |
| Philippines                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Poland                           | 4    | 4    | 6    | 5    | 6    | 4    | 4    | 6    | 5    | 6    | 0    |
| Republic of Moldova              | 0    | 0    | 0    | 0    | 1    | 0    | 0    | 0    | 0    | 0    | 0    |
| Romania                          | 0    | 2    | 1    | 1    | 1    | 1    | 2    | 1    | 0    | 0    | 0    |
| Rwanda                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Kitts and Nevis            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Lucia                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Vincent and the Grenadines | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                               | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Samoa                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| San Marino                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sao Tome and Principe              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Senegal                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Seychelles                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sierra Leone                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Slovakia                           | 1    | 1    | 1    | 1    | 0    | 1    | 2    | 4    | 1    | 0    | 0    |
| Slovenia                           | 1    | 0    | 0    | 3    | 2    | 0    | 0    | 1    | 0    | 1    | 0    |
| Solomon Islands                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Somalia                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| South Sudan                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sri Lanka                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sudan                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Suriname                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Syrian Arab Republic               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tajikistan                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| The Bahamas                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Timor-Leste                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Togo                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tonga                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Trinidad and Tobago                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tunisia                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 0    |
| Turkmenistan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tuvalu                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uganda                             | 0    | 2    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| United Republic of Tanzania        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uruguay                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uzbekistan                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Vanuatu                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Venezuela (Bolivarian Republic of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Viet Nam                           | 1    | 0    | 0    | 0    | 0    | 0    | 0    | 3    | 1    | 3    | 0    |

| <b>Year</b> | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Yemen       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Zambia      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Zimbabwe    | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |

Table S3-2-3 FWCI data by country, 2014–2024

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Micronesia (Federated States of) | 1.96        | 0.76        | 58.92       | 35.83       | 48.84       | 7.6         | 30.09       | 11.32       | 10          | 0.73        | 84.51       |
| Saint Lucia                      | 29.68       | 24.4        | 3.03        | 1.21        | 0.41        | 0.45        | 2.35        | 0.63        | 1.79        | 1.11        | 11.79       |
| Gambia                           | 1.69        | 8.99        | 4.52        | 2.13        | 3.24        | 1.53        | 1.85        | 1.71        | 4.7         | 5.5         | 10.95       |
| San Marino                       | 2.11        | 0.92        | 14.01       | 8.19        | 7.48        | 3.08        | 6.72        | 14.67       | 10.35       | 8.83        | 9.75        |
| Trinidad and Tobago              | 0.6         | 1.01        | 0.85        | 0.7         | 2.83        | 1.28        | 1.22        | 0.96        | 1.28        | 1.49        | 9.56        |
| Barbados                         | 6.92        | 6.43        | 2.63        | 4.42        | 1.46        | 4.56        | 5.89        | 2.78        | 1.5         | 1.33        | 8.24        |
| Antigua and Barbuda              | 0.86        | 0.83        | 1.03        | 0.66        | 0.9         | 0.75        | 0.59        | 0.79        | 1.51        | 0.78        | 8.15        |
| Cambodia                         | 1.84        | 1.82        | 1.49        | 1.59        | 1.14        | 1.29        | 1.05        | 1.06        | 1.2         | 2.16        | 7.75        |
| Burundi                          | 1.07        | 1.24        | 1.22        | 12.92       | 2.01        | 1.03        | 0.84        | 1.19        | 2.7         | 1.75        | 7.58        |
| Guatemala                        | 2.43        | 1.59        | 1.27        | 1.15        | 1.63        | 1.17        | 1.67        | 2.39        | 1.62        | 2.87        | 7.15        |
| Namibia                          | 1.45        | 1.04        | 1.53        | 1.73        | 5.1         | 1.2         | 1.08        | 1.22        | 1.06        | 2.51        | 7.12        |
| Somalia                          | 1.3         | 4.3         | 3.68        | 0.82        | 0.95        | 1.38        | 0.62        | 1.13        | 0.78        | 1.26        | 6.85        |
| Libya                            | 0.88        | 3.93        | 1.3         | 0.85        | 3.74        | 1.28        | 2.12        | 1.99        | 2.62        | 2.8         | 6.14        |
| Panama                           | 3.1         | 2.07        | 4.84        | 3.3         | 3.44        | 1.91        | 3.29        | 1.97        | 2.14        | 1.57        | 5.89        |
| Central African Republic         | 0.94        | 1.07        | 1.35        | 0.79        | 1.1         | 0.53        | 1.24        | 1.07        | 1.9         | 0.88        | 5.87        |
| Brunei Darussalam                | 0.92        | 1.22        | 1.54        | 1.76        | 4.37        | 1.38        | 2.47        | 1.66        | 1.78        | 1.59        | 5.09        |
| Kyrgyzstan                       | 1.86        | 1.44        | 3.48        | 7.67        | 6.63        | 1.78        | 4.31        | 3.81        | 3.3         | 3           | 4.98        |
| Togo                             | 0.54        | 0.48        | 6.29        | 1.03        | 4.79        | 0.93        | 0.67        | 0.86        | 0.86        | 0.77        | 4.75        |
| Bolivia (Plurinational State of) | 1.12        | 1.56        | 1.52        | 1.85        | 1.15        | 1.18        | 1.88        | 1.01        | 1.16        | 2.47        | 4.11        |
| Yemen                            | 0.78        | 2.42        | 0.96        | 3.19        | 3.2         | 1.49        | 2.3         | 1.74        | 1.87        | 1.9         | 3.96        |
| Bahrain                          | 1.35        | 4.81        | 3.83        | 3.12        | 3.48        | 1.17        | 2.12        | 1.52        | 1.55        | 1.87        | 3.92        |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Botswana                         | 2.66        | 2.97        | 0.88        | 1.11        | 1.44        | 1.22        | 2.69        | 1.14        | 1.86        | 1.99        | 3.89        |
| Rwanda                           | 1.83        | 5.19        | 4.52        | 3.71        | 3.98        | 1.13        | 2.28        | 1.31        | 1.2         | 1.1         | 3.89        |
| Samoa                            | 1           | 1.02        | 0.99        | 0.89        | 0.79        | 0.73        | 0.99        | 1.54        | 1.27        | 1.28        | 3.86        |
| Afghanistan                      | 9.32        | 16.57       | 1.26        | 4.83        | 3.93        | 0.99        | 0.68        | 1           | 1.24        | 1.19        | 3.46        |
| Sudan                            | 0.75        | 2.42        | 0.95        | 1.09        | 0.97        | 1.05        | 0.94        | 1.07        | 1.08        | 1.67        | 3.38        |
| Seychelles                       | 1.97        | 1.11        | 12.48       | 6.94        | 1           | 2.87        | 0.99        | 3.83        | 1.51        | 2.14        | 3.22        |
| Mongolia                         | 0.96        | 1.75        | 1.01        | 1.48        | 0.99        | 1.05        | 1.06        | 1.03        | 1.88        | 1.37        | 3.07        |
| Iceland                          | 2.41        | 3.03        | 3.19        | 3.02        | 2.8         | 1.86        | 2.32        | 2.35        | 2.16        | 1.73        | 2.94        |
| Estonia                          | 2.1         | 2.42        | 2.34        | 2.21        | 2.29        | 1.76        | 2.42        | 2.02        | 1.92        | 1.74        | 2.84        |
| Republic of Moldova              | 1.01        | 1.13        | 2.24        | 1.91        | 0.88        | 0.98        | 1.23        | 2.31        | 1.92        | 1.23        | 2.77        |
| Lebanon                          | 1.5         | 1.79        | 2.27        | 1.9         | 1.66        | 1.35        | 1.58        | 2.43        | 1.49        | 1.97        | 2.76        |
| Lao People's Democratic Republic | 1.85        | 1.53        | 1.51        | 1.24        | 1.27        | 1.25        | 1.15        | 1.09        | 1.18        | 1.33        | 2.73        |
| Cabo Verde                       | 1.24        | 1.05        | 0.73        | 1.03        | 0.87        | 1.14        | 0.89        | 3.54        | 1.45        | 1.41        | 2.7         |
| Latvia                           | 1.15        | 1.48        | 1.69        | 1.83        | 1.8         | 1.64        | 1.32        | 1.57        | 1.57        | 1.32        | 2.7         |
| Albania                          | 0.4         | 0.7         | 1.58        | 1.75        | 1.15        | 1.26        | 0.93        | 1.24        | 1.15        | 1.23        | 2.68        |
| Cyprus                           | 1.83        | 2.55        | 1.91        | 1.73        | 1.55        | 1.5         | 1.88        | 1.78        | 1.83        | 1.8         | 2.57        |
| Sri Lanka                        | 1.76        | 2.3         | 1.96        | 2.09        | 2.09        | 1.35        | 1.6         | 1.4         | 1.58        | 1.57        | 2.53        |
| Malta                            | 1.66        | 1.66        | 2.57        | 2.25        | 2.26        | 1.9         | 1.85        | 2.56        | 2.25        | 2.67        | 2.5         |
| Guyana                           | 1.41        | 1.77        | 0.95        | 0.83        | 1.34        | 0.61        | 0.82        | 1.56        | 2.57        | 0.78        | 2.45        |
| Oman                             | 1.06        | 1.83        | 1.25        | 1.6         | 1.2         | 1.19        | 1.81        | 1.51        | 1.64        | 1.74        | 2.4         |
| Luxembourg                       | 1.61        | 1.83        | 2.89        | 2.86        | 2.61        | 1.83        | 1.98        | 2.1         | 2.07        | 1.68        | 2.39        |
| Maldives                         | 1.03        | 1.12        | 1.15        | 1.01        | 1.1         | 1.11        | 1.53        | 1.15        | 0.89        | 1.12        | 2.39        |
| Qatar                            | 1.97        | 2.24        | 2.13        | 1.93        | 2.1         | 1.68        | 1.94        | 1.9         | 1.86        | 1.85        | 2.35        |
| Tonga                            | 0.74        | 1.99        | 25.92       | 14.24       | 1.21        | 1.95        | 0.75        | 1.42        | 1.55        | 1.35        | 2.31        |
| Kuwait                           | 1.1         | 0.97        | 1.29        | 1.33        | 2.04        | 1.37        | 1.76        | 1.61        | 1.5         | 1.56        | 2.3         |
| Malawi                           | 1.54        | 1.7         | 2.98        | 1.79        | 1.2         | 1.15        | 1.02        | 1.33        | 1.23        | 1.1         | 2.24        |
| Mauritius                        | 1.01        | 1.88        | 1.23        | 2.37        | 1.37        | 1.58        | 2.01        | 1.98        | 2.05        | 1.36        | 2.2         |
| Monaco                           | 1.35        | 1.66        | 2.04        | 5.54        | 1.75        | 2.84        | 2.73        | 2.93        | 1.85        | 3.85        | 2.18        |
| Cameroon                         | 1.08        | 1.56        | 2.21        | 1.9         | 1.87        | 1.11        | 1.56        | 1.16        | 1.31        | 1.02        | 2.12        |
| Nepal                            | 0.99        | 0.99        | 1.29        | 2.14        | 2.02        | 1.26        | 1.4         | 1.25        | 1.23        | 1.41        | 2.12        |
| Singapore                        | 1.87        | 1.88        | 1.94        | 1.86        | 1.94        | 1.93        | 2.08        | 1.92        | 1.95        | 2.05        | 2.09        |

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Kenya                        | 1.73        | 1.96        | 1.96        | 1.95        | 1.77        | 1.37        | 1.47        | 1.31        | 1.44        | 1.17        | 1.97        |
| Montenegro                   | 0.81        | 0.7         | 0.75        | 1.4         | 0.92        | 1.09        | 1.39        | 2.81        | 2.74        | 1.82        | 1.95        |
| Bangladesh                   | 1.17        | 1.31        | 1.55        | 1.54        | 1.54        | 1.36        | 1.62        | 1.56        | 1.59        | 1.69        | 1.94        |
| Bosnia and Herzegovina       | 0.68        | 0.84        | 1.79        | 1.4         | 1.15        | 0.76        | 1.06        | 1.4         | 1.34        | 1.41        | 1.93        |
| Uganda                       | 1.51        | 2.29        | 2.32        | 1.96        | 1.28        | 1.23        | 1.47        | 1.43        | 1.32        | 1.39        | 1.89        |
| United Arab Emirates         | 1.24        | 1.58        | 1.53        | 1.49        | 1.56        | 1.53        | 1.66        | 1.75        | 1.73        | 1.74        | 1.88        |
| Denmark                      | 1.89        | 1.99        | 1.99        | 1.85        | 1.81        | 1.83        | 1.77        | 1.89        | 1.79        | 1.81        | 1.86        |
| Jordan                       | 1.08        | 1.44        | 1.39        | 1.68        | 1.42        | 1.15        | 1.38        | 1.33        | 1.39        | 1.5         | 1.85        |
| Georgia                      | 2.83        | 2.81        | 2.01        | 1.95        | 2.06        | 1.66        | 1.96        | 2.14        | 2.39        | 1.55        | 1.84        |
| Ireland                      | 1.65        | 1.76        | 1.92        | 1.75        | 1.69        | 1.59        | 1.7         | 1.67        | 1.7         | 1.69        | 1.84        |
| New Zealand                  | 1.46        | 1.62        | 1.6         | 1.65        | 1.6         | 1.58        | 1.6         | 1.5         | 1.48        | 1.55        | 1.81        |
| Finland                      | 1.72        | 1.77        | 1.83        | 1.73        | 1.68        | 1.63        | 1.81        | 1.7         | 1.76        | 1.72        | 1.8         |
| Switzerland                  | 1.84        | 1.97        | 1.88        | 1.84        | 1.8         | 1.78        | 1.76        | 1.71        | 1.74        | 1.77        | 1.77        |
| Belgium                      | 1.73        | 1.76        | 1.77        | 1.78        | 1.72        | 1.71        | 1.71        | 1.67        | 1.7         | 1.71        | 1.75        |
| Costa Rica                   | 1.19        | 1.14        | 2.42        | 1.83        | 2.45        | 1.27        | 1.67        | 1.33        | 1           | 1.08        | 1.73        |
| Netherlands (Kingdom of the) | 1.79        | 1.9         | 1.91        | 1.87        | 1.79        | 1.83        | 1.79        | 1.82        | 1.76        | 1.75        | 1.73        |
| Austria                      | 1.6         | 1.63        | 1.7         | 1.61        | 1.67        | 1.54        | 1.61        | 1.56        | 1.53        | 1.57        | 1.72        |
| Norway                       | 1.68        | 1.79        | 1.81        | 1.74        | 1.69        | 1.68        | 1.77        | 1.66        | 1.64        | 1.58        | 1.71        |
| Sweden                       | 1.76        | 1.76        | 1.78        | 1.7         | 1.69        | 1.72        | 1.67        | 1.66        | 1.73        | 1.69        | 1.68        |
| Australia                    | 1.61        | 1.62        | 1.64        | 1.63        | 1.62        | 1.65        | 1.66        | 1.63        | 1.62        | 1.67        | 1.67        |
| Bulgaria                     | 0.98        | 1.43        | 1.1         | 1.13        | 1.34        | 0.99        | 1.06        | 1.14        | 1.24        | 0.95        | 1.64        |
| Ghana                        | 1.44        | 1.55        | 1.72        | 1.81        | 1.63        | 1.27        | 1.41        | 1.25        | 1.34        | 1.32        | 1.63        |
| North Macedonia              | 1.23        | 1.04        | 1.49        | 1.66        | 1.53        | 1.08        | 1.71        | 2.2         | 2.22        | 1.97        | 1.63        |
| Comoros                      | 0.64        | 0.6         | 0.98        | 0.61        | 0.83        | 3.26        | 0.8         | 0.8         | 1.72        | 1.99        | 1.62        |
| Lesotho                      | 0.91        | 3.81        | 0.68        | 0.84        | 0.92        | 0.67        | 0.65        | 0.8         | 1.48        | 0.77        | 1.62        |
| Azerbaijan                   | 1.46        | 1.29        | 1.49        | 1.04        | 1.17        | 0.82        | 1.16        | 1.33        | 1.42        | 0.92        | 1.61        |
| Saudi Arabia                 | 1.37        | 1.5         | 1.54        | 1.56        | 1.56        | 1.45        | 1.52        | 1.51        | 1.52        | 1.55        | 1.6         |
| Greece                       | 1.44        | 1.52        | 1.5         | 1.49        | 1.5         | 1.42        | 1.55        | 1.47        | 1.49        | 1.52        | 1.57        |
| Pakistan                     | 0.95        | 1.03        | 1.14        | 1.19        | 1.18        | 1.25        | 1.38        | 1.38        | 1.44        | 1.48        | 1.57        |
| United Kingdom               | 1.65        | 1.65        | 1.67        | 1.63        | 1.57        | 1.61        | 1.62        | 1.64        | 1.61        | 1.59        | 1.56        |
| United Republic of Tanzania  | 1.31        | 2.14        | 2.21        | 2.02        | 1.89        | 1.2         | 1.38        | 1.19        | 1.13        | 1.08        | 1.55        |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Egypt                            | 0.87 | 1.02 | 1.03 | 1.16 | 1.17 | 1.17 | 1.27 | 1.33 | 1.33 | 1.38 | 1.53 |
| Hungary                          | 1.2  | 1.27 | 1.48 | 1.49 | 1.34 | 1.29 | 1.35 | 1.32 | 1.36 | 1.27 | 1.53 |
| Philippines                      | 1.18 | 1.53 | 1.77 | 1.64 | 1.56 | 1.04 | 1.26 | 1.2  | 1.16 | 1.19 | 1.52 |
| Serbia                           | 1.07 | 1.19 | 1.24 | 1.22 | 1.26 | 1.01 | 1.24 | 1.23 | 1.24 | 1.22 | 1.52 |
| Israel                           | 1.48 | 1.59 | 1.58 | 1.54 | 1.53 | 1.43 | 1.49 | 1.51 | 1.45 | 1.42 | 1.51 |
| Kazakhstan                       | 0.4  | 0.52 | 0.64 | 1    | 1.02 | 0.73 | 0.91 | 1.05 | 1.07 | 1.03 | 1.51 |
| Slovenia                         | 1.16 | 1.22 | 1.44 | 1.3  | 1.49 | 1.24 | 1.47 | 1.36 | 1.3  | 1.34 | 1.51 |
| Benin                            | 1.41 | 3.61 | 4.4  | 3.73 | 3.79 | 1.34 | 1.68 | 1.23 | 1.03 | 1.02 | 1.5  |
| Canada                           | 1.54 | 1.59 | 1.58 | 1.54 | 1.46 | 1.52 | 1.53 | 1.49 | 1.47 | 1.47 | 1.45 |
| Democratic Republic of the Congo | 0.53 | 0.98 | 8.86 | 1.16 | 1.24 | 1    | 1.79 | 1.51 | 1.72 | 2.11 | 1.44 |
| Burkina Faso                     | 1.09 | 1.06 | 1.09 | 0.96 | 0.95 | 0.93 | 0.76 | 0.98 | 0.95 | 0.94 | 1.43 |
| Mozambique                       | 1.41 | 1.2  | 3.61 | 4.42 | 3.62 | 1.75 | 2.97 | 1.99 | 1.64 | 2.13 | 1.42 |
| Uzbekistan                       | 0.58 | 0.49 | 0.45 | 0.82 | 0.86 | 0.58 | 0.67 | 1.35 | 1.68 | 1.28 | 1.42 |
| Zambia                           | 1.86 | 3.79 | 3.7  | 2.83 | 2.81 | 1.53 | 1.78 | 1.19 | 1.29 | 1.4  | 1.42 |
| Croatia                          | 0.93 | 0.96 | 1    | 1.13 | 1.19 | 0.99 | 1.17 | 1.08 | 1.18 | 1.13 | 1.41 |
| Portugal                         | 1.33 | 1.38 | 1.4  | 1.45 | 1.41 | 1.32 | 1.38 | 1.3  | 1.31 | 1.26 | 1.41 |
| Romania                          | 0.91 | 0.93 | 1.04 | 1.15 | 1.13 | 1.02 | 1.24 | 1.19 | 1.28 | 1.27 | 1.4  |
| Algeria                          | 0.73 | 0.74 | 1.03 | 1.09 | 1.01 | 0.87 | 0.95 | 0.99 | 1.02 | 0.99 | 1.39 |
| Czechia                          | 1.08 | 1.1  | 1.11 | 1.09 | 1.1  | 1.1  | 1.18 | 1.16 | 1.23 | 1.24 | 1.39 |
| Italy                            | 1.45 | 1.48 | 1.46 | 1.44 | 1.41 | 1.38 | 1.44 | 1.38 | 1.34 | 1.36 | 1.38 |
| Andorra                          | 2.52 | 0.86 | 1.2  | 1.34 | 1.29 | 2.12 | 3.32 | 1.29 | 1.25 | 1.42 | 1.37 |
| Germany                          | 1.44 | 1.46 | 1.43 | 1.39 | 1.35 | 1.39 | 1.38 | 1.35 | 1.35 | 1.36 | 1.36 |
| Ecuador                          | 1.18 | 1.26 | 1.26 | 1.38 | 1.34 | 0.81 | 0.92 | 0.9  | 0.83 | 0.92 | 1.35 |
| Ethiopia                         | 1.3  | 1.77 | 1.59 | 1.86 | 1.51 | 1.25 | 1.19 | 1.2  | 1.15 | 1.18 | 1.35 |
| Morocco                          | 0.77 | 1.05 | 1.15 | 0.94 | 1.11 | 0.91 | 1    | 1.14 | 1.2  | 1.11 | 1.35 |
| France                           | 1.36 | 1.4  | 1.38 | 1.33 | 1.34 | 1.33 | 1.33 | 1.4  | 1.28 | 1.29 | 1.34 |
| Lithuania                        | 1.11 | 1.19 | 1.44 | 1.34 | 1.36 | 1.15 | 1.21 | 1.4  | 1.36 | 1.37 | 1.33 |
| Palau                            | 1.54 | 1.36 | 2.08 | 0.72 | 1.02 | 1.13 | 1.21 | 1.13 | 1.27 | 1.41 | 1.32 |
| South Africa                     | 1.22 | 1.31 | 1.34 | 1.32 | 1.29 | 1.23 | 1.29 | 1.29 | 1.31 | 1.26 | 1.32 |
| Fiji                             | 4.02 | 7.61 | 2.44 | 2.17 | 1.09 | 1.22 | 1.3  | 1.37 | 1.19 | 1.59 | 1.31 |
| Nicaragua                        | 1.1  | 1.4  | 1.23 | 1.87 | 1.49 | 1.45 | 1.12 | 0.87 | 1.14 | 1.1  | 1.31 |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Dominican Republic               | 0.97        | 1.64        | 1.33        | 0.85        | 1.1         | 1.14        | 1.21        | 1.63        | 1.33        | 1.33        | 1.3         |
| Liechtenstein                    | 1.51        | 1.54        | 1.63        | 1.37        | 2.39        | 1.55        | 2.48        | 1.42        | 1.7         | 1.23        | 1.29        |
| Tunisia                          | 0.8         | 1.05        | 1.02        | 0.97        | 1.04        | 0.87        | 1.14        | 1.12        | 1.16        | 1.08        | 1.27        |
| Uruguay                          | 1.1         | 2.36        | 1.72        | 1.34        | 1.25        | 0.99        | 0.89        | 1.13        | 1.11        | 1.46        | 1.27        |
| Spain                            | 1.32        | 1.33        | 1.34        | 1.32        | 1.3         | 1.27        | 1.29        | 1.24        | 1.26        | 1.29        | 1.26        |
| United States                    | 1.51        | 1.49        | 1.47        | 1.43        | 1.4         | 1.41        | 1.37        | 1.36        | 1.32        | 1.3         | 1.26        |
| Viet Nam                         | 1.14        | 1.53        | 1.55        | 1.49        | 1.45        | 1.39        | 1.5         | 1.37        | 1.24        | 1.23        | 1.26        |
| Malaysia                         | 0.92        | 0.96        | 0.95        | 0.98        | 0.99        | 0.99        | 1.12        | 1.18        | 1.2         | 1.21        | 1.25        |
| Argentina                        | 1           | 1.1         | 1.09        | 1.08        | 1.1         | 0.99        | 1.11        | 1.06        | 1.09        | 1.01        | 1.23        |
| Peru                             | 1.69        | 1.81        | 2.06        | 1.83        | 1.61        | 1.06        | 1.03        | 1.06        | 0.95        | 0.92        | 1.23        |
| Chile                            | 1.13        | 1.22        | 1.32        | 1.25        | 1.32        | 1.14        | 1.17        | 1.14        | 1.15        | 1.12        | 1.22        |
| Nigeria                          | 0.66        | 0.94        | 1.06        | 1.06        | 1           | 0.9         | 0.96        | 1.02        | 1.06        | 1.07        | 1.22        |
| The Bahamas                      | 1.05        | 0.83        | 1.09        | 1.01        | 1.82        | 1.27        | 1.1         | 1.51        | 4.35        | 1.69        | 1.22        |
| Republic of Korea                | 1.05        | 1.05        | 1.04        | 1.07        | 1.09        | 1.1         | 1.11        | 1.12        | 1.16        | 1.18        | 1.21        |
| Thailand                         | 0.97        | 1           | 1.02        | 0.96        | 0.94        | 1           | 1.06        | 1.06        | 1.08        | 1.05        | 1.21        |
| China                            | 0.91        | 0.96        | 1           | 1.06        | 1.11        | 1.13        | 1.17        | 1.14        | 1.16        | 1.2         | 1.2         |
| Syrian Arab Republic             | 0.7         | 2.88        | 0.56        | 0.59        | 1.31        | 0.74        | 0.83        | 1.47        | 1.69        | 1.26        | 1.18        |
| Armenia                          | 1.64        | 1.66        | 1.71        | 1.62        | 2.55        | 1.25        | 1.34        | 1.65        | 1.68        | 1.15        | 1.17        |
| Mali                             | 1.17        | 2.19        | 1.6         | 1.52        | 1.52        | 1.21        | 0.88        | 1.14        | 1.32        | 1.14        | 1.15        |
| Iraq                             | 0.81        | 1.44        | 1.11        | 1.16        | 0.78        | 0.57        | 0.72        | 0.85        | 0.93        | 0.98        | 1.14        |
| Türkiye                          | 0.81        | 0.84        | 0.85        | 0.89        | 0.95        | 0.94        | 1.04        | 1.02        | 1.01        | 1.05        | 1.14        |
| Iran (Islamic Republic of)       | 0.88        | 0.93        | 0.97        | 0.99        | 1.03        | 1.04        | 1.06        | 1.03        | 0.99        | 1.01        | 1.13        |
| Suriname                         | 0.64        | 0.83        | 1.42        | 6.55        | 1.16        | 1.25        | 1.34        | 0.9         | 1.16        | 1.53        | 1.13        |
| Zimbabwe                         | 1.34        | 1.18        | 1.75        | 1.23        | 1.08        | 1.32        | 1.2         | 1.2         | 1.26        | 1.11        | 1.13        |
| Angola                           | 0.6         | 0.61        | 6.47        | 0.89        | 0.79        | 0.93        | 0.71        | 2.14        | 1.06        | 1.04        | 1.11        |
| Jamaica                          | 0.83        | 1.02        | 2.74        | 2.53        | 1.96        | 2.3         | 1.09        | 1.87        | 1.24        | 1.34        | 1.11        |
| Poland                           | 0.93        | 0.96        | 0.99        | 1.03        | 1.01        | 0.95        | 0.97        | 1.01        | 1.03        | 1.06        | 1.1         |
| Colombia                         | 0.99        | 1.15        | 1.1         | 1.08        | 1.03        | 0.94        | 0.95        | 0.93        | 0.9         | 0.91        | 1.09        |
| Saint Vincent and the Grenadines | 1.06        | 0.72        | 0.78        | 0.45        | 1.16        | 1.3         | 5.95        | 0.84        | 1.28        | 1.22        | 1.09        |
| Madagascar                       | 0.93        | 1.19        | 1.13        | 1.16        | 1.42        | 1.11        | 0.88        | 1.19        | 1.17        | 1.09        | 1.07        |
| Myanmar                          | 1.05        | 0.99        | 7.81        | 3.67        | 2.18        | 1.15        | 1.06        | 1.34        | 1.06        | 1.01        | 1.05        |

| Year                               | 2014  | 2015  | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------------|-------|-------|------|------|------|------|------|------|------|------|------|
| Kiribati                           | 0.9   | 0.88  | 0.66 | 1.78 | 0.84 | 0.37 | 1.27 | 1.35 | 1.05 | 1.56 | 1.04 |
| Slovakia                           | 0.96  | 1.17  | 1.24 | 1.17 | 1.15 | 1.03 | 0.98 | 1.05 | 1.03 | 0.97 | 1.02 |
| India                              | 0.75  | 0.75  | 0.79 | 0.82 | 0.82 | 0.8  | 0.92 | 0.98 | 0.98 | 0.98 | 1    |
| Guinea-Bissau                      | 1.47  | 1.49  | 1.2  | 1.35 | 0.88 | 1.06 | 1.16 | 0.97 | 1.02 | 1.09 | 0.99 |
| Solomon Islands                    | 1.37  | 1.28  | 1.6  | 6.21 | 1.64 | 1.72 | 1.14 | 4.85 | 0.93 | 0.84 | 0.99 |
| Gabon                              | 1.64  | 2.12  | 1.45 | 1.08 | 1.15 | 1.01 | 1.02 | 1.23 | 1.25 | 1.28 | 0.96 |
| Japan                              | 0.95  | 0.95  | 0.98 | 0.98 | 0.96 | 0.97 | 0.97 | 0.93 | 0.95 | 0.96 | 0.96 |
| Mexico                             | 0.89  | 0.93  | 0.97 | 0.96 | 0.92 | 0.94 | 0.94 | 0.95 | 0.91 | 0.89 | 0.95 |
| Djibouti                           | 0.94  | 0.66  | 0.43 | 1.08 | 0.74 | 0.79 | 1.42 | 1.02 | 1.15 | 0.88 | 0.94 |
| Liberia                            | 6.52  | 2.2   | 1.49 | 1.66 | 17   | 3.39 | 1.4  | 1.31 | 1.29 | 1.17 | 0.94 |
| Bhutan                             | 0.8   | 1.94  | 1.16 | 8.99 | 2.79 | 1.29 | 0.94 | 1.8  | 1.78 | 0.92 | 0.93 |
| Honduras                           | 0.96  | 1.68  | 1.27 | 0.77 | 1.09 | 1.09 | 1.45 | 1.74 | 0.97 | 1.12 | 0.91 |
| Vanuatu                            | 0.83  | 1.14  | 1.2  | 0.79 | 1.12 | 0.79 | 1.39 | 0.9  | 1.34 | 3.08 | 0.91 |
| Congo                              | 1.77  | 2.64  | 1.07 | 3.12 | 4    | 1.34 | 1.04 | 1.23 | 1.23 | 1.02 | 0.88 |
| Haiti                              | 1.22  | 0.85  | 1.46 | 0.97 | 1.17 | 1.15 | 0.83 | 2.67 | 0.99 | 1.29 | 0.88 |
| Eritrea                            | 0.94  | 0.94  | 0.89 | 1.39 | 0.94 | 1.05 | 1.22 | 0.64 | 1.21 | 1.29 | 0.87 |
| Papua New Guinea                   | 2.13  | 8.22  | 4.91 | 1.45 | 1.64 | 1.25 | 2.02 | 1.38 | 1.48 | 1.53 | 0.87 |
| Brazil                             | 0.85  | 0.91  | 0.95 | 0.93 | 0.9  | 0.88 | 0.88 | 0.89 | 0.86 | 0.84 | 0.86 |
| Turkmenistan                       | 1.48  | 1.83  | 0.39 | 0.84 | 0.71 | 4.16 | 0.7  | 2.01 | 0.39 | 1.2  | 0.86 |
| El Salvador                        | 1.07  | 1.42  | 1.15 | 1.53 | 0.71 | 1.35 | 3.25 | 1.1  | 0.79 | 1.15 | 0.85 |
| Indonesia                          | 0.91  | 0.88  | 0.86 | 0.85 | 0.72 | 0.59 | 0.67 | 0.76 | 0.81 | 0.81 | 0.85 |
| Belize                             | 10.77 | 38.91 | 1.05 | 6.71 | 0.71 | 1.13 | 1.06 | 1.38 | 0.95 | 0.86 | 0.84 |
| Senegal                            | 0.99  | 1.02  | 1.01 | 0.97 | 1.23 | 1.07 | 1.04 | 0.97 | 1.04 | 0.87 | 0.84 |
| Sierra Leone                       | 5.94  | 2.92  | 1.79 | 1.68 | 2.13 | 1.25 | 1.28 | 1.2  | 1.59 | 1.1  | 0.83 |
| Venezuela (Bolivarian Republic of) | 0.64  | 0.63  | 1.04 | 0.9  | 0.79 | 0.8  | 0.74 | 0.79 | 0.86 | 0.84 | 0.8  |
| Equatorial Guinea                  | 0.5   | 0.98  | 1.88 | 17.2 | 1.46 | 1.24 | 0.48 | 1.05 | 1.07 | 1.98 | 0.79 |
| Grenada                            | 0.94  | 0.84  | 1.12 | 0.84 | 0.93 | 0.75 | 0.62 | 1.08 | 0.92 | 0.9  | 0.79 |
| Sao Tome and Principe              | 0.59  | 1.06  | 0.25 | 1.85 | 0.64 | 0.55 | 1.23 | 0.78 | 2.58 | 0.67 | 0.79 |
| South Sudan                        | 0.58  | 1.25  | 1.15 | 0.86 | 1.06 | 0.78 | 0.76 | 0.89 | 1.43 | 0.69 | 0.78 |
| Dominica                           | 1.08  | 1.15  | 1.36 | 1.19 | 0.9  | 0.85 | 0.55 | 0.82 | 1.54 | 1.12 | 0.77 |
| Ukraine                            | 0.6   | 0.72  | 0.75 | 0.77 | 0.73 | 0.58 | 0.56 | 0.59 | 0.61 | 0.66 | 0.77 |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Paraguay                              | 0.91        | 1.72        | 1.71        | 1.91        | 0.78        | 1.5         | 1.79        | 1.07        | 1.12        | 1.11        | 0.75        |
| Mauritania                            | 0.87        | 0.5         | 0.68        | 0.75        | 1.52        | 0.48        | 0.81        | 0.86        | 0.89        | 0.89        | 0.72        |
| Saint Kitts and Nevis                 | 1.18        | 1.72        | 1.68        | 1.19        | 0.88        | 0.82        | 0.7         | 0.79        | 0.87        | 0.83        | 0.72        |
| Timor-Leste                           | 0.83        | 0.66        | 1.24        | 0.92        | 0.99        | 2.18        | 1.07        | 1.23        | 0.84        | 0.78        | 0.72        |
| Côte d'Ivoire                         | 1.16        | 3.96        | 4.49        | 1.61        | 1.09        | 0.86        | 0.95        | 1.04        | 0.98        | 0.97        | 0.7         |
| Belarus                               | 1.03        | 1.35        | 1.38        | 1.22        | 1.18        | 0.78        | 0.85        | 1.01        | 1.07        | 0.54        | 0.69        |
| Chad                                  | 1.68        | 0.52        | 1.22        | 0.92        | 2.04        | 1.28        | 0.78        | 0.71        | 0.89        | 0.82        | 0.68        |
| Tajikistan                            | 0.52        | 0.47        | 0.54        | 0.7         | 0.54        | 1.08        | 0.77        | 0.78        | 0.63        | 0.71        | 0.68        |
| Nauru                                 | 0.89        | 0.6         | 0.27        | -           | -           | 0.1         | 0.27        | -           | 0.94        | 1.57        | 0.67        |
| Guinea                                | 6.8         | 2.43        | 2.08        | 2.09        | 1.81        | 1.3         | 0.9         | 0.97        | 1.37        | 0.82        | 0.64        |
| Niger                                 | 1.01        | 2.36        | 1.13        | 1           | 1.11        | 0.96        | 0.96        | 1.06        | 0.84        | 1.01        | 0.64        |
| Cuba                                  | 0.46        | 0.55        | 0.7         | 0.69        | 0.49        | 0.43        | 0.48        | 0.59        | 0.45        | 0.44        | 0.62        |
| Democratic People's Republic of Korea | 0.57        | 0.79        | 0.77        | 0.85        | 0.96        | 0.79        | 0.71        | 0.62        | 0.67        | 0.67        | 0.61        |
| Russia                                | 0.65        | 0.67        | 0.65        | 0.65        | 0.61        | 0.56        | 0.61        | 0.61        | 0.59        | 0.51        | 0.52        |
| Tuvalu                                | 0.92        | 0           | 0.68        | 1.11        | 0.27        | 2.2         | 0.85        | 1.07        | 1.16        | 0.43        | 0.4         |
| Marshall Islands                      | 0.51        | 1.77        | 0.64        | 1.03        | 1.64        | 0.7         | 0.99        | 1.06        | 0.61        | 0.56        | 0.31        |
| Eswatini                              |             |             |             |             |             |             |             |             |             |             |             |

Table S3-2-4 Annual Growth in Basic research Budgets by country, 2014–2024

| <b>Year</b>    | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| China          | 8.65%       | 8.71%       | 8.84%       | 8.60%       | 8.49%       | 8.92%       | 8.98%       | 9.05%       | 8.92%       | 13.10%      | 10.50%      |
| Germany        | 3.70%       | 3.64%       | 3.27%       | 4.06%       | 3.89%       | 3.75%       | 2.53%       | 2.64%       | 2.44%       | 2.38%       | 2.38%       |
| India          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Japan          | 3.02%       | 0.37%       | -0.89%      | 0.24%       | 0.24%       | 0.11%       | -0.37%      | 0.10%       | 0.70%       | 0.92%       | 0.92%       |
| Russia         | 5.16%       | 2.89%       | 2.04%       | 2.15%       | 0.07%       | 1.23%       | 1.47%       | 1.47%       | 1.47%       | 1.47%       | 1.47%       |
| United Kingdom | 0%          | 2.71%       | 3.32%       | 3.18%       | 3.18%       | 2.43%       | 1.70%       | 2.59%       | 2.15%       | 1.59%       | 1.59%       |
| United States  | 3.01%       | 3.01%       | 3.01%       | 3.57%       | 4.64%       | 5.44%       | 5.63%       | 5.63%       | 5.20%       | 5.20%       | 5.20%       |
| Afghanistan    | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Albania        | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Algeria                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Andorra                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Angola                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Antigua and Barbuda              | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Argentina                        | -7.19%      | 0.03%       | -5.34%      | -2.03%      | -4.32%      | -4.47%      | -3.55%      | -2.26%      | -0.85%      | 0%          | 0%          |
| Armenia                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Australia                        | 0%          | -2.86%      | -2.86%      | -1.32%      | -1.32%      | -0.53%      | -0.53%      | -0.58%      | -0.58%      | -0.58%      | -0.58%      |
| Austria                          | 5.24%       | 2.57%       | 3.13%       | 2.43%       | 2.67%       | 2.71%       | 1.69%       | 2.28%       | 2.33%       | 2.24%       | 2.24%       |
| Azerbaijan                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| The Bahamas                      | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Bahrain                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Bangladesh                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Barbados                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Belarus                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Belgium                          | 3.44%       | 4.10%       | 4.49%       | 5.17%       | 5.94%       | 7.07%       | 6.31%       | 6.45%       | 5.49%       | 5.30%       | 5.30%       |
| Belize                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Benin                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Bhutan                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Bolivia (Plurinational State of) | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Bosnia and Herzegovina           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Botswana                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Brazil                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Brunei Darussalam                | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Bulgaria                         | 25.75%      | 25.01%      | 11.19%      | 8.09%       | 7.39%       | 8.64%       | 7.10%       | 5.98%       | 5.50%       | 5.68%       | 5.68%       |
| Burkina Faso                     | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Burundi                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Cabo Verde                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Cambodia                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Cameroon                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Canada                           | 0%          | -2.89%      | -0.07%      | 0.53%       | 1.90%       | 2.06%       | 2.31%       | 2.89%       | 2.84%       | 2.45%       | 2.21%       |
| Central African Republic         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Chad                                  | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Chile                                 | 0%          | 3.86%       | 3.86%       | 0.66%       | 2.97%       | 0.57%       | -1.17%      | -1.17%      | 0.87%       | 0.87%       | 0.87%       |
| Colombia                              | 22.98%      | 23.54%      | 7.55%       | 5.12%       | 8.63%       | 8.26%       | 4.71%       | 4.71%       | 4.71%       | 4.71%       | 4.71%       |
| Comoros                               | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Congo                                 | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Costa Rica                            | 0%          | -9.48%      | -7.10%      | -4.41%      | -6.18%      | -6.18%      | -6.28%      | -6.97%      | -6.97%      | -6.97%      | -6.97%      |
| Côte d'Ivoire                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Croatia                               | -3.60%      | 3.13%       | 4.15%       | 3.87%       | 6.18%       | 8.05%       | 7.63%       | 8.33%       | 9.92%       | 9.02%       | 9.02%       |
| Cuba                                  | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Cyprus                                | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Czechia                               | 6.43%       | 4.67%       | -0.54%      | 2.33%       | 3.98%       | 4.09%       | 3.10%       | 3.13%       | 2.85%       | 2.22%       | 2.22%       |
| Democratic People's Republic of Korea | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Democratic Republic of the Congo      | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Denmark                               | -0.30%      | 3.51%       | 3.79%       | 2.22%       | 2.45%       | 1.91%       | 1.67%       | 1.35%       | 1.74%       | 2.28%       | 2.28%       |
| Djibouti                              | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Dominica                              | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Dominican Republic                    | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Ecuador                               | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Egypt                                 | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| El Salvador                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Equatorial Guinea                     | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Eritrea                               | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Estonia                               | -14.50%     | -5.13%      | -7.70%      | -3.65%      | 0%          | 3.22%       | 3.53%       | 4.32%       | 3.80%       | 3.50%       | 3.50%       |
| Eswatini                              | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Ethiopia                              | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Fiji                                  | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Finland                               | -4.15%      | -6.21%      | -4.95%      | -2.89%      | -1.86%      | -1.09%      | -0.71%      | 0.06%       | 0.03%       | 0.30%       | 0.30%       |
| France                                | 0%          | -1.06%      | -0.08%      | 0.33%       | 0.65%       | 0.86%       | 0.02%       | 0.59%       | 0.90%       | 0.73%       | 0.73%       |
| Gabon                                 | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Gambia                                | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Georgia                               | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Ghana                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Greece                           | 3.57%       | 9.11%       | 7.23%       | 9.41%       | 8.96%       | 8.64%       | 8.41%       | 7.94%       | 8.05%       | 7.60%       | 7.60%       |
| Grenada                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Guatemala                        | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Guinea                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Guinea-Bissau                    | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Guyana                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Haiti                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Honduras                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Hungary                          | 1.26%       | 2.27%       | -1.81%      | 2.74%       | 2.74%       | 2.68%       | 2.77%       | 3.92%       | 2.03%       | 1.60%       | 1.60%       |
| Iceland                          | 16.52%      | 16.90%      | 12.31%      | 9.94%       | 8.08%       | 9.87%       | 8.26%       | 9.45%       | 8.59%       | 8.49%       | 8.49%       |
| Indonesia                        | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Iran (Islamic Republic of)       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Iraq                             | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Ireland                          | 5.20%       | 0.70%       | 1.14%       | 4.77%       | 4.77%       | 5.89%       | 5.93%       | 6.65%       | 12.48%      | 10.89%      | 10.89%      |
| Israel                           | 6.04%       | 5.38%       | 7.44%       | 7.52%       | 7.60%       | 8.49%       | 8.23%       | 8.20%       | 8.85%       | 8.42%       | 8.42%       |
| Italy                            | 2.88%       | 1.91%       | 1.91%       | 1.92%       | 2.67%       | 2.74%       | 1.25%       | 1.44%       | 1.44%       | 1.44%       | 1.44%       |
| Jamaica                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Jordan                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Kazakhstan                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Kenya                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Kiribati                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Kuwait                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Kyrgyzstan                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Lao People's Democratic Republic | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Latvia                           | 14.79%      | 3.96%       | -6.66%      | 0.41%       | 6.36%       | 5.38%       | 6.13%       | 6.48%       | 6.57%       | 6.34%       | 6.34%       |
| Lebanon                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Lesotho                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Liberia                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Libya                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Liechtenstein                    | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Lithuania                        | 12.67%      | 8.04%       | -0.22%      | 2.61%       | 3.81%       | 5.07%       | 6.33%       | 6.06%       | 5.18%       | 4.66%       | 4.66%       |
| Luxembourg                       | 1.23%       | 3.23%       | 4.22%       | 2.94%       | 1.55%       | 1.92%       | 0.54%       | 0.55%       | 0.73%       | 0.57%       | 0.57%       |
| Madagascar                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Malawi                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Malaysia                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Maldives                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Mali                             | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Malta                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Marshall Islands                 | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Mauritania                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Mauritius                        | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Mexico                           | 5.41%       | 3.46%       | -0.27%      | -3.56%      | -3.56%      | -3.56%      | -3.56%      | -3.56%      | -3.56%      | -3.56%      | -3.56%      |
| Micronesia (Federated States of) | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Monaco                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Mongolia                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Montenegro                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Morocco                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Mozambique                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Myanmar                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Namibia                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Nauru                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Nepal                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Netherlands (Kingdom of the)     | 2.14%       | 1.35%       | 1.67%       | 2.27%       | 1.89%       | 2.27%       | 2.19%       | 2.41%       | 2.41%       | 2.73%       | 2.73%       |
| New Zealand                      | 0%          | 7.24%       | 7.24%       | 8.17%       | 8.17%       | 7.94%       | 7.94%       | 6.74%       | 6.74%       | 6.34%       | 6.34%       |
| Nicaragua                        | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Niger                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Nigeria                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| North Macedonia                  | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Norway                           | 3.40%       | 6.49%       | 5.38%       | 5.73%       | 4.95%       | 4.59%       | 3.60%       | 3.43%       | 3.40%       | 3.09%       | 3.09%       |
| Oman                             | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Pakistan                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Palau                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Panama                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Papua New Guinea                 | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Paraguay                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Peru                             | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Philippines                      | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Poland                           | 11.56%      | 10.90%      | 7.02%       | 8.44%       | 11.38%      | 11.92%      | 10.59%      | 10.57%      | 10.19%      | 9.99%       | 9.99%       |
| Portugal                         | -1.87%      | -1.85%      | 0.42%       | 1.96%       | 2.60%       | 3.19%       | 3.58%       | 4.30%       | 4.76%       | 4.57%       | 4.57%       |
| Qatar                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Republic of Korea                | 6.36%       | 3.31%       | 3.24%       | 5.25%       | 5.84%       | 5.62%       | 5.23%       | 5.37%       | 5.70%       | 5.50%       | 5.50%       |
| Republic of Moldova              | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Romania                          | 1.94%       | 16.84%      | 12.23%      | 12.23%      | 10.59%      | 8.71%       | 6.63%       | 6.69%       | 6.19%       | 7.00%       | 7.00%       |
| Rwanda                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Saint Kitts and Nevis            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Saint Lucia                      | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Saint Vincent and the Grenadines | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Samoa                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| San Marino                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Sao Tome and Principe            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Saudi Arabia                     | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Senegal                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Serbia                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Seychelles                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Sierra Leone                     | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Singapore                        | 12.66%      | 10.10%      | 6.31%       | 3.67%       | 2.67%       | 3.15%       | 4.14%       | 3.50%       | 2.93%       | 2.93%       | 2.93%       |
| Slovakia                         | 9.76%       | 24.25%      | 5.96%       | 8.35%       | 6.32%       | 5.43%       | 5.44%       | 5.64%       | 6.00%       | 6.21%       | 6.21%       |
| Slovenia                         | -5.39%      | -5.19%      | -5.35%      | -4.62%      | -1.92%      | -0.19%      | -0.09%      | 0.86%       | 0.86%       | 1.16%       | 1.16%       |
| Solomon Islands                  | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Somalia                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| South Africa                     | 8.53%       | 6.47%       | 5.38%       | 4.75%       | 2.07%       | -0.01%      | -1.11%      | -0.09%      | 0.12%       | 0.12%       | 0.12%       |
| South Sudan                      | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Spain                              | -1.25%      | 0.46%       | 0.41%       | 1.49%       | 2.20%       | 2.29%       | 1.98%       | 2.56%       | 3.05%       | 3.65%       | 3.65%       |
| Sri Lanka                          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Sudan                              | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Suriname                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Sweden                             | -2.42%      | 2.94%       | 2.90%       | 3.71%       | 3.06%       | 3.24%       | 2.92%       | 2.97%       | 2.97%       | 3.04%       | 3.04%       |
| Switzerland                        | 0%          | 3.91%       | 3.91%       | 2.82%       | 2.82%       | 3.12%       | 3.12%       | 3.14%       | 3.14%       | 2.80%       | 2.80%       |
| Syrian Arab Republic               | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Tajikistan                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Thailand                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Timor-Leste                        | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Togo                               | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Tonga                              | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Trinidad and Tobago                | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Tunisia                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Türkiye                            | 10.67%      | 15.25%      | 15.25%      | 14.47%      | 13.68%      | 11.88%      | 10.83%      | 11.32%      | 9.85%       | 10.20%      | 10.20%      |
| Turkmenistan                       | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Tuvalu                             | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Uganda                             | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Ukraine                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| United Arab Emirates               | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| United Republic of Tanzania        | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Uruguay                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Uzbekistan                         | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Vanuatu                            | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Venezuela (Bolivarian Republic of) | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Viet Nam                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Yemen                              | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Zambia                             | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |
| Zimbabwe                           | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          | 0%          |

*(Data not found or not explicitly designated as basic research in the R&D budget are treated as 0% annual growth.)*

Table S3-2-5 Tool/platform sustainability of open data by country, 2014–2024

| Year                         | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Australia                    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Austria                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Bahrain                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Belgium                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Brunei Darussalam            | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Canada                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Croatia                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Czechia                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Estonia                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Finland                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| France                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Germany                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Hungary                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Ireland                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Israel                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Italy                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Japan                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Latvia                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Liechtenstein                | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Lithuania                    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Luxembourg                   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Malta                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Nauru                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Netherlands (Kingdom of the) | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| New Zealand                  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Poland                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Republic of Korea            | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Romania                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| San Marino                   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Singapore                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Slovakia                         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Slovenia                         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Spain                            | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Sweden                           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Switzerland                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Trinidad and Tobago              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| United Kingdom                   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| United States                    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Uruguay                          | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Afghanistan                      | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Albania                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Algeria                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Andorra                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Angola                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Antigua and Barbuda              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Argentina                        | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Armenia                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Azerbaijan                       | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Bangladesh                       | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Barbados                         | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Belarus                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Belize                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Benin                            | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Bhutan                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Bolivia (Plurinational State of) | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Bosnia and Herzegovina           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Botswana                         | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Brazil                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Bulgaria                         | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Burkina Faso                     | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |

| Year                                  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Burundi                               | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Cabo Verde                            | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Cambodia                              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Cameroon                              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Central African Republic              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Chad                                  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Chile                                 | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| China                                 | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Colombia                              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Comoros                               | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Congo                                 | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Costa Rica                            | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Cuba                                  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Cyprus                                | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Côte d'Ivoire                         | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Democratic People's Republic of Korea | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Democratic Republic of the Congo      | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Denmark                               | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Djibouti                              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Dominica                              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Dominican Republic                    | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Ecuador                               | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Egypt                                 | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| El Salvador                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Equatorial Guinea                     | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Eritrea                               | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Eswatini                              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Ethiopia                              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Fiji                                  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Gabon                                 | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Gambia                                | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Georgia                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Ghana                            | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Greece                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Grenada                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Guatemala                        | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Guinea                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Guinea-Bissau                    | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Guyana                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Haiti                            | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Honduras                         | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Iceland                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| India                            | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Indonesia                        | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Iran (Islamic Republic of)       | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Iraq                             | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Jamaica                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Jordan                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Kazakhstan                       | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Kenya                            | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Kiribati                         | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Kuwait                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Kyrgyzstan                       | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Lao People's Democratic Republic | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Lebanon                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Lesotho                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Liberia                          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Libya                            | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Madagascar                       | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Malawi                           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Malaysia                         | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Maldives                         | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Mali                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Marshall Islands                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mauritania                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mauritius                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mexico                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Micronesia (Federated States of) | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Monaco                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mongolia                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Montenegro                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Morocco                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mozambique                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Myanmar                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Namibia                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nepal                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nicaragua                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Niger                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nigeria                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| North Macedonia                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Norway                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Oman                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Pakistan                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Palau                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Panama                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Papua New Guinea                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Paraguay                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Peru                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Philippines                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Portugal                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Qatar                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Republic of Moldova              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Russia                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Rwanda                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saint Kitts and Nevis            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saint Lucia                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saint Vincent and the Grenadines | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Samoa                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sao Tome and Principe            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saudi Arabia                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Senegal                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Serbia                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Seychelles                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sierra Leone                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Solomon Islands                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Somalia                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| South Africa                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| South Sudan                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sri Lanka                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sudan                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Suriname                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Syrian Arab Republic             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tajikistan                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Thailand                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| The Bahamas                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Timor-Leste                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Togo                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tonga                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tunisia                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Turkmenistan                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tuvalu                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Türkiye                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Uganda                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Ukraine                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| United Arab Emirates               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| United Republic of Tanzania        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Uzbekistan                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Vanuatu                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Venezuela (Bolivarian Republic of) | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Viet Nam                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Yemen                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Zambia                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Zimbabwe                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

Table S3-2-6 Legal sustainability of open data by country, 2014–2024

| <b>Year</b>       | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Australia         | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Austria           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Bahrain           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Belgium           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Brunei Darussalam | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Canada            | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Croatia           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Czechia           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Estonia           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Finland           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| France            | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Germany           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Hungary           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Ireland           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Israel            | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Italy             | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |
| Japan             | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           | 1           |

| Year                         | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Latvia                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Liechtenstein                | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Lithuania                    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Luxembourg                   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Malta                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Nauru                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Netherlands (Kingdom of the) | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| New Zealand                  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Poland                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Republic of Korea            | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Romania                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| San Marino                   | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Singapore                    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Slovakia                     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Slovenia                     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Spain                        | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Sweden                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Switzerland                  | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Trinidad and Tobago          | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| United Kingdom               | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| United States                | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Uruguay                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Afghanistan                  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Albania                      | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Algeria                      | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Andorra                      | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Angola                       | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Antigua and Barbuda          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Argentina                    | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Armenia                      | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Azerbaijan                   | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Bangladesh                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Barbados                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Belarus                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Belize                                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Benin                                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Bhutan                                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Bolivia (Plurinational State of)      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Bosnia and Herzegovina                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Botswana                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Brazil                                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Bulgaria                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Burkina Faso                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Burundi                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cabo Verde                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cambodia                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cameroon                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Central African Republic              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Chad                                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Chile                                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| China                                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Colombia                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Comoros                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Congo                                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Costa Rica                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cuba                                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cyprus                                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Côte d'Ivoire                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Democratic People's Republic of Korea | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Democratic Republic of the Congo      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Denmark                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Djibouti                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Dominica                   | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Dominican Republic         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Ecuador                    | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Egypt                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| El Salvador                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Equatorial Guinea          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Eritrea                    | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Eswatini                   | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Ethiopia                   | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Fiji                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Gabon                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Gambia                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Georgia                    | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Ghana                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Greece                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Grenada                    | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Guatemala                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Guinea                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Guinea-Bissau              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Guyana                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Haiti                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Honduras                   | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Iceland                    | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| India                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Indonesia                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Iran (Islamic Republic of) | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Iraq                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Jamaica                    | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Jordan                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Kazakhstan                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Kenya                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Kiribati                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Kuwait                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Kyrgyzstan                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Lao People's Democratic Republic | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Lebanon                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Lesotho                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Liberia                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Libya                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Madagascar                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Malawi                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Malaysia                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Maldives                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mali                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Marshall Islands                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mauritania                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mauritius                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mexico                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Micronesia (Federated States of) | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Monaco                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mongolia                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Montenegro                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Morocco                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mozambique                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Myanmar                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Namibia                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nepal                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nicaragua                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Niger                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nigeria                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| North Macedonia                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Norway                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Oman                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Pakistan                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Palau                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Panama                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Papua New Guinea                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Paraguay                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Peru                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Philippines                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Portugal                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Qatar                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Republic of Moldova              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Russia                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Rwanda                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saint Kitts and Nevis            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saint Lucia                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saint Vincent and the Grenadines | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Samoa                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sao Tome and Principe            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saudi Arabia                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Senegal                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Serbia                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Seychelles                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sierra Leone                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Solomon Islands                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Somalia                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| South Africa                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| South Sudan                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sri Lanka                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sudan                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Suriname                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Syrian Arab Republic             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Tajikistan                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Thailand                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| The Bahamas                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Timor-Leste                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Togo                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tonga                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tunisia                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Turkmenistan                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tuvalu                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Türkiye                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Uganda                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Ukraine                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| United Arab Emirates               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| United Republic of Tanzania        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Uzbekistan                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Vanuatu                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Venezuela (Bolivarian Republic of) | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Viet Nam                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Yemen                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Zambia                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Zimbabwe                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

Table S3-3-1 International Property Rights Index (IPRI) by country, 2014–2024

| <b>Year</b>                  | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Finland                      | 8.5         | 8.327       | 8.377       | 8.626       | 8.692       | 8.712       | 8.654       | 8.078       | 8.173       | 8.09        | 8.081       |
| Singapore                    | 8.2         | 8.118       | 8.128       | 8.358       | 8.404       | 8.462       | 8.481       | 8.087       | 7.967       | 7.958       | 7.942       |
| Denmark                      | 7.9         | 7.894       | 7.938       | 8.158       | 8.163       | 8.174       | 8.211       | 7.927       | 7.806       | 7.812       | 7.774       |
| Netherlands (Kingdom of the) | 8.1         | 7.905       | 8.027       | 8.296       | 8.325       | 8.273       | 8.281       | 7.963       | 7.777       | 7.853       | 7.773       |
| Luxembourg                   | 8.1         | 8.147       | 8.256       | 8.459       | 8.297       | 8.275       | 8.242       | 7.995       | 7.889       | 7.767       | 7.751       |

| <b>Year</b>          | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Sweden               | 8.3         | 7.994       | 8.098       | 8.608       | 8.396       | 8.28        | 8.187       | 7.817       | 7.601       | 7.771       | 7.725       |
| New Zealand          | 8.3         | 8.207       | 8.266       | 8.633       | 8.632       | 8.514       | 8.424       | 8.079       | 7.929       | 7.793       | 7.721       |
| Australia            | 7.8         | 7.714       | 7.931       | 8.244       | 8.329       | 8.363       | 8.358       | 7.904       | 7.616       | 7.688       | 7.689       |
| Norway               | 8.3         | 8.227       | 8.252       | 8.533       | 8.45        | 8.279       | 8.248       | 7.957       | 7.798       | 7.772       | 7.684       |
| Germany              | 7.8         | 7.607       | 7.722       | 7.959       | 7.909       | 7.85        | 7.741       | 7.437       | 7.469       | 7.748       | 7.681       |
| Switzerland          | 8.2         | 8.05        | 8.161       | 8.561       | 8.618       | 8.571       | 8.53        | 8.148       | 7.94        | 7.619       | 7.613       |
| Japan                | 7.8         | 7.977       | 8.098       | 8.327       | 8.231       | 8.323       | 8.362       | 7.893       | 7.677       | 7.583       | 7.588       |
| Austria              | 7.8         | 7.554       | 7.591       | 8.012       | 8.004       | 8.089       | 8.145       | 7.925       | 7.665       | 7.632       | 7.56        |
| United States        | 7.7         | 7.606       | 7.737       | 8.074       | 8.124       | 8.202       | 8.05        | 7.993       | 7.566       | 7.525       | 7.494       |
| United Kingdom       | 7.8         | 7.69        | 7.755       | 8.129       | 8.141       | 8.044       | 7.678       | 7.52        | 7.299       | 7.489       | 7.452       |
| Canada               | 8           | 7.929       | 8.015       | 8.179       | 8.294       | 8.264       | 8.046       | 7.748       | 7.473       | 7.42        | 7.406       |
| Ireland              | 7.5         | 7.431       | 7.579       | 7.872       | 7.659       | 7.612       | 7.529       | 7.337       | 7.202       | 7.418       | 7.404       |
| Belgium              | 7.5         | 7.364       | 7.454       | 7.839       | 7.678       | 7.669       | 7.706       | 7.4         | 7.279       | 7.341       | 7.297       |
| Iceland              | 7.2         | 7.04        | 7.208       | 7.7         | 7.617       | 7.565       | 7.616       | 7.433       | 7.077       | 7.196       | 7.106       |
| France               | 7.3         | 7.209       | 7.258       | 7.336       | 7.184       | 7.384       | 7.212       | 6.977       | 6.783       | 7.056       | 7.002       |
| Czechia              | 6.5         | 6.274       | 6.532       | 6.86        | 6.98        | 7.029       | 7.007       | 6.726       | 6.401       | 6.577       | 6.542       |
| Spain                | 6.3         | 5.73        | 5.85        | 6.422       | 6.52        | 6.452       | 6.599       | 6.56        | 6.245       | 6.502       | 6.402       |
| Uruguay              | 6.1         | 5.909       | 6.102       | 6.412       | 6.191       | 6.329       | 6.199       | 6.222       | 6.086       | 6.347       | 6.366       |
| Qatar                | 7.396       | 7.492       | 7.381       | 7.348       | 7.178       | 6.923       | 7.1         | 6.795       | 6.508       | 6.36        | 6.352       |
| Lithuania            | 6.1         | 5.864       | 5.975       | 5.918       | 6.424       | 6.46        | 6.522       | 6.358       | 6.048       | 6.36        | 6.333       |
| Portugal             | 6.8         | 6.556       | 6.6         | 6.848       | 6.934       | 6.976       | 6.939       | 6.784       | 6.214       | 6.385       | 6.314       |
| Israel               | 6.5         | 6.242       | 6.41        | 6.974       | 7.13        | 7.181       | 7.12        | 6.926       | 6.635       | 6.388       | 6.308       |
| Malaysia             | 6.5         | 6.602       | 6.753       | 6.61        | 6.491       | 6.623       | 6.717       | 6.699       | 6.3         | 6.174       | 6.191       |
| United Arab Emirates | 7.25        | 7.301       | 7.287       | 7.483       | 7.572       | 7.348       | 7.495       | 7.135       | 6.794       | 6.162       | 6.157       |
| Latvia               | 5.617       | 5.534       | 5.697       | 5.341       | 5.718       | 5.936       | 6.03        | 6.274       | 5.943       | 6.183       | 6.149       |
| Oman                 | 6.383       | 6.165       | 5.993       | 6.28        | 6.331       | 6.729       | 6.654       | 6.557       | 6.203       | 6.081       | 6.092       |
| Malta                | 7           | 6.864       | 6.727       | 6.881       | 6.734       | 6.755       | 6.635       | 6.292       | 5.778       | 6.089       | 6.065       |
| Slovenia             | 5.592       | 5.185       | 5.542       | 5.994       | 6.085       | 6.102       | 6.149       | 6.318       | 6.002       | 6.025       | 6.064       |
| Italy                | 6           | 5.589       | 5.656       | 5.979       | 5.993       | 6.126       | 6.152       | 6.099       | 5.658       | 6.038       | 5.99        |
| Cyprus               | 6.4         | 6.048       | 6.121       | 5.447       | 6.237       | 6.407       | 6.355       | 6.345       | 5.838       | 5.975       | 5.948       |
| Chile                | 6.8         | 6.646       | 6.724       | 6.926       | 6.881       | 6.88        | 6.973       | 6.589       | 6.138       | 5.947       | 5.927       |

| <b>Year</b>         | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Costa Rica          | 6           | 5.736       | 5.818       | 6.06        | 6.571       | 6.488       | 6.404       | 6.091       | 5.705       | 5.821       | 5.835       |
| Saudi Arabia        | 6.2         | 5.977       | 6.101       | 6.133       | 6.187       | 6.278       | 6.462       | 6.421       | 6.06        | 5.714       | 5.835       |
| Slovakia            | 6.2         | 5.874       | 6.016       | 6.396       | 6.273       | 6.386       | 6.365       | 6.061       | 5.679       | 5.88        | 5.829       |
| Romania             | 5.3         | 5.29        | 5.45        | 5.042       | 5.812       | 6.028       | 5.88        | 5.993       | 5.476       | 5.786       | 5.762       |
| Bahrain             | 6.159       | 5.818       | 5.971       | 6.157       | 6.174       | 6.195       | 6.388       | 6.317       | 5.959       | 5.722       | 5.719       |
| Mauritius           | 6.3         | 6.126       | 6.144       | 6.315       | 6.249       | 6.297       | 6.359       | 6.214       | 5.804       | 5.753       | 5.702       |
| Botswana            | 6.3         | 5.926       | 5.932       | 6.126       | 5.999       | 5.963       | 5.934       | 5.75        | 5.288       | 5.566       | 5.558       |
| Brunei Darussalam   | 5.433       | 5.166       | 4.899       | 4.632       | 4.767       | 4.758       | 4.793       | 4.871       | 5.508       | 5.531       | 5.539       |
| Jordan              | 6           | 5.849       | 5.86        | 6.266       | 6.192       | 6.181       | 6.286       | 6.173       | 5.717       | 5.429       | 5.452       |
| Poland              | 6.1         | 5.904       | 5.947       | 6.253       | 6.092       | 5.996       | 5.661       | 5.486       | 5.414       | 5.458       | 5.42        |
| Rwanda              | 6.049       | 5.898       | 6.195       | 6.508       | 6.562       | 6.265       | 6.241       | 5.942       | 5.414       | 5.393       | 5.326       |
| Hungary             | 6.1         | 5.826       | 5.665       | 5.992       | 6.097       | 6.218       | 6.254       | 6.027       | 5.417       | 5.422       | 5.302       |
| Jamaica             | 5.5         | 5.353       | 5.575       | 6.01        | 5.991       | 5.999       | 5.934       | 5.739       | 5.176       | 5.251       | 5.294       |
| China               | 5.5         | 5.389       | 5.408       | 5.712       | 5.904       | 6.033       | 6.045       | 6.088       | 5.594       | 5.336       | 5.285       |
| Morocco             | 5.2         | 5.153       | 5.286       | 5.5         | 5.644       | 5.762       | 5.926       | 5.845       | 5.342       | 5.233       | 5.232       |
| Armenia             | 4.43        | 4.261       | 4.203       | 4.126       | 4.714       | 4.812       | 5.032       | 5.401       | 4.983       | 5.246       | 5.216       |
| Croatia             | 5.036       | 4.873       | 4.938       | 4.754       | 5.171       | 5.162       | 5.232       | 5.422       | 4.916       | 5.191       | 5.197       |
| Kuwait              | 5.5         | 5.199       | 5.161       | 5.38        | 5.49        | 5.57        | 5.676       | 5.816       | 5.432       | 5.23        | 5.151       |
| Bulgaria            | 5.3         | 4.935       | 5.019       | 4.813       | 5.397       | 5.569       | 5.721       | 5.586       | 4.972       | 5.138       | 5.132       |
| Greece              | 5.3         | 5.279       | 5.361       | 5.389       | 5.266       | 5.207       | 5.232       | 5.322       | 4.814       | 5.173       | 5.111       |
| India               | 5.5         | 5.155       | 5.22        | 5.564       | 5.639       | 5.82        | 5.708       | 5.547       | 5.143       | 5.072       | 5.09        |
| South Africa        | 6.7         | 6.585       | 6.585       | 7           | 6.348       | 6.071       | 6.213       | 5.964       | 5.534       | 5.192       | 5.083       |
| Panama              | 5.6         | 5.267       | 5.381       | 5.798       | 5.833       | 5.687       | 5.63        | 5.308       | 4.77        | 5.098       | 5.034       |
| Azerbaijan          | 4.294       | 4.087       | 4.08        | 3.946       | 5.037       | 5.12        | 5.348       | 5.485       | 5.042       | 5.095       | 5.008       |
| Indonesia           | 5           | 4.9         | 5.018       | 5.167       | 5.332       | 5.405       | 5.341       | 5.274       | 4.799       | 4.996       | 5           |
| Trinidad and Tobago | 5.459       | 5.219       | 5.207       | 5.503       | 5.714       | 5.816       | 5.657       | 5.352       | 4.987       | 4.974       | 4.971       |
| Ghana               | 5.8         | 5.612       | 5.457       | 5.646       | 5.635       | 5.748       | 5.612       | 5.438       | 5.002       | 4.946       | 4.945       |
| Georgia             | 4.224       | 4.249       | 4.601       | 4.707       | 5.144       | 5.247       | 5.236       | 5.327       | 4.671       | 4.918       | 4.931       |
| Montenegro          | 4.916       | 4.733       | 4.549       | 4.192       | 4.65        | 4.817       | 4.952       | 5.318       | 5.047       | 5.174       | 4.861       |
| Thailand            | 5.3         | 4.923       | 5.038       | 5.215       | 5.317       | 5.455       | 5.474       | 5.442       | 4.735       | 4.778       | 4.807       |
| Senegal             | 4.7         | 4.566       | 4.804       | 4.942       | 5.009       | 5.132       | 5.066       | 4.974       | 4.486       | 4.736       | 4.712       |

| <b>Year</b>                 | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|-----------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Dominican Republic          | 4.9         | 4.363       | 4.547       | 4.823       | 4.837       | 4.894       | 5.031       | 5.007       | 4.388       | 4.627       | 4.707       |
| Sri Lanka                   | 5           | 4.76        | 4.995       | 5.39        | 5.239       | 5.163       | 5.159       | 5.19        | 4.699       | 4.836       | 4.702       |
| Republic of Moldova         | 3.859       | 3.618       | 3.723       | 3.178       | 4.002       | 4.221       | 4.329       | 4.819       | 4.191       | 4.72        | 4.689       |
| Tunisia                     | 4.962       | 4.644       | 4.846       | 5.081       | 5.097       | 5.142       | 5.094       | 5.094       | 4.626       | 4.706       | 4.657       |
| Kenya                       | 4.6         | 4.533       | 4.611       | 4.856       | 4.983       | 5.147       | 5.003       | 4.984       | 4.407       | 4.614       | 4.646       |
| Kazakhstan                  | 4.494       | 4.488       | 4.763       | 4.432       | 4.835       | 4.855       | 5.006       | 5.275       | 4.629       | 4.64        | 4.644       |
| Serbia                      | 4.157       | 3.915       | 4.024       | 4.044       | 4.611       | 4.785       | 4.82        | 5.153       | 4.575       | 4.669       | 4.63        |
| Mexico                      | 5.2         | 4.75        | 4.788       | 5.194       | 5.173       | 5.228       | 5.261       | 5.265       | 4.623       | 4.627       | 4.591       |
| North Macedonia             | 0           | 0           | 0           | 0           | 0           | 4.703       | 4.806       | 4.783       | 4.31        | 4.597       | 4.575       |
| Colombia                    | 5           | 4.753       | 4.92        | 5.354       | 5.516       | 5.559       | 5.563       | 5.204       | 4.64        | 4.562       | 4.57        |
| Brazil                      | 5.5         | 5.099       | 5.145       | 5.434       | 5.746       | 5.564       | 5.478       | 5.214       | 4.622       | 4.467       | 4.546       |
| United Republic of Tanzania | 5.1         | 4.614       | 4.579       | 5.051       | 5.174       | 5.192       | 5.265       | 5.111       | 4.584       | 4.513       | 4.543       |
| Albania                     | 3.957       | 3.713       | 4.004       | 3.822       | 4.525       | 4.546       | 4.293       | 4.696       | 4.119       | 4.499       | 4.509       |
| Malawi                      | 5.1         | 4.531       | 4.608       | 4.67        | 4.66        | 4.785       | 4.757       | 4.712       | 4.335       | 4.588       | 4.508       |
| Philippines                 | 5.026       | 5.052       | 5.149       | 5.331       | 5.217       | 5.309       | 5.322       | 5.018       | 4.495       | 4.396       | 4.422       |
| Viet Nam                    | 4.8         | 4.49        | 4.655       | 4.93        | 5.075       | 5.084       | 5.132       | 4.995       | 4.497       | 4.414       | 4.407       |
| Paraguay                    | 4.1         | 3.738       | 4.056       | 4.478       | 4.517       | 4.569       | 4.544       | 4.499       | 4.034       | 4.392       | 4.349       |
| Egypt                       | 4.6         | 4.135       | 4.342       | 4.433       | 5.062       | 5.281       | 5.506       | 5.379       | 4.721       | 4.355       | 4.33        |
| Peru                        | 5           | 4.603       | 4.803       | 5.217       | 5.229       | 5.139       | 5.059       | 4.931       | 4.258       | 4.37        | 4.316       |
| Zambia                      | 5.1         | 4.735       | 4.791       | 4.917       | 4.732       | 4.592       | 4.504       | 4.453       | 3.928       | 4.316       | 4.316       |
| El Salvador                 | 4.9         | 4.812       | 4.785       | 4.945       | 4.774       | 4.707       | 4.728       | 4.656       | 4.165       | 4.31        | 4.272       |
| Uganda                      | 4.7         | 4.339       | 4.631       | 5.102       | 4.852       | 5.052       | 4.863       | 4.728       | 4.186       | 4.275       | 4.265       |
| Türkiye                     | 5.6         | 5.261       | 5.195       | 4.925       | 5.282       | 5.262       | 5.404       | 5.351       | 4.557       | 4.243       | 4.258       |
| Benin                       | 4.8         | 4.654       | 4.508       | 4.583       | 4.51        | 4.525       | 4.65        | 4.59        | 4.327       | 4.279       | 4.257       |
| Argentina                   | 4.4         | 3.998       | 4.122       | 4.568       | 5.025       | 5.087       | 5.111       | 4.702       | 4.299       | 4.2         | 4.181       |
| Nepal                       | 4.5         | 4.169       | 4.461       | 4.941       | 4.946       | 4.842       | 4.909       | 4.724       | 4.24        | 4.185       | 4.148       |
| Bosnia and Herzegovina      | 4.307       | 4.214       | 4.122       | 3.917       | 4.417       | 4.419       | 4.331       | 4.582       | 4.026       | 4.179       | 4.143       |
| Algeria                     | 4.1         | 4.079       | 4.109       | 4.16        | 4.14        | 4.435       | 4.389       | 4.611       | 4.209       | 4.105       | 4.142       |
| Ecuador                     | 5           | 4.877       | 4.753       | 4.627       | 4.711       | 4.803       | 5.001       | 4.715       | 4.113       | 4.213       | 4.142       |
| Guatemala                   | 4.8         | 4.464       | 4.627       | 5.077       | 5.008       | 5.013       | 4.966       | 4.712       | 4.023       | 4.069       | 4.115       |
| Burkina Faso                | 4.7         | 4.143       | 4.446       | 4.749       | 5.051       | 5.354       | 5.243       | 4.61        | 4.154       | 4.192       | 4.089       |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Honduras                           | 4.5         | 4.371       | 4.708       | 4.902       | 4.723       | 4.835       | 4.864       | 4.735       | 3.99        | 3.952       | 4.002       |
| Ukraine                            | 4.3         | 3.926       | 3.933       | 3.424       | 4.282       | 4.432       | 4.466       | 4.453       | 3.98        | 4.011       | 3.82        |
| Russia                             | 4.8         | 4.548       | 4.579       | 4.043       | 4.89        | 4.989       | 4.998       | 5.055       | 4.466       | 3.935       | 3.797       |
| Gabon                              | 4.816       | 4.433       | 4.66        | 4.694       | 4.731       | 4.767       | 4.804       | 4.203       | 3.744       | 3.817       | 3.763       |
| Mozambique                         | 4.8         | 4.214       | 4.31        | 4.625       | 4.486       | 4.387       | 4.34        | 4.324       | 3.717       | 3.774       | 3.754       |
| Pakistan                           | 4.3         | 3.557       | 3.684       | 3.474       | 3.637       | 3.874       | 4.142       | 4.211       | 3.814       | 3.824       | 3.745       |
| Burundi                            | 3.6         | 3.32        | 3.441       | 3.43        | 3.778       | 3.798       | 4.411       | 4.318       | 3.857       | 3.693       | 3.735       |
| Bangladesh                         | 3.4         | 2.564       | 2.777       | 3.117       | 3.365       | 3.313       | 3.293       | 3.395       | 3.577       | 3.73        | 3.657       |
| Cameroon                           | 4.3         | 3.906       | 4.048       | 4.294       | 4.323       | 4.307       | 4.205       | 3.988       | 3.516       | 3.632       | 3.64        |
| Lebanon                            | 3.835       | 3.47        | 3.831       | 4.331       | 4.342       | 4.386       | 4.349       | 4.236       | 3.73        | 3.604       | 3.63        |
| Nicaragua                          | 4.6         | 4.053       | 3.981       | 3.99        | 4.266       | 4.337       | 4.133       | 4.029       | 3.464       | 3.642       | 3.612       |
| Madagascar                         | 4.4         | 3.82        | 3.845       | 4.064       | 4.041       | 3.998       | 3.956       | 3.967       | 3.603       | 3.651       | 3.597       |
| Iran (Islamic Republic of)         | 4.133       | 3.965       | 4.24        | 4.521       | 4.748       | 4.578       | 4.249       | 4.143       | 3.643       | 3.606       | 3.558       |
| Mali                               | 4.5         | 4.236       | 4.572       | 4.814       | 4.722       | 4.568       | 4.532       | 4.164       | 3.613       | 3.641       | 3.534       |
| Nigeria                            | 3.7         | 3.378       | 3.562       | 3.95        | 3.923       | 3.787       | 3.719       | 3.657       | 3.312       | 3.371       | 3.52        |
| Zimbabwe                           | 3.8         | 3.238       | 3.402       | 3.76        | 3.844       | 3.738       | 3.96        | 3.835       | 3.114       | 3.407       | 3.44        |
| Bolivia (Plurinational State of)   | 4.5         | 4.245       | 4.117       | 3.971       | 3.95        | 3.93        | 4.048       | 3.711       | 3.291       | 3.394       | 3.364       |
| Mauritania                         | 4.5         | 3.768       | 3.731       | 4.091       | 4.17        | 4.172       | 4.149       | 3.875       | 3.224       | 3.231       | 3.242       |
| Angola                             | 2.831       | 2.647       | 2.764       | 2.881       | 2.998       | 3.115       | 3.362       | 3.137       | 3.136       | 3.249       | 3.221       |
| Ethiopia                           | 4.4         | 4.006       | 4.211       | 4.718       | 4.42        | 4.392       | 4.053       | 4.115       | 3.466       | 3.244       | 3.173       |
| Chad                               | 3.9         | 3.563       | 3.739       | 3.891       | 3.77        | 3.886       | 3.991       | 3.741       | 3.071       | 3.084       | 3.023       |
| Democratic Republic of the Congo   | 0           | 0           | 0           | 0           | 3.744       | 3.545       | 3.492       | 3.461       | 2.886       | 3.068       | 2.992       |
| Haiti                              | 3.035       | 2.671       | 2.843       | 2.788       | 2.733       | 2.703       | 2.655       | 2.646       | 2.834       | 2.733       | 2.568       |
| Yemen                              | 2.856       | 2.785       | 2.756       | 2.728       | 2.792       | 2.671       | 2.707       | 2.985       | 2.248       | 2.395       | 2.382       |
| Venezuela (Bolivarian Republic of) | 3.2         | 2.698       | 2.73        | 3.057       | 2.975       | 2.895       | 2.848       | 2.67        | 1.771       | 1.873       | 1.927       |
| Afghanistan                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Andorra                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Antigua and Barbuda                | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Barbados                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Belarus                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Belize                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |

| Year                                  | 2014  | 2015  | 2016  | 2017  | 2018  | 2019  | 2020  | 2021  | 2022  | 2023 | 2024 |
|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|
| Bhutan                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Cabo Verde                            | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Cambodia                              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Central African Republic              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Comoros                               | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Congo                                 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Cuba                                  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Côte d'Ivoire                         | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Democratic People's Republic of Korea | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Djibouti                              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Dominica                              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Equatorial Guinea                     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Eritrea                               | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Estonia                               | 6.661 | 6.621 | 6.803 | 7.199 | 7.181 | 7.173 | 7.179 | 6.946 | 6.731 | 0    | 0    |
| Eswatini                              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Fiji                                  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Gambia                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Grenada                               | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Guinea                                | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Guinea-Bissau                         | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Guyana                                | 4.7   | 4.489 | 4.278 | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Iraq                                  | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Kiribati                              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Kyrgyzstan                            | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Lao People's Democratic Republic      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Lesotho                               | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Liberia                               | 5.145 | 4.99  | 4.835 | 4.893 | 4.619 | 4.652 | 0     | 0     | 0     | 0    | 0    |
| Libya                                 | 3.064 | 2.728 | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Liechtenstein                         | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Maldives                              | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |
| Marshall Islands                      | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0    | 0    |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Micronesia (Federated States of) | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Monaco                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Mongolia                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Myanmar                          | 2.247       | 2.534       | 2.76        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Namibia                          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Nauru                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Niger                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Palau                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Papua New Guinea                 | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Republic of Korea                | 5.016       | 5.931       | 6.123       | 6.495       | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Saint Kitts and Nevis            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Saint Lucia                      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Saint Vincent and the Grenadines | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Samoa                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| San Marino                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Sao Tome and Principe            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Seychelles                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Sierra Leone                     | 4.569       | 4.338       | 4.224       | 4.523       | 4.641       | 4.86        | 0           | 0           | 0           | 0           | 0           |
| Solomon Islands                  | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Somalia                          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| South Sudan                      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Sudan                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Suriname                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Syrian Arab Republic             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Tajikistan                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| The Bahamas                      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Timor-Leste                      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Togo                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Tonga                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Turkmenistan                     | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Tuvalu                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |

| Year       | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------|------|------|------|------|------|------|------|------|------|------|------|
| Uzbekistan | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Vanuatu    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

Table S3-3-2 Journal data by country (JCR; incomplete for some countries)

| Year                         | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| United States                | 3978 | 4023 | 4062 | 4091 | 4142 | 4187 | 5850 | 5951 | 5953 | 5954 | 6026 |
| United Kingdom               | 2580 | 2660 | 2690 | 2774 | 2864 | 2975 | 4493 | 4589 | 4630 | 4704 | 4776 |
| Netherlands (Kingdom of the) | 832  | 869  | 875  | 903  | 930  | 956  | 1285 | 1329 | 1352 | 1386 | 1419 |
| Germany                      | 683  | 701  | 707  | 718  | 722  | 753  | 1116 | 1150 | 1151 | 1156 | 1162 |
| Spain                        | 116  | 116  | 116  | 120  | 122  | 125  | 719  | 719  | 738  | 731  | 741  |
| Switzerland                  | 218  | 226  | 230  | 244  | 279  | 309  | 466  | 543  | 543  | 603  | 684  |
| China                        | 182  | 193  | 186  | 205  | 223  | 252  | 355  | 406  | 449  | 517  | 589  |
| Italy                        | 127  | 128  | 125  | 120  | 119  | 120  | 425  | 425  | 433  | 424  | 427  |
| Brazil                       | 118  | 121  | 122  | 122  | 123  | 122  | 410  | 410  | 408  | 398  | 397  |
| Russia                       | 150  | 149  | 152  | 153  | 151  | 150  | 384  | 390  | 388  | 381  | 381  |
| Poland                       | 136  | 144  | 147  | 142  | 142  | 143  | 346  | 348  | 352  | 360  | 373  |
| France                       | 200  | 193  | 199  | 199  | 193  | 193  | 365  | 371  | 369  | 368  | 368  |
| Japan                        | 244  | 243  | 246  | 247  | 248  | 247  | 335  | 350  | 353  | 354  | 364  |
| Canada                       | 127  | 122  | 123  | 124  | 121  | 122  | 319  | 319  | 338  | 334  | 339  |
| Republic of Korea            | 116  | 118  | 114  | 127  | 127  | 134  | 274  | 285  | 297  | 305  | 319  |
| India                        | 107  | 109  | 103  | 103  | 102  | 103  | 315  | 332  | 330  | 322  | 316  |
| Australia                    | 157  | 158  | 160  | 159  | 159  | 162  | 323  | 309  | 317  | 308  | 308  |
| Türkiye                      | 63   | 61   | 60   | 59   | 58   | 58   | 243  | 241  | 257  | 265  | 277  |
| Colombia                     | 15   | 15   | 15   | 17   | 18   | 18   | 176  | 176  | 176  | 177  | 175  |
| Iran (Islamic Republic of)   | 44   | 43   | 41   | 41   | 36   | 40   | 151  | 156  | 158  | 159  | 163  |
| South Africa                 | 53   | 54   | 55   | 53   | 52   | 52   | 156  | 159  | 163  | 161  | 161  |
| Romania                      | 50   | 52   | 51   | 50   | 50   | 47   | 145  | 149  | 145  | 144  | 140  |
| Singapore                    | 59   | 59   | 61   | 61   | 62   | 65   | 118  | 133  | 130  | 129  | 136  |
| New Zealand                  | 43   | 44   | 47   | 48   | 51   | 55   | 124  | 125  | 129  | 129  | 128  |

| Year                               | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Croatia                            | 41   | 40   | 40   | 39   | 38   | 37   | 123  | 122  | 124  | 123  | 122  |
| Czechia                            | 49   | 49   | 49   | 50   | 50   | 51   | 105  | 105  | 112  | 114  | 114  |
| Mexico                             | 40   | 40   | 39   | 39   | 40   | 39   | 98   | 96   | 97   | 98   | 100  |
| Chile                              | 34   | 34   | 35   | 37   | 37   | 36   | 94   | 93   | 96   | 95   | 97   |
| Argentina                          | 18   | 18   | 18   | 19   | 18   | 17   | 91   | 94   | 95   | 95   | 94   |
| Ukraine                            | 16   | 15   | 15   | 15   | 15   | 15   | 81   | 77   | 83   | 82   | 88   |
| Malaysia                           | 11   | 12   | 12   | 13   | 13   | 12   | 79   | 81   | 81   | 82   | 83   |
| Denmark                            | 79   | 71   | 71   | 71   | 71   | 71   | 80   | 80   | 78   | 78   | 77   |
| Austria                            | 40   | 41   | 41   | 39   | 39   | 41   | 67   | 70   | 72   | 71   | 70   |
| Slovakia                           | 23   | 23   | 23   | 23   | 21   | 21   | 60   | 63   | 67   | 67   | 68   |
| Indonesia                          | 0    | 0    | 0    | 0    | 0    | 0    | 67   | 69   | 69   | 66   | 67   |
| Serbia                             | 21   | 21   | 22   | 22   | 22   | 21   | 62   | 63   | 64   | 65   | 67   |
| Egypt                              | 4    | 4    | 4    | 5    | 7    | 7    | 37   | 51   | 58   | 60   | 60   |
| Belgium                            | 25   | 25   | 26   | 25   | 23   | 24   | 62   | 59   | 62   | 57   | 59   |
| Hungary                            | 35   | 36   | 37   | 38   | 36   | 33   | 51   | 53   | 53   | 55   | 58   |
| Portugal                           | 8    | 8    | 8    | 8    | 11   | 12   | 50   | 49   | 54   | 56   | 55   |
| United Arab Emirates               | 38   | 39   | 39   | 39   | 39   | 39   | 51   | 54   | 55   | 54   | 54   |
| Norway                             | 35   | 35   | 34   | 33   | 32   | 32   | 49   | 47   | 48   | 48   | 48   |
| Lithuania                          | 27   | 27   | 27   | 26   | 24   | 24   | 40   | 41   | 44   | 45   | 47   |
| Slovenia                           | 19   | 19   | 19   | 19   | 19   | 19   | 47   | 47   | 47   | 47   | 46   |
| Bulgaria                           | 13   | 17   | 14   | 15   | 14   | 14   | 42   | 42   | 43   | 44   | 45   |
| Ireland                            | 26   | 26   | 26   | 26   | 25   | 24   | 39   | 39   | 40   | 37   | 36   |
| Sweden                             | 29   | 30   | 23   | 24   | 24   | 24   | 35   | 35   | 36   | 36   | 35   |
| Pakistan                           | 11   | 12   | 12   | 12   | 12   | 11   | 32   | 34   | 34   | 33   | 34   |
| Venezuela (Bolivarian Republic of) | 10   | 8    | 8    | 8    | 9    | 7    | 35   | 30   | 33   | 34   | 31   |
| Greece                             | 18   | 18   | 18   | 18   | 17   | 17   | 30   | 30   | 31   | 31   | 30   |
| Costa Rica                         | 1    | 1    | 1    | 1    | 1    | 1    | 27   | 27   | 29   | 29   | 29   |
| Saudi Arabia                       | 10   | 10   | 12   | 12   | 14   | 15   | 22   | 26   | 26   | 26   | 27   |
| Thailand                           | 8    | 8    | 8    | 8    | 8    | 8    | 25   | 24   | 23   | 25   | 25   |
| Finland                            | 13   | 13   | 14   | 15   | 15   | 15   | 25   | 23   | 23   | 23   | 24   |
| Peru                               | 0    | 0    | 0    | 0    | 0    | 0    | 21   | 22   | 23   | 23   | 24   |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Israel                           | 13   | 13   | 14   | 12   | 12   | 11   | 23   | 24   | 22   | 23   | 22   |
| Estonia                          | 4    | 4    | 4    | 4    | 5    | 5    | 18   | 18   | 18   | 18   | 18   |
| Cuba                             | 0    | 0    | 0    | 0    | 0    | 0    | 19   | 19   | 20   | 18   | 17   |
| Ecuador                          | 0    | 0    | 0    | 0    | 0    | 0    | 17   | 17   | 17   | 17   | 17   |
| Philippines                      | 6    | 5    | 5    | 5    | 5    | 4    | 16   | 16   | 17   | 17   | 17   |
| Uruguay                          | 0    | 0    | 0    | 0    | 0    | 0    | 15   | 15   | 15   | 15   | 15   |
| Kazakhstan                       | 0    | 0    | 0    | 0    | 0    | 0    | 13   | 10   | 12   | 13   | 13   |
| Latvia                           | 3    | 3    | 3    | 3    | 4    | 4    | 13   | 12   | 13   | 13   | 13   |
| Jordan                           | 1    | 1    | 1    | 1    | 1    | 1    | 9    | 8    | 11   | 11   | 11   |
| Bangladesh                       | 4    | 4    | 4    | 4    | 4    | 4    | 9    | 9    | 9    | 9    | 9    |
| Azerbaijan                       | 1    | 1    | 1    | 1    | 1    | 1    | 7    | 7    | 8    | 8    | 8    |
| Bosnia and Herzegovina           | 1    | 1    | 1    | 1    | 1    | 1    | 7    | 7    | 7    | 8    | 8    |
| Nigeria                          | 4    | 4    | 4    | 4    | 4    | 4    | 6    | 9    | 9    | 9    | 8    |
| Viet Nam                         | 0    | 0    | 0    | 0    | 0    | 1    | 5    | 7    | 7    | 7    | 8    |
| Belarus                          | 3    | 3    | 3    | 3    | 2    | 2    | 8    | 7    | 7    | 7    | 7    |
| Sri Lanka                        | 1    | 1    | 1    | 1    | 1    | 1    | 6    | 6    | 7    | 7    | 7    |
| Iceland                          | 3    | 3    | 3    | 3    | 3    | 3    | 6    | 6    | 6    | 6    | 6    |
| Iraq                             | 0    | 0    | 0    | 0    | 0    | 0    | 6    | 6    | 6    | 6    | 6    |
| Montenegro                       | 0    | 0    | 0    | 0    | 0    | 0    | 6    | 6    | 6    | 6    | 6    |
| Georgia                          | 1    | 1    | 1    | 1    | 1    | 1    | 5    | 5    | 6    | 6    | 5    |
| Republic of Moldova              | 0    | 0    | 0    | 0    | 0    | 0    | 4    | 4    | 5    | 5    | 5    |
| Ethiopia                         | 2    | 1    | 2    | 2    | 2    | 2    | 4    | 4    | 4    | 4    | 4    |
| Kuwait                           | 5    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    |
| Armenia                          | 3    | 3    | 3    | 3    | 3    | 3    | 6    | 4    | 4    | 3    | 3    |
| Cyprus                           | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 2    | 2    | 3    |
| Morocco                          | 0    | 0    | 0    | 0    | 0    | 0    | 3    | 3    | 3    | 3    | 3    |
| Nepal                            | 1    | 1    | 1    | 1    | 1    | 1    | 4    | 4    | 4    | 3    | 3    |
| North Macedonia                  | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    |
| Qatar                            | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 3    | 3    | 3    | 3    |
| Tunisia                          | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 2    | 3    | 3    | 3    |
| Bolivia (Plurinational State of) | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 2    | 2    | 2    | 2    |

| Year                | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|
| Ghana               | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 0    | 2    | 2    | 2    |
| Nicaragua           | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 2    | 2    | 2    | 2    |
| Paraguay            | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 2    | 2    | 2    | 2    |
| Uganda              | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    |
| Algeria             | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 2    | 2    | 2    | 1    |
| Bahrain             | 1    | 1    | 1    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    |
| Dominican Republic  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    |
| El Salvador         | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    |
| Jamaica             | 1    | 1    | 1    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Kenya               | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Lebanon             | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    |
| Libya               | 1    | 1    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    |
| Malawi              | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Malta               | 0    | 0    | 0    | 0    | 0    | 0    | 2    | 2    | 2    | 2    | 1    |
| Rwanda              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    |
| San Marino          | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    |
| Trinidad and Tobago | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    |
| Uzbekistan          | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |

Table S3-3-3 Number of platforms by country, 2014–2024

| Year                         | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| United States                | 710  | 727  | 749  | 763  | 777  | 782  | 799  | 804  | 806  | 810  | 812  |
| Germany                      | 265  | 276  | 290  | 308  | 325  | 339  | 350  | 357  | 366  | 376  | 382  |
| United Kingdom               | 182  | 198  | 204  | 208  | 210  | 213  | 217  | 219  | 219  | 219  | 220  |
| Canada                       | 123  | 127  | 140  | 145  | 150  | 153  | 160  | 161  | 163  | 164  | 165  |
| France                       | 83   | 86   | 87   | 89   | 93   | 97   | 98   | 100  | 101  | 103  | 104  |
| Australia                    | 54   | 59   | 60   | 61   | 62   | 63   | 64   | 66   | 66   | 66   | 68   |
| Switzerland                  | 46   | 47   | 52   | 55   | 55   | 59   | 59   | 63   | 63   | 63   | 63   |
| Netherlands (Kingdom of the) | 39   | 41   | 42   | 45   | 48   | 50   | 50   | 53   | 54   | 59   | 59   |

| Year              | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|-------------------|------|------|------|------|------|------|------|------|------|------|------|
| China             | 37   | 41   | 43   | 46   | 47   | 50   | 51   | 52   | 54   | 54   | 55   |
| Japan             | 47   | 50   | 51   | 51   | 52   | 52   | 53   | 53   | 53   | 53   | 53   |
| Italy             | 23   | 25   | 25   | 26   | 28   | 30   | 32   | 35   | 38   | 41   | 42   |
| India             | 30   | 31   | 37   | 39   | 39   | 40   | 40   | 40   | 40   | 40   | 40   |
| Spain             | 23   | 26   | 29   | 30   | 31   | 31   | 32   | 33   | 33   | 33   | 33   |
| Austria           | 19   | 21   | 24   | 24   | 24   | 25   | 26   | 28   | 29   | 30   | 31   |
| Belgium           | 22   | 23   | 23   | 23   | 23   | 23   | 23   | 24   | 25   | 25   | 26   |
| Poland            | 5    | 6    | 7    | 7    | 7    | 8    | 13   | 14   | 16   | 21   | 22   |
| Denmark           | 17   | 18   | 19   | 19   | 19   | 20   | 20   | 20   | 20   | 20   | 20   |
| Norway            | 15   | 16   | 16   | 17   | 17   | 18   | 19   | 19   | 19   | 19   | 19   |
| Russia            | 19   | 19   | 19   | 19   | 19   | 19   | 19   | 19   | 19   | 19   | 19   |
| Sweden            | 16   | 16   | 16   | 16   | 16   | 17   | 18   | 18   | 18   | 18   | 18   |
| Brazil            | 2    | 4    | 5    | 7    | 8    | 8    | 12   | 13   | 14   | 15   | 15   |
| Mexico            | 9    | 9    | 10   | 10   | 11   | 12   | 12   | 12   | 12   | 12   | 13   |
| Finland           | 8    | 8    | 8    | 8    | 8    | 9    | 10   | 10   | 11   | 11   | 12   |
| Republic of Korea | 6    | 6    | 6    | 6    | 8    | 9    | 10   | 10   | 10   | 10   | 10   |
| Serbia            | 0    | 1    | 1    | 2    | 4    | 5    | 8    | 10   | 10   | 10   | 10   |
| South Africa      | 6    | 6    | 6    | 7    | 7    | 9    | 10   | 10   | 10   | 10   | 10   |
| Czechia           | 7    | 7    | 7    | 8    | 9    | 9    | 9    | 9    | 9    | 9    | 9    |
| Greece            | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9    | 9    |
| Estonia           | 5    | 5    | 5    | 6    | 6    | 6    | 6    | 6    | 7    | 7    | 7    |
| Ireland           | 6    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    |
| Israel            | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    | 7    |
| Argentina         | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 3    | 4    | 5    |
| Colombia          | 2    | 2    | 2    | 2    | 2    | 3    | 3    | 3    | 3    | 4    | 5    |
| Hungary           | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 5    | 5    | 5    | 5    |
| Lithuania         | 3    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    |
| New Zealand       | 4    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    | 5    |
| Portugal          | 3    | 3    | 3    | 3    | 3    | 4    | 4    | 4    | 5    | 5    | 5    |
| Kenya             | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    |
| Singapore         | 3    | 3    | 3    | 4    | 4    | 4    | 4    | 4    | 4    | 4    | 4    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Burkina Faso                     | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Indonesia                        | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Slovakia                         | 2    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Slovenia                         | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Benin                            | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Chile                            | 0    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    |
| Croatia                          | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Cyprus                           | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Ghana                            | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Iceland                          | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Thailand                         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    |
| Türkiye                          | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    |
| Ukraine                          | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Azerbaijan                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Cameroon                         | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Costa Rica                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |
| Côte d'Ivoire                    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Ecuador                          | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Egypt                            | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| El Salvador                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |
| Fiji                             | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Lao People's Democratic Republic | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Latvia                           | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    |
| Malawi                           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Malaysia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    |
| Niger                            | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    |
| Pakistan                         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Panama                           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Peru                             | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    |
| Philippines                      | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Romania                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Saudi Arabia                     | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Senegal                          | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Tunisia                          | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Uruguay                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    |
| Viet Nam                         | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Afghanistan                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Albania                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Algeria                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Andorra                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Angola                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Antigua and Barbuda              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Armenia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bahrain                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bangladesh                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Barbados                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Belarus                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Belize                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bhutan                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bolivia (Plurinational State of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bosnia and Herzegovina           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Botswana                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Brunei Darussalam                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bulgaria                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Burundi                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cabo Verde                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cambodia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Central African Republic         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Chad                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Comoros                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Congo                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cuba                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Democratic People's Republic of Korea | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Democratic Republic of the Congo      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Djibouti                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Dominica                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Dominican Republic                    | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Equatorial Guinea                     | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Eritrea                               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Eswatini                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Ethiopia                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Gabon                                 | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Gambia                                | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Georgia                               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Grenada                               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Guatemala                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Guinea                                | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Guinea-Bissau                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Guyana                                | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Haiti                                 | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Honduras                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Iran (Islamic Republic of)            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Iraq                                  | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Jamaica                               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Jordan                                | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Kazakhstan                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Kiribati                              | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Kuwait                                | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Kyrgyzstan                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Lebanon                               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Lesotho                               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Liberia                               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Libya                                 | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Liechtenstein                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Luxembourg                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Madagascar                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Maldives                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mali                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Malta                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Marshall Islands                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritania                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritius                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Micronesia (Federated States of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Monaco                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mongolia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Montenegro                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Morocco                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mozambique                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Myanmar                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Namibia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nauru                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nepal                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nicaragua                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nigeria                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| North Macedonia                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Oman                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Palau                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Papua New Guinea                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Paraguay                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Qatar                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Republic of Moldova              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Rwanda                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Kitts and Nevis            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Lucia                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                               | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Saint Vincent and the Grenadines   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Samoa                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| San Marino                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sao Tome and Principe              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Seychelles                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sierra Leone                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Solomon Islands                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Somalia                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| South Sudan                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sri Lanka                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sudan                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Suriname                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Syrian Arab Republic               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tajikistan                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| The Bahamas                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Timor-Leste                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Togo                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tonga                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Trinidad and Tobago                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Turkmenistan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tuvalu                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uganda                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| United Arab Emirates               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| United Republic of Tanzania        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uzbekistan                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Vanuatu                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Venezuela (Bolivarian Republic of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Yemen                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Zambia                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Zimbabwe                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

Table S3-3-4 Number of open science policies by country (ROARMAP)

| <b>Year</b>         | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Türkiye             | 26          | 35          | 39          | 43          | 45          | 61          | 67          | 70          | 70          | 70          | 70          |
| United Kingdom      | 13          | 26          | 33          | 34          | 34          | 35          | 35          | 35          | 35          | 35          | 35          |
| United States       | 7           | 17          | 23          | 26          | 28          | 29          | 31          | 32          | 32          | 32          | 33          |
| Germany             | 4           | 9           | 14          | 21          | 22          | 22          | 24          | 25          | 26          | 26          | 27          |
| Serbia              | 0           | 0           | 0           | 0           | 13          | 18          | 18          | 19          | 20          | 22          | 23          |
| Japan               | 0           | 4           | 6           | 11          | 14          | 16          | 18          | 19          | 19          | 19          | 20          |
| Spain               | 4           | 9           | 11          | 12          | 12          | 15          | 16          | 16          | 16          | 16          | 16          |
| Switzerland         | 0           | 3           | 6           | 6           | 11          | 12          | 14          | 14          | 15          | 15          | 16          |
| Brazil              | 2           | 3           | 4           | 8           | 11          | 12          | 12          | 12          | 12          | 12          | 15          |
| Italy               | 3           | 6           | 8           | 9           | 11          | 11          | 11          | 11          | 11          | 12          | 12          |
| Ukraine             | 2           | 5           | 10          | 10          | 10          | 10          | 10          | 11          | 11          | 11          | 12          |
| Austria             | 2           | 3           | 5           | 8           | 9           | 10          | 10          | 10          | 10          | 10          | 10          |
| Canada              | 0           | 4           | 4           | 6           | 6           | 9           | 9           | 9           | 9           | 9           | 10          |
| Kenya               | 3           | 4           | 4           | 5           | 8           | 9           | 9           | 9           | 9           | 9           | 9           |
| Republic of Moldova | 1           | 4           | 5           | 8           | 8           | 9           | 9           | 9           | 9           | 9           | 9           |
| Indonesia           | 0           | 4           | 5           | 5           | 5           | 5           | 7           | 7           | 7           | 7           | 7           |
| Portugal            | 1           | 3           | 3           | 6           | 6           | 6           | 6           | 6           | 7           | 7           | 7           |
| Lithuania           | 0           | 0           | 2           | 3           | 4           | 5           | 6           | 6           | 6           | 6           | 6           |
| Australia           | 2           | 3           | 3           | 4           | 4           | 5           | 5           | 5           | 5           | 5           | 5           |
| India               | 4           | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5           | 5           |
| Poland              | 1           | 1           | 2           | 2           | 4           | 4           | 4           | 5           | 5           | 5           | 5           |
| South Africa        | 1           | 3           | 3           | 3           | 4           | 4           | 4           | 4           | 5           | 5           | 5           |
| Colombia            | 0           | 1           | 2           | 2           | 4           | 4           | 4           | 4           | 4           | 4           | 4           |
| France              | 0           | 0           | 1           | 2           | 3           | 3           | 3           | 4           | 4           | 4           | 4           |
| Ireland             | 1           | 2           | 3           | 4           | 4           | 4           | 4           | 4           | 4           | 4           | 4           |
| Argentina           | 0           | 2           | 2           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           |
| Belgium             | 2           | 2           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           |
| China               | 2           | 2           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           | 3           |

| Year                               | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Czechia                            | 1    | 2    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Iceland                            | 1    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Russia                             | 0    | 0    | 0    | 0    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Slovenia                           | 1    | 2    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    | 3    |
| Algeria                            | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Belarus                            | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    |
| Chile                              | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 2    | 2    | 2    |
| Denmark                            | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Finland                            | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Greece                             | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Netherlands (Kingdom of the)       | 0    | 0    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| New Zealand                        | 1    | 1    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    | 2    |
| Norway                             | 1    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Pakistan                           | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 2    | 2    | 2    | 2    |
| Panama                             | 0    | 0    | 0    | 1    | 2    | 2    | 2    | 2    | 2    | 2    | 2    |
| Azerbaijan                         | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Bulgaria                           | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Croatia                            | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Hungary                            | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Israel                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    |
| Latvia                             | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Malaysia                           | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Malta                              | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Peru                               | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Republic of Korea                  | 0    | 0    | 0    | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Romania                            | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Saudi Arabia                       | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Venezuela (Bolivarian Republic of) | 0    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Zimbabwe                           | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    | 1    |
| Afghanistan                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Albania                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                                  | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Andorra                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Angola                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Antigua and Barbuda                   | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Armenia                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bahrain                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bangladesh                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Barbados                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Belize                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Benin                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bhutan                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bolivia (Plurinational State of)      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Bosnia and Herzegovina                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Botswana                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Brunei Darussalam                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Burkina Faso                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Burundi                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cabo Verde                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cambodia                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cameroon                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Central African Republic              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Chad                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Comoros                               | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Congo                                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Costa Rica                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cuba                                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Cyprus                                | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Côte d'Ivoire                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic People's Republic of Korea | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Democratic Republic of the Congo      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Djibouti                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Dominica                              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Dominican Republic               | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Ecuador                          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Egypt                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| El Salvador                      | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Equatorial Guinea                | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Eritrea                          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Estonia                          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Eswatini                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Ethiopia                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Fiji                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Gabon                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Gambia                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Georgia                          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Ghana                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Grenada                          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Guatemala                        | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Guinea                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Guinea-Bissau                    | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Guyana                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Haiti                            | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Honduras                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Iran (Islamic Republic of)       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Iraq                             | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Jamaica                          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Jordan                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Kazakhstan                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Kiribati                         | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Kuwait                           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Kyrgyzstan                       | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Lao People's Democratic Republic | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |
| Lebanon                          | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           | 0           |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Lesotho                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liberia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Libya                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Liechtenstein                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Luxembourg                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Madagascar                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Malawi                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Maldives                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mali                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Marshall Islands                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritania                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mauritius                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mexico                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Micronesia (Federated States of) | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Monaco                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mongolia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Montenegro                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Morocco                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Mozambique                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Myanmar                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Namibia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nauru                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nepal                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nicaragua                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Niger                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Nigeria                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| North Macedonia                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Oman                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Palau                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Papua New Guinea                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Paraguay                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                             | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|----------------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Philippines                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Qatar                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Rwanda                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Kitts and Nevis            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Lucia                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Saint Vincent and the Grenadines | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Samoa                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| San Marino                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sao Tome and Principe            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Senegal                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Seychelles                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sierra Leone                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Singapore                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Slovakia                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Solomon Islands                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Somalia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| South Sudan                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sri Lanka                        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sudan                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Suriname                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Sweden                           | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Syrian Arab Republic             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tajikistan                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Thailand                         | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| The Bahamas                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Timor-Leste                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Togo                             | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tonga                            | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Trinidad and Tobago              | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Tunisia                          | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Turkmenistan                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

| Year                        | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|-----------------------------|------|------|------|------|------|------|------|------|------|------|------|
| Tuvalu                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uganda                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| United Arab Emirates        | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| United Republic of Tanzania | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uruguay                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Uzbekistan                  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Vanuatu                     | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Viet Nam                    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Yemen                       | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| Zambia                      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |

Table S3-3-5 National open science policies cited as exemplary cases in UNESCO reports (policy influence)

| Year                | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|
| Afghanistan         | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Albania             | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Algeria             | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Andorra             | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Angola              | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Antigua and Barbuda | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Argentina           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 1    | 0.8  |
| Armenia             | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Australia           | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 1    | 0.8  |
| Austria             | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Azerbaijan          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Bahrain             | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Bangladesh          | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Barbados            | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Belarus             | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |
| Belgium             | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  | 0.8  |

| <b>Year</b>                           | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|---------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Belize                                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Benin                                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Bhutan                                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Bolivia (Plurinational State of)      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Bosnia and Herzegovina                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Botswana                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Brazil                                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Brunei Darussalam                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Bulgaria                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Burkina Faso                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Burundi                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cabo Verde                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cambodia                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cameroon                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Canada                                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Central African Republic              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Chad                                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Chile                                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| China                                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Colombia                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Comoros                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Congo                                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Costa Rica                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Croatia                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cuba                                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Cyprus                                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Czechia                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Côte d'Ivoire                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Democratic People's Republic of Korea | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Democratic Republic of the Congo      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Denmark                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Djibouti           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Dominica           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Dominican Republic | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Ecuador            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Egypt              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| El Salvador        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Equatorial Guinea  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Eritrea            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Estonia            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Eswatini           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Ethiopia           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Fiji               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Finland            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| France             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Gabon              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Gambia             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Georgia            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Germany            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Ghana              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Greece             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Grenada            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Guatemala          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Guinea             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Guinea-Bissau      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Guyana             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Haiti              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Honduras           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Hungary            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Iceland            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| India              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Indonesia          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Iran (Islamic Republic of)       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Iraq                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Ireland                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Israel                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Italy                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Jamaica                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Japan                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Jordan                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Kazakhstan                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Kenya                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Kiribati                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Kuwait                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Kyrgyzstan                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Lao People's Democratic Republic | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Latvia                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Lebanon                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Lesotho                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Liberia                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Libya                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Liechtenstein                    | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Lithuania                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Luxembourg                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Madagascar                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Malawi                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Malaysia                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Maldives                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mali                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Malta                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Marshall Islands                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mauritania                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mauritius                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Mexico                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Micronesia (Federated States of) | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Monaco                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mongolia                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Montenegro                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Morocco                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Mozambique                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Myanmar                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Namibia                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nauru                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nepal                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Netherlands (Kingdom of the)     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| New Zealand                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nicaragua                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Niger                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Nigeria                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| North Macedonia                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Norway                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Oman                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Pakistan                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Palau                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Panama                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Papua New Guinea                 | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Paraguay                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Peru                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Philippines                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Poland                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Portugal                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Qatar                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Republic of Korea                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Republic of Moldova              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                      | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Romania                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Russia                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Rwanda                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saint Kitts and Nevis            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saint Lucia                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saint Vincent and the Grenadines | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Samoa                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| San Marino                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sao Tome and Principe            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Saudi Arabia                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Senegal                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Serbia                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Seychelles                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sierra Leone                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Singapore                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Slovakia                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Slovenia                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Solomon Islands                  | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Somalia                          | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| South Africa                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| South Sudan                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Spain                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sri Lanka                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sudan                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Suriname                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Sweden                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Switzerland                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Syrian Arab Republic             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tajikistan                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Thailand                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| The Bahamas                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |

| <b>Year</b>                        | <b>2014</b> | <b>2015</b> | <b>2016</b> | <b>2017</b> | <b>2018</b> | <b>2019</b> | <b>2020</b> | <b>2021</b> | <b>2022</b> | <b>2023</b> | <b>2024</b> |
|------------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Timor-Leste                        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Togo                               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tonga                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Trinidad and Tobago                | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tunisia                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Turkmenistan                       | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Tuvalu                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Türkiye                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Uganda                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Ukraine                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| United Arab Emirates               | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| United Kingdom                     | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| United Republic of Tanzania        | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| United States                      | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 1           | 0.8         |
| Uruguay                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Uzbekistan                         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Vanuatu                            | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Venezuela (Bolivarian Republic of) | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Viet Nam                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Yemen                              | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Zambia                             | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |
| Zimbabwe                           | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         | 0.8         |