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trade agreement provisions on electronic commerce and data

Codebook

TAPED: Trade Agreement Provisions on Electronic Commerce and Data

Version November 2022

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Introduction and methodology

The purpose of the TAPED dataset is to provide a comprehensive mapping of all digital trade-related provisions found in preferential trade agreements (PTAs) since 2000, which marks a period of PTA proliferation and new digital trade-rulemaking propelled by the US Digital Agenda (with the Bipartisan Trade Promotion Authority Act of 2002). The dataset has a broad scope and treats as digital trade provisions those explicitly mentioning and referring to electronic commerce (e-commerce), digital trade, data protection, and data flows but also provisions that can have any sort of impact on the conditions for digital trade, such as provisions on intellectual property (IP), non-discrimination, general and specific exceptions as well as market access commitments in key services sectors, such as telecommunications, financial, and computer and related services. As these provisions can appear in different treaty sections besides chapters specifically dedicated to e-commerce or digital trade, the TAPED dataset aims at inclusivity and covers all norms regardless of where they are found in the text of the PTA. The dataset also includes an assessment of the extent of legalisation of all coded provisions, distinguishing between 'soft' and 'hard' commitments, which may be particularly useful for legal and political science scholars alike.

A total of 116 different items have been coded so far and this codebook provides detailed information about the coded items and the methodology behind the coding across five different areas: (1) e-commerce; (2) data-dedicated provisions; (3) new data economy issues; (4) cross-cutting issues; and (5) intellectual property.

The data has been collected primarily from public sources and research databases, such as the World Trade Institute's Design of Trade Agreements Database (DESTA, https://www.designoftradeagreements.org/), the WTO database on PTAs (http://ptadb.wto.org/), the World Bank's Global PTAs database (https://wits.worldbank.org/gptad/trade_database.html), the OAS' SICE Foreign Trade Information System (http://www.sice.oas.org/agreements_e.asp), the Asian Development Bank's Asia Regional Integration Center (https://aric.adb.org/database/fta), as well as from the government websites of the contracting states.[1]

The TAPED dataset project stems from a project sponsored by the Swiss National Science Foundation 'The Governance of Big Data in Trade Agreements' under the National Research Programme (NRP)75: Big Data (2017–2021).[2] It is currently continued, expanded and improved under the ERC Consolidator Grant project 'TRADE LAW 4.0: Trade Law for the Data-Driven Economy' (2021–2026), which is financed by the European Research Council, led by the PI Mira Burri[3] and hosted at the University of Lucerne. In light of the latter project, the TAPED dataset has been last updated in June 2022, adding new items found in recent PTAs on e-commerce and data-related rules. In addition, a special section on new data economy issues was added. This new version of November 2022 makes the similar adjustments, clarifies previously coded items, and updates the dataset with the most recent agreements.

We trust that the dataset can be useful for researchers in different areas, such as law, economics or political science, as well as for governments and officials working for international and non-

[1] Other sources include: http://www.aladi.org/sitioAladi/acuerdos.html, http://www.worldtradelaw.net/databases/ftas.php; http://ptas.mcgill.ca/; http://www.wcoomd.org/en/topics/origin/instrument-and-tools/database.aspx; http://www.bilaterals.org/.

[2] The TAPED dataset was introduced to the scientific and policy community with Mira Burri and Rodrigo Polanco, 'Digital Trade Provisions in Preferential Trade Agreements: Introducing a New Dataset', *Journal of International Economic Law* 23 (2020), 187–220, https://doi.org/10.1093/jiel/jgz044.

[3] The TRADE LAW 4.0 team includes Maria Vasquez Callo-Müller, Kholofelo Kugler and Anja Mesmer.

governmental organisations, who may use it as a tool for evidence-based policymaking but also for normative analyses, so as to ensure that data innovation is fostered but at the same time certain fundamental values, such as privacy protection, are adequately safeguarded. In the latter context, it is noteworthy that the dataset itself does not engage in any value analysis and merely seeks to provide all the information available about digital trade rulemaking and its evolution over time.

We view the TAPED dataset as a continued effort and make it available to all to use and further develop under the creative commons (attribution, non-commercial, share-alike) license. We would be happy to receive feedback on possible improvements of the dataset, as well as to link to research and publications that make use of TAPED on the TRADE Law 4.0 project's website: https://digitaltradelaw.ch.

Meta data

[number] Unique ID for each entry in the database.

[short_title] Short name of the agreement. For bilateral agreements, the two countries are always listed in alphabetic order (Chile-Lebanon, NOT Lebanon-Chile). Macedonia is used instead of FYROM. EC is used throughout this codebook instead of EEC. However, the European Union is referred to as the EU. Korea is used instead of Republic of Korea or South Korea.

[long_title] Official name of the treaty.

[type] Type of the agreement according to the title.

- Association Agreement (AA);
- Digital Economy Agreement (DEA);
- Economic Agreement (EA);
- Economic Complementation Agreement (ECA);
- Economic Partnership Agreement (EPA);
- Framework Agreement (FA);
- Free Trade Agreement (FTA);
- Partial Scope Agreement (PSA);
- Regional Trade Agreement (RTA);
- Trade Promotion Agreement (TPA); and
- Upgrade Agreement (UA)

If not in any of the previous categories, the treaty is mapped as 'Preferential Trade Agreement (PTA)'. Non-binding agreements, including Memoranda of Understanding (MOUs), and unilateral treaties are not covered.

[type_memb] Type of agreement according to membership:

1. bilateral
2. plurilateral
3. plurilateral and third country
4. regional
5. region-region (e.g. CARIFORUM-EU EPA)
6. accession (e.g. UK-EC accession agreement signed in 1972)
7. accession to an agreement as a result of membership in a regional agreement (e.g., when Romania acceded to the EU, it also signed up to the FTA between the EC and Mexico signed in 2000)

[parties] All contracting Parties are listed using their Alpha 3 ISO 3166-country codes, which is a three-letter abbreviation of each country's name, separated by a comma (e.g. ALB, CHN for Albania-China).

Note: the abbreviation 'EU' represents all the EU Member States that signed the agreement.

[status_parties] The status of the Parties are categorised according to the UN World Economic Situation and Prospects report[4] and the list of least developed countries (LDCs),[5] maintained by the UN's Committee for Development Policy.

1. Developed and developing
2. Developing and developing
3. Developed and developed
4. LDC and developed
5. LDC and developing
6. LDC and LDC

[date_signed] The date on which the agreement was signed, following the format DD.MM.YYYY.

[year_signed] The year in which the agreement was signed.

[date_into_force] The date on which the agreement entered into force, following the format DD.MM.YYYY. If the date is different for each contracting state, the Alpha 3 ISO 3166-country code is added in parenthesis, separating each country with commas. E.g.: 22.01.2017 (ALB), 22.03.2017 (CHN).

Where the information available is only the year, blanks are filled with zeros e.g. 00.00.2017, or where an agreement has been in force since June 2017, 00.06.2017.

Where the dates for goods and services differ, this is indicated with G and S to differentiate e.g.: 22.01.2012 (G), 01.01.2013 (S).

[year_in_force] The year in which the agreement entered into force.

[accessions] Represents the accession of one or several parties to a treaty. The Alpha 3 ISO 3166-country code is added in parenthesis, separating each country with commas, follows accession date. E.g.: 22.01.2017 (ALB), 22.03.2017 (CHN).

[in_force_status] Whether the treaty is still in force, divided into the following categories:

1. treaty is in force
2. treaty is not in force
3. treaty is 'partially in force'
4. treaty has not been ratified by all Parties

[withdrawals] Represents the withdrawal of one or several parties to a treaty. The Alpha 3 ISO 3166-country code is added in parenthesis, separating each country with commas, follows the withdrawal date. E.g.: 22.01.2017 (ALB), 22.03.2017 (CHN).

[date_terminated] Date of the termination, if the treaty is terminated, following the format DD.MM.YYYY. If the date is different for each contracting state, the Alpha 3 ISO

[4] See UN Department of Economic and Social Affairs, 'World Economic Situation and Prospects 2022', 13 January 2022, available at: https://www.un.org/development/desa/dpad/publication/world-economic-situation-and-prospects-2022/ (accessed 15 November 2022).

[5] UN Department of Economic and Social Affairs, 'LDCs at a Glance', updated 24 November 2021, available at: https://www.un.org/development/desa/dpad/least-developed-country-category/ldcs-at-a-glance.html (accessed 15 November 2022).

3166-country code is added in parenthesis, separating each country with commas. E.g.: 22.01.2017 (ALB), 22.03.2017 (CHN).

[termination_type] Means by which the treaty was terminated. There are the following types of termination:

1. Expired
2. Replaced by a new treaty
3. Terminated by consent
4. Unilaterally denounced
5. Partially replaced by new treaty

[protocol_signed] Any relevant protocols or amendments associated with the treaty (i.e., referring to data, e-commerce or digital trade), and their date of signature, following the format DD.MM.YYYY are included. If the date is different for each contracting state, the Alpha 3 ISO 3166-country code is added in parenthesis, separating each country with commas. E.g.: 22.01.2017 (ALB), 22.03.2017 (CHN).

Where there is more than one protocol, the date and the number of the protocol are in brackets e.g.: 22.01.2012 (P1), 01.01.2017 (P2).

[protocol_in_force] Any relevant protocols or amendments associated with the treaty that have entered into force, entering the date following the format DD.MM.YYYY. If the date is different for each contracting state, the Alpha 3 ISO 3166-country code is included in parenthesis, separating each country with commas. E.g.: 22.01.2017 (ALB), 22.03.2017 (CHN).

[replace_name] If the treaty was replaced and its termination type was "replaced by a new treaty", the name and date of the new treaty with which the treaty was replaced is listed.

[replace_reference] Number of the new treaty that replaces one previously coded.

[region_con] The following categories are used:

- Africa
- Americas
- Asia
- Europe
- Intercontinental
- Oceania

[language] Languages in which the treaty was prepared, using the abbreviations of ISO 639-1:2002, which provides a 2-letter code that has been designed to represent most of the major languages of the world. See: http://www.loc.gov/standards/iso639-2/php/code_list.php.

In case the treaty has more than one official language, the languages are separated by a semicolon (';').

[wto_notified] Whether the treaty has been notified at the WTO: http://rtais.wto.org/UI/PublicMaintainRTAHome.aspx
0: not notified to the WTO

1: notified to the WTO

Extent of legalisation[6]

[ecommerce_soft_legalisation] Does the agreement include non-binding obligations on e-commerce/digital trade?

Explanation: 'Soft' commitments are those that are not enforceable by another Party. These are commitments to make 'best efforts' to comply with a provision or a principle, but a claim for their non-compliance cannot be brought under the dispute settlement mechanism of the agreement.

Example of non-binding commitments: 'recognise the importance', 'shall work towards', 'promote'. Cooperation provisions are always considered as non-binding unless an obligation to cooperate in certain areas is made explicit in the treaty, within a specific framework and time.

When coding these provisions, take into account that several treaties use language that initially can be considered as 'binding' (e.g. 'shall') but that after adding another verb becomes hortatory (e.g. 'shall endeavour').

[ecommerce_hard_legalisation] Does the agreement include binding obligations on e-commerce/digital trade?

Explanation: 'Hard' commitments are those that are enforceable by another Party. These are commitments that oblige a Party to comply with a provision or a principle, and a claim for their non-compliance could eventually be brought under the dispute settlement mechanism of the agreement.

Example of binding commitments: 'shall', 'must', 'shall take appropriate measures'.

The extent of legalisation is coded as follows:

0: no

1: yes (soft), highlighted in yellow

2: yes (hard), highlighted in green

Abbreviations

[N/A] Not Applicable

[N/C] Not Coded (used for new categories that have not been coded yet or old categories that are no longer being coded)

[6] The categorisation between binding and non-binding commitments follows the typology developed by Abbot and Snidal, where binding commitments (or hard law) refers to legally binding obligations that are precise, whereas non-binding commitments (or soft law) are legal arrangements that are 'weakened along one or more of the dimensions of obligation, precision, and delegation'. See: Kenneth W. Abbott and Duncan Snidal, 'Hard and Soft Law in International Governance' , *International Organization* 54 (2000), 421–456.

1. E-commerce/Digital trade[7]

1.1. General provisions

1.1.1. [ec_prov] Does the agreement contain provisions on e-commerce/digital trade?

Explanation: Electronic commerce or e-commerce is defined at the WTO as the 'production, distribution, marketing, sale or delivery of goods and services by electronic means'. Following Monteiro and Teh,[8] keywords that can be used to identify e-commerce provisions are: computerised, cyber, digital, electronic, electronic commerce, e-commerce, e-government, information and communication, information and communications technology (ITC), internet, online, paperless and telecommunication.

0: no

1: provisions on e-commerce/digital trade or selected chapters

1.1.2. [ec_chapter] Does the agreement contain an e-commerce/digital trade chapter?

Explanation: A 'digital trade chapter' or 'electronic technologies in trade' (EAEU-Vietnam) are considered equivalent to an e-commerce chapter. We consider dedicated sub-sections on e-commerce within a chapter as a separate e-commerce chapter for the purposes of the coding (e.g. something typical of earlier EU treaties).

0: no

1: full chapter on e-commerce/digital trade

1.1.3. [ec_tech_neutrality] Does the agreement include a principle of technological neutrality (i.e., same treatment for digital supply)?

Explanation: There are different versions of the principle of technological neutrality. It is understood here as a non-discrimination obligation between products/services delivered electronically and through other modes of supply (e.g. physical delivery). Technological neutrality limited to trade documents (paperless trading) is not taken into account. The neutrality should be about the products/services and their mode of delivery.

Example: Such provisions can be found under 'Domestic Electronic Transactions Frameworks':

- giving or promoting equal treatment of electronic transactions or contracts, or
- establishing that laws should not discriminate arbitrarily between different forms of technology.

0: no

1: yes (soft); 2: yes (hard)

[7] In this section, provisions in the e-commerce or digital trade chapters are coded. However, it does not imply that e-commerce and digital trade are synonyms or relate to a specific definition.

[8] José-Antonio Monteiro and Robert Teh, 'Provisions on Electronic Commerce in Regional Trade Agreements', WTO Staff Working Paper ERSD-2017-11, https://www.econstor.eu/handle/10419/163426.

1.1.4. [ec_wto] Does the agreement mention the applicability of WTO rules to e-commerce?

Explanation: Coded if there is an explicit reference to the applicability of WTO rules on e-commerce or relevant WTO provisions.

0: no

1: yes (soft); 2: yes (hard)

1.1.5. [ec_transparency] Does the agreement include provisions on transparency pertaining to e-commerce/digital trade?

Explanation: Provisions on exchange of information, legislation, and regulations are also considered in transparency provisions.

0: no

1: yes (soft); 2: yes (hard)

1.1.6. [ec_self_reg] Does the agreement include provisions encouraging the private sector to adopt their own regulations on e-commerce/digital trade?

Explanation: These provisions include those that state that each Party shall encourage the private sector to self-regulate. This may explicitly include the adoption of private-sector codes of conduct, model contracts, guidelines, and enforcement mechanisms, with a view to facilitating e-commerce /digital trade.

0: no

1: yes (soft); 2: yes (hard)

1.1.7 [ec_promotion_facilitation] Does the agreement include provisions that recognise the importance of promoting or facilitating e-commerce/digital trade?

Explanation: These provisions could have several formulations, including:

- foster interoperability, innovation and competition;
- assist the timeliness and reduction of transaction costs;
- e-commerce policies are flexible and take account of developments in a rapidly changing technology environment; or
- promote the development of e-commerce.

0: no

1: yes (soft); 2: yes (hard)

1.2. Market access

1.2.1. [ec_nt] Does the agreement provide for national treatment (NT) in e-commerce/digital trade?

Explanation: Coded if there is a specific clause on NT for digital products or in the context of e-commerce provisions, either as a standalone provision or as part of a provision on the non-discriminatory treatment of digital products. NT means that Parties should give treatment no less favourable to other Parties than they accord to domestic producers/service suppliers.

NT for services (as found in the trade in services chapter) or for investment (as found in the investment chapter) is not relevant for this question.

0: no

1: yes (soft); 2: yes (hard)

1.2.2. [ec_mfn] Does the agreement provide for most-favoured-nation (MFN) treatment in e-commerce/digital trade?

Explanation: Coded if there is a specific clause on MFN treatment for digital products or in the context of e-commerce provisions, either as a standalone provision or as part of a provision on the non-discriminatory treatment of digital products. MFN treatment means that Parties should give treatment no less favourable to other Parties than they accord to non-Parties.

MFN treatment for services (as found in the trade in services chapter) of for investment (as found in the investment chapter) is not relevant for this question.

0: no

1: yes (soft); 2: yes (hard)

1.2.3. [ec_services_ma_nt] Are there services (and investment) market access (MA) and NT commitments for the sectors needed for e-commerce/digital trade?

Explanation: This provision has been coded for all agreements until June 2022. Before then, it was coded if the services and investment chapters have MA **and** NT commitments in the following sectors: **computer and related services (CRS) (1.2.3.1), telecommunications (1.2.3.2) and financial services (1.2.3.3)**. The answer does not depend on exceptions and limitations. As long as there are commitments in some of the sub-sectors (for both cross-border trade and mode 3 or investment) for these three categories of services, the code is 1 or 2 accordingly. Right of establishment is also considered as part of MA.

The code is 0 if one of these sectors is fully excluded (for example financial services totally excluded in the agreement or computer services fully unbound both for MA and NT).

Example: Unless otherwise specified in its List of Reservations, each Party shall not adopt or maintain measures that unduly prohibit or restrict e-commerce.

Other examples are found in services schedules. Each schedule has 4 columns:

- Column 1: Description of committed sector or sub-sector
- Column 2: MA limitations
- Column 3: NT limitations
- Column 4: Additional commitments

For each inscribed sector, the Parties undertake MA and NT commitments per mode of supply. Restrictions or limitations inscribed in the MA column also apply to NT.

Levels of commitments:

- ‘none’: no limitations - meaning full commitment
- ‘unbound’: no commitment, reserves right to adopt or maintain any measures inconsistent with MA or NT

- 'Limitation': specifies measure(s) departing from full MA or NT that may be maintained or adopted

0: no

1: yes (soft); 2: yes (hard)

1.3. Relationship to other chapters

1.3.1. [ec_inconsistency_rules] Does the e-commerce/digital trade chapter indicate which provisions prevail in case of conflict of laws?

Explanation: Services and investment chapters also deal with e-commerce to the extent that they cover products that are digital or can be delivered electronically. Here we code if the agreement includes provisions indicating which chapter prevails in case of conflict with other chapters or provisions.

0: no

1: yes (soft); 2: yes (hard)

1.3.2. [ec_service_investment_prov] Does the e-commerce/digital trade chapter refer to provisions in other chapters of the agreement, such as services and investment chapters?

Explanation: Services and investment chapters also deal with e-commerce to the extent that they cover products that are digital or can be delivered electronically, usually under the title 'Electronic Supply of Services'. Sometimes these provisions also refer to government procurement or financial services chapters. The applicability of other chapters also implies the applicability of their exceptions and non-conforming measures.

This provision can also be formulated as 'no obligation to allow electronic delivery' except in accordance with the obligations of a Party in other chapters of the Agreement.

Coded if there is a specific provision in the e-commerce chapter dealing with the interaction between e-commerce provisions and other disciplines such as services and investment.

0: no

1: yes (soft); 2: yes (hard)

1.3.3. [ec_together_services_chapter] Is the e-commerce/digital trade chapter together with the services chapter?

0: no

1: yes

1.3.4. [ec_ip] Does the agreement include provisions that reconcile e-commerce/digital trade with intellectual property (IP)?

Explanation: It could include commitments 'not to impair' IP rights, or the 'importance of protecting' IP rights, among others. It should explicitly mention e-commerce, general statements on effective protection of IP rights are coded 0.

0: no

1: yes (soft); 2: yes (hard)

1.4. Custom duties

1.4.1. [ec_non_imposition_duty] Is there a provision on the non-imposition of custom duties on electronic transmissions?

Explanation: Coded if there is a provision stating a permanent moratorium on the imposition of customs duties on electronic transmissions, meaning that no customs duties must be imposed on electronic transmissions and digital products or if there is a recognition of the current practice of not imposing customs duties.

Sometimes, there is an extra distinction between a digital product fixed in a carrier medium, or a digital product transmitted electronically, but both are generally considered duty-free.

0: no

1: yes (soft); 2: yes (hard)

1.4.2. [ec_duty_custom_value] Does the agreement include a provision on the custom value of carrier mediums?

Explanation: Such provisions usually state that Parties shall determine the customs value of an imported carrier medium bearing a digital product of the other Party based on the cost or value of the carrier medium alone, without regard to the cost or value of the digital product stored on the carrier medium.

0: no

1: yes (soft); 2: yes (hard)

1.5. Electronic transaction framework

1.5.1. [ec_barriers] Does the agreement include a provision on electronic transactions framework?

Explanation: Coded if Parties commit to avoid any unnecessary regulatory burden on e-commerce, or that e-commerce must not be more restricted than other trade. Best endeavour clauses or the recognition of the importance of avoiding unnecessary barriers are coded as 1.

The provision can also include an explicit reference to domestic regulation, principle of no prior authorisation and provisions related to the conclusion of contracts by electronic means.

0: no

1: yes (soft); 2: yes (hard)

1.5.2 [ec_consistency_UNCITRAL] Does the agreement include a provision on the consistency of the domestic legal framework with the UNCITRAL Model Law on Electronic Commerce 1996?

Explanation: Only agreements that have an explicit reference to UNCITRAL Model Law are coded. Example: 'Each Party shall adopt or maintain measures regulating electronic commerce taking into account the UNCITRAL Model Law on Electronic Commerce and, as appropriate, other international standards, guidelines and recommendations'.

0: no

1: yes (soft); 2: yes (hard)

1.5.3 [ec_consistency_UN_ECC] Does the agreement include a provision on the consistency of the domestic legal framework with the United Nations Convention on the Use of Electronic Communications in International Contracts (the 'Electronic Communications Convention', or UNECC)?

Explanation: Only agreements that have an explicit reference to UNECC are coded.

0: no

1: yes (soft); 2: yes (hard)

1.5.4. [ec_e_invoicing] Does the agreement contain provisions on e-invoicing?

Explanation: Electronic invoicing or e-invoicing means the automated creation, exchange and processing of request for payments between suppliers and buyers using a structured digital format. Keywords that can be used to identify e-invoicing provisions are electronic invoicing and e-invoicing.

0: no

1: yes (soft); 2: yes (hard)

1.5.5. [ec_facilitation of e-payments] Does the agreement contain provisions on the facilitation of e-payments?

Explanation: Electronic payments or e-payments means the transfer of a monetary amount between a payer and a payee, which is made through electronic means. Keywords that can be used to identify e-payments provisions are: electronic payments, e-payments, payments.

0: no

1: yes (soft); 2: yes (hard)

1.5.6. [ec_signatures_certificates] Does the agreement include provisions on electronic authentication, electronic signatures or digital certificates?

Explanation: Typically, these provisions allow authentication technologies and mutual recognition of digital certificates and signatures.

Example: Article 15.6: Authentication (US-Peru FTA)

> [n]o Party may adopt or maintain legislation for electronic authentication that would: (a) prohibit Parties to an electronic transaction from mutually determining the appropriate authentication methods for that transaction; or (b) prevent Parties from having the opportunity to establish before judicial or administrative authorities that their electronic transaction complies with any legal requirements with respect to authentication.

0: no

1: yes (soft); 2: yes (hard)

1.6. Digital trade facilitation

1.6.1. [ec_paperless_trade] Does the agreement include a provision on paperless trading?

Explanation: Typically, these provisions include commitments to make trade administration documents available to the public in an electronic format and/or to accept trade administration documents submitted electronically as the legal equivalent of the paper version of those documents. Paperless trading could be between states, between a state and a private entity, or between private entities. Provisions on paperless trade can be found in or outside e-commerce/digital trade chapters. Coded here regardless of where such a provision is found.

0: no

1: yes (soft); 2: yes (hard)

1.6.2. [ec_electronic_transfer_records] Does the agreement contain a provision on electronic transferable records?

Explanation: Electronic Transferable Records means an electronic record that satisfies the requirements set out in Article 10 of the UNCITRAL Model Law on Electronic Transferable Records (2017). Keywords that can be used to identify provisions on electronic transferrable records are: transferable records and UNCITRAL Model Law on Electronic Transferable Records. This provision can be found under the 'domestic electronic transaction framework'.

0: no

1: yes (soft); 2: yes (hard)

1.6.3. [ec_custom_automat] Does the agreement contain a provision on customs procedures automatisation or custom data exchange systems?

Explanation: Provisions on customs procedures automatisation are intended to facilitate logistics, inter alia, by promoting automatisation, allowing the submission of documentation in electronic format, or by creating data exchange systems. This provision does not refer solely to paperless trade, coded in 1.6.1. [ec_paperless_trade]. Instead, it requires commitments on automatisation, electronic exchange of information, rules on Internet of Things regarding trade facilitation, or even rules on robotics or big data associated to trade in goods and its facilitation. These types of provisions can be found in e-commerce and digital trade chapters but also in the chapter of Customs administration and trade facilitation. Keywords that can be used are: customs procedures, data exchange systems.

0: no

1: yes (soft); 2: yes (hard)

1.7. Consumer protection

1.7.1. [ec_consumer_protection] Does the agreement include provisions on consumer protection?

Explanation: This typically includes provisions for the protection of consumers using e-commerce, or consumer confidence in e-commerce, prevention of deceptive and fraudulent practices, and cooperation activities, or recognising the importance of cooperation between the respective national consumer protection agencies.

0: no

1: yes (soft); 2: yes (hard)

1.7.2. [ec_spam] Does the agreement include provisions on Unsolicited Commercial Electronic Messages?

Explanation: Measures on Unsolicited Commercial Electronic Messages, or SPAM, may: (a) require suppliers of unsolicited commercial electronic messages to facilitate the ability of recipients to prevent ongoing reception of those messages; (b) require the consent, as specified according to the laws and regulations of each Party, of recipients to receive commercial electronic messages; or (c) otherwise provide for the minimisation of unsolicited commercial electronic messages.

0: no

1: yes (soft); 2: yes (hard)

1.8. Access to and use of the internet

1.8.1. [ec_internet_principles] Does the agreement include Principles on Access to and Use of the Internet for e-commerce/digital trade?

Explanation: An agreement can include a provision establishing 'Principles on Access to and Use of the Internet for Electronic Commerce'. An example of this provision can be found in Article 14.10 of the CPTPP, which includes the following principles: (a) access and use services and applications of a consumer's choice available on the Internet, subject to reasonable network management; (b) connect the end-user devices of a consumer's choice to the Internet, provided that such devices do not harm the network; and (c) access information on the network management practices of a consumer's Internet access service supplier. This provision can be linked to domestic regulation on net neutrality and may also be found in the telecommunications chapter.

0: no

1: yes (soft); 2: yes (hard)

1.8.2. [ec_net_neutral] Does the agreement include provisions on net neutrality?

Explanation: Note that 'net neutrality' is not the same as 'technological neutrality' or 'competitive neutrality'. This is an explicit commitment to net neutrality, which in principle bans discrimination of content, services, providers and users over the internet. Coded no matter in which chapter (e.g., e-commerce, digital trade, telecommunication, IP) these provisions are located.

Example: Such a provision can be found in the 2018 Brazil-Chile FTA: '[i]n order to guarantee a free and competitive market for Internet content, the Parties undertake to study mechanisms to make effective the principle of net neutrality in their internal legislation, in order to prevent certain contents or applications be discriminated in favour of others'.

0: no

1: yes (soft); 2: yes (hard)

1.8.3. [ec_internet_intercon_charge] Does the agreement include provisions on Internet Interconnection Charge Sharing?

Explanation: These provisions usually mention that the Parties recognise that a supplier seeking international internet connection should be able to negotiate with suppliers of another Party on a commercial basis, on issues that may include compensation for the establishment, operation, and maintenance of facilities of the respective suppliers.

0: no

1: yes (soft); 2: yes (hard)

1.8.4. [ec_inter_computer_services] Does the agreement include a provision on interactive computer services?

Explanation: Such provisions usually refer to measures that treat a supplier or user of an interactive computer service as an information content provider in determining liability for harms related to information stored, processed, transmitted, distributed, or made available by the service. Such norms reflect the 'safe harbour' introduced in several countries, such as under Section 230 of the US Communications Decency Act.

0: no

1: yes (soft); 2: yes (hard)

1.9. Source code, algorithms, and encryption

1.9.1. [ec_source_code] Does the agreement include prohibitions to require the transfer of, or access to, source code of software owned by a person, as a condition for the import, distribution, sale or use of such software?

Explanation: Provisions on source code access are relatively new and meant to secure that no access to proprietary code is granted as a condition for doing business in the country. Such provisions can state that '[n]o Party shall require the transfer of, or access to, source code of software owned by a person of another Party, as a condition for the import, distribution, sale or use of such software, or of products containing such software, in its territory'. (e.g., CPTPP Article 14.17).

0: no

1: yes (soft); 2: yes (hard)

1.9.2. [ec_algorithm] Does the provision on source code make a separate reference to transfer of, or access to, an algorithm?

Explanation: The provisions on source code increasingly include algorithms, which makes them clearer and potentially expands their scope. An algorithm means a defined sequence of steps, taken to solve a problem or obtain a result. To code 1 under this provision, there should be an express refence to transfer of, or access to an algorithm under the provision on source code.

0: no

1: yes

1.9.3. [ec_crypto] Does the agreement include provisions on cryptography?

Explanation: Such a provision may state that neither Party shall require a manufacturer or supplier of the ICT good, as a condition of the manufacture, sale, distribution, import, or use of the ICT good, to transfer or provide access to any proprietary information relating to cryptography; partner or otherwise cooperate with a person in the territory of the Party in the development, manufacture, sale, distribution, import, or use of the ICT good; or use or integrate a particular cryptographic algorithm or cipher. Such provisions may be found in the digital trade/e-commerce chapters or in the technical barriers to trade (TBT) parts of an agreement.

0: no

1: yes (soft); 2: yes (hard)

1.9.4. [ec_crypto_access] Does the agreement contain a provision on access to encrypted and/or unencrypted communications?

Explanation: Access to encrypted and/or unencrypted communications is associated with law enforcement. Provisions dealing with this issue are typically exclusions from a general provision on not requiring access to proprietary information relating to cryptography as a condition to manufacture, sale, distribute or import ICT products that use cryptography. Keywords that can be used to identify provisions on access to encrypted or unencrypted communications are: unencrypted communications, law enforcement, cryptography.

0: no

1: yes (soft); 2: yes (hard):

1.10. Cybersecurity

1.10.1. [ec_prov_cybersec] Does the agreement include provisions on cybersecurity?

Explanation: Provisions on cybersecurity are relatively new but their importance is increasing. These are usually formulated as cooperation activities such as: (a) building the capacity of their national entities responsible for computer security incident response; and (b) using existing collaboration mechanisms to cooperate to identify and mitigate malicious intrusions or dissemination of malicious code that affect the electronic networks of the Parties.

0: no

1: yes (soft); 2: yes (hard)

1.11. MSMEs

1.11.1. [ec_prov_SMEs_MSMEs] Does the agreement include provisions for the facilitation of e-commerce/digital trade by small and medium-sized enterprises (SMEs) or micro, small and medium-sized enterprises (MSMEs)?

Explanation: An agreement can include specific provisions for SMEs or MSMEs. Examples can be found in module 10 of the Digital Economy Partnership Agreement (DEPA).

0: no

1: yes (soft); 2: yes (hard)

1.12. Cooperation on ICT

1.12.1. [ec_prov_coop_ICT] Does the agreement include an understanding on provisions about cooperation on ICT, e-commerce/digital trade?

Explanation: Such provisions could be included in the e-commerce chapter as well as in other chapters (e.g., services). Cooperation activities could have been previously coded under separate items (e.g. consumer protection, spam, e-government, etc.), or could include general ones (e.g. cooperation in research and training activities to enhance the development of e-commerce).

0: no

1: yes (soft); 2: yes (hard)

1.12.2. [ec_int_align] Does the agreement include provisions on the participation of the Parties in international fora to promote e-commerce/digital trade?

Explanation: This could be cooperation under bilateral, regional or multilateral fora, or the mention of the international alignment of laws.

0: no

1: yes (soft); 2: yes (hard)

1.12.3 [ec_institutional_arrangement] Does the agreement consider specific institutional arrangements for e-commerce/digital trade, e.g., working group, committees, etc.?

Explanation: This is similar to the previous coded items but includes a specific mention of an institutional arrangement under the treaty.

0: no

1: yes (soft); 2: yes (hard)

1.13. Stakeholder involvement

1.13.1. [ec_sup_ind_dev] Does the agreement include a provision ensuring that measures regulating e-commerce/digital trade support industry-led development? Or the input of the industry as stakeholders? Or encourages business exchanges and cooperative activities?

Explanation: An agreement can include provisions or sub-provisions whereby business exchanges, cooperative activities or joint activities are encouraged. For an example, see China-Korea FTA, Art. 13.7.3.

0: no

1: yes (soft); 2: yes (hard)

1.13.2. [ec_participation_stak] Does the agreement include a provision on facilitation of input by other interested persons in the development of e-commerce/digital trade?

Explanation: Coded if the treaty refers to stakeholders that are not business, like civil society.

0: no

1: yes (soft); 2: yes (hard)

1.14. Dispute settlement

1.14.1 [ec_ds_yes] Does the dispute settlement mechanism apply to e-commerce/digital trade provisions and in particular the core provisions on non-discrimination and customs duties?

0: no

1: yes

1.14.2 [ec_ds_no] Does the dispute settlement mechanism explicitly exclude e-commerce/digital trade provisions or chapters?

0: no

1: yes

1.15. Size of the e-commerce/digital trade chapter

Explanation: Indicates the size of the e- commerce/digital trade chapter. But not where the chapters mix services and e-commerce/digital trade. Only digital trade/e-commerce provisions are counted.

1.15.1. [ec_number_articles]: Number of articles.

Explanation: Complete articles that refer to e-commerce in a specific e-commerce/digital trade chapter or annex are counted.

1.15.2. [ec_number_words]: Number of words.

Explanation: The number of words of complete articles that refer to e-commerce in a specific e-commerce/digital trade chapter or annex are counted.

1.16. Diffusion of models

Explanation: This item was useful to trace diffusion of the US versus the EU model of e-commerce regulation, starting from the US-Jordan FTA, signed in 2000. This was the first US FTA to include e-commerce provisions. The item was coded for all agreements until 2020. It was discontinued thereafter as the new set of PTAs and DEAs, as well as new EU PTAs, converge on various aspects and the models are not as clear-cut.

1.16.1. [ec_US_model] Is the agreement similar to US PTAs with e-commerce chapter?

0: no

1: yes (soft); 2: yes (hard)

1.16.2. [ec_EU_model] Is the agreement similar to EU PTAs with e-commerce chapter?

0: no

1: yes (soft); 2: yes (hard)

1.16.3. [ec_other_model] Is the agreement similar to other PTAs with e-commerce chapter, but not to the US or EU models?

0: no

1: yes (soft); 2: yes (hard)

2. Data-dedicated provisions

2.1. Data protection

2.1.1. [data_prot_prov] Does the agreement include provisions on data protection?

Explanation: These provisions typically consist of protection of personal data/personal information or data privacy of any kind.

0: no

1: yes (soft); 2: yes (hard)

2.1.2. [data_prot_no_qualifications] Does the agreement include provisions on data protection with no qualifications?

Explanation: This provision has been coded for all agreements until 2022. Thereafter it has been discontinued. Until 2021, the coding for this provision included protection of personal data or data privacy, but the way this data is protected could vary considerably, recognising that the Parties may take different legal approaches to protecting personal information.

0: no

1: yes (soft); 2: yes (hard)

2.1.3 [data_prot_domestic_law] Does the agreement include provisions on data protection according to domestic law?

Explanation: An agreement may refer to the adoption or maintenance of a legal framework that provides for the protection of the personal information of the users of digital trade according to the domestic law of the contracting Parties.

0: no

1: yes (soft); 2: yes (hard)

2.1.4. [data_prot_princ] Does the agreement include provisions on data protection recognising certain key principles?

Explanation: These principles may include: limitation on collection, choice, data quality, purpose specification, use limitation, security safeguards, transparency, individual participation, accountability, non-discrimination and compatibility.

0: no

1: yes (soft); 2: yes (hard)

2.1.5. [data_prot_int_standards] Does the agreement include provisions on data protection recognising certain international standards?

Explanation: Treaties may refer to the adoption or maintenance of a legal framework that provides for the protection of the personal information of the users of digital trade following international

standards. The reference to international standards may be explicit or simply state that the protection should take into account existing international standards (without specifying which).

0: no

1: yes (soft); 2: yes (hard)

2.1.6. [data_prot_least_rest_meas] Does the agreement include provisions on data protection as a least restrictive measure?

Explanation: This provision has been coded in this item for all agreements until June 2022. The treaty recognises the importance of ensuring compliance with measures to protect personal information and ensuring that any restrictions on cross-border flows of personal information are necessary and proportionate to the risks presented. Also coded is the application 'mutatis mutandis' of Article XX GATT and Article XIV GATS.

0: no

1: yes (soft); 2: yes (hard)

2.2. Data flows in e-commerce/digital trade chapters

2.2.1. [data_free_flow_prov] Does the e-commerce/digital trade chapter include a provision on the free movement of data?

Explanation: These provisions have different denominations 'Cross-Border Transfer of Information by Electronic Means', 'Cross-Border Information Flows' and allow the cross-border transfer of information by electronic means, including personal information, when this activity is for the conduct of the business of a covered person. They could also consider to 'maintain cross-border flows of information as an essential element in fostering a vibrant environment for electronic commerce'; or recognise 'the importance of the free flow of information in facilitating trade, and acknowledging the importance of protecting personal information, the Parties shall endeavor to refrain from imposing or maintaining unnecessary barriers to electronic information flows across borders'.

These provisions could also recognise that each Party may have its own regulatory requirements concerning this transfer of information, and allow exceptions to achieve a legitimate public policy objective, provided that the measure does not impose restrictions greater than are required to achieve the objective, and are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised trade restriction. The specific data-related exceptions have been coded under items 4.4, 4.5, and 4.6.

0: no

1: yes (soft); 2: yes (hard)

2.2.2. [data_flow_mech_barrier] Does the e-commerce/digital trade chapter contain a mechanism to address barriers to data flows?

Explanation: Coded if there is a mechanism dealing specifically with data flows issues such as the creation of a committee, a consultation mechanism or rules within the agreement addressing specific barriers to data flows.

0: no

1: yes (soft); 2: yes (hard)

2.2.3 [data_flow_proh_loc] Does the e-commerce/digital trade chapter contain a provision banning or limiting data localisation requirements?

Explanation: This provision can be aimed at limiting or prohibiting the use of data localisation requirements. The provision should be specific (i.e., for all types of data flows) and not a commitment that could cover such a barrier only in the case of trade in services or investment.

0: no

1: yes (soft); 2: yes (hard)

2.2.4. [data_flow_fut_agreement] Does the agreement contain a provision on a future discussion/provisions or agreement on the free flow of data?

Explanation: This provision opens the possibility to discuss a provision or agreement on cross-border data flows in the future. A timeframe for such discussion or reassessment can be included or not. Keywords that can be used to identify a provision on a future discussion/provision on the free flow of data are: future agreement on free flow of data, cross-border data flows, reassess, review.

0: no

1: yes (soft); 2: yes (hard)

2.3. Data flows outside e-commerce/digital trade chapters

2.3.1 [data_flow_free_mov_outside] Does the agreement include a provision on the free movement of data outside the dedicated e-commerce/digital trade chapter?

Explanation: This provision may provide that cross-border data flows are free between the Parties (with possible exceptions). Such a principle goes beyond traditional services market access commitments that would only cover data corresponding to the supply of services. The principle can be included in the e-commerce/digital trade chapter but should be broader than e-commerce to cover in particular private information exchanged by companies independently of commercial transactions.

0: no

1: yes (soft); 2: yes (hard)

2.3.2 [data_flow_mech_barr_outside] Does the agreement include a mechanism to address barriers to data flows outside the dedicated e-commerce/digital trade chapter?

Explanation: Coded if there is a mechanism dealing specifically with data flows issues, such as the creation of a committee, a consultation mechanism or rules within the agreement limiting specific barriers to data flows, outside the e-commerce/digital trade chapter.

0: no

1: yes (soft); 2: yes (hard)

2.3.3. [data_flow_limit_prohibit_localisation_requirements] Does the agreement include a provision banning or limiting data localisation requirements outside the dedicated e-commerce/digital trade chapter?

Explanation: Coded 'yes' if the agreement has provisions aimed at limiting or prohibiting the use of data localisation requirements outside the dedicated e-commerce/digital trade chapter. The provision should be specific (i.e. for all types of data flows) and not a commitment that could cover such a barrier in the case of trade in services or investment.

0: no

1: yes (soft); 2: yes (hard)

2.3.4. [data_flow_fut_agreement_outside] Does the agreement contain a provision on a future discussion/provisions or agreement on the free flow of data outside the dedicated e-commerce/digital trade chapter?

Explanation: This provision opens the possibility to discuss a provision or agreement on cross-border data flows outside the dedicated e-commerce/digital trade chapter in the future. A timeframe for such discussion or reassessment can be included or not. Keywords that can be used to identify a provision on a future discussion/ provision on the free flow of data are: future, free flow of data, cross-border data flows, reassess.

0: no

1: yes (soft); 2: yes (hard)

2.4. Reference to data flows or data transmission in service chapters/sections

2.4.1. [data_flow_telco] Is there any reference to the transfer of data or data flows in the telecommunications chapter/provisions?

Explanation: Is there any reference to the transfer of data or data flows in the telecommunications chapter/provisions, especially regarding cross-border supply (GATS Mode 1), and consumption abroad (GATS Mode 2)? Investment chapters or provisions are not coded.

0: no

1: yes (soft); 2: yes (hard)

2.4.2. [data_flow_CRS] Is there any reference to the transfer of data or data flows in computer and related services (CRS) chapter/provisions?

Explanation: Is there any reference to the transfer of data or data flows in the computer and related services (CRS) chapter/provisions, especially regarding cross-border supply (GATS Mode 1), and consumption abroad (GATS Mode 2)? Investment chapters or provisions are not coded.

0: no

1: yes (soft); 2: yes (hard)

2.4.3. [data_flow_audiovisual] Is there any reference to the transfer of data or data flows in audiovisual chapter/provisions?

Explanation: Is there any reference to the transfer of data or data flows in the audiovisual chapter/provisions, especially regarding cross-border supply (GATS Mode 1), and consumption abroad (GATS Mode 2)? Investment chapters or provisions are not coded.

0: no

1: yes (soft); 2: yes (hard)

2.4.4 [data_flow_fin_ser] Is there any reference to the transfer of data or data flows in the financial services chapter/provisions?

Explanation: Is there any reference to the transfer of data or data flows in the financial services chapter/provisions, especially regarding cross-border supply (GATS Mode 1), and consumption abroad (GATS Mode 2)? Investment chapters or provisions are not coded.

0: no

1: yes (soft); 2: yes (hard)

2.5. Data and electronic government

2.5.1. [data_egov_prov] Does the agreement include provisions on e-government?

Explanation: E-government provisions typically seek to reduce compliance costs and enhance the general level of transparency of government regulations; deliver efficiency in administration (for example, paperless trading) and reduce technical barriers to trade. These provisions include requirements for the government to publish online all laws, regulations, and requirements that affect e-commerce/digital trade (see Jordan-US FTA Article 7(2)).

0: no

1: yes (soft); 2: yes (hard)

2.5.2 [data_egov_open_data] Does the agreement include a provision on open government data or open data?

Explanation: A provision on open government data or open data usually recognizes that access and use of government information fosters economic and social development. Keywords that can be used to identify open government data provisions are: open government data, open data, government information.

0: no

1: yes (soft); 2: yes (hard)

2.6. Data innovation

2.6.1. [data_innovation] Does the agreement contain a provision referring to data innovation, allowing data to be shared and reused?

Explanation: This provision would recognize that data-sharing enables data innovation. In addition, this provision may encourage frameworks to enhance data sharing and reuse, including through the use of

data regulatory sandboxes. Keywords that can be used to identify provisions on data innovation are: innovation, data sharing, data regulatory sandboxes.

0: no

1: yes (soft); 2: yes (hard)

3. New data economy issues[9]

3.1. [new_data_issues _comp_policy] Does the agreement contain a provision on competition policy related to the digital economy?

Explanation: This provision recognises the need to cooperate on competition policies to address the challenges arising from the digital economy/digital markets. Keywords that can be used to identify provisions on competition policy related to the digital economy are: competition policies, competition in digital markets, competitive environment, anticompetitive practices. Note that this provision may refer to network management rules or net neutrality, coded under item 1.8.2 [ec_net_neutral].

0: no

1: yes (soft); 2: yes (hard)

3.2. [new_ data_ issues_dig_identities] Does the agreement contain a provision on digital identities?

Explanation: This provision seeks to promote the interoperability of frameworks or standards regarding digital identity domestic programmes. Keywords that can be used to identify provisions on digital identities are: digital identities/identity.

0: no

1: yes (soft); 2: yes (hard)

3.3. [new_ data_issues_dig_inclusion] Does the agreement contain a provision on digital inclusion?

Explanation: This provision may recognise/acknowledge the importance of digital inclusion, which can be defined as the participation in the digital economy and benefiting from it. Keywords that can be used to identify digital inclusion provisions are: inclusion, digital.

0: no

1: yes (soft); 2: yes (hard)

3.4. [new_data_ issues_fintech] Does the agreement contain a provision on Financial Technology (Fintech) cooperation?

Explanation: This provision may promote, among others, cooperation on Financial Technology or Fintech. Keywords that can be used to identify provisions on Fintech are: Financial Technology, Fintech.

0: no

1: yes (soft); 2: yes (hard)

3.5. [new_data_issues_ai] Does the agreement contain a provision on Artificial Intelligence (AI)?

Explanation: This provision may recognize the need to promote internationally aligned frameworks on AI, which could include ethical and governance frameworks. Keywords that can be used to identify provisions on AI are: Artificial Intelligence, AI, AI Governance Frameworks.

[9] Coded for agreements signed after 2020.

0: no

1: yes (soft); 2: yes (hard)

3.6. [new_data_issues_gov_proc]: Does the agreement include an understanding or provisions allowing government procurement including by use of electronic means?

Explanation: This is coded regardless the procurement is of digital products (explicitly mentioned) or the procurement via electronic means (digital procurement, electronic auctions). Keywords that can be used in provisions on the digitisation of government procurement are: government procurement, digitisation, digitalisation, use of electronic means.

0: no

1: yes (soft); 2: yes (hard)

3.7. [new_data_issues_standard_mut_recog]: Does the agreement include an understanding or specific provisions on standardisation, interoperability, or mutual recognition regarding digital means?

Explanation: This provision may promote or recognise the need to use technology systems or software 'that are generally available and interoperable with other generally available information technology systems and software' (e.g., EFTA-Georgia FTA Article 8.5(2)(a)). Also coded are provisions that promote or establish the mutual recognition of digital means (e.g., New Zealand-UK FTA Article 15.7(4) and Singapore-UK DEA Article 8.61(4) (Electronic Authentication); Article 8.61-L(1)(d) (Cyber Security); and Article 8.61-S (1)(d) (Digital Identities)).

0: no

1: yes (soft); 2: yes (hard)

3.8. [new_data_ issues_lawtech] Does the agreement contain a provision on Legal Technology (Lawtech) cooperation?

Explanation: This provision may promote, among others, cooperation on Legal Technology or Lawtech. Keywords that can be used to identify provisions on Lawtech are: Legal Technology, Lawtech.

0: no

1: yes (soft); 2: yes (hard)

4. Cross-cutting issues to e-commerce, data-dedicated, and new data economy provisions

4.1. [cross_cutting_gen_exceptions_explicit] Does the agreement make general exceptions explicitly applicable to e-commerce/digital trade and data?

Explanation: Coded here if these provisions are found inside or outside the e-commerce/digital trade chapter (e.g., chapter on exceptions and general provisions). The key aspect is the explicit reference to e-commerce/digital trade and data or the specific chapter where they are regulated. Also coded is the application 'mutatis mutandis' of Article XX of GATT 1994 and/or Article XIV of GATS. Notice that there could be some overlap with item 4.2 [cross_cutting_gen_exceptions], in which case, it is coded under both items.

0: no

1: yes (soft); 2: yes (hard)

4.2. [cross_cutting_gen_exceptions] Does the agreement have exceptions and other flexibilities with reference to data flows or e-commerce, outside the e-commerce/digital trade chapter?

Explanation: Coded are general exceptions applicable to e-commerce/digital trade or data only outside the e-commerce/digital trade chapter. Such exceptions may refer to privacy or security issues, and government procurement and are coded only if are related to data or e-commerce/digital trade.

0: no

1: yes (soft); 2: yes (hard)

4.3. [cross_cutting_sec_exceptions] Does the agreement include specific security exceptions? (national security or similar)

Explanation: Included are national security exceptions: (i) in an e-commerce/digital trade chapter; (ii) as part of a general chapter or section on exceptions explicitly applicable to an e-commerce/digital trade chapter; and (iii) as part of a general chapter or section on exceptions implicitly applicable to an e-commerce/digital trade chapter or provisions (meaning, when the agreement includes provisions on data privacy or free transfer of data flows). Also coded are the application 'mutatis mutandis' of Article XXI GATT and Article XIV *bis* GATS.

0: no

1: yes (soft); 2: yes (hard)

4.4. [cross_cutting_exclusion_measure] Does the agreement include exclusions of measures related to e-commerce/digital trade?

Explanation: Coded if the agreement excludes specific measures related to the e-commerce/digital trade chapter, otherwise coded 0. This entry is to be read jointly with 4.7.2, 4.7.3, and 4.7.4.

Examples of exclusions of measures include:

- National Treatment does not apply to: (a) subsidies or grants that a Party provides to a service or service supplier, including government-supported loans, guarantees, and insurance; or (b) services supplied in the exercise of governmental authority.

- This Article does not apply to measures affecting the electronic transmission of a series of text, video, images, sound recordings, and other products scheduled by a content provider for aural and/or visual reception, and for which the content consumer has no choice over the scheduling of the series.
- A Party may require that, for a particular category of transactions, the method of authentication meet certain performance standards or be certified by an authority accredited in accordance with the Party's law, provided the requirement:(a) serves a legitimate governmental objective; and (b) is substantially related to achieving that objective.

0: no

1: yes

4.5. [cross_cutting_excl_tax] Does the agreement specifically exclude from the e-commerce/digital trade chapter internal taxes?

Explanation: Such a provision would link to the domestic tax regime. Typical formulation is '…shall not preclude a Party from imposing internal taxes, fees or other charges on content transmitted electronically, provided that such taxes, fees or charges are imposed in a manner consistent with this Agreement'. It is often found together with the provision on custom duties moratorium for electronic transmissions/digital products.

0: no

1: yes

4.6. [cross_cutting_excl_digit_financial] Does the agreement specifically exclude from e-commerce/digital trade chapter the digital representation of financial instruments as digital products?

Explanation: This provision expressly excludes from the e-commerce/digital trade provisions or chapter a digitized representation of a financial instrument, including money. Included here would be cryptocurrencies. For example, USMCA Article 19.1 (definitions) expressly excludes from the definition of 'digital product' a 'digitized representation of a financial instrument, including money'.

0: no

1: yes

4.7. [cross_cutting_excl_data_prot_state] Does the agreement specifically exclude from the data protection provisions in the e-commerce/digital trade chapter information held or processed by or on behalf of a Party or measures related to such information?

Explanation: This includes measures related to private data collection or its exchange by the state. For example: 'This Chapter shall not apply to: (…) information held or processed by or on behalf of a Party, or measures related to such information, including measures related to its collection'. (CPTPP Article 14.2(3)(b))

0: no

1: yes

4.8. [cross_cutting_exclusion_sector] Does the agreement exclude specific sectors related from the e-commerce/digital trade chapter?

Explanation: Coded if the agreement has exclusions of specific sectors related to the e-commerce/digital trade chapter. This entry is to be read jointly with 4.12 and 4.13.

0: no

1: yes

4.9. [cross_cutting_excl_audiovisual] Does the agreement specifically exclude the audio-visual services sector from the e-commerce/digital trade chapter?

0: no

1: yes

4.10. [cross_cutting_excl_gov_procur] Does the agreement specifically exclude government procurement from the e-commerce/digital trade chapter?

0: no

1: yes

4.11. [cross_cutting_excl_financial] Does the agreement specifically exclude the financial services sector from the e-commerce/digital trade chapter?

0: no

1: yes

4.12. [cross_cutting_NCMs] Does the agreement include non-conforming measures (NCMs) on e-commerce/digital trade?

Explanation: Coded 'yes' if the agreement has provisions including NCMs in the e-commerce chapter, or mentions the applicability of NCMs found in other chapters on e-commerce; otherwise not coded.

0: no

1: yes (soft); 2: yes (hard)

4.13. [cross_cutting_reservations] Does the agreement include reservations on e-commerce/digital trade?

Explanation: Coded 'yes' if the agreement includes explicit reservations that are not exceptions or NCMs (e.g., Japan-Switzerland Art. 73:1, reservations with regard to non-discriminatory treatment, Art. 78:3 with regard to electronic signatures).

0: no

1: yes (soft); 2: yes (hard)

5. Intellectual property

5.1. [ip_wipo_internet_treat] Does the agreement adhere to the WIPO Internet Treaties?

Explanation: World Intellectual Property Organization ("WIPO") Internet treaties include:

- WIPO Copyright Treaty (1996), and
- WIPO Performances and Phonogram Treaty (1996**).**

Only explicit references are coded. If the Parties affirm their existing rights and obligations under 'multilateral agreements relating to intellectual property to which both Parties are Parties', it is not enough to be coded here.

0: no

1: yes (soft); 2: yes (hard)

5.2. [ip_multi_agree] Does the agreement include a list of multilateral agreements relating to IP?

Explanation: These agreements include:

- Paris Convention of 20 March 1883 for the Protection of Intellectual Property (Stockholm Act, 1967 as amended in 1979);
- Bern Convention of 9 September 1886 for the Protection on Literary and Artistic works (Paris Act, 1971);
- International Convention of 26 October 1961 for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations (Rome Convention);
- Madrid Agreement concerning the International Registration of Marks (Stockholm Act 1967 as amended in 1979);
- Patent co-operation Treaty (Washington, 1970 amended in 1979 and modified in 1984);
- Convention establishing the World Intellectual Property Organization (Stockholm Act, 1967 as amended in 1979);
- Joint Recommendation Concerning Provisions on the Protection of Well-Known Marks (1999), adopted by the Assembly of the Paris Union for the Protection of Industrial Property and the General Assembly of the WIPO;
- International Convention for the Protection of New Varieties of Plants (1991) ("UPOV Convention");
- Protocol Relating to the Madrid Agreement Concerning the International Registration of Marks (1989).

Only explicit references are coded. It is not necessary that ALL agreements listed above are included.

If the Parties affirm their existing rights and obligations under 'multilateral agreements relating to intellectual property to which both Parties are Parties', it is not enough to be coded here.

0: no

1: yes (soft); 2: yes (hard)

5.3. [ip_trips] Does the agreement adhere to the WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)?

Explanation: Only explicit references are coded.

0: no

1: yes (soft); 2: yes (hard)

5.4. [ip_balance] Does the agreement include provisions that balance rights and obligations in general?

Explanation: These are provisions similar or identical to Article 7 of TRIPS. They could be included under the heading of "objectives" of the IP chapter and state that the protection and enforcement of intellectual property should be conducive to a balance of rights and obligations.

0: no

1: yes (soft); 2: yes (hard)

5.5. [ip_copyright] Does the agreement include provisions on the duration of the terms of protection of copyright and related rights beyond TRIPS standards?

Explanation: Coded only If the agreement provides TRIPS-plus protection (e.g., beyond TRIPS' copyright term of protection— the life of the author plus 50 years).

0: no

1: yes (soft); 2: yes (hard)

5.6. [ip_copyright_lim_except] Does the agreement include limitations and exceptions to copyright and related rights?

Explanation: This can be a provision that goes beyond the language of TRIPS and the 1996 WIPO Internet Treaties or reiterates that language. For example: '[e]ach Party shall confine limitations or exceptions to exclusive rights to certain special cases which do not conflict with a normal exploitation of the work and do not unreasonably prejudice the legitimate interests of the right holders' (Jordan-US FTA Article 4.16).

0: no

1: yes (soft); 2: yes (hard)

5.7. [ip_balance_copyright] Does the agreement include provisions that balance the copyright and related rights system?

Explanation: Such provisions may allow for certain exceptions to copyright-holders' rights. For example:

> [e]ach Party shall endeavour to achieve an appropriate balance in its copyright and related rights system, among other things by means of including limitations or exceptions for the digital environment, giving due consideration to legitimate purposes such as, but not limited to: criticism; comment; news reporting; teaching, scholarship, research, and other similar purposes; and facilitating access to published works for persons who are blind, visually impaired or otherwise print disabled' (CPTPP Article 18.66).

Not coded here are provisions that only reiterate Article 7 of TRIPS, which are coded under item 5.4.

0: no

1: yes (soft); 2: yes (hard)

5.8. [ip_balance_TdM] Does the agreement include copyright exceptions for Text and Data Mining or Computational analysis?

Explanation: Coded are copyright exceptions and limitations that explicitly provide for exceptions for Text and Data Mining or computational analysis

0: no

1: yes (soft); 2: yes (hard)

5.9. [ip_tpm] Does the agreement include provisions on technological protection measures (TPMs)?

Explanation: These include effective technological measures to prevent or restrict unauthorised acts in respect to protected IP rights. Such measures would be a direct implementation of the 1996 WIPO Internet Treaties.

0: no

1: yes (soft); 2: yes (hard)

5.10. [ip_irm]: Does the agreement include provisions to protect Information Rights Management (IRM)?

Explanation: IRM is a subset of digital rights management (DRM) technologies that protect sensitive information from unauthorised access. It is also known as Rights Management Information (RMI).

0: no

1: yes (soft); 2: yes (hard)

5.11. [ip_trade_secrets] Does the agreement include provisions on trade secrets, or similar/like protection of undisclosed information/protection of data?

Explanation: Coded here if trade secrets or undisclosed information are explicitly mentioned within a provision. Not coded if the provision only refers to pharmaceuticals or agricultural chemical products test data (in the sense of TRIPS Article 39.3); and private contracts of all sorts. Note that provisions on non-disclosure of information are not always equivalent to the protection of trade secrets.

0: no

1: yes (soft); 2: yes (hard)

5.12. [ip_encry_sat_cab_sign] Does the agreement include provisions protecting encrypted satellite and cable signals?

0: no

1: yes (soft); 2: yes (hard)

5.13. [ip_gov_non_infring_soft] Does the agreement include provisions on the governmental use of (non-infringing) software?

Explanation: Such provisions relate to the use by state agencies of software. Example: 'Each Party shall issue appropriate laws, regulations, or other measures ("measures") providing that all government agencies use only computer software authorised for intended use. Such measures shall actively regulate the acquisition and management of software for government use'. (Jordan-US FTA Article 4.15).

0: no

1: yes (soft); 2: yes (hard)

5.14. [ip_Internet_domain_names] Does the agreement include provisions on Internet Domain names?

Explanation: Such provisions can have an impact on the interface between trademark and domain name protection, as well as on the access to data in domain name registration.

0: no

1: yes (soft); 2: yes (hard)

5.15. [ip_liability_isp] Does the agreement include provisions on the liability of Internet Service Providers (ISP)?

Explanation: This is a generic reference of the ISP liability. These provisions could also be found in the e-commerce/digital trade chapters, as well as in the digital economy agreements.

0: no

1: yes (soft); 2: yes (hard)

5.16. [ip_safe_harbor_isp] Does the agreement include provisions on safe harbours for Internet Services Providers (ISP)?

Explanation: Coded are specific provisions on safe harbours and that relate to limited liability of ISPs (the so-called 'safe harbour' regimes), which may vary and include notice-and-notice, notice-and-takedown, or more recently notice-and-staydown rules. All agreements having a provision on safe harbours must also be coded under 5.15 [IP_liability_ISP].

0: no

1: yes (soft); 2: yes (hard)

5.17. [IP_software_patents]: Does the agreement include provisions on patents for computer implemented inventions (patents for software)?

(Add description)

0: no

1: yes (soft); 2: yes (hard)

5.18. [ip_open_docs] Does the agreement include provisions on transparency, requiring the availability of documents on the internet?

Explanation: Coded are transparency obligations which make explicit that each Party shall endeavor to make available on the Internet its laws, regulations, procedures and administrative rulings of general application concerning the protection and enforcement of IP rights. For example, Article 18.9 TPP. Soft provisions on 'public domain' are not coded. Contact information for domain-name registrants is not coded here but in 5.14 [ip_Internet_domain_names].

0: no

1: yes (soft); 2: yes (hard)

5.19. [ip_copyright_elect_reprod] Does the agreement include provisions on the right of reproduction in electronic form in copyright and related rights?

Explanation: Coded also under the formulation 'any manner or form', as well as explicit.

0: no

1: yes (soft); 2: yes (hard)

5.20. [ip_author_wireless_publication] Does the agreement include provisions on authors' right to publish by wireless means at any time individually chosen?

0: no

1: yes (soft); 2: yes (hard)

5.21. [ip_copyright_elec_storage] Does the agreement include provisions on storage of works of copyright and related rights in electronic form?

Explanation: These provisions include authors' right to authorise or prohibit temporary storage in electronic form of their works. Fixation is also considered part of storage.

0: no

1: yes (soft); 2: yes (hard)

5.22. [ip_data_flows] Does the agreement include provisions on data flows in the IP chapter?

Explanation: Here only explicit provisions on data flows are coded.

0: no

1: yes (soft); 2: yes (hard)

5.23. [ip_digit_econ] Does the agreement include provisions on digital economy/globalisation of technological innovation and trade?

Explanation: This could include provisions on the globalisation of technological innovation and trade, or a similar wording.

0: no

1: yes (soft); 2: yes (hard)

About Trade Law 4.0

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