Data Localisation and International Trade: Trends, Analysis, and Strategy

Research Report

Thematic Area: Trade, Investment, and Resilient Supply Chains; Digital Transformation, Advanced Technologies, and Cyber Security

What is Data Localisation?

Data localisation refers to regulatory requirements imposed by a country that mandates foreign and domestic organisations to store and process certain types of data, particularly sensitive or personal information, within that country's national borders, specifically in the jurisdiction where the data was originally collected[1]. The Organisation of Economic Cooperation Development (OECD) in a paper titled "The Nature, Evolution and Potential Implications of Data Localisation Measures," defined data localisation as an *explicit requirement that data be stored and/or processed within the domestic territory*[2]. In another paper by the OECD titled "Data Localisation Trends and Challenges Considerations for the Review of the Privacy Guidelines", adopted the following definition of data localisation[3]:

'Data localisation' refers to a mandatory legal or administrative requirement directly or indirectly stipulating that data be stored or processed, exclusively or non-exclusively, within a specified jurisdiction.

Richard D. Taylor (2020) discussed that phenomena of data localisation come from two distinct policy models, namely Data Sovereignty and Trans-Border Data Flows. Data Sovereignty originates from complete control of the state within its geographical boundaries and Trans-Border Data Flows policies aims to protect personal data and privacy[4]. Further, David Medine (2024) defined it as an umbrella that covers various requirements and restrictions by the Government on cross border data flow, processing, and storage. The study further categorized data localisation into 'hard localisation' that prohibits any form of cross border data form, mirroring which mandates a local copy of

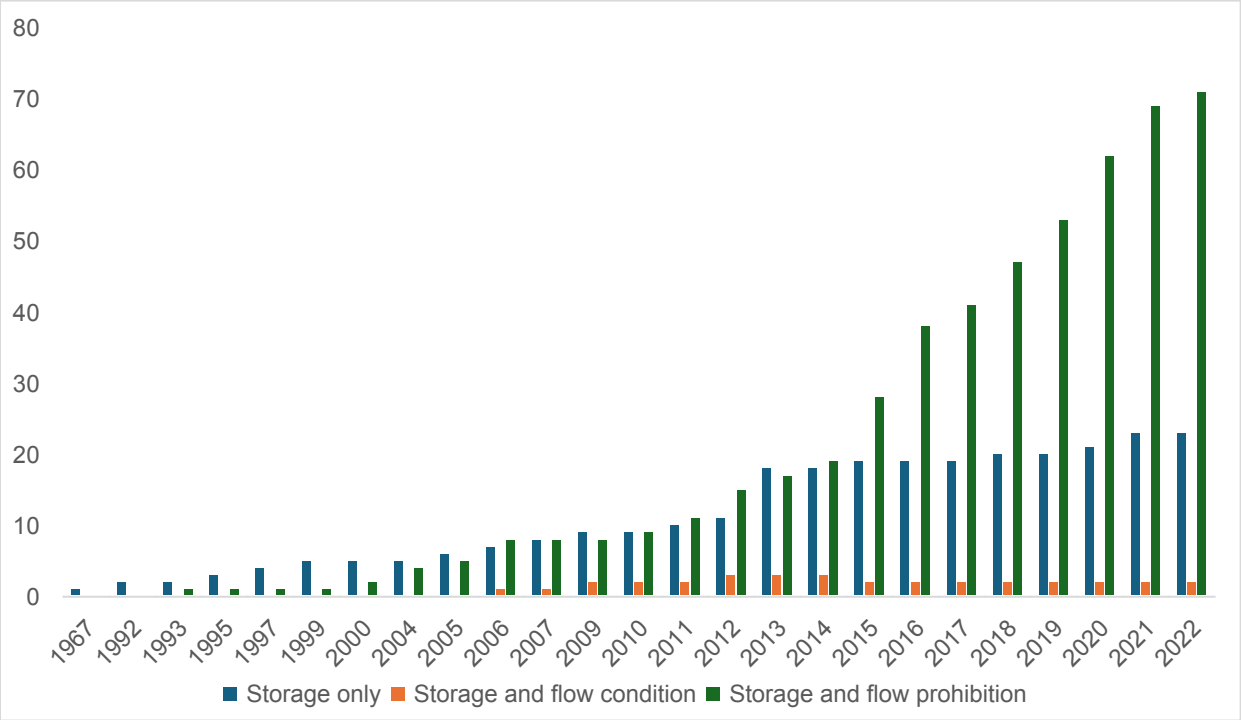
[1] https://www.cloudflare.com/learning/privacy/what-is-data-localization/
[2] https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/11/the-nature-evolution-and-potential-implications-of-data-localisation-measures_249df37e/179f718a-en.pdf
[3] https://www.oecd.org/content/dam/oecd/en/publications/reports/2020/12/data-localisation-trends-and-challenges_d775fe8a/7fbaed62-en.pdf
[4] Richard D. Taylor, "Data localization": The internet in the balance, Telecommunications Policy, Volume 44, Issue 8, 2020, 102003, ISSN 0308-5961, https://doi.org/10.1016/j.telpol.2020.102003. (https://www.sciencedirect.com/science/article/pii/S0308596120300951)

the data being transferred across borders, and finally a setup where Government regulators have access to data irrespective of where it is stored[5].

Types of Data Localisation

The OECD (2022) further classifies data localisation into three main categories. First, storage-only measures require that certain data be stored domestically but still allow cross-border transfer. Second, storage and flow conditional measures permit data transfers only if specific conditions are met, such as security requirements or regulatory approval. Third, storage and flow prohibition measures are the strictest, requiring data to be stored domestically while restricting or banning cross-border transfers[6].

Number and type of data localisation measures worldwide, 1967-2022



Source: Cross-border data flows, OECD[7]

Global restrictive measures on data localisation expanded rapidly after 2010, with storage and flow prohibition measures rising sharply from 9 in 2010 to 71 in 2022. In contrast, conditional flow measures remain limited, increasing only marginally to 2 by 2022. This

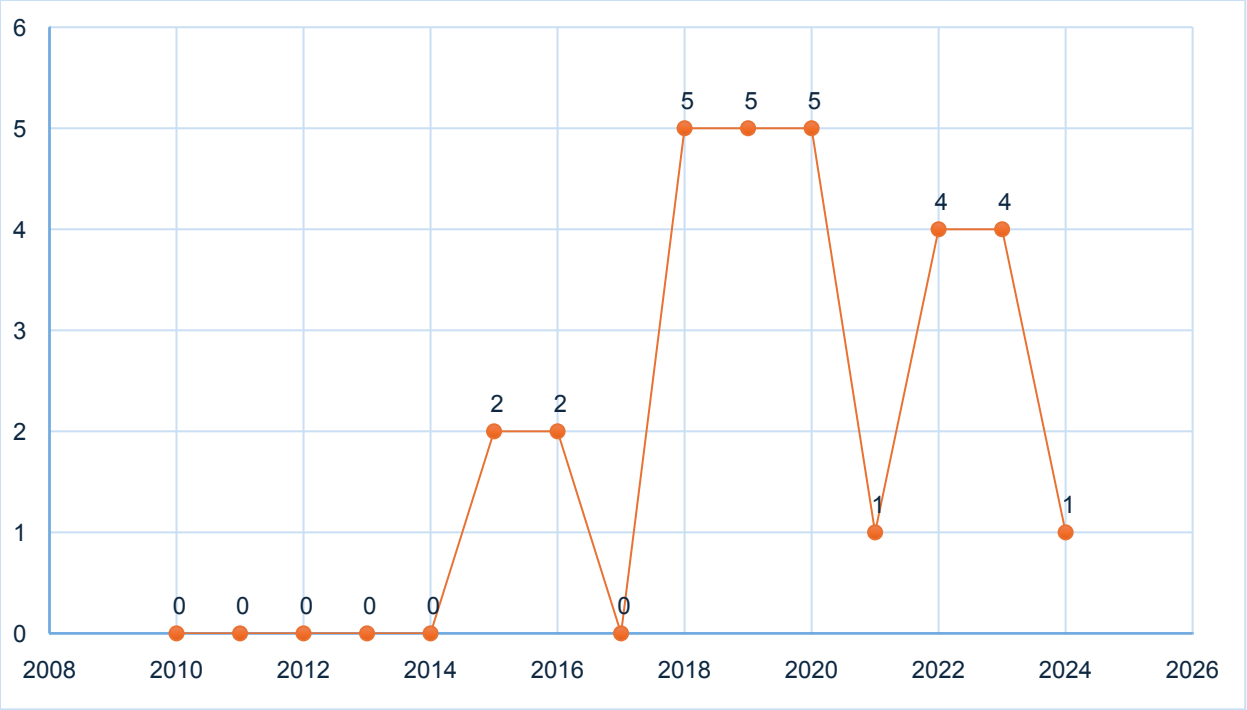
[5] David Medine. 2024. “Data Localization: A 'Tax' on the Poor.” CGD Working Paper 674. Washington, DC: Center for Global Development. https://www.cgdev.org/publication/data-localization-tax-poor
[6] https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/06/a-preliminary-mapping-of-data-localisation-measures_6ac088e7/c5ca3fed-en.pdf
[7] https://www.oecd.org/en/topics/cross-border-data-flows.html

trend indicates a growing inclination among countries toward stricter control over data flows, reflecting rising concerns around security, sovereignty, and digital governance.

Trade Agreements and Data Localisation in the G20 Economies

Trade agreements can address data localisation by removing mandatory data storage or limiting requirements. According to the TAPED (Trade Agreement Provisions on Electronic-commerce and Data) dataset[8], of all the agreements that are either currently in force or partially in force, a total of 29 agreements have hard and specific provisions to limit data localisation. This is clear from the following figure, which reflects the increase in data localisation measures from 2015. Trade agreements with such provisions include Agreement between Japan and Mongolia for an Economic Partnership; Free Trade Agreement between the Democratic Socialist Republic of Sri Lanka and the Republic of Singapore; Australia-Peru Free Trade Agreement; Chile-Brazil Bilateral Trade Agreement; among others[9].

Number of Trade Agreements with Data Localisation Provisions, 2010-2024



Source: TAPED (Trade Agreement Provisions on Electronic-commerce and Data) Database as of 11 September 2025[10]

In the Group of 20 (G20) region, the relevant trade agreements include the United States-Mexico-Canada Agreement (USMCA), signed in 2018 between the United States,

[8] as of 11 September 2025
[9] Complete list given in the appendix
[10] https://www.unilu.ch/en/faculties/faculty-of-law/professorships/burri-mira/research/taped/

Mexico, and Canada; the Indonesia-Australia Comprehensive Economic Partnership Agreement (IA-CEPA), signed in 2019 between Indonesia and Australia; the Japan-United States Digital Trade Agreement, signed in 2019 between Japan and the United States; the EU-UK Trade and Cooperation Agreement (TCA), signed in 2020 between the European Union and the United Kingdom; and the Protocol Amending the Agreement between the European Union and Japan for an Economic Partnership, signed in 2024 between the European Union and Japan.

Trade Agreement Banning or Limiting Data Localisation Requirements Between G20 Economies

S.No.	Year of Signing	Long Title	Short Title	Type of Agreement
1	2018	United States - Mexico - Canada Agreement	USMCA	Free Trade Agreement
2	2019	Indonesia - Australia Comprehensive Economic Partnership Agreement	Australia-Indonesia CEPA	Economic Partnership Agreement
3	2019	Agreement Between The United States Of America And Japan Concerning Digital Trade	Japan-US Digital Trade Agreement (DTA)	Digital Trade Agreement
4	2020	Trade and Cooperation Agreement between the European Union and the European Atomic Energy Community, of the One Part, and the United Kingdom of Great Britain and Northern Ireland, of the Other Part	EU-UK TCA	Free Trade Agreement
5	2024	Protocol amending the Agreement between the European Union and Japan for an Economic Partnership	EU-Japan FTA Protocol	Protocol

Source: TAPED (Trade Agreement Provisions on Electronic-commerce and Data) Database as of 11 September 2025[11]

The G20 Osaka Leaders' Declaration in 2019 facilitated the concept of "data free flow with trust," to foster seamless flow of data coupled with strong consumer and business trust[12]. While strongly advocating for this open exchange to boost the global economy, G20 leaders acknowledge the inherent challenges it presents, with regards to data protection, privacy, security, and intellectual property rights[13]. Countries such as India

[11] https://www.unilu.ch/en/faculties/faculty-of-law/professorships/burri-mira/research/taped/

[12] https://www.mofa.go.jp/policy/economy/g20_summit/osaka19/en/documents/final_g20_osaka_leaders_declaration.html

[13] https://www.csis.org/analysis/real-national-security-concerns-over-data-localization

and China enforce stricter data localisation requirements to enhance data sovereignty and regulatory control, while the United States, Japan, and the United Kingdom generally favor liberal cross-border data flow, using international trade agreements to limit local server mandates and keep cross-border data flowing freely.

Trends in Trade Agreement Banning or Limiting Data Localisation

Over the last two decades, countries have transitioned to building highly sophisticated legal architecture on digital governance. This evolution is defined by three fundamental trends: a shift towards strict prohibitions, the strategic rise of sector-specific safety nets, and a structural migration toward standalone, dedicated digital trade agreements. These trends are discussed below.

First, out of 371 trade agreements, which are either currently in force or partially in force, the rules around data localisation changed dramatically. Between 2000 and 2009, none of the 186 agreements addressed data localisation at all. However, as digital trade grew and data assumed greater importance, countries started adding strict rules. From 2010 to 2018, 9 agreements introduced hard provisions banning data localisation requirements. This trend continued further between 2019 and 2025, where 20 trade agreements included these strict bans. Interestingly, countries completely skipped soft or optional guidelines.

Number of agreements addressing data localisation requirements in e-commerce/digital trade chapter

Year	No Provision for Data Localisation	Soft Provision for Localisation	Hard Provision Localisation
2000-09	186	0	0
2010-18	98	0	9
2019-25	58	0	20

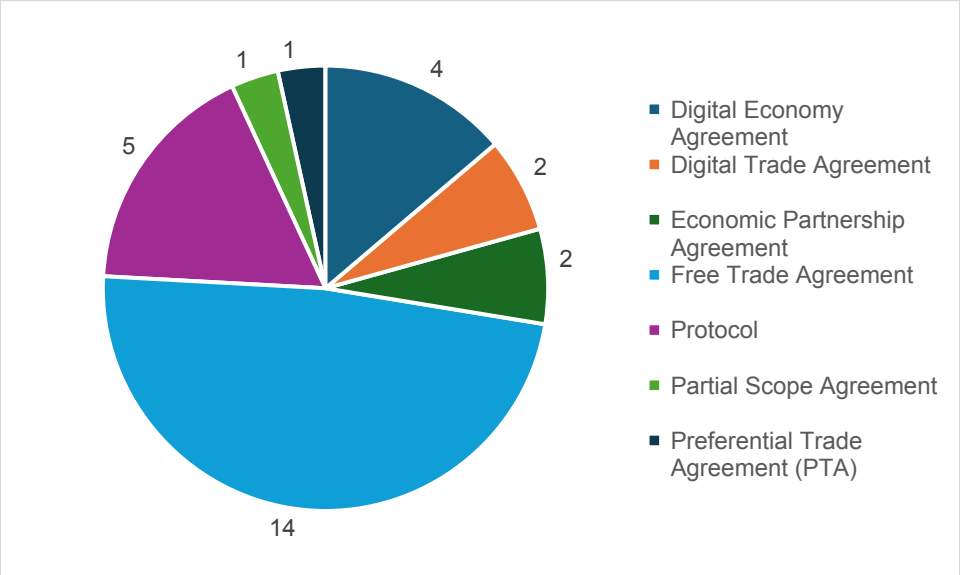
Source: TAPED Database (as of 11 September 2025)[14]

Second, among the 29 trade agreements that address data localisation, there is a trend to incorporate strategic boundaries, thereby preserving domestic oversight. That is, 26 of these agreements feature public policy exceptions, granting governments flexibility to mandate local data storage when safeguarding national security or personal privacy. Additionally, 3 agreements exempt the financial services sector from e-commerce/digital trade chapter[15]. This reflects a growing trend toward segmented governance, where nations facilitate routine commercial data flows while carefully maintaining sovereignty over sensitive information.

[14] https://www.unilu.ch/en/faculties/faculty-of-law/professorships/burri-mira/research/taped/
[15] Calculations based on TAPED Database

Third, further tracking of the TAPED database reflects a significant shift in the architecture of data governance, moving away from standard Free Trade Agreements (FTAs) toward specialized legal instruments. The dataset distinctively categorizes a new wave of Digital Economy Agreements (DEAs) and Digital Trade Agreements (DTAs), which reflects that data localisation and digital flows are no longer just sub-chapters of broader trade deals; instead, they have become the primary focus of standalone international treaties designed to harmonize regional data blocks to counter fragmented national data laws.

Type of trade agreements addressing data localisation



Source: TAPED Database (as of 11 September 2025)

Recommendations:

The following targeted recommendations outline actionable strategies for the industry and the government to navigate the emergence of strict data localisation requirements.

First, from a regional perspective, 14 out of the 29 agreements have been between a developed and developing country, with almost no provisions in such trade agreements addressing data localisation between Least Developing Countries (LDCs). Developing countries face global data divide and lack both the domestic digital infrastructure and the regulatory capacity required to negotiate, implement, or benefit from data governance frameworks in international trade agreements[16].

[16] Agrawal, B., & Mishra, N. (2022). Addressing the global data divide through digital trade law. SSRN Electronic Journal. https://repository.graduateinstitute.ch/record/300969/files/SSRN-id4276764.pdf

Within this context, LDCs can implement a hybrid model that allows cross-border data flows by default but mandates local data storage exclusively for sensitive sectors. This protects data sovereignty, while promoting investments in local data centers, and ensures domestic industries are still integrated into global digital supply chains.

Trade Agreements with Data Localisation Provisions, 2010-2024

Row Labels	Developed and developed	Developed and developing	Developed, developing and LDC	Developing and developing	LDC and developed	LDC and developing	LDC and LDC	Total
Total	5	14	2	7	0	1	0	29

Source: Author's calculations based on TAPED (Trade Agreement Provisions on Electronic-commerce and Data) Database as of 11 September 2025[17]

Second, global IT firms can adopt an architecture that builds flexible software which can seamlessly adapt to local data sovereignty laws. On a macroeconomic level, governments and international trade bodies should advocate bilateral and multilateral Data Free Flow with Trust (DFFT) frameworks[18]. Further, to streamline data localisation, companies can enhance investments in technological assets including end-to-end encryption, thereby mitigating dependence on geographical location of data. Data concentrated in one country increases the possibility of cyberattacks, jeopardizing the security of not only the associated company but also the national security of the country[19]. Therefore, framing a flexible software code that is not uniquely specific to a certain geography enables global IT firms to comply with diverse data localisation laws without compromising efficiency or innovation.

Third, countries should tightly regulate or localize sensitive data, while non-sensitive commercial data should flow freely with safeguards. This balances security with innovation and trade. Clear, transparent criteria for when data should stay local and when it can move will reduce uncertainty for businesses and avoid unnecessary economic costs while still protecting sovereignty.

Fourth, future Free Trade Agreements (FTAs) should directly address data localisation to reduce regulatory gaps and uncertainty. Many agreements still do not build inter-operable frameworks to address sharing of data. Well-defined rules combined with public policy exceptions create predictability for businesses, promote secure cross-border data exchange, and strengthen cooperation.

[17] https://www.unilu.ch/en/faculties/faculty-of-law/professorships/burri-mira/research/taped/
[18] https://www3.weforum.org/docs/WEF_Paths_Towards_Free_and_Trusted_Data%20_Flows_2020.pdf
[19] https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/11/the-nature-evolution-and-potential-implications-of-data-localisation-measures_249df37e/179f718a-en.pdf

Annexure

Trade Agreements containing provision banning or limiting data localisation requirements

S.No.	Year of Signing	Long Title	Short Title	Type of Agreement

1	2015	Agreement between Japan and Mongolia for an Economic Partnership	Japan-Mongolia FTA	Free Trade Agreement
2	2015	First Protocol modifying the Additional Protocol of the Pacific Alliance Framework Agreement	First modifying protocol of the PA	Protocol
3	2016	Acuerdo de Libre Comercio entre la República de Chile y la República Oriental del Uruguay	Chile-Uruguay FTA	Free Trade Agreement
4	2016	Updated Singapore-Australia Free Trade Agreement (SAFTA)	Australia-Singapore updated FTA	Free Trade Agreement
5	2018	Free Trade Agreement between the Democratic Socialist Republic of Sri Lanka and the Republic of Singapore	Singapore-Sri Lanka FTA	Free Trade Agreement
6	2018	Australia-Peru Free Trade Agreement	Australia-Peru FTA	Free Trade Agreement
7	2018	Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP)	CPTPP	Free Trade Agreement
8	2018	United States - Mexico - Canada Agreement	USMCA	Free Trade Agreement
9	2018	Chile - Brazil Bilateral Trade Agreement	Brazil-Chile FTA	Free Trade Agreement
10	2019	ASEAN Agreement on Electronic Commerce	ASEAN E-commerce Agreement	Preferential Trade Agreement
11	2019	Indonesia - Australia Comprehensive Economic Partnership Agreement	Australia-Indonesia CEPA	Economic Partnership Agreement
12	2019	Australia-Hong Kong Free Trade Agreement and associated Investment Agreement	Australia-Hong Kong FTA	Free Trade Agreement
13	2019	Protocol to Amend the Agreement between Singapore and New Zealand on a Closer Economic Partnership	New Zealand-Singapore CEPA Upgrade	Protocol
14	2019	Agreement Between The United States Of America And Japan Concerning Digital Trade	Japan-US Digital Trade Agreement (DTA)	Digital Trade Agreement
15	2020	Digital Economy Partnership Agreement ("DEPA") Between Singapore, Chile & New Zealand	Chile-New Zealand-Singapore Digital Economy Partnership Agreement (DEPA)	Digital Economy Agreement
16	2020	Australia - Singapore Digital Economy Agreement	Australia-Singapore Digital Economy	Digital Economy Agreement

			Agreement (ASDEA)	
17	2020	Acuerdo e Complementacion Económica Nº 75 entre la República e Chile y la República del Ecuador	Chile-Ecuador PSA	Partial Scope Agreement
18	2020	Regional Comprehensive Economic Partnership Agreement ("RCEP")	RCEP	Economic Partnership Agreement
19	2020	Trade and Cooperation Agreement between the European Union and the European Atomic Energy Community, of the One Part, and the United Kingdom of Great Britain and Northern Ireland, of the Other Part	EU-UK TCA	Free Trade Agreement
20	2021	Free Trade Agreement between Iceland, the Principality of Liechtenstein and the Kingdom of Norway and the United Kingdom of Great Britain and Northern Ireland	Iceland-Liechtenstein-Norway-UK FTA	Free Trade Agreement
21	2022	Pacific Alliance-Singapore Free Trade Agreement	Pacific Alliance-Singapore FTA	Free Trade Agreement
22	2022	Digital Economy Agreement between the United Kingdom of Great Britain and Northern Ireland and the Republic of Singapore	Singapore-UK DEA	Digital Economy Agreement
23	2022	Free Trade Agreement between the United Kingdom of Great Britain and Northern Ireland and New Zealand	New Zealand-UK FTA	Free Trade Agreement
24	2022	Digital Partnership Agreement Between The Government Of The Republic Of Korea And The Government Of The Republic Of Singapore	Korea-Singapore DEA	Digital Economy Agreement
25	2023	Digital Trade Agreement between the United Kingdom of Great Britain and Northern Ireland and Ukraine	UK-Ukraine DTA	Digital Trade Agreement
26	2023	Protocol to the Digital Economy Partnership Agreement	DEPA Protocol	Protocol
27	2023	Second Protocol To Amend The Agreement Establishing The ASEAN-Australia-New Zealand Free Trade Agreement	AANZFTA Second Protocol	Protocol
28	2023	Canada Ukraine Modernized Free Trade Agreement	Canada-Ukraine Modernized FTA	Free Trade Agreement
29	2024	Protocol amending the Agreement between the European Union and Japan for an Economic Partnership	EU-Japan FTA Protocol	Protocol

Source: TAPED Database (as of 11 September 2025)[20]

[20] https://www.unilu.ch/en/faculties/faculty-of-law/professorships/burri-mira/research/taped/