GLOBAL DATA ALLIANCE
TRUST ACROSS BORDERS

The Software Alliance

BSA

CROSS-BORDER DATA POLICY INDEX

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INTRODUCTION

The ability to responsibly transfer data around the globe supports cross-border economic opportunity, cross-border technological and scientific progress, and cross-border digital transformation and inclusion, among other public policy objectives. To assess where policies have helped create an enabling environment for cross-border data and its associated benefits, the Global Data Alliance[1] has developed the ***Cross-Border Data Policy Index***.

The *Cross-Border Data Policy Index* offers a quantitative and qualitative assessment of the relative openness or restrictiveness of cross-border data policies across nearly 100 economies. Global economies are classified into four levels. At Level 1 are economies that impose relatively fewer limits on the cross-border access to knowledge, information, digital tools, and economic opportunity for their citizens and legal persons. Many of these economies have also taken proactive steps to create a conducive environment for digital transformation.

Economies' restrictiveness scores increase as they are found to impose greater limits on cross-border data, thereby eroding opportunities for digital transformation while also impeding other policy objectives relating to health, safety, security, and the environment. The Index does not examine the underlying motivations for such restrictions, whether they are focused on domestic economic protectionism, digital authoritarianism, or other motivators.

CROSS-BORDER DATA POLICY BENEFITS AND COSTS

BENEFITS OF CROSS-BORDER DATA

- ↑ 145% increase in exports with every 0.1 point reduction in digital restrictions[2]
- ↓ 82% reduction in MSME export costs[3]
- ↓ Up to 30% reduction in developing country trade costs[4]

COSTS OF CROSS-BORDER DATA RESTRICTIONS

- ↓ GDP losses of 0.7%–1.7%[5]
- ↓ Investment losses up to 4%[6]

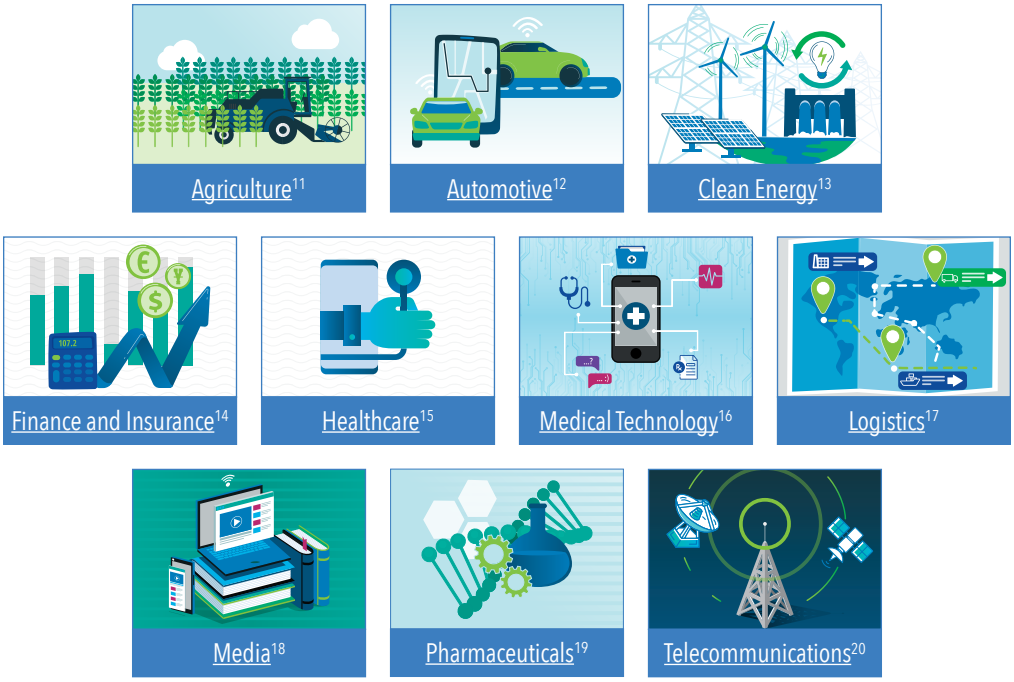
The World Bank: "Restrictions on data flows have large negative consequences on the productivity of local companies using digital technologies and especially on trade in services. Studies show that countries would gain on average about 4.5 percent in productivity if they removed their restrictive data policies, whereas the benefits of reducing data restrictions on trade in services would on average be about 5 percent."[7]

As governments increasingly declare data transfers to be illegal on vague or previously unknown grounds, citizens and enterprises lose confidence that they will be able to access data for their educational, health, safety, security, or work-related needs.

CROSS-BORDER DATA AND ECONOMIC POLICY

Cross-border data is an effective vehicle to promote sustainable economic development, raise living standards, and promote digital transformation, especially for smaller economies. Cross-border data is also important for micro-, small-, and medium-sized enterprises (MSMEs) that benefit disproportionately from cross-border market opportunities yet lack the resources of larger entities to navigate diverse data barriers in different markets.[8]

Cross-border data is necessary to digital transformation at every stage of the value chain[9] across every sector,[10] including the following:



For more detail, please see the Global Data Alliance Sectors Page.[21]

CROSS-BORDER DATA AND OTHER PUBLIC POLICY OBJECTIVES

Data transfers are important to many governmental policy objectives: Not only do restrictive cross-border polices fail to protect privacy and personal data,[22] but they also hurt developing countries[23] and small businesses;[24] impede financial equity and inclusion;[25] undermine data security and cybersecurity;[26] threaten human rights;[27] slow science and innovation;[28] and impair various health and safety,[29] environmental,[30] and other regulatory compliance priorities.[31] For more detail, please see the Global Data Alliance Issues Page.[32]

Level 2–4 economies are characterized by a cross-border policy environment that is increasingly restrictive and decreasingly likely to benefit from cross-border digital transformation, cross-border scientific exchange, and cross-border economic opportunity.

Level 1 economies have cultivated policy environments allowing for the cross-border sharing of information, thus positioning their populations to enjoy the educational, economic, health, safety, and security benefits of cross-border data.

RANKINGS

The following economies have proposed or adopted policies with a relatively high degree of cross-border data restrictiveness and a low degree of openness to cross-border digital transformation, inclusion, and opportunity:

LEVEL 4: Extremely Restrictive	
China	Russia

LEVEL 3: Highly Restrictive	
India	Saudi Arabia
Indonesia	Turkey
Kazakhstan	Vietnam

LEVEL 2: Restrictive	
Bangladesh	South Africa
European Union and its Member States	South Korea
Nigeria	United Arab Emirates
Senegal	

Increasing cross-border data restrictiveness can undermine an economy's digital adaptability and resilience.

CROSS-BORDER DATA AND PROMOTING EDUCATION, HEALTH, INNOVATION, SAFETY, SECURITY, AND THE ENVIRONMENT

Cross-border data supports diverse governmental policy objectives:

Cybersecurity, including through an enhanced ability to detect and respond to cybersecurity threats via real-time cross-border data visibility and risk management.

Digital Transformation of governmental and non-governmental services (e.g., education, health, and safety) through the adaption of digital technologies across the economy.

Economic Development, including through greater digital connectivity, including for the benefit of MSMEs and underrepresented segments of the population.

Education, by enabling educators and learners to maintain access to research, scholarship, textbooks, and other learning tools from across the world.

Environmental Sustainability, including through improved cross-border carbon emissions tracking and predictive climate modeling based on multi-regional data.

Financial Inclusion, as well as fraud prevention, anti-money laundering, anti-corruption, and other financial transparency objectives.

Health, including through international R&D, cross-border healthcare regulatory collaboration, and global medical humanitarian assistance and healthcare delivery.

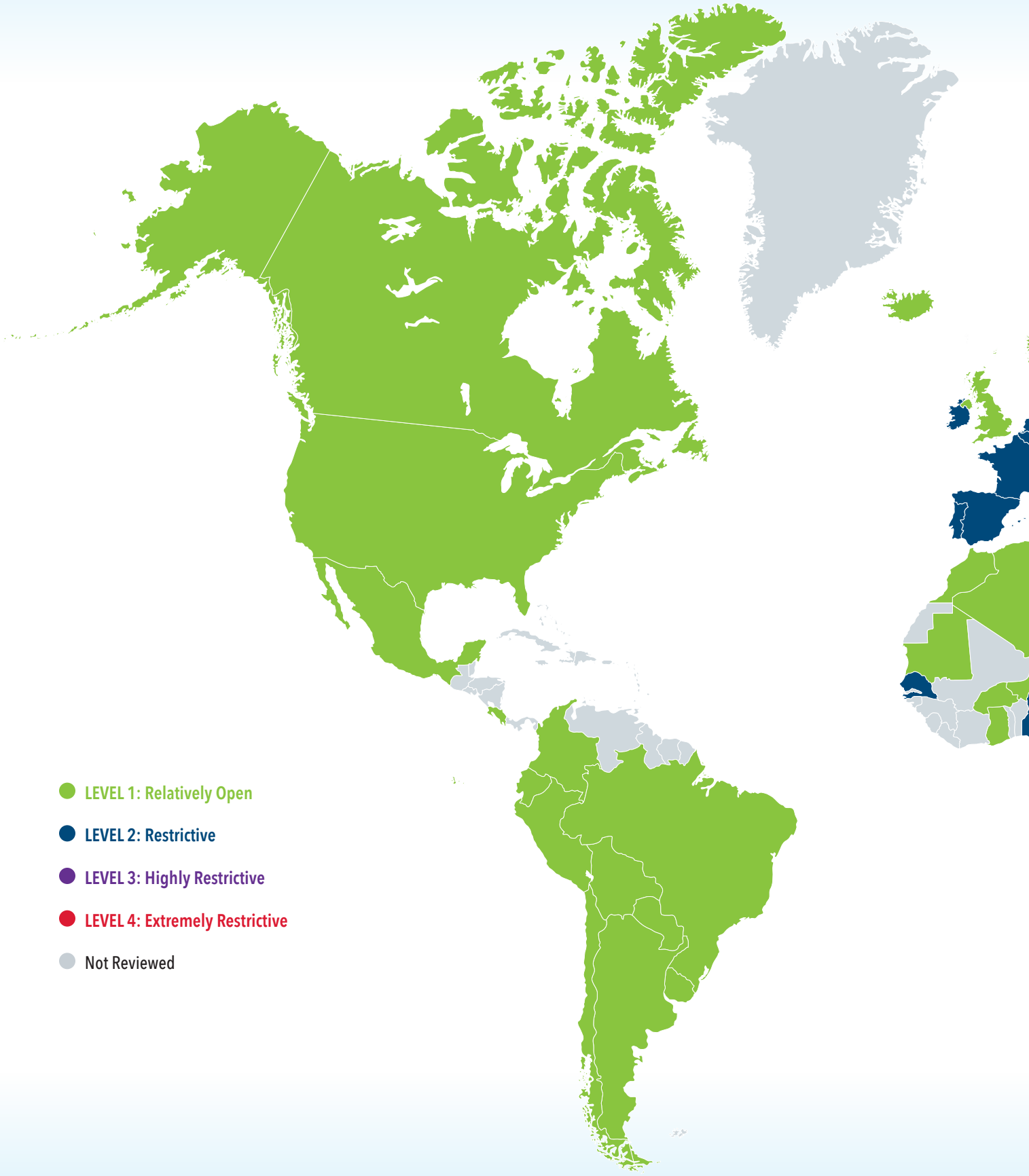
Human Rights, by permitting all citizens cross-border access to information without undue interference from authoritarian regimes.

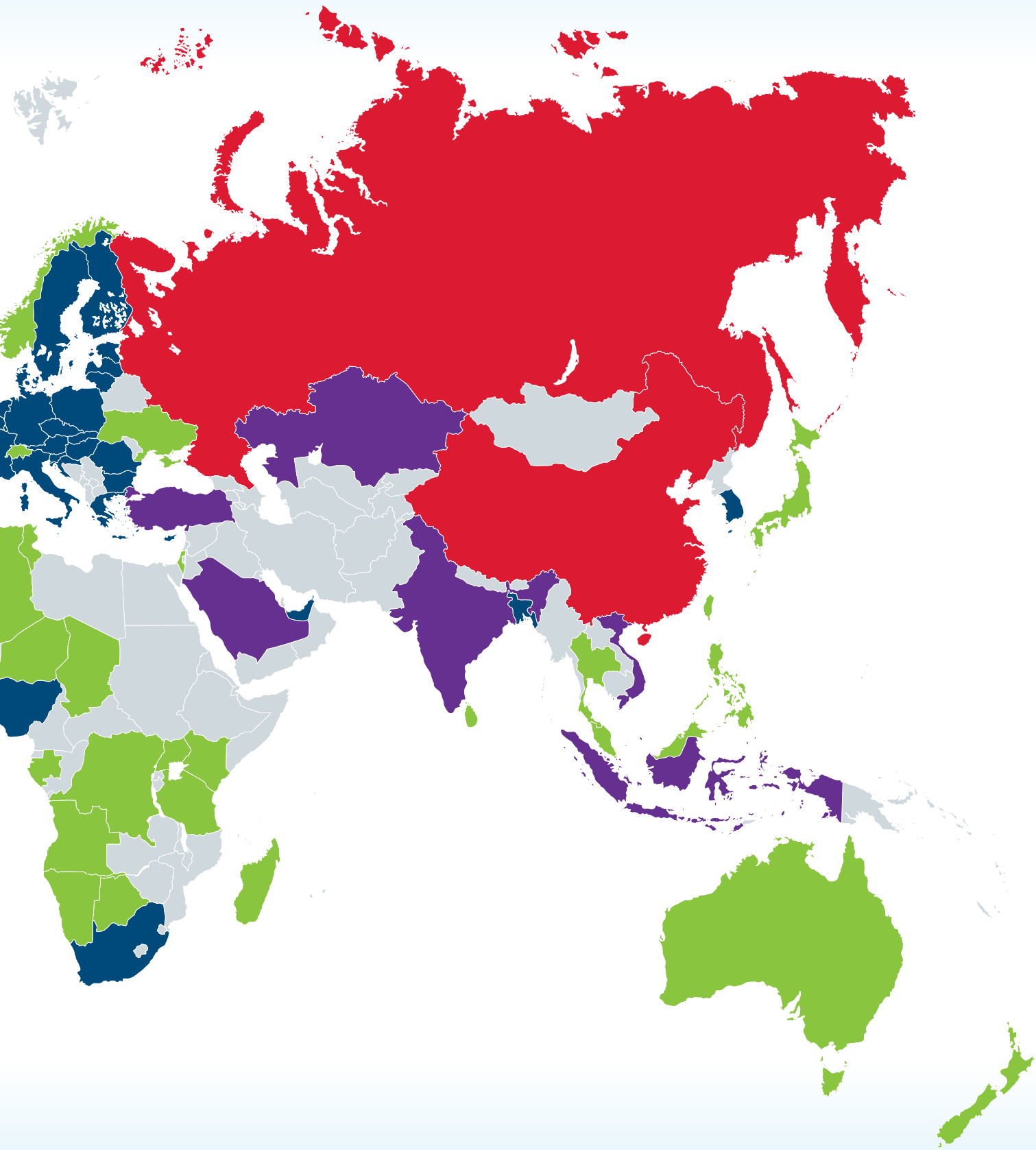
Privacy, including by protecting personal data across digital networks, and by promoting interoperability among personal data protection frameworks in different jurisdictions.

Science and Technology, including through cross-border access to knowledge and research needed to meet global challenges, and to develop IP.

Trustworthy Artificial Intelligence, including through cross-border data analytics–responsibly deployed to mitigate the potential for bias in high-risk applications–to help address shared global challenges.

CROSS-BORDER DATA POLICY INDEX





CROSS-BORDER DATA RESTRICTIONS ARE GROWING

↑ 600% growth
in restrictions[33]

↑ 5x higher
cross-border digital restrictiveness
in 2022 than in 2021[34]

LEVEL 1: Relatively Open Digital Policies

Open to Cross-Border Digital Economic Opportunity and Digital Transformation

Level 1: 45 Economies

The 45 Level 1 economies include Argentina, Australia, Brazil, Canada, Chile, Japan, Mexico, Peru, New Zealand, Norway, Singapore, Switzerland, Taiwan, the UK and the US, among others. Many Level 1 economies have maintained open cross-border digital policy environments and have adopted optimal policies regarding future digital transformation and digital inclusion. This may include policies that:

- Allow cross-border data to play an integral role in research and development (R&D) activities;
- Promote the use of cross-border data for health and safety regulatory processes;
- Ensure that innovators can transfer data to protect their intellectual property (IP);
- Enable educators and learners to maintain access to knowledge from around the world;
- Respect human rights and access to information without digitally authoritarian rules; and
- Promote the adoption of services to benefit small-scale farmers and small businesses through improved access to cross-border market information and opportunities from abroad.

Many Level 1 economies recognize that cross-border data can help promote the dissemination of knowledge in a manner conducive to social and economic welfare. Many of these economies have also entered into international agreements containing binding commitments not to impose discriminatory or unnecessary restrictions on data transfers vis-à-vis their trading partners.

"[D]omestic measures that may impact the international movement of data should be:

a. Developed in a transparent and accountable manner;
b. Non-discriminatory;
c. Necessary to achieve a legitimate objective;
d. Consistent with relevant international standards; and
e. Interoperable with other countries' legal frameworks."[35]

United Nations: "[R]egulatory fragmentation in the digital landscape…is most likely to adversely impact low-income countries, less well-off individuals, and marginalized communities the world over, as well as worsen structural discrimination against women. A future of exclusionary digital development must be avoided at all costs."[36]

LEVEL 2: Restrictive

Decreasing Cross-Border Digital Openness Impedes the Potential of Cross-Border Data to Support Economic and Other Policy Objectives

Level 2: 33 Economies

The 33 Level 2 economies are Bangladesh, Nigeria, Senegal, South Africa, South Korea, and the United Arab Emirates, along with the 27 Member States of the European Union. Beneficially, many of these economies have assumed a forward-leaning policy stance on digital policy. Regrettably, this policy stance has often also included an embrace of unnecessary cross-border digital restrictions.

For example, between mid-2020 and mid-2023, the EU's cross-border data restrictiveness score increased sixfold with the successive introduction of proposals to limit the cross-border movement of information across new and expanded data types, sectors, and functionalities–frequently in the name of 'digital sovereignty.' Previously, the EU's score had remained relatively stable at 2.0 points from the first half of 2018 (when GDPR went into effect) until the latter half of 2020 (when more expansive proposed restrictions premised on 'digital sovereignty' began to emerge).[37]

Cross-border data restrictions often:

- Are not necessary to achieve–and may even undermine–the stated purpose of the privacy, cybersecurity, or other digital policy measure into which they are embedded;
- Are adopted with little consideration of economic costs or other collateral policy impacts; and
- Contain elements that discriminate against non-national persons, technologies, products, or services.

These cross-border digital barriers can result in a policy environment that is relatively closed, resulting in suboptimal cross-border access to knowledge and digital tools. This policy environment also creates business uncertainty regarding the ability to engage in commercial activities critical to international investment, trade, R&D, and advanced manufacturing and services.[38]

CROSS-BORDER DATA BARRIERS OFTEN:

1. Depart from the stated purpose of the measures into which they are embedded.
2. Are developed without full consideration of their collateral impacts.
3. Overstate their purported benefits.
4. Discriminate against non-national persons, technologies, products, or services.
5. Impede opportunities for cross-border digital transformation, innovation, and sustainable economic development.

LEVEL 3: Highly Restrictive

Numerous and Diverse Restrictions Substantially Impede Cross-Border Digital Transformation, Sustainable Economic Development, and Other Policy Priorities Across Multiple Sectors

Level 3: Six Economies

The six Level 3 economies are India, Indonesia, Kazakhstan, Saudi Arabia, Turkey, and Vietnam. Economies in this group have adopted cross-border data barriers characteristic of Level 2 economies, but they have done so with greater frequency and intensity.

First, from a quantitative perspective, the potential for digital transformation and digital inclusion may be severely limited by multiple cross-border data barriers that impede access to digital tools and technologies needed by local enterprises, educational institutions, and other entities. Second, in terms of their qualitative diversity, such digital barriers may be adopted across numerous governmental ministries, including authorities with jurisdiction over information and communication technologies, personal data protection, cybersecurity, national security, healthcare, financial services, intellectual property, international trade and customs, and foreign investment matters.

LEVEL 4: Extremely Restrictive

Comprehensive and Systemic Cross-Border Data Restrictions Across the Economy and Society

Level 4: Two Economies

The two Level 4 economies are China and Russia. Cross-border data barriers in Level 4 economies are more numerous and more onerous than anywhere else. These barriers typically cover more sectors and more data types, may include ad hoc pre-transfer governmental approval requirements, and depend upon often unfettered governmental discretion to enforce vague legal standards under the threat of onerous penalties. These barriers are sometimes explicitly predicated on national security and authoritarian maintenance over "social order." They frequently contain few, if any, due process safeguards against intrusive governmental decisions on data access or data transfer. In these contexts, it can be difficult for enterprises to predict their own legal exposure or have confidence that future data transfers of business-related information will be permitted.

UNCTAD: "Divergent data nationalism…reduces market opportunities for domestic MSMEs to reach worldwide markets, [and]…reduces opportunities for digital innovation, including various missed opportunities for inclusive development that can be facilitated by engaging in data-sharing through strong international cooperation….[M]ost small, developing economies will lose opportunities for raising their digital competitiveness."[39]

APPENDIX: METHODOLOGY AND RANKINGS

What Does the Index Measure?

The *Cross-Border Data Policy Index* assesses, across several text-based metrics, each economy's national laws, regulations, and other measures that either restrict data transfers or mandate data localization.[40] The Index is built on legal analyses of measures relating to artificial intelligence, cybersecurity, privacy, law enforcement access, and international trade (among other topics).

Each measure that contains a localization requirement or a cross-border data restriction is assessed. These measures may include:

1. Policies that expressly require data to stay in-country;
2. Policies that impose unreasonable conditions on transferring data abroad;
3. Policies that prohibit the transfer of data abroad;
4. Policies that require the use of domestic data centers or other equipment;
5. Policies that require data centers to be owned or operated by nationals;
6. Policies that prohibit the application of non-national laws to digital infrastructure or data; and
7. Policies that impose import or export duties or other restraints on data transfers as they traverse digital networks.

The cross-border digital barriers embedded within these policy measures are quantitatively and qualitatively assessed. The quantitative analysis calculates the number of policy barriers adopted or proposed in jurisdiction. The qualitative assessment covers factors such as the types of data involved (e.g., personal, non-personal, sectoral, or other) and the intensity and degree of the restriction (e.g., the scope of permissible exceptions from the restriction).

Each measure is assigned a numerical weight based on the answers to the following questions:

1. Is the measure proposed or in effect?
2. Does the measure have a narrow scope (e.g., sector-specific) or a broad scope (e.g., cross-sectoral)?
3. Does the measures focus on personal data?
4. Does the measure extend to non-personal data?
5. Does the measure prohibit data transfers even if the data subject has consented?
6. Does the measure fail to make available a range of data transfer mechanisms (including standard contracts or binding corporate rules), such as requiring pre-transfer ad hoc approval from governmental authorities?
7. Does the measure preclude data mirroring (i.e., by requiring all copies of data to reside exclusively on localized infrastructure)?
8. Has the economy in question made meaningful binding international commitments (e.g., in trade agreements) not to unnecessarily restrict data transfers and not to impose data localization requirements?

Each economy's relative cross-border data openness or restrictiveness ranking is determined by totaling the sum of the numerical weights calculated for each measure at one-half point (0.5) increments. Economy rankings range from zero to 50 points, representing 101 distinct potential values from 0, 0.5, 1.0. 1.5 through 49.5 and 50.0. The higher an economy's score, the more restrictive its cross-border data policy environment. For example, the economy with the highest restrictiveness score is the People's Republic of China, at 46 points. The cross-border data restrictiveness score for India is 25.5; Indonesia is 19; Vietnam is 16.5; and the EU is 13.5. Finally, the economies are grouped into four major categories based on this analysis. Please see the full listing on page 13.

Legal rules that impede transfers of broad categories of data–such as "non-personal data" or "important data"–undermine digital transformation and trust.

Examples include China's Data Transfer Security Assessment requirements, the EU's Data Act proposal and EUCS proposal, and India's former Non-Personal Data Governance Framework.

Comparison with Other International Digital Indices

The Global Data Alliance's *Cross-Border Data Policy Index* builds upon the international digital policy indices identified below:

- BSA *Global Cloud Computing Scorecard*;[41]
- ECIPE *Report on Restrictions on Cross-Border Data Flows*;[42]
- ITIF *Report on Barriers to Cross-Border Data Flows*;[43]
- OECD *Digital Services Trade Restrictiveness Index* (DSTRI);[44]
- OECD *Services Trade Restrictiveness Index* (STRI);[45]
- Salesforce *Data Beyond Borders 3.0 Report*;[46]
- Tufts University *Digital Intelligence Index*;[47] and
- UK *Report on the Extent and Impact of Data Localisation*;[48]

Many of these indices offer a country-level analysis of various econometric contributors to cross-border digital transformation, cloud readiness, and digital trade, as well as cross-border digital restrictiveness. These indices typically measure a basket of economic and policy indicators. For example, the OECD DSTRI analyzes economy-level metrics relating to infrastructure and connectivity, intellectual property (IP) rights, electronic transactions, e-payment systems, and other barriers. Similarly, the BSA *Global Cloud Computing Scorecard* analyzes economy-level metrics relating to data privacy, security, cybercrime, IP rights, support for international standards, digital trade, IT readiness, and broadband deployment.

In contrast, the GDA *Cross-Border Data Policy Index* is focused exclusively on the legal measures that mandate data localization, restrict data transfers, or otherwise limit cross-border data. The GDA Index is developed through a textual analysis of these legal measures, including an assessment of their legal drafting and operation, and their likely breadth and depth of impact.

The GDA Index also seeks to generate a real-time, predictive snapshot of each jurisdiction's dynamic evolution toward relatively greater or lesser cross-border data restrictiveness. It does so by assessing not only cross-border data rules that are in effect, but also cross-border data proposals that are in development. Many economies offer a relatively stable and predictable cross-border data policy environment. However, this is not true for all.

Notwithstanding these differences in methodologies, there is broad consensus in findings across various indices. China consistently is found to have the most cross-border data and other digital restrictions. India, Indonesia, Russia, and Vietnam (among others) are also consistently found to reflect a high degree of restrictiveness. Recent rankings also note the increasing cross-border restrictiveness of the European Union.

G7 HIROSHIMA LEADERS' COMMUNIQUÉ (2023)[49]

- We reaffirm that cross-border data flows, information, ideas and knowledge generate higher productivity, greater innovation, and improved sustainable development, while raising [other] challenges.
- We welcome the OECD Declaration on [Trusted] Government Access to Personal Data…as an instrument to increase trust in cross-border data flows among countries committed to democratic values and the rule of law.
- We emphasize our opposition to internet fragmentation and the use of digital technologies to infringe on human rights.
- We should counter unjustified obstacles to the free flow of data, lacking transparency, and arbitrarily operated.
- We seek to increase trust across our digital ecosystem and to counter the influence of authoritarian approaches.

LEVEL 1

Relatively Open: Economies with a numerical score between 0 and 5.5 (45 economies)

- Algeria
- Angola
- Argentina
- Australia
- Bolivia
- Botswana
- Brazil
- Burkina Faso
- Canada
- Chad
- Chile
- Colombia
- Congo
- Costa Rica
- Ecuador
- Gabon
- Ghana
- Iceland
- Israel
- Japan
- Kenya
- Lichtenstein
- Madagascar
- Malaysia
- Mauritania
- Mexico
- Morocco
- Namibia
- Niger
- Norway
- Paraguay
- Peru
- Philippines
- Singapore
- Sri Lanka
- Switzerland
- Taiwan
- Tanzania
- Thailand
- Tunisia
- Uganda
- Ukraine
- Uruguay
- United Kingdom
- United States

LEVEL 2

Restrictive: Economies with a numerical score between 6 and 15.5 (8 entries comprising 33 economies, including the 27 EU Member States)

- Bangladesh
- European Union member (Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, and Sweden)
- Nigeria
- Senegal
- South Africa
- South Korea
- United Arab Emirates

LEVEL 3

Highly Restrictive: Economies with a numerical score between 16 and 25.5 (6 economies)

- India
- Indonesia
- Kazakhstan
- Saudi Arabia
- Turkey
- Vietnam

LEVEL 4

Extremely Restrictive: Economies with a numerical score between 26 and 50 (2 economies)

- China
- Russia

World Economic Forum: "Countries that impose local data storage and retention requirements to secure better [data] access for themselves can expect multinational businesses to stay away and other countries to retaliate. Similarly, countries that regulate data processing too rigidly and with specific restrictions on cross-border data transfers provoke reciprocal restrictions by other countries, resulting in reduced access to global data and technology, pressures for compromises in bilateral trade negotiations, and accumulating complexities. Cross-border data transfers require give and take."[50]

Endnotes

1 The Global Data Alliance (GDA) represents companies that are committed to high standards of data responsibility, privacy, and security, and that rely on the ability to transfer data around the world to innovate and create jobs. The GDA works to advance policies that promote the responsible handling of data without imposing unnecessary data localization mandates or restrictions on data transfers. The GDA produces draft treaty and legal texts, regulatory analysis, and sector- and issue-focused studies on cross-border data and digital trust. For more information, please visit the GDA website at www.globaldataalliance.org.

2 A 0.1-point reduction in a country's level of digital services trade restrictiveness is associated with a 145% increase in overall exports. The effect is highest for digitally deliverable services (277%), "other services" exports (206%), agriculture and food exports (176%), and manufacturing exports (117%). Javier López González, Silvia Sorescu, and Pinar Kaynak, *Of Bytes and Trade: Quantifying the Impact of Digitilisation on Trade*, OECD (2023), https://read.oecd.org/10.1787/11889f2a-en?format=pdf.

3 For MSMEs in Asia, digital tools reduce export costs by 82%, and transaction times by 29%. Alphabeta, *Micro-Revolution: The New Stakeholders of Trade in APAC* (2018), https://accesspartnership.com/new-stakeholders-trade-apac/.

4 Trade costs fall as data transfer restrictions are removed, including for Thailand (-30%), India (-28%), and Indonesia (-26%). OECD, *OECD Services Trade Restrictiveness Index: Policy Trends up to 2023* (2023), https://issuu.com/oecd.publishing/docs/stri_policy_trends_up_to_2023_final. Furthermore, non-OECD economies' relative share of digital trade increased by 50% from 1995 to 2018. See Javier López González, Silvia Sorescu, and Pinar Kaynak, *Of Bytes and Trade: Quantifying the Impact of Digitilisation on Trade*, OECD (2023), https://read.oecd.org/10.1787/11889f2a-en?format=pdf.

5 Forced data localization has been estimated to reduce GDP by 0.7%–1.7%, particularly as such measures reduce trade, slow productivity, and increase prices for affected industries. See APEC, *Economic Impact of Adopting Digital Trade Rules* (2023), https://www.apec.org/publications/2023/04/economic-impact-of-adopting-digital-trade-rules-evidence-from-apec-member-economies.

6 Ibid. Data localization has been associated with investment decreases of up to 4% because such restrictions reduce the attractiveness and competitiveness of an economy.

7 World Bank, *World Development Report* (2020), https://www.worldbank.org/en/publication/wdr2020.

8 Global Data Alliance, *Cross-Border Data Transfers & Sustainable Economic Development* (2023), https://globaldataalliance.org/issues/economic-development/; USAID Digital Strategy, 2020–2024, https://www.usaid.gov/usaid-digital-strategy, p. 37. As the US Agency for International Development has explained, "[d]igital ecosystems have the potential to equip informal merchants, women entrepreneurs, smallholder farmers, and MSMEs engaged in cross-border trade with access to markets, information, and finance. These diverse users require trustworthy services that reflect their needs….[D]igital trade that spans borders depends on free data flows, digitized customs, and innovations in trade finance made possible by new approaches to lending."

9 Global Data Alliance, *Jobs in All Sectors Depend Upon Data Flows* (2020), https://globaldataalliance.org/wp-content/uploads/2021/07/infographicgda.pdf.

10 Global Data Alliance, *The Cross-Border Movement of Data: Creating Jobs and Trust Across Borders in Every Sector* (2020), https://globaldataalliance.org/wp-content/uploads/2021/07/GDAeverysector.pdf.

11 Global Data Alliance, *Agriculture* (2022), https://globaldataalliance.org/sectors/agriculture/.

12 Global Data Alliance, *Automotive* (2022), https://globaldataalliance.org/sectors/automotive/.

13 Global Data Alliance, *Energy* (2022), https://globaldataalliance.org/sectors/energy/.

14 Global Data Alliance, *Finance* (2022), https://globaldataalliance.org/sectors/finance/.

15 Global Data Alliance, *Healthcare* (2022), https://globaldataalliance.org/sectors/healthcare/.

16 Global Data Alliance, *Medical Technology* (2023), https://globaldataalliance.org/sectors/medical-technology/.

17 Global Data Alliance, *Supply Chain Logistics* (2022), https://globaldataalliance.org/sectors/supply-chain-logistics/.

18 Global Data Alliance, *Media and Publishing* (2022), https://globaldataalliance.org/sectors/media-publishing/.

19 Global Data Alliance, *Biopharmaceutical R&D* (2022), https://globaldataalliance.org/sectors/biopharmaceutical-rd/.

20 Global Data Alliance, *Telecommunications* (2022), https://globaldataalliance.org/sectors/telecommunications/.

21 Global Data Alliance, *Sectors* (2023), https://globaldataalliance.org/sectors/.

22 Global Data Alliance, *Cross-Border Data Transfers & Privacy* (2023), https://globaldataalliance.org/issues/privacy/.

23 Global Data Alliance, *Cross-Border Data Transfers & Economic Development* (2023), https://globaldataalliance.org/issues/economic-development/.

24 Global Data Alliance, *Cross-Border Data Transfers & Small Businesses* (2023), https://globaldataalliance.org/issues/small-businesses/.

25 Global Data Alliance, *Finance* (2020), https://globaldataalliance.org/sectors/finance/.

26 Global Data Alliance, *Cross-Border Data Transfers & Cybersecurity* (2023), https://globaldataalliance.org/issues/cybersecurity/.

27 Freedom House, *Countering an Authoritarian Overhaul of the Internet* (2022), https://freedomhouse.org/report/freedom-net/2022/countering-authoritarian-overhaul-internet. Freedom House explains the nexus between data transfer restrictions and human rights abuse as follows: "In at least 23 countries covered by Freedom the Net, laws that limit where and how personal data can flow were proposed or passed during the coverage period….The transfer of data across jurisdictions is central to the functioning of the global internet and benefits ordinary users, including by improving internet speeds, enabling companies to provide critical services worldwide, and allowing the storage of records in the most secure data centers available.…[S]ome [countries] have buried problematic obligations that either mandate domestic data storage, feature blanket exceptions for national security or state actors without safeguards, or delegate increased decision-making power to politicized regulators–all of which renders users vulnerable to government abuse despite improvements pertaining to the use of personal data for commercial purposes. Such contradictory "data washing" measures ultimately fail to strengthen privacy and further fragment the internet…."

28 Global Data Alliance, *Cross-Border Data Transfers & Innovation* (2023), https://globaldataalliance.org/issues/innovation/.

29 Global Data Alliance, *Biopharmaceutical R&D* (2022), https://globaldataalliance.org/sectors/biopharmaceutical-rd/; Global Data Alliance, *Medical Technology* (2023), https://globaldataalliance.org/sectors/medical-technology/; Global Data Alliance, *Healthcare* (2022), https://globaldataalliance.org/sectors/healthcare/.

30 Global Data Alliance, *Cross-Border Data Transfers & Environmental Sustainability* (2023), https://globaldataalliance.org/issues/environmental-sustainability/.

31 Global Data Alliance, *Cross-Border Data Transfers & Regulatory Compliance* (2023), https://globaldataalliance.org/issues/regulatory-compliance/.

32 Global Data Alliance, *Issues* (2023), https://globaldataalliance.org/issues/.

33 From 2013 to 2019, data flow regulations across several APAC economies increased by 600%. See Joshua Meltzer, "The Rush to Regulate Data in the Indo-Pacific," in ed. Filippo Fasulo, *The EU Indo-Pacific Bid: Sailing Through Economic and Security Competition* (2023), https://www.ispionline.it/wp-content/uploads/2023/05/ISPI-Report2023-EUs-Indo-Pacific-Bid-web.pdf.

34 The average cumulative increase in cross-border services trade restrictiveness was five times higher in 2022 than in the year before. OECD, *OECD Services Trade Restrictiveness Index: Policy Trends up to 2023* (2023), https://issuu.com/oecd.publishing/docs/stri_policy_trends_up_to_2023_final. These cross-cutting trends are illustrated well by recent developments in the Asia-Pacific region.

On the positive side, a recent APEC report indicated that, "APEC intra-regional digital trade and associated activity supported more than 60 million jobs in the APEC region. Intra-regional digital trade contributed USD 2.1 trillion to APEC economies, with $690 billion from the direct effects of goods/services production; $790 billion from the indirect effects; and $650 billion from consumption-induced effects from workers that increased spending as incomes rose. Digitally deliverable services comprised 33% of intra-regional digital trade, while digitally ordered goods and services (e.g., cross-border e-commerce) comprised 67%." APEC, *Economic Impact of Adopting Digital Trade Rules* (2023), https://www.apec.org/publications/2023/04/economic-impact-of-adopting-digital-trade-rules-evidence-from-apec-member-economies. Furthermore, many digital trade agreements among APEC economies–especially, Australia, Canada, Japan, Mexico, Singapore, and the US–contain digital trade provisions. Specific digital trade provisions increased the flows of digitally ordered and digitally deliverable trade by between 11% and 44%. The four most common digital trade provisions in APEC trading partner agreements are (1) prohibition of data localization, found in 66% of agreements; (2) cross-border information transfer, 76%; (3) non-imposition of customs duties on electronic transmissions, 100%; and (4) market access and national treatment for ICT service, 100%. *APEC, Economic Impact of Adopting Digital Trade Rules*. Another report indicates that from 2013 to 2019, "data flow regulations [across several APEC economies] increased [by]…600%. Privacy is by far the main reason for data flow restrictions, accounting for over 34% of regulation. Financial regulation is the second most salient reason for restricting data flows, accounting for 24%, followed closely by internet access and control at 23%, then security at 17% and competition at 2%." Joshua Meltzer, "The Rush to Regulate Data in the Indo-Pacific," in ed. Filipo Fasulo, *The EU Indo-Pacific Bid: Sailing Through Economic and Security Competition* (2023), https://www.ispionline.it/wp-content/uploads/2023/05/ISPI-Report2023-EUs-Indo-Pacific-Bid-web.pdf.

[35] *Global Industry Statement on an Institutional Arrangement for Partnership on Data Free Flow with Trust* (April 2023), https://globaldataalliance.org/wp-content/uploads/2023/04/04182023g7dfftglindustry.pdf.

[36] UN High Level Advisory Board on Effective Multilateralism, Effective and Inclusive Global Governance for Today and the Future (April 2023), https://highleveladvisoryboard.org/breakthrough/.

[37] For example, since the latter half of 2020, the EU has experienced a sharp increase in cross-border data restrictiveness based in part on proposals to limit the cross-border movement of information across new and expanded data types, sectors, and functionalities. These include the EU Data Act proposal (introduced in Feb. 2022), the proposal for a European Health Data Space (introduced in May 2022), the EU Cybersecurity Certification Scheme for Cloud Services (introduced in Dec. 2020), and the EU Data Governance Act (introduced Nov. 2020 and promulgated in June 2022). The EU and its Member States have also experienced the imposition of unprecedented new cross-border data restrictions through judicial and administrative bodies (e.g., the CJEU's *Schrems II* decision of July 2020 and over a dozen DPA opinions on cross-border data restrictions in Austria, Denmark, Finland, France, Germany, Italy, Netherlands, Spain, Sweden, and elsewhere). These developments contribute to a relatively unstable and unpredictable cross-border data policy environment, as reflected in various corporate securities filings highlighting material cross-border data policy risks associated with EU-focused investments, operations, and sales. See IAPP analysis of SEC filings for GSK, Telefonica Deutschland, Alphabet, and others (May 15, 2023), https://www.linkedin.com/posts/joe-jones-b1793bb6_datatransfers-gdpr-activity-7062799650386255872-A2wq/?utm_source=share&utm_medium=member_ios. The Member States of the European Free Trade Association (Iceland, Lichtenstein, Norway, and Switzerland) have not yet proposed or adopted provisions that replicate the EU Data Act, EUCS, or EHDS. For this reason, these countries currently have a lower restrictiveness score than the EU Member States.

[38] See e.g., Global Industry Statement in Support of a New Trans-Atlantic Data Privacy Framework (2022), https://globaldataalliance.org/wp-content/uploads/2022/04/04072022gdaglltr.pdf (highlighting the costs to the EU from an interruption in the ability to transfer data across borders. The Statement analyzes costs from the perspective of (1) EU economic growth, employment, and exports; (2) EU enterprise operations; (3) EU innovation and technology leadership; (4) EU small- and medium-sized enterprises; and (5) transatlantic data privacy standards.

[39] UNCTAD, *Digital Economy Report* (2021), https://unctad.org/system/files/official-document/der2021_en.pdf.

[40] Global Data Alliance, *Selected Cross-Border Data Measures of Concern* (2023), https://globaldataalliance.org/wp-content/uploads/2023/02/02012023gdajpmeti.pdf; Global Data Alliance, *Global Inventory of Domestic Rules on Data Localization and Data Transfers* (2023), https://globaldataalliance.org/resources-results/?pub_type=legal-texts&posts_filtered=1.

[41] BSA, *Global Cloud Computing Scorecard* (2018), https://www.bsa.org/reports/2018-bsa-global-cloud-computing-scorecard. The BSA Global Cloud Computing Scorecard examines the legal and regulatory framework of 24 countries around the world, identifying 72 questions that are relevant to determining readiness for cloud computing. The questions are categorized under the following policy categories: Data Privacy, Security, Cybercrime, Intellectual Property Rights, Support for International Standards, Promoting Free Trade, IT Readiness, and Broadband Deployment.

[42] European Centre for International Political Economy, *Restrictions on Cross-Border Data Flows: A Taxonomy*, ECIPE Working Paper 1/2017 (2017), https://ecipe.org/wp-content/uploads/2017/11/Restrictions-on-cross-border-data-flows-a-taxonomy-final1.pdf. See also European University Institute, Digital Trade Integration Database (2022), https://dti.eui.eu/.

[43] Information Technology Industry Foundation, *A Global View of Barriers to Cross-Border Data Flows* (2021), https://itif.org/publications/2021/07/19/global-view-barriers-cross-border-data-flows/. This report "uses sub-indicators from the OECD PMR Indicators database to develop a proxy measurement of how restrictive a nation's rules are for cross-border data transfers. Pre-2018, DRI is calculated using the two medium-level indicators 'Administrative Barriers to Startups' and 'Administrative and Regulatory Opacity.'"

[44] OECD, *Digital Services Trade Restrictiveness Index* (2019), https://goingdigital.oecd.org/en/indicator/73.

[45] OECD, *Services Trade Restrictiveness Index* (2023), https://issuu.com/oecd.publishing/docs/stri_policy_trends_up_to_2023_final.

[46] Salesforce, *Data Beyond Borders 3.0: Bridging the Digital Divide* (2023), https://www.salesforce.com/content/dam/web/en_au/www/documents/pdf/data_beyond_borders.pdf The Salesforce Data Beyond Borders Report includes economy-level metrics focused on data localization, data classification, consent-based transfers, GDPR-level adequacy, and participation in the APEC Cross-Border Privacy Rules Framework.

[47] Tufts University Fletcher School, *Digital Intelligence Index* (2022), https://digitalintelligence.fletcher.tufts.edu. The Digital Intelligence Index "tracks a total of 160 indicators to measure the current state and pace of digitalization in an economy. It is structured at four levels: indicators, clusters, components, and drivers. Indicators are standardized data points that answer a specific question. Indicators are aggregated up into clusters, which illuminate 35 aspects of digitalization, which are then rolled into 13 higher-order components, which ultimately feed into the four drivers."

[48] UK Department of Culture, Media, and Sports, *The Extent and Impact of Data Localisation* (2022), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1125805/Frontier_Economics_-_data_localisation_report_-_June_2022.pdf.

[49] G7 Hiroshima Leaders' Communiqué (May 2023), https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/20/g7-hiroshima-leaders-communique/.

[50] WEF, *A Roadmap for Cross-Border Data Flows* (2020), http://www3.weforum.org/docs/WEF_A_Roadmap_for_Cross_Border_Data_Flows_2020.pdf.

GLOBAL DATA ALLIANCE
TRUST ACROSS BORDERS

The Global Data Alliance (globaldataalliance.org) is a cross-industry coalition of companies that are committed to high standards of data responsibility and that rely on the ability to transfer data around the world to innovate and create jobs. The Alliance supports policies that help instill trust in the digital economy while safeguarding the ability to transfer data across borders and refraining from imposing data localization requirements that restrict trade. Alliance members are headquartered across the globe and are active in the advanced manufacturing, aerospace, automotive, electronics, energy, financial and payment services, health, consumer goods, supply chain, and telecommunications sectors, among others. BSA | The Software Alliance administers the Global Data Alliance.

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