EU's AI Regulation and International Economic Law: The Complex Impact of the EU AI Act on Global Economic Governance

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Abstract

This paper analyses how the EU's new Artificial Intelligence (AI) Act impacts global economic governance. A prominent feature of the Act is that it is grounded in hard law-style regulation, with an emphasis on a risk-based approach. However, this unilateral measure is difficult to evaluate in the context of current World Trade Organization (WTO) agreements, as the WTO rules are not suited to governing this new emerging technology. In addition, the EU does not promote AI governance in its free trade agreements (FTAs) or its digital economy agreements (DEAs), although other countries are starting to expand the rules related to AI. Despite its reluctance to incorporate AI issues in its FTAs/DEAs, facets of the EU AI Regulation may permeate other countries via the so-called 'Brussels Effect'. It remains to be seen whether this phenomenon happens; if not, global AI governance will continue to be fragmented. Existing AI governance frameworks seem to be too large to come to a consensus on detailed rules regarding AI regulation. Moreover, a coordination mechanism across frameworks is lacking. In this situation, bilateral or plurilateral frameworks, such as FTAs and DEAs, have advantages in that they can encompass detailed discussions and mutual understanding among the participating countries, hopefully with the realisation of sufficiently flexible rules and mechanisms to address rapidly developing technologies. Countries, including those in the EU, are encouraged to promote the incorporation of AI regulation and cooperation within the scope of FTAs/DEAs.

Contents

1. Introduction

With the recent successful developments in artificial intelligence (AI) technologies, there is also an urgent need to regulate these. Although we expect AI technologies to enrich our lives, they also create a certain level of fear. For instance, AI can be used to deceive people through realistic pictures and sounds. This is called the deepfake technique.[1] AI can also be used for criminal investigations, where the system may erroneously identify a person as a suspect. These are some of the ways in which AI may threaten our daily lives. To protect ourselves from improper uses of AI, including those from outside a country, AI regulations are gaining attention worldwide.

To date, there are no internationally established rules regulating AI technologies.[2] In this situation,

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[1] E.g., Mika Westerlund, 'The Emergence of Deepfake Technology: A Review,' (2019) 9(11) Technology Innovation Management Review 39.

[2] As a subset of international rule making, the OECD adopted AI Principles in 2019 (Recommendation of the Council on Artificial Intelligence, last amendment 3 May 20024), with support from the G20 (G20 AI principles) and UNESCO in 2021 (Recommendation on the Ethics of Artificial Intelligence). The Global Partnership on Artificial Intelligence was established as a forum to foster international cooperation (recently announcing an integrated partnership with the OECD). The AI Safety Summit hosted by the UK, as well as China's Global AI Governance Initiative, was supported in 2023. Created under the International Organisation for Standardization (ISO) and the International Electronical Commission (IEC), examples of transnational private rule making include ISO/IEC 420001, 23053 and 23894, and 'Ethically Aligned Design' adopted by the Institute of Electrical and Electronics Engineers (IEEE). The dialogue process in the World Economic Forum (Global Future Council on the Future of Artificial Intelligence and AI Governance Alliance) and the Partnership of AI (PAI) are other examples of private platforms that may contribute to rule making. Recently, the Council of Europe finalised 'The Framework Convention on Artificial Intelligence, Human Rights, Democracy and the Rule of Law'. Recent movements of international AI governance are reviewed in Section 4.

the EU is considered a trailblazer, having introduced full-fledged domestic AI regulations. The European Commission proposed the AI Regulation in 2021,[3] with the political agreement between the European Parliament and the Council of the EU achieved in December 2023,[4] and the definitive text published in July 2024.[5] The EU AI Regulation (or the EU AI Act) is novel in that it comprises comprehensive regulations that apply to various AI technologies across sectors. The Regulation is grounded in a risk-based approach that emphasises the construction of a management system, instead of relying on a command-and-control approach.

Although it is a regional measure, the EU's AI Regulation impacts international relations in various ways.[6] As the EU is a critical market for many entities engaged in international economic activities, the EU's regulation will affect those entities' decisions. It may also have an indirect impact because other countries have now introduced similar regulations. Moreover, AI regulation may be part of an economic security strategy, implying that geopolitical elements will be included in policy decisions.[7] Therefore, the EU's regulation should be evaluated from the perspective of international economic relations beyond a single domestic law. In other words, it must be assessed in the light of international economic law. With this in mind, this paper examines how the EU AI Regulation can be evaluated under the existing international economic law, and, at the same time, looks at how it affects the development of those international legal order. It also addresses how the EU AI Regulation is affecting the regulatory decisions of other countries, and, ultimately, global AI governance. Through these analyses, this paper provides a foundation for predicting future styles of international AI regulation.

The rest of the paper is organised as follows. Section 2 examines the content of the EU AI Regulation (EU AI Act) and identifies features of its regulatory approach. Section 3 assesses how it can be

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[3] European Commission, 'Proposal for Regulation of the European Parliament and the Council Laying Down Harmonised Rules of Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts, 21 April 2021, COM(2021) 206 final.'

[4] European Parliament, 'Artificial Intelligence Act: deal on comprehensive rules for trustworthy AI', 9 December 2023, <https://www.europarl.europa.eu/news/en/press-room/20231206IPR15699/artificial-intelligence-act-deal-on-comprehensive-rules-for-trustworthy-ai> accessed 1 August 2024.

[5] Regulation (EU) 2024/1689 of the European Parliament and of the Council of 13 June 2024 Laying Down Harmonised Rules on Artificial Intelligence and Amending Regulations (EC) No 300/2008, (EU) No 167/2013, (EU) No 168/2013, (EU) 2018/858, (EU) 2018/1139 and (EU) 2019/2144 and Directives 2014/90/EU, (EU) 2016/797 and (EU) 2020/1828 (Artificial Intelligence Act) []2024 OJ L 2024/1689, 2024/1689, 12.7.2024 [hereinafter EU AI Regulation]. The Regulation will be applied from 2 August 2026 except for Chapters I and II (from 2 February 2025), Section 4 of Chapter III, Chapter V, Chapter VII, and Chapter XII (excluding Article 101), Article 78 (from 2 August 2025), and Article 6(1) and the corresponding obligations in this Regulation (from 2 August 2027). Article 113 EU AI Regulation.

[6] Michael Charles Borrelli et al., *Regulating AI in Europe: The EU AI Act's Global Impact, Banking Sector Challenges, and Ethical Framework* (Eliva Press, 2023) 4.

[7] European Commission, 'Joint Communication to the European Parliament and the European Council and the Council on "European Economic Security Strategy,"' 20 June 2023, JOIN(2023) 20 final, p 3.

evaluated in the context of existing international economic law (i.e. World Trade Organization (WTO) law) as well as under the emerging international economic legal order (i.e. free trade agreements (FTAs) and digital economy agreements (DEAs)). Section 4 analyses how the Regulation affects the regulatory choices of other countries and its impact on global AI governance. It also considers the role of international economic law in developing international AI regulation.

2. EU AI Regulation

2.1. Unacceptable Risk

The structure of the EU's AI regulation is often explained through a pyramid diagram (see Figure 1).[8] The EU AI Regulation differentiates its regulatory approach according to the risks contained in individual AI technologies. At the top of the pyramid is 'unacceptable risk'.[9] Under the Regulation, the introduction into the market and use of AI systems that pose a clear threat to the safety, livelihoods, and rights of natural persons is prohibited.[10]
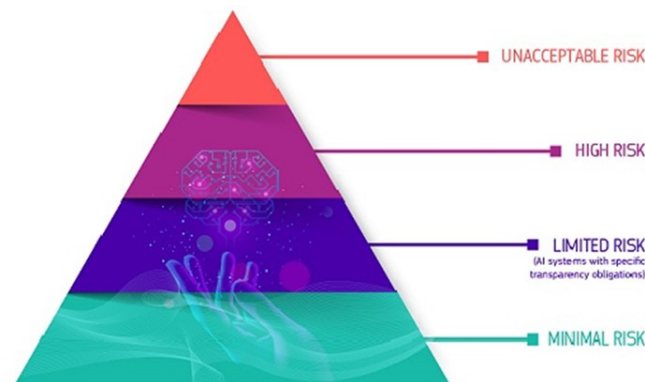

Figure 1. The Regulatory Framework of the EU AI regulation

The prohibited practices are listed in Table 1. Technologies that directly damage a person or exploit a particular group of persons are included in this category. However, some are sceptical about using 'harm' as a requirement for the application of the Regulation, as such 'harm' is difficult to

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[8] European Commission, 'AI Act', 6 March 2024, <https://digital-strategy.ec.europa.eu/en/policies/regulatory-framework-ai> accessed 7 August 2024.

[9] However, this term is not used formally in the final text.

[10] Article 5 EU AI Regulation.

demonstrate.[11]

Table 1. Prohibited AI Practices

Subject	Explanation
Deploying subliminal techniques beyond a person's consciousness or purposefully manipulative or deceptive techniques	Ensure appropriate decisions and thereby protect a person from significant harm
Exploiting any of the vulnerabilities of a person or a specific group of persons	Vulnerabilities could be caused by a person's age, disability, or a specific social or economic situation
Evaluation or classification of natural persons	Avoid unjustifiable detrimental or unfavourable treatment of certain natural persons
Making risk assessments of natural persons for predicting criminal offence	The provision will not be applied when such assessment is already based on objective and verifiable facts directly linked to a criminal activity
Creation or expansion of facial recognition databases	When it is conducted through the untargeted scraping of facial images from the internet or CCTV footage
Inference of emotions of a natural person in the areas of workplace and education institutions	Except where the use of the AI system is intended to be put in place or into the market for medical or safety reasons
Categorisation of natural persons based on biometric data to deduce race, political opinions, religious beliefs, etc.	Does not cover any labelling or filtering of lawfully acquired biometric datasets
Real-time remote biometric identification systems in publicly accessible spaces for law enforcement purpose	Unless such use is strictly necessary for searching for victims of certain criminal offences, protection from terrorist attack, and criminal investigations

2.2. High-Risk AI systems

The second pyramid layer comprises the AI systems with 'high-risk'. According to the Regulation, basically two types of risk are included in this category. The first is legislation-based. The AI system would be considered as a 'high-risk AI system' if (a) the system is intended to be used as a safety component of a product, or the system is itself a product, covered by the Union harmonisation legislation listed in Annex I of the Regulation; and (b) the product whose safety component pursuant to point (a) is the AI system, or the system itself as a product, is required to undergo a third-party

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[11] Michael Veale and Frederik Z. Borgesius, 'Demystifying the Draft EU Artificial Intelligence Act: Analysing the Good, the Bad, and the Unclear Elements of the Proposed Approach,' (2021) 22(4) Computer Law Review International 97, 99. However, the latest text shows some progress in a sense that the phrase 'physical or psychological harm' has been replaced with 'significant harm.' E.g. Article 5(1)(a) EU AI Regulation.

conformity assessment, with a view to the placing on the market or the putting into service of that product pursuant to the Union harmonisation legislation listed in Annex I.[12] The legislation listed in Annex I is presented in Table 2. The list includes directives on machinery, toy safety, recreational crafts and personal watercrafts, and so forth.[13] Therefore, if a certain AI system is used as a safety component of a product covered by such legislation, those products and systems must comply with the obligations under the EU AI Regulation.

Table 2. Legislation in Annex I

Section A	Section B*
Directive on machinery	Regulation on common rules in civil aviation security
Directive on safety of toys	Regulation on the approval and market surveillance of two- or three-wheel vehicles
Directive on recreational craft and personal watercraft	Regulation on the approval and market surveillance of agricultural and forestry vehicles
Directive on lifts	Directive on marine equipment
Directive on equipment for use in potentially explosive atmospheres	Directive on the interoperability of the rail system
Directive on radio equipment	Regulation on the approval and market surveillance motor vehicles and their trailers
Directive relating to pressure equipment	Regulation on type-approval requirements for motor vehicles and their trailers
Regulation on cableway installations	Regulation on common rules in civil aviation and establishing a European Union Aviation Safety Agency
Regulation on personal protective equipment	
Regulation on appliances burning gaseous fuels	
Regulation on medical devices	
Regulation on in vitro diagnostic medical devices	

* At the beginning, the legislation in Section B is only the subject of Articles 6(1), 102 to 109, and 112. Article 57 (AI regulatory sandboxes) applies only insofar as the requirements for high-risk AI systems under the Regulation have been integrated into the Union harmonisation legislation (Article 2(2) EU AI Regulation).

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[12] Article 6(1) EU AI Regulation.
[13] The list of legislation in Section A of Annex I is based on the New Legislative Framework (NLF) approach.

The second type of risk focuses on utilisation purposes.[14] The actual situations in question are referred to in Annex III and listed in Table 3. From the perspective of international economic law, the operation of critical infrastructure and border control management are the most relevant, as they affect transnational transactions. The list in Annex III is not fixed, as the EU Commission is allowed to adopt delegated acts when adding or modifying use-cases of high-risk AI systems in Annex III.[15]

Table 3. AI systems listed in Annex III

Para.	Content
1	Biometrics*
2	Critical infrastructure
3	Education and vocational training
4	Employment, workers management and access to self-employment
5	Access to and enjoyment of essential private services and essential public services and benefits
6	Law enforcement*
7	Migration, asylum and border control management*
8	Administration of justice and democratic processes

* Article 6(2) will be applied when use is permitted under the relevant Union or national law.

When the system is categorised as a 'high-risk' AI system, it must comply with the obligations prescribed in Section 2, Chapter III, of the Regulation (essential requirements).[16] The individual provisions in Section 2 are summarised in Table 4. A key element of the regulations within the EU framework is the establishment of a risk management system.[17] Data governance[18] has also been incorporated as an essential element of high-risk AI system regulation. With regard to data governance, the requirement under the Commission's initial proposal was perceived as imposing too heavy a burden on AI system producers, at it required training, validation, and testing data sets for

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[14] Article 6(2) EU AI Regulation.

[15] Article 7 EU AI Regulation. This assignment of legislative power is one important aspect of the EU's AI regulation. Stefan Larsson et al, 'Between Regulatory Fixity and Flexibility in the EU AI Act' (2024) Lund University 9 <https://portal.research.lu.se/files/171573074/Larsson_Hild_n_S_derlund_Jan_ 2024_Between_Regulatory_Fixity_and_Flexibility_in_the_EU_AI_Act_draft_paper_2024-1-26.pdf>.

[16] Article 8 EU AI Regulation.

[17] Article 9 EU AI Regulation.

[18] Article 10 EU AI Regulation.

high-risk AI systems to be free of errors and complete.[19] The text in the final draft applies a more relaxed approach by adding 'to the best extent possible' in front of 'free of errors and complete'.[20]

Table 4. Requirements for high-risk AI systems

Art.	Contents
9	A risk management system shall be established
10	Subject to proper data governance
11	Drawing up technical documentation
12	Introduction of an automatic recording system of events involving high-risk AI
13	Sufficient transparency in high-risk AI functions
14	Maintenance of human oversight
15	Achievement of an appropriate level of accuracy, robustness, and cybersecurity

In addition, Section 3 of Chapter III of the Regulation separately identifies obligations targeting providers,[21] importers, distributors,[22] and deployers[23] of high-risk AI systems. Provider obligations are listed in Table 5.[24] These obligations align with the requirements for high-risk AI systems stipulated in Section 2 of the same chapter. Although the obligations of importers,[25] distributors,[26] and deployers [27] are stipulated in different provisions, they share the same basic concepts for regulation. In addition, under certain circumstances, any distributor, importer, deployer, or other third-party will be considered a provider of a high-risk AI system and shall be subject to the same

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[19] Gharlotte Siegmann and Markus Anderljung, 'The Brussels Effect and Artificial Intelligence: How EU Regulation Will Impact the Global AI Market' (2022) Centre for the Governance of AI, 17 <https://arxiv.org/pdf/2208.12645> accessed 16 August 2024.

[20] Article 10(3) EU AI Regulation.

[21] According to the Regulation, 'provider' is 'a natural or legal person, public authority, agency or other body that develops an AI system or a general-purpose AI model or that has an AI system or a general-purpose AI model developed and places it on the market or puts the AI system into service under its own name or trademark, whether for payment or free of charge' (Article 3(3) EU AI Regulation).

[22] 'Distributor' is 'a natural or legal person in the supply chain, other than the provider or the importer, that makes an AI system available on the Union market' (Article 3(7) EU AI Regulation).

[23] 'Deployer' is 'a natural or legal person, public authority, agency or other body using an AI system under its authority except where the AI system is used in the course of a personal non-professional activity' (Article 3(4) EU AI Regulation). Deployer was formerly expressed as 'user' under the initial Commission's draft text.

[24] Article 16 EU AI Regulation.

[25] Article 23 EU AI Regulation.

[26] Article 24 EU AI Regulation.

[27] Article 26 EU AI Regulation.

obligations as the provider.[28]

Table 5. Obligations of providers referred to in Article 16

Subpara.	Content
a	Ensure that high-risk AI systems are compliant with the requirements set out in Section 2
b	Indicate the basic information about the system
c	Have a quality management system in place
d	Keep the necessary documentation
e	Keep the logs automatically generated by high-risk AI systems
f	Ensure that the high-risk AI system undergoes the relevant conformity assessment procedure
g	Draw up an EU declaration of conformity
h	Affix the CE marking to the high-risk AI system
i	Comply with the registration obligations
J	Take the necessary corrective actions and provide necessary information
k	Demonstrate the conformity of the high-risk AI system with the requirements set out in Section 2
l	Ensure that the high-risk AI system complies with accessibility requirements

Among the various issues, the construction of a quality management system is an important element in the context of international economic law as this may constitute an onerous barrier to EU market access for AI system providers and importers. According to the Regulation, the quality management system should at least include (a) a strategy for regulatory compliance, (b) techniques to be used for designing the AI system, (c) techniques for quality control of the system, (d) examination, test, and validation procedures, (e) technical specifications, (f) systems and procedures for data management, (g) a risk management system, (h) the setting-up of a post-market monitoring system, (i) reporting procedures of serious incidents, (j) a communication method with relevant authorities, (k) systems and procedures for record-keeping, (l) resource management, and (m) an accountability framework setting out the responsibilities of the management and other staff.[29]

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[28] Article 25 EU AI Regulation.
[29] Article 17(1) EU AI Regulation.

2.3. Enforcement

According to the Regulation, if the EU member states' market surveillance authority considers an AI system a risk to health or safety or to the fundamental rights of persons, particularly vulnerable persons, the authority—in cooperation with relevant national public authorities when risks to fundamental rights are identified—will evaluate the system. Following the evaluation, if the authority, finds that the AI system does not comply with the regulation requirements, the relevant operator[30] must take all appropriate corrective actions: namely, withdraw the system from the market or recall it.[31] If the operator does not take adequate corrective action within the given period, the market surveillance authority will take appropriate provisional measures to prohibit or restrict the AI system from being made available on its national market or put into service, withdraw the product or the standalone AI system from that market, or recall it.[32] When withdrawal is adopted as an enforcement method, it may serve as market access restriction which is prohibited under international trade rules.[33]

The Regulation also include a penalty system. First, when non-compliance relates to the prohibition of AI practices, administrative fines of up to 35 million euros will be imposed on an offender, or up to 7% of the total worldwide annual turnover for the preceding financial year (if it is higher than the former) will be imposed on the offending undertaking.[34] Second, those who do not comply with the obligations pertinent to the providers, authorised representatives of providers, importers, distributors, and deployers of the high-risk AI systems, as well as the transparency obligations for the providers and deployers of certain AI systems, will be subject to administrative fines of up to 15 million euros, or up to 3% of the total worldwide annual turnover for the preceding financial year of the offending undertaking when the amount of such is higher than 15 million euros.[35]

To ensure its effectiveness, the Regulation allows any natural or legal person who believes that there has been an infringement of the Regulation to submit complaints to the relevant market surveillance authority.[36] This mechanism was not included in the initial proposal by the Commission, and the lack of a complainant system was criticised by the European Data Protection Board and the European Data Protection Supervisor.[37]

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[30] 'Operator' includes any provider, product manufacturer, deployer, authorised representative, importer, and distributor. Article 3(8) EU AI Regulation.
[31] Article 79(2) EU AI Regulation.
[32] Article 79(5) EU AI Regulation.
[33] See Section 3 below.
[34] Article 99(3) EU AI Regulation.
[35] Article 99(4) EU AI Regulation. Notified bodies are also subject to fines.
[36] Article 85(1) EU AI Regulation.
[37] Veale and Zuiderveen Borgesius (n 11) 111.

2.4. General-Purpose AI Models

The regulations for general-purpose AI (GPAI) models were added at the inter-institutional dialogue stage of the EU legislative procedure.[38] Eventually, six provisions[39] were included as rules specifically addressing the GPAI models.[40] Following the definitions and procedural provisions, the Regulation establishes two types of obligations with regard to GPAI models in general and one provision dedicated to obligations for providers of GPAI models with systemic risk.[41]

The first provision of a string of rules regarding GPAI models stipulates that a GPAI model will be classified as a 'general-purpose AI model with systemic risk' if it has high-impact capabilities.[42] According to the definition in the Regulation, 'high-impact capabilities' refer to capabilities that match or exceed the capabilities recorded in the most advanced GPAI models.[43] High-impact capabilities are presumed to exist when the cumulative amount of computation used for its training measured in floating point operations (FLOPs) is greater than 10^{25}.[44]

For the obligations applicable to GPAI models in general, the Regulation requires providers to draw up and keep the technical documentations of the models up to date, except for AI models that are released under a free and open-source licence with no systemic risks.[45] In addition, providers of general-purpose AI models established in third countries should appoint an authorised representative in the EU to verify technical documentation.[46]

Regarding 'general-purpose AI models with systemic risk', the Regulation first requires that the relevant provider of the GPAI model notify the Commission of the information necessary to

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[38] Council of the European Union, 'Proposal for a Regulation of the European Parliament and of the Council Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts - Presidency Compromise Text', 29 November 2021; European Parliament, 'Amendments Adopted by the European Parliament on 14 June 2023 on the Proposal for a Regulation of the European Parliament and of the Council on Laying Down Harmonised Rules on Artificial Intelligence (Artificial Intelligence Act) and Amending Certain Union Legislative Acts' (COM(2021)0206 – C9-0146/2021 – 2021/0106(COD)) 14 June 2023 [hereinafter, EP Proposal].

[39] Articles 51-56 EU AI Regulation.

[40] GPIA model is defined as 'an AI model, including where such an AI model is trained with a large amount of data using self-supervision at scale, that displays significant generality and is capable of competently performing a wide range of distinct tasks regardless of the way the model is placed on the market and that can be integrated into a variety of downstream systems or applications, except AI models that are used for research, development or prototyping activities before they are placed on the market' (Article 3(63) EU AI Regulation).

[41] According to the EU AI Regulation, 'systemic risk' is 'a risk that is specific to the high-impact capabilities of general-purpose AI models, having a significant impact on the Union market due to their reach, or due to actual or reasonably foreseeable negative effects on public health, safety, public security, fundamental rights, or the society as a whole, that can be propagated at scale across the value chain' (Article 3(65) EU AI Regulation).

[42] Article 51(1) EU AI Regulation.

[43] Article 3(64) EU AI Regulation.

[44] Article 51(2) EU AI Regulation.

[45] Articles 53(1) and (2) EU AI Regulation.

[46] Articles 54(1)-(3) EU AI Regulation.

demonstrate that the relevant requirement for the identification of 'general-purpose AI models with systemic risk' has been met.[47] Even if the GPAI model provider has not notified the Commission, the Commission may decide to designate the model as one with systemic risks.[48] Providers of general-purpose AI models with systemic risk have a duty to (a) perform a model evaluation, (b) assess and mitigate possible systemic risks at the Union level, (c) keep track of and report relevant information about serious incidents to the AI Office, and (d) ensure an adequate level of cybersecurity protection.[49] Providers of general-purpose AI models with systemic risk may rely on codes of practice to demonstrate compliance with regulatory obligations until a harmonised standard is published.[50]

A penalty system for providers of GPAI models was also introduced in the last stage of the legislative process.[51] A provider of a GPAI model is subject to a fine when the provider (a) infringes on the relevant provisions of the Regulation, (b) fails to comply with a request for a document or for information under the related provisions, (c) fails to comply with a measure requested from the Commission, such as complying with the obligations for providers of GPAI models, or (d) fails to make the GPAI model or the GPAI model with systemic risk accessible to the Commission to allow for an assessment of the provider's compliance with obligations or for investigating systemic risks. The fine is a maximum of 3% of the provider's annual total worldwide turnover in the preceding financial year, or 15 million euros.

Compared with the proposal provided by the Parliament, the substance of the obligations in the final text is moderate. The early Parliament proposal contained, for instance, the requirement that the provider of a foundation model demonstrate through appropriate design the reduction and mitigation of reasonably foreseeable risks to health, safety, fundamental rights, the environment and democracy, and the rule of law with appropriate methods.[52] While the final version of the Regulation maintains the obligation to 'mitigate possible systemic risks at Union level,'[53] it does not use the words 'demonstrate' or 'appropriate design,' or the phrase 'with appropriate methods.' This toning down of the rules seems to be a consequence of resistance from countries promoting innovation in foundational AI models, namely, France, Germany, and Italy. They fear that excessive restrictions

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[47] Article 52(1) EU AI Regulation.
[48] Article 52(4) EU AI Regulation.
[49] Article 55(1) EU AI Regulation.
[50] Article 55(2) EU AI Regulation. The content of codes of practices is governed by Article 56.
[51] Article 101 EU AI Regulation.
[52] Article 28b(2)(a) of the EP Proposal (n 38).
[53] Article 55(1)(b) EU AI Regulation.

under the AI Act will undermine the development of Europe-originated AI technology.[54]

2.5. Transparency Requirements All AI Systems

The obligation for transparency applies to all AI systems, including systems with limited risk (the third layer in Figure 1). The Regulation encompasses two obligations for providers. First: that the systems intended to interact directly with natural persons are designed and developed in such a way that the concerned natural persons are informed that they are interacting with an AI system;[55] second, that providers of AI systems, including GPAI systems, generating synthetic audio, images, videos or text content, ensure that the outputs of the AI systems are marked in a machine-readable format and detectable as being artificially generated or manipulated.[56]

The Regulation also imposes two obligations for deployers. First, the deployers of an emotion recognition system or a biometric categorisation system are required to inform the natural persons exposed to the operation of the system, and process the personal data in accordance with the General Data Protection Regulation[57] and other related legislation as applicable.[58] Second, deployers of an AI system that generates or manipulates images, audio, or video content constituting a deep fake, are required to disclose that the content has been artificially generated or manipulated. In addition, deployers of an AI system that generates or manipulates published text related to the public interest are required to disclose that the text has been artificially generated or manipulated.[59]

2.6. Extraterritorial Nature of the EU AI Regulation

The Regulation does not distinguish between domestic and foreign AI system operators. Insofar as the providers at issue are placing on the EU market or putting into service AI systems, including GPAI models, the Regulation applies to these providers.[60] Further, there is the potential that the EU

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54 Gian Volpicelli, 'Power Grab by France, Germany and Italy Threatens to Kill EU's AI Bill' *Politico* (20 November 2023) <https://www.politico.eu/article/france-germany-power-grab-kill-eu-blockbuster-ai-artificial-intelligence-bill/> accessed 16 August 2024.
55 Article 50(1) EU AI Regulation.
56 Article 50(2) EU AI Regulation.
57 Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the Protection of Natural Persons with regard to the Processing of Personal Data and on the Free Movement of Such Data, and Repealing Directive 95/46/EC (General Data Protection Regulation) [2016] OJ L 119/1.
58 Article 50(3) EU AI Regulation.
59 Article 50(4) EU AI Regulation.
60 Article 2(1)(a) EU AI Regulation. The Regulation explicitly stipulates that it will be applied to providers established in a third country.

AI Regulation will be partially applied to external AI system providers whose users are located outside the EU to the extent that they 'affect[s] persons that are located in the Union.'[61]

In addition, a provision specifically addresses importer obligations. Before placing a high-risk AI system on the EU market, importers need to ensure that the system conforms to the regulations.[62] To achieve this, importers must verify that the provider of the high-risk AI system has carried out the prescribed conformity assessment procedure, drawn up technical documentation, ensured that the system bears the required CE marking with the EU declaration of conformity, and appointed an authorised representative.[63] Importers are not allowed to place the system on the market when they believe that a high-risk AI system does not conform to the regulations.[64]

2.7. Brief Evaluation of the EU AI Regulation

This section briefly evaluates the features of the EU AI Regulation through the categorising framework of Tallberg et al., which uses five indicators: (1) whether the regulation is horizontal or vertical; (2) whether it is centralised or decentralised; (3) whether it takes the form of hard or soft law; (4) whether the regulation is public-centred or private-centred; and (5) whether it is military or non-military related.[65] With respect to the first category, it is apparent that the EU AI Regulation uses a horizontal approach, as it does not *a priori* exclude a particular sector from its scope.[66] Indeed, although the Regulation excludes some situations from its application, none are sector-specific except for the application of AI systems for military, defence, or national security purposes.[67] This last element relates to the fifth category referenced above, and the Regulation is not military related.

The second category is also apparent, as the Regulation aims to harmonise regulation across EU member states, namely to alleviate the deficit from a decentralised approach. The Regulation aims at harmonising the regulation of AI systems reflected in the recurring expression of 'harmonised' rules[68]

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[61] Article 2(1)(g) EU AI Regulation.
[62] Article 23(1) EU AI Regulation.
[63] Articles 23(1)(a)-(d) EU AI Regulation.
[64] Article 23(2) EU AI Regulation.
[65] Jonas Tallberg et al., 'The Global Governance of Artificial Intelligence: Next Steps for the Empirical and Normative Research' (2023) 25(3) International Studies Review 1, 8. While this framework is referred to in the context of global AI governance, it is also useful when examining the features of domestic AI regulation.
[66] Some criticisms of the EU AI Regulation imply that it is too broad in scope. E.g. Lilian Edwards, 'Regulating AI in Europe: Four Problems and Four Solutions' Ada Loverlace Institute, 19 < https://www.adalovelaceinstitute.org/wp-content/uploads/2022/03/Expert-opinion-Lilian-Edwards-Regulating-AI-in-Europe.pdf> accessed 1 August 2024.
[67] Article 2(3) EU AI Regulation.
[68] The title of the Regulation includes the phrase 'harmonised rules'.

in the Regulation.[69] However, while the EU indicates a strong aspiration to harmonise AI regulations within its territory, the same zeal is not necessarily applied to harmonising AI regulations internationally. As discussed below, the fact that the EU appears less than eager to include AI-related rules in economic agreements implies that it prefers a decentralised approach (i.e. maintaining digital sovereignty) in the context of external relations.[70]

With regard to the third category, the Regulation can be enforced using a hard law approach. Prohibited and high-risk AI systems are not allowed to place on the market until compliance with the Regulation is confirmed. Even after marketing, the relevant operators have a duty to withdraw the products from the market when infringement of the obligation becomes apparent. Further, noncompliance with the obligations has become the subject of significant administrative fines. The EU made a definite choice to rely on a 'hard' law approach, even though many believe that a 'soft' law approach is better suited for digital governance.[71]

However, the EU Regulation is not focused on satisfying a certain threshold of protection. Rather, it asks AI system operators to create and implement risk management systems. Business entities can design frameworks for risk management in accordance with their interests. In other words, it does not use a pure command-and-control approach.[72] Therefore, although it can be seen as hard law regulation, it also includes a certain degree of flexibility. Hence, as is apparent from this discussion, the Regulation also creates a private-centred framework.

These characteristics of the EU AI Regulation are mapped in Table 6. At this stage, it remains uncertain whether the EU's approach will be the right one for AI regulation. However, its elements can be contrasted with those used by other countries and international institutions. The situation in other countries is discussed in detail in Section 4. First, the relationship between the EU AI

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[69] The legal foundation of the Regulation appears in Article 114 of the Treaty on the Functioning of the European Union (TFEU), which is applied when the purpose of legislation is to approximate laws.

[70] The opinion regarding the necessity of creating an internationally centralised system for AI regulation is divided. For the brief mapping of the situation, see e.g. Peter Cihon et al., 'Fragmentation and the Future: Investigating Architectures for International AI Governance' (2020) 11(5) Global Policy 545, 546. See also Section 4.2.

[71] The question whether the soft law approach is preferable in regulating AI has no easy answer. The critical deficit in the soft law approach is that it reduces legal predictability. Larsson et al. (n 15).

[72] The important aspect of the EU AI Regulation is the involvement of the European Committee for Standardization (CEN), the European Committee for Electrotechnical Standardization (CENELEC), and the European Telecommunications Standards Institute (ETSI). The Regulation provides that some high-risk AI systems, which are in conformity with standards adopted by those institutions, are presumed to be in conformity with the requirements of the EU AI Regulation (Article 40(1)). Those institutions are also members of the advisory forum, which provides technical expertise and advice to related institutions (Article 67(5) EU AI Regulation). However, there is some scepticism regarding enhancing the role of private standardisation bodies in the sphere of AI regulation. See, Veale and Zuiderveen Borgesius (n 11) 105; Margot E. Kaminski, 'Regulating the Risks of AI', (2023) 103 Boston University Law Review 1347, 1402.

Regulation and existing international economic law is examined, along with the concept of the 'Brussels Effect.'

Table 6. Characteristics of the EU AI Regulation

Horizontal	Vertical
Centralised	Decentralised
Hard law	Soft law
Public centred	Private centred
Military	Non-military

The colour of the cell indicates its conformity with individual elements. The darker cells indicate stronger conformity; that is, the EU AI Regulation strongly exhibits these elements, as in its horizontal nature, although less so in terms of centrality.

3. EU AI Regulation and its Relationship to Existing International Economic Law

3.1. Compatibility with the WTO Framework

When considering the relationship between the EU's AI Regulation and existing international economic laws, particularly the WTO laws, the first question that must be addressed is whether international trade involving AI can be categorised as trade in goods or in services.[73] The answer to this could be 'both.'[74] Fleuter categorises digital-related products into four groups: tangible goods ordered through the Internet, electronically delivered services, e-products, and remote additive manufacturing. For the first and second categories, it is obvious that the General Agreement on Tariffs and Trade (GATT) and the General Agreement on Trade in Services (GATS) apply respectively, as the actual products that cross borders are goods in the former category (electrical means is only the method for ordering) and the latter does not entail the trade of goods. The third, e-products, denotes products that are tradable in the form of both goods and services, such as music files that can be provided through CDs and electronic methods. Typical products in the fourth method, that is remote additive manufacturing, are those created using a 3D printer. Although the products generated

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[73] This distinction is critically important as trade in goods is subject to more expanded liberalisation under GATT than under GATS. Sam Fleuter, 'The Role of Digital Products Under the WTO: A New Framework for GATT and GATS Classification' (2016) 17(1) Chicago Journal of International Law 153, 156.

[74] Dan Ciuriak and Anna Artyushina, 'Trading AI: Machine Knowledge Capital and the Trading System' (2023) Paper Presented at the Trade Law 4.0 Conference, 13.

through 3D printing are tangible goods, the actual items that cross borders are computer-aided design files, which are digital files that are indispensable for 3D printers to create certain products.[75]

AI can be a part of the goods if it is incorporated into tangible products, so-called robotics, such as an automated vehicle or a receptionist robot. Under Fleuter's taxonomy, those products correspond to 'tangible goods.' As the nature of transactions more closely resembles the transfer of goods than the supply of services, the application of GATT rules is not controversial. However, an AI system is a part of the service provision if the technology is incorporated into it: for instance, as a part of telecommunications, transportation, or education services. Moreover, AI can act as a standalone service by providing information, knowledge, and ideas to recipients. In these cases, because the final outcome is provided in the form of a service, it would be natural to apply GATS rules. The problem of categorisation becomes crucial when the same service can be provided directly through digital means and through tangible products: namely, those that can be distributed as 'e-products' according to the categorisation of Fleuter. One example is car navigation that incorporates AI technology and can be provided through apps on smart phones or other dedicated devices. There is an argument that GATS should be applied to such services, even though the services are provided through imported devices.[76] To date, there is no clear answer to this. While this thorny issue is important,[77] this paper proceeds with the assumption that AI technology can relate to trade in both goods and services,[78] thus, GATT and GATS can be applied, respectively.[79] Nevertheless, the rest of this section focuses on the relationship between AI technology and GATS,[80] as the EU agrees with the countries that insist that GATS rules should be applied even though the services can be provided as tangible goods.[81]

The EU's AI Act may conflict with Article XVI of GATS. The provision contains a simple rule not

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[75] Fleuter (n 73) 157-160.

[76] Shamel Azmeh et al., 'The International Trade Regime and the Quest for Free Digital Trade' (2020) 22 International Studies Review 671, 675.

[77] There may be instances where AI systems are connected to 'remote additive manufacturing'. This may also provoke a difficult question regarding the applicability of GATT and GATS rules.

[78] At the same time, it must be noted that there are numerous arguments that advocate new ways of thinking with regard to the digital sector. See, e.g. Dan Ciuriak, 'Digital Economy Agreements: Where Do We Stand and Where Are We Going?' in David Collins and Michael Geist (eds), *Research Handbook on Digital Trade* (Edward Elgar 2022) 416, 432.

[79] Although an AI system can be categorised as provision of service, there remains the additional issue of whether it is appropriate to classify it under the current four modes of service provision. For a discussion regarding the difficulty in categorising AI under the WTO rules, see Han-Wei Liu and Ching-Fu Lin, 'Artificial Intelligence and Global Trade Governance: A Pluralist Agenda' (2020) 61(2) Harvard International Law Journal 407, 419-425.

[80] However, it has been noted that the EU Regulation principally choose to treat AI systems as products. Gabriele Mazzini and Salvatore Scalzo, 'The Proposal for Artificial Intelligence Act: Considerations Around Some Key Concept' in Camardi Carmelita (eds), *La via europea per l'Intelligenza artificiale* (2022) 3 <https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4098809>.

[81] Sacha Wunsch-Vincent, *The WTO, The Internet and Trade in Digital Products: EC-US Perspectives* (Hart Publishing, 2006) 56.

to restrict market access by introducing 'limitations on the number of service suppliers,' insofar as the importing country has committed to open its market under its own schedule (Article XVI:2(a)). When certain AI-related services cannot be provided in the EU market because of restrictions imposed by the EU Regulation, despite such restrictions being unspecified in its schedule, this would infringe on the GATS rule. This means that, to legitimise its policy, the EU would need to justify the regulation under the exceptional clause, namely, Article XIV of GATS.[82]

Nevertheless, Article VI of GATS may also relate to EU's AI Act, because the Regulation can be assumed as 'qualification requirements and procedures, technical standards and licensing requirements' that may impede trade in services. Article VI:5 GATS, read in conjunction with Article VI:4, requires members in sectors that have made specific commitments to make sure that their domestic regulations not more burdensome than necessary to ensure the quality of the service, and in the case of licensing procedures, not in themselves a restriction on the supply of the service. To date, there are no formal definitions for 'qualification requirements,' 'technical standards', or 'licensing requirements' under GATS. However, the Working Party on Domestic Regulation (WPDR) negotiation uses a definition that specifies 'qualification requirements' as 'relating to the competence of a natural person to the supply a service, and which are required to be demonstrated for the purpose of obtaining authorisation to supply a service.'[83] Thus far, as the EU Regulation do not seem to assume that AI technologies will be a complete substitute for services provided by natural experts, such as an AI lawyer, 'qualification requirements' do not directly relate to the Regulation.[84] The issue of the qualification of AI as an autonomous service provider would be on a forward-looking agenda for AI regulation. However, it is more likely that the requirements for high-risk AI systems under the Regulation will fall under the scope of 'technical standards.' In the WPDR negotiation, the definition of 'technical standards' is stated as 'measures that lay down the characteristics of a service or the manner in which it is supplied.'[85] This definition is broad in scope, as it includes the manner of supply. For instance, the EU Regulation requires that high-risk AI systems be designed and developed in a way that enables effective human oversight during their use.[86] This requirement may

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[82] Another important issue is possible discrimination stemming from the regulations. This paper assumes that there is no discrimination since there is no *de jure* discrimination under the EU Regulation. However, even a non-discriminatory measure, on the surface, may constitute *de facto* discrimination. Further, there are some biases that discriminate against foreign AI systems, since foreign-originated AI is usually not trusted by the importing country. For this, see Anupan Chander, 'Artificial Intelligence and Trade' in Mira Burri (ed), *Big Data and Global Trade Law* (Cambridge University Press, 2021) 115, 119.

[83] Informal Note by the Chairman, Room Document of 18 April 2007, reproduced in Markus Krajewski, 'Article VI GATS' in Rüdiger Wolfrum et al. (eds), *WTO – Trade in Services* (Martinus Nijhoff Publishers, 2008) 165, 185.

[84] Ho-Cheol Kim, 'Industrial Digital Transformation and A Proposal to Rebuilt Digital Trade Agenda' (2024) 58(1) Journal of World Trade 8, 108.

[85] Krajewski (n 83) 185.

[86] Article 14 EU AI Regulation.

relate to either the characteristics of the service or the manner of service provision. Thus, it could be assumed as 'technical standards' for the purpose of Article VI of GATS. Accordingly, the provision could be applied to the EU Regulation, provided that other requirements are satisfied.

When the EU AI Regulation conflicts with obligations under GATS, the next question is whether it is still justifiable under Article XIV of GATS.[87] This provision allows WTO members to introduce a measure that protects 'public morals,' 'public order,' and 'human, animal or plant life or health.' It also permits the adoption of a measure necessary to secure compliance with laws or regulations relating to the prevention of 'deceptive and fraudulent practices,' and the protection of 'privacy of individuals in relation to the processing and dissemination of personal data' and 'safety.'[88] The purpose of the Regulation can fall under any of these elements, as Article XIV has been interpreted in a way that respects the value judgement of the importing country.[89] Article 1 of the EU Regulation enumerates the purposes of the legislation, including a high level of protection of health, safety, fundamental rights, democracy, the rule of law, and environmental protection. While some of these unequivocally correspond to Article XIV of GATS, as illustrated in the provision, others can also fall under the provision; for example, the maintenance of 'fundamental rights' may contribute to the protection of 'public morals.'[90]

The biggest hurdle in justifying the EU AI Regulation under Article XIV is the 'necessary to' requirement in individual subparagraphs. The WTO Appellate Body introduced a 'weighing and balancing' approach in interpreting this requirement to comparatively assess (i) the importance of the common interests or values protected by the measure, (ii) the contribution of the measure to its purpose, and (iii) trade restrictiveness.[91] This weighing and balancing process will be comprehended in the determination of whether a less WTO-inconsistent alternative measure is reasonably available.[92] Although this analysis framework was developed under Article XX of GATT, the Appellate Body clarified that the same approach could be adopted under GATS as well.[93] As the EU

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[87] For a detailed discussion on this provision, see e.g. Neha Mishra, 'International Trade Law and Data Ethics: Possibilities and Challenges' in Shin-yi Peng et al. (eds) *Artificial Intelligence and International Economic Law: Disruption, Regulation, and Reconfiguration* (Cambridge University Press, 2021) 255, 265.

[88] Provided that those laws and regulations are not inconsistent with GATS.

[89] Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285//R, adopted on 20 April 2005, para. 6.461.

[90] Kelly K. Shang and Rachel R. Du, 'Disciplining Artificial Intelligence Policies: World Trade Organisation Law as a Sword and a Shield' in Shin-yi Peng et al. (eds) *Artificial Intelligence and International Economic Law: Disruption, Regulation, and Reconfiguration* (Cambridge University Press, 2021) 274, 284.

[91] Appellate Body Report, *Korea – Various Measures on Beef*, WT/DS161/AB/R, WT/DS169/AB/R, adopted on 10 January 2001, para. 164.

[92] Ibid., para. 166.

[93] Appellate Body Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285/AB/R, adopted on 20 April 2005, para. 291.

AI Regulation bans, if appropriate, placing AI systems on the market when the systems do not fulfil the requirements (i.e. the trade restrictiveness is large),[94] the Regulation needs to explicitly show enough contribution to its purpose. In addition, there must be an indication that no alternatives are available that are less trade-restrictive that can achieve the same purpose.[95]

As the AI Regulation could be assumed to be a part of the EU's economic security strategy,[96] Article XIV *bis* of GATS, which addresses national security issues, has the potential to be applied in this case. However, the requirement of 'taken in time of war or other emergency in international relations' (Article XIV *bis* (b)(iii)) makes it difficult for the EU AI Regulation to be justified under this provision. As this requirement is interpreted as 'refer[ring] generally to a situation of armed conflict, or of latent armed conflict, or of heightened tension or crisis, or of general instability engulfing or surrounding a state'[97] and where 'political or economic differences between members are not sufficient,'[98] it would not be applied to the AI Regulation in peacetime.[99] Alternatively, the restriction of AI systems from the perspective of national security in certain situations may constitute 'the supply of services as carried out directly or indirectly for the purpose of provisioning a military establishment' (Article XIV *bis* (b)(i)).[100] Further, the EU Regulation also has the potential to be justified by Article XIV *bis* (c) if the purpose of the Act comports with the 'obligations under the United Nations Charter for the maintenance of international peace and security.'[101] Because these paragraphs do not require immediately tense situations, the EU Regulation can be justified if all requirements are fulfilled.

Thus, it is possible to conclude that the EU AI Regulation can be assessed as being consistent with WTO rules. Nevertheless, these types of regulation heavily relying on exceptions and on black-or-white thinking may not be well suited to the assessment of AI regulations. GATS was signed in 1994, 30 years ago. Even if we conclude that this agreement still works today, it seems better to construct more sophisticated rules that fit well with current situations in society, where people rely more on

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[94] E.g. Article 23(2) EU AI Regulation.

[95] Further, for the EU AI Regulation to be assessed as being consistent with Article XIV, it must satisfy the requirements of the chapeau in the same provision.

[96] See n 7.

[97] Panel Report, *Russia – Traffic in Transit*, WT/DS512/R, adopted on 26 April 2019, para. 7.76.

[98] Ibid., para. 7.75.

[99] However, a Panel on a different dispute insisted that it did not consider that an emergency in international relations would 'necessarily only arise from situations related to a Member's defence or military interests' or have to refer to a situation of general instability engulfing or surrounding a state. Panel Report, *United States – Origin Marking Requirement*, WT/DS597/R, not yet adopted, fn. 438. This expands the possibility of justifying a measure under this interpretation.

[100] Note that the Regulation does not deal with systems for military, defence or national security purposes.

[101] Shang and Du (n 90) 290.

digital economies and live with more advanced technologies.[102] Therefore, rather than examining the traditional framework of the WTO rules, we need to explore modern regulations under FTAs or DEAs.

3.2. Development of AI Regulation through FTAs and DEAs

Among FTA rules, the Digital Economy Partnership Agreement (DEPA), among Chile, New Zealand (NZ), and Singapore, is the first agreement that explicitly touched on AI regulation. Article 8.2 of DEPA is dedicated to AI and comprises four paragraphs. The first paragraph recognises and affirms that AI technologies have become increasingly widespread in the digital economy. The second paragraph recognises the economic and social importance of developing ethical governance frameworks for the trusted, safe, and responsible use of AI technologies, as well as the development of mutual understanding among parties. The third paragraph requires that parties to endeavour to promote the adoption of AI Governance Frameworks that support the trusted, safe and responsible use of AI technologies. Finally, in the fourth paragraph, parties are asked to endeavour to consider internationally recognised principles or guidelines. Although these provisions potentially work as growth engines for the construction of AI governance frameworks, they do not compel parties to govern certain activities, thus creating some doubt about their effectiveness. Nonetheless, this cautious stance on AI regulation is understandable, since it is the first time that AI issues have been included in a digital economy agreement.

Following the establishment of the precedents in DEPA, other countries have begun to embrace AI provisions in their FTAs or digital agreements.[103] These agreements share basic ideas similar to those adopted in DEPA—sometimes with additional emphasis on cooperation and collaboration.[104] Among them, the UK–NZ FTA is notable as it moves beyond the elements included in DEPA. Article 15.19, titled 'Digital Innovation and Emerging Technologies' provides detailed standards and principles for the treatment of new technologies not limited to AI. However, paragraph 3(b) clearly spells out that the parties must be aware that the use of risk- or outcome-based approaches that take into account industry-led standards and risk management best practices are important in developing

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[102] Ciuriak and Artyushina (n 74) 15; Liu and Lin (n 79) 440. Burri describes the trade law comprised of GATT and GATS as Trade Law 2.0, whereas today's society requires Trade Law 4.0. Mira Burri, 'Trade Law 4.0: Are We There Yet?' (2023) 26(1) Journal of International Economic Law 90, 91.

[103] Australia-Singapore DEA (Article 31), Korea–Singapore DEA (Article 14.28), and UK–Singapore DEA (Article 8.61-R).

[104] For instance, Article 31 of the Australia–Singapore DEA encourages information sharing in terms of research and industry practices, as well as collaboration among researchers, academics, and industry.

governance and policy frameworks for the trusted, safe, and responsible use of emerging technologies.

The UK–Australia FTA is another notable example in a different context. The agreement contains a separate chapter from the one on digital trade (Chapter 14) on 'Innovation' (Chapter 20) that includes an AI-related provision (i.e. Article 20.4). Although the basic components of the provisions resemble Article 15.19 of the UK–NZ FTA, the UK–Australia FTA provisions emphasise the innovative aspects of AI (for instance, as reflected in the name and content of the dialogue mechanism, namely, the Strategic Innovation Dialogue[105]), presumably reflecting the pro-innovation attitude of the UK.[106] At the same time, unlike in the UK–NZ FTA, in the UK–Australia FTA, there is less discussion of risk assessment and risk management.

Some of these agreements also entail a memorandum of understanding (MoU) regarding cooperation in AI issues.[107] These MoUs are six pages long, with the objective to enhance collaboration and cooperative linkages between the parties in developing and regulating AI technologies.[108] MoUs include provisions regarding the form of and the priority areas for cooperation and collaboration,[109] as well as the establishment of a mechanism for 'strategic dialogues' which may act as a continuous opportunity for parties to react to the rapid development of AI technologies.[110] Although the MoUs are not legally binding[111] and do not currently contain obligations for parties to engage in particular conduct, they may be included in the main text of   DEAs in the future.

Even without these MoUs, FTAs/DEAs can include the same degree of cooperation within their text. For instance, the UK–Singapore DEA demands that parties promote cooperation and explicitly include AI as one area for such engagement.[112] While the provision does not stipulate the details of the cooperation, it may imply activities similar to those contained in the aforementioned MoUs. Further, this agreement requires parties to convene a 'Digital Economy Dialogue' to promote the benefits of the digital economy.[113] The establishment of certain institutions, along with the development of institutional or procedural provisions, can be as important, and may have a similar

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[105] Article 20.5 UK–Australia FTA.

[106] With regard to the position of the UK government towards AI technologies, see Section 4.1 below.

[107] Memorandum of Understanding between the Government of Australia and the Government of the Republic of Singapore on Cooperation on Artificial Intelligence; Memorandum of Understanding between the Ministry of Science and ICT of the Republic of Korea and the Ministry of Communications and Information of the Republic of Singapore on Cooperation on Artificial Intelligence.

[108] Paragraphs I and II Australia–Singapore MoU; Paragraphs 1 and 2 Korea–Singapore MoU.

[109] Paragraphs III and VI Australia–Singapore MoU; Paragraph 3 Korea–Singapore MoU.

[110] Paragraph V Australia–Singapore MoU.

[111] Paragraph VIII Australia–Singapore MoU; Paragraph 9 Korea–Singapore MoU.

[112] Article 8.61-W(2) UK–Singapore DEA. See also, Article 15.21 UK–NZ FTA.

[113] Article 8.61-V(1) UK–Singapore DEA.

impact as substantial provisions.[114]

Notably, regardless of its expansive approach in the EU AI Regulation, the EU has not included AI-related provisions in its FTAs. Rather, those agreements introduce a broad exception clause to protect the 'right to regulate' to achieve legitimate policy objectives.[115] While this does not conflict with the EU's position on buttressing AI regulations, it implies that FTA participants are free to introduce their own regulations, eventually fostering unilateralism. In other words, the EU's approach does not encourage or contribute to harmonising regulations between the EU and its FTA partners. Recently, the EU and Japan concluded negotiations on cross-border data flows.[116] According to new Article 8.81(2)(f) of its Economic Partnership Agreement (EPA), the parties are barred from requiring the approval of the other party prior to transferring information into that party's territory when it would prohibit or restrict the cross-border transfer of information by electronic means.[117] At the same time, that provision includes a footnote declaring that the agreement *does not prevent* a party from introducing certification or conformity assessments for ICT products, services, and processes, including AI, before their commercialisation or use in the party's territory, when it ensures compliance with laws and regulations consistent with the EPA or for cybersecurity purposes.[118] However, although it explicitly refers to AI, this footnote can be understood as a mere confirmation of the regulatory autonomy of the parties, as paragraph 3 in the same provision permits parties to adopt measures that are inconsistent with paragraph 2 to achieve a 'legitimate public policy objective'. Further, paragraph 4 also endorses the adoption of measures that protect 'personal data and privacy'.[119] This EU approach—that is, restrained promotion of its AI regulatory approach in FTAs and DEAs—differs somewhat from the general observation that countries use FTAs to 'enshrine' their own laws to diffuse digital trade-related standards.[120]

AI provisions are excluded not only from the general EU FTAs, but also from the large FTAs, the so-called mega FTAs. No specific AI rules are detailed in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), the United States–Mexico–Canada Agreement

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[114] It remains to be seen whether differences in the names of the dialogue mechanism, that is, 'Strategic Innovation Dialogue' in the UK–Australia FTA, 'Strategic Dialogues' in the Australia–Singapore MoU, and 'Digital Economy Dialogue' in the UK–Singapore DEA, have some impact on the outcome of the dialogues.

[115] E.g., Article 12.3 of the EU–NZ FTA. This broad exception clause is perceived as one significant difference between the EU's FTAs and FTAs concluded by counties keen to promote cross-border data flow. Burri (n 102) 97.

[116] Protocol Amending the Agreement Between the European Union and Japan for an Economic Partnership, signed 31 January 2024.

[117] This is when cross-border data transfer is for the conduct of the business of a covered person.

[118] Footnote 1(b) of Article 8.81 EU–Japan EPA.

[119] See also, the new Article 8.82.

[120] Manfred Elsig and Sebastian Klotz, 'Digital Trade Rules in Preferential Trade Agreements: Is There a WTO Impact?' (2021) 12(S4) Global Policy 25, 26.

(USMCA), or the Regional Comprehensive Economic Partnership (RCEP), as these agreements were designed and concluded several years ago. AI systems were less pervasive then and their risks were not perceived as being as urgent as they are today. In other words, these agreements are outdated from the perspective of AI regulation. Therefore, the lack of AI regulations in these agreements does not necessarily imply that the participants are uninterested in developing cooperative relationships to regulate AI systems. How rules will be developed or updated under these large FTAs remains to be seen.

However, even if a particular FTA does not contain AI-specific provisions, other rules relating to digital trade may affect the promotion and regulation of it.[121] For instance, as reflected in the EU AI Regulation, provisions related to the treatment of data are particularly relevant because the free flow of data makes AI technologies perform properly. Provisions related to online consumer protection[122] or the protection of personal information,[123] can also be applied when the commercial activities stem from AI-related technologies. Because the newest FTAs often contain digital provisions, these agreements will directly and indirectly impact the development and regulation of AI technologies.

The question that follows once countries embrace AI regulation in their FTAs is whether this trend will have a spill-over effect on the multilateral system, namely, the WTO.[124] Recently, the WTO formulated a Joint Statement Initiative (JSI), a forum for negotiations among like-minded members, where a Joint Statement Initiative on E-commerce was established as one of the JSI negotiations.[125] On 20 December 2023 the Initiative announced the substantial conclusions of several global digital trade rules, although AI was not included in the articles agreed on.[126] Therefore, the results of FTAs and DEAs regarding AI issues at this stage are not having a clear spill-over effect on the WTO rules. Nevertheless, the increase in the attention toward AI regulation might propel future discussions in

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[121] Joshua P. Meltzer, 'Toward International Cooperation on Fundamental AI Modes: An Expanded Role for Trade Agreements and International Economic Policy,' (2023) Brookings Research, 23 <https://www.brookings.edu/articles/toward-international-cooperation-on-foundational-ai-models/>. accessed 30 August 2024.

[122] E.g. Article 14.7 CPTPP.

[123] E.g. Article 14.8 CPTPP.

[124] Elsig and Klotz affirm that the WTO members that are more enthusiastic in discussing digital trade matters tend to be more active in FTA negotiations. Elsig and Klotz (n 120) 32.

[125] WTO, 'Joint Statement on Electric Commerce' WT/L/1056, 25 January 2019.

[126] WTO, 'WTO Joint Statement Initiative on E-commerce: Co-Convener Statement by Australia, Japan and Singapore', 20 December 2023, <https://www.meti.go.jp/press/2023/12/20231220004/202312004-1.pdf> accessed 23 August 2024. There were agreements on 13 topics: e-authentication and e-signatures, e-contracts, paperless trading, open government data, online consumer protection, unsolicited commercial electronic messages, transparency, electronic transactions framework, cybersecurity, open internet access, e-invoicing, single windows, and personal data protection. Agreement on Electronic Commerce is finally published on 26 July 2024, <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/INF/ECOM/87.pdf&Open=True> accessed 23 August 2024.

the WTO.

4. The 'Brussels Effect' and Future AI Regulation

4.1. 'Brussels Effect' or 'Regulatory Fragmentation'

One important element that must be considered when examining the impact of the EU AI Regulation is whether other countries or stakeholders are or will be following the EU's regulatory approach. The phenomenon of accepting or subsuming the EU approach by other countries or entities is called the 'Brussels Effect'.[127] In terms of AI regulation, a *de jure* Brussels Effect might be partially emerging, where countries are adopting rules similar to those of the EU.[128] For instance, Canada's government has proposed legislation for AI regulation called the Artificial Intelligence and Data Act (AIDA).[129] The Bill aligns with EU regulation as it adopts a risk-based approach (the term 'high-impact' in the AIDA is compatible with that of 'high-risk' in the EU AI Regulation).[130] Moreover, during the law-making process, there was an additional attempt to harmonise the Bill with the EU's approach.[131] However, although Canada is following the EU approach with regard to high-risk AI, it has not introduced conceptual categorisation based on the level of risk, or a class of prohibited AI systems, as in the EU regulations.[132]

Brazil is another country following the EU's approach. Currently, a draft AI law[133] is in the legislative process of the Brazilian Congress.[134] The Bill adopts a risk-based approach, including the notion of prohibited AI systems, and is structured with the EU AI Regulation in mind.[135] Further, the

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[127] Anu Bradford, *The Brussels Effect: How the European Union Rules the World* (Oxford University Press, 2020) 1. It is defined as 'the EU's unilateral ability to regulate the global marketplace.'

[128] However, '*de facto* Brussels effect' occurs when private market players, including those outside the EU, follow the EU rules and, as a result, the rules become semi-global standards without any legislative actions.

[129] The AIDA is a part of Bill C-27, the Digital Charter Implementation Act, 2022.

[130] Government of Canada, "The Artificial Intelligence and Data Act (AIDA) – Companion document", at <https://ised-isde.canada.ca/site/innovation-better-canada/en/artificial-intelligence-and-data-act-aida-companion-document> (13 March 2023 version).

[131] Christopher Ferguson et al. 'Bill C-27: Federal Government to Propose Further Amendments to Federal Privacy Reform and Artificial Intelligence Regulation', (2023) Fasken, Privacy and Cybersecurity Bulletin <https://www.fasken.com/en/knowledge/2023/10/bill-c-27-federal-government-to-propose-further-amendments-to-federal-privacy-reform> accessed 23 August 2024.

[132] Teresa Scassa, 'Regulating AI in Canada: A Critical Look at the Proposed Artificial Intelligence and Data Act' (2023) 101(1) The Canadian Bar Review 1, 17. Some report that the legislative proceeding has stagnated. David Krebs and Kristen Ward, 'EU Artificial Intelligence Act: Implementation timeline and impact on Canadian companies' (2024) Lexology, <https://www.lexology.com/library/detail.aspx? g=c312095c-bb94-428c-9279-71fd7573aacf> accessed 20 August 2024.

[133] Projeto de Lei n° 2338, de 2023.

[134] Fabiane Ziolla Menezes, 'Brazil's AI Regulation Gets First Draft to Guide Upcoming Debates' *The Brazilian Report* (3 May 2024) <https://brazilian.report/tech/2024/05/03/ai-regulation-first-draft-debates/> accessed 20 August 2024.

[135] Laura Schertel Mendes and Beatriz Kira, 'The Road to Regulation of Artificial Intelligence: The Brazilian Experience'

Bill pursues the broad protection of rights affected by AI systems, regardless of risk classification,[136] making the legal frameworks comparable to or more advanced than those in the EU.[137]

However, the regulatory approaches in the US, the UK, China and Japan differ from those in the EU. In October 2022, the US published the 'Blueprint for an AI Bill of Rights',[138] and in January 2023, the 'Artificial Intelligence Risk Management Framework (AI RMF 1.0)'.[139] In addition, the US government recently issued Executive Order 14110 on the Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence.[140] Unlike the EU framework, most US documents do not fall under hard law.[141] While the documents recognise the importance of risk management,[142] they do not necessarily compel risk-based approaches to the same degree as the EU regulations do, as many of them are guidelines or only exhibit the general need of risk management. Moreover, although there have been many attempts at legislation at the federal level (e.g. the Algorithmic Accountability Act of 2023[143]), they have been developed in less consistent ways. Thus, it remains ambiguous whether comprehensive US AI regulation will be constructed in the near future.[144] The UK's regulatory approach is similar to that of the US, as it is principle-based and does not entail legally binding mechanisms, although the actual structure of the regulation can be distinguished from that of the US.[145] The UK tends to lean towards more sector-led[146] and pro-innovative

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[136] (*Internet Policy Review Opinion*, 21 December 2023) <https://policyreview.info/articles/news/road-regulation-artificial-intelligence-brazilian-experience/1737> accessed 20 August 2024.

[136] Anna Oberschelp de Meneses et al., 'Brazil's Senate Committee Publishes AI Report and Draft AI Law' (*Inside Privacy*, 27 January 2023) <https://www.insideprivacy.com/emerging-technologies/brazils-senate-committee-publishes-ai-report-and-draft-ai-law/> accessed 20 August 2024.

[137] Marco Almada and Anca Radu, 'The Brussels Side-Effect: How the AI Act Can Reduce the Global Reach of EU Policy' (2024) German Law Journal 1, 10 <DOI: https://doi.org/10.1017/glj.2023.108>.

[138] White House 'Blueprint for an AI Bill of Rights: Making Automated Systems Work for the American People', 4 October 2022 <https://www.whitehouse.gov/ostp/ai-bill-of-rights/> accessed 23 August 2024.

[139] National Institute of Standards and Technology, 'Artificial Intelligence Risk Management Framework (AI RMF 1.0)', January 2023 <https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.pdf> accessed 23 August 2024.

[140] Executive Order 14110, Safe, Secure, and Trustworthy Development and Use of Artificial Intelligence, 30 October 2023.

[141] Kaminski (n 72) 1374;Yoshija Walter, 'Managing the Race to the Moon: Global Policy and Governance in Artificial Intelligence Regulation—A Contemporary Overview and an Analysis of Socioeconomic Consequences', (2024) 4 Discover Artificial Intelligence, 1, 7 <DOI: https://doi.org/10.1007/s44163-024-00109-4>.

[142] National Institute of Standards and Technology (n 139) 1.

[143] At the time of this writing, the Algorithmic Accountability Act of 2023 (S. 2892, H.R. 5628) had been introduced in the US congress. As the Bill places emphasis on impact assessment, some convergence can be achieved between the US Bill and the EU AI Regulation, provided that it is embodied as legislation.

[144] See, e.g. Steven Overly, 'Congress Unlikely to Pass Sweeping New AI Laws, Key GOP Senator Says', *Politico* (3 August 2023) <https://www.politico.com/news/2023/08/03/congress-ai-laws-todd-young-00109553> accessed 9 August 2024.

[145] Valeria Gallo and Suchitra Nair, 'The UK's Framework for AI Regulation' (*Deloitte Centre for Regulatory Strategy*, 2 Feburary 2024), <https://www2.deloitte.com/uk/en/blog/emea-centre-for-regulatory-strategy/2024/the-uks-framework-for-ai-regulation.html> accessed 16 August 2024.

[146] Office for Artificial Intelligence 'National AI Strategy' (2021), 52 <https://assets.publishing.service.gov.uk/media/614db4d1e90e077a2cbdf3c4/National_AI_Strategy_-_PDF_version.pdf> accessed 9 August 2024.

frameworks,[147] making its strategy unique compared with that in other countries. Its policies, which are described as 'light-touch' policies, are in harmony with the UK's post-Brexit polces that prioritise the promotion of innovation and non-regulatory approaches.[148]

China has also introduced various regulations to date, such as the Provisions on the Management of Algorithmic Recommendations in Internet Information Services, [149] the Provisions on the Administration of Deep Synthesis Internet Information Services,[150] and the Interim Measures for the Management of Generative Artificial Intelligence Services.[151] The first regulation was introduced to restrict the abuse and misuse of algorithmic recommendation technology and is unique in that it targets algorithms in particular.[152] These Chinese regulations do not hinge on a risk-based approach. However, they do require, under certain circumstances, that a 'security assessment'[153] be carried out, which becomes necessary mainly in cases wherein the technologies have a material effect on changing public opinion attributes or social mobilisation capabilities.[154] China's regulation generally contrasts with that of the EU, as the former relies more on a vertical approach, focusing on singular AI issues.[155]

Other countries, such as Japan, have only deployed guidelines, [156] preferring sector-specific regulations. [157] This approach is close to that in the US and the UK. [158] However, Japanese

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[147] Department for Science, Innovation & Technology, 'A Pro-Innovation Approach to AI Regulation' March 2023, <https://www.gov.uk/government/publications/ai-regulation-a-pro-innovation-approach/white-paper> accessed 20 August 2024. See also, Department for Science, Innovation & Technology, 'A Pro-Innovation Approach to AI Regulation: Government Response to Consultation' February 2024, <https://www.gov.uk/government/consultations/ai-regulation-a-pro-innovation-approach-policy-proposals/outcome/a-pro-innovation-approach-to-ai-regulation-government-response> accessed 20 August 2024. Note that these new policy documents include cross-sector principles.

[148] Huw Robers et al., 'Artificial Intelligence Regulation in the United Kingdom: A Path to Good Governance and Global Leadership?' (2023) 12(2) Internet Policy Review 1, 7 <DOI: https://doi.org/10.14763/2023.2.1709>.

[149] State Internet Information Office, 'Provisions on the Management of Algorithmic Recommendations in Internet Information Services' <https://www.gov.cn/zhengce/zhengceku/2022-01/04/content_5666429.htm> accessed 16 August 2024. [in Chinese]

[150] State Internet Information Office, 'Provisions on the Administration of Deep Synthesis Internet Information Services' <https://www.gov.cn/zhengce/zhengceku/2022-12/12/content_5731431.htm> accessed 16 August 2024. [in Chinese]

[151] State Internet Information Office, 'Interim Measures for the Management of Generative Artificial Intelligence Services' <https://www.cac.gov.cn/2023-07/13/c_1690898327029107.htm> accessed 16 August 2024. [in Chinese]

[152] Matt Sheehan, 'China's AI Regulations and Howe They Get Made', (2023) Carnegie Endowment for International Peace Working Paper, 15 <https://carnegie-production-assets.s3.amazonaws.com/static/files/202307-Sheehan_Chinese%20AI%20gov-1.pdf>.

[153] E.g. Article 17 of the Interim Measures for the Management of Generative Artificial Intelligence Services.

[154] Hui Xu et al., 'China's New AI Regulations' (2023) Latham & Watkins Client Alert Commentary, 7 <https://www.lw.com/admin/upload/SiteAttachments/Chinas-New-AI-Regulations.pdf> accessed 23 August 2024.

[155] Sheehan, (n 152) 16.

[156] E.g. Governance Guidelines for Implementation of AI Principles, Ver. 1.1, 28 January 2022, <https://www.meti.go.jp/shingikai/mono_info_service/ai_shakai_jisso/pdf/20220128_2.pdf> accessed 5 August 2024.

[157] Walter, (n 141) 9.

[158] Hiroki Habuka, 'Japan's Approach to AI Regulation and Its Impact on the 2023 G7 Presidency', (2023) Center for Strategic and International Studies (CSIS) 6 <https://csis-website-prod.s3.amazonaws.com/s3fs-public/2023-

instruments, including the new guideline document, the 'AI Guidelines for Business'[159] embrace a risk-based approach.[160] Japan may be a key prospect for the Brussels Effect, as it has the potential to remain in the US/UK camp or align with the EU camp in the future.[161]

These bird's-eye examinations of AI regulations in various countries reveal that many countries are seeking to find the regulatory approach that conforms the best to their particular circumstances. However, at this point in time, there is no unified approach that can be presumed as 'mainstream' and the potential for the Brussels Effect remains to be seen in terms of its impact on other countries' regulatory approaches.

Although other major countries are not following the regulatory approach adopted by the EU (*de jure* Brussels Effect), a key element of the Brussels Effect is whether *private actors* are following the EU's regulations (*de facto* Brussels Effect).[162] In this context, the evaluation of the Brussels Effect from EU's AI regulations may be divided. On the one hand, as AI-related products and services can be distributed globally, the provider of the AI system and related undertakings may be inclined to adapt to the most rigorous regulations, namely, the EU AI Regulation. This will enable them to provide their products and services to every country without additional adjustments to the destination country's regulations.[163] On the other hand, EU's AI Act faces the risk of being considered overregulation. Therefore, private entities may feel reluctant to embrace EU standards. Indeed, there are some views that cast doubt on the necessity of other countries following the EU's approach because of deficiencies in the regulations.[164] The lack of persuasiveness in the EU regulation and endorsement from actors in other countries would undermine any strong Brussels Effect. Some also argue that the Brussels Effect will not take hold as much as expected, as most of the AI uses regulated under the EU Regulation are for government purposes and, hence, regionalised.[165]

02/230214_Habuka_Japan_AIRegulations.pdf?VersionId= BnLSQRRqoO9jQ8u1RW3SGKOA0i8DBc4Q>.

[159] Ministry of Internal Affairs and Communications and Ministry of Economy, Trade and Industry, '(Draft) AI Guidelines for Business', 19 April 2024 <https://www.soumu.go.jp/main_content/000923717.pdf> accessed 5 August 2024.

[160] Arisa Ema et al. 'International Collaboration in AI Governance: Key Considerations of the Council of Europe's AI Convention and Japan's Response', (2023) IFI Policy Recommendation No. 255, 12 <https://ifi.u-tokyo.ac.jp/en/wp-content/uploads/2023/10/policy_recommendation_tg_20231031e.pdf>.

[161] Satoshi Sugiyama and Kantaro Komiya, 'Japan's Ruling Party Pushes for AI Legislation within 2024, Nikkei Reports', (*Reuters*, 15 February 2024) <https://www.reuters.com/technology/japans-ruling-party-pushes-ai-legislation-within-2024-nikkei-reports-2024-02-15/> accessed 20 August 2024.

[162] Bradford argues that 'the Brussels Effect is more about one jurisdiction's ability to override others than it is about triggering an upward regulatory race'. Bradford (n 127) 6.

[163] Siegmann and Anderljung view medical devices and machinery as having the strongest exposure to the Brussels Effect. Siegmann and Anderljung (n 18). 51-52. See also, Almada and Radu (n 137) 8.

[164] Edwards (n 66) 3.

[165] Siegmann and Anderlijung (n 18) 50.

Another question is whether the EU *intended to* promote the Brussels Effect. However, the answer is obviously 'yes',[166] evidenced by a statement by the European Council calling for the EU to become 'a global leader in the development of secure, trustworthy and ethical Artificial Intelligence'.[167] Moreover, the European Commission confirmed this, stating in the initial EU AI Regulation proposal that it would 'leverage its tools and regulatory powers to shape global rules and standards'.[168]

Notably, the prospect of the Brussels Effect can be both positive and negative. Regarding the legislative level (*de jure* Brussels Effect), the effect could be gradually substantialising, even though it is uncertain whether the convergence of regulations will be accomplished in the future by certain countries following the EU approach. Likewise, regarding the effect on private actors (*de facto* Brussels Effect), it seems premature to evaluate as, at the time of this writing, the Regulation had just entered into force (and the application of the Regulation had not yet started[169]) . In addition, the relaxation of the requirements in the final text[170] may reduce the intensity of the Brussels Effect.[171]

Nevertheless, it must not be overlooked that the Brussels Effect can have some positive aspects. Although it might be considered 'regulatory imperialism',[172] it has the effect of converging regulations in various countries, which may enhance efficiency.[173] In other words, it would restrain 'regulatory fragmentation' or 'e-spaghetti bowl'[174] effects.[175] The next section discusses in more detail whether there is a movement towards or signals for convergence in AI regulations without the Brussels Effect.

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[166] Almada and Radu (n 137) 8.

[167] European Council, 'Special meeting of the European Council (1 and 2 October 2020) – Conclusions', 2 October 2020, EUCO 13/20, 6.

[168] European Commission (n 3) 6. See also, European Commission, 'Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Fostering a European Approach to Artificial Intelligence', 21 April 2021, COM(2021) 205 final, 4.

[169] For the detail, see n 5.

[170] See, e.g. the discussion in Section 2.2.

[171] The 'stringency' of the EU's regulation affects the intensity of the Brussels Effect. Bradford (n 127) 37-48.

[172] Anu Bradford, *Digital Empires: The Global Battle to Regulate Technology*, (Oxford University Press, 2023) 17.

[173] The important aspect of the Brussels Effect in terms of the EU AI Regulation is that, as it encompasses the standards created by CEN, CENELEC, and ETSI, these standards could potentially be developed into *de facto* international standards. The Regulation presumes that some high-risk AI systems, which conform with the standards adopted by those institutions, will be presumed to be in conformity with the requirements for high-risk AI systems under the Regulation (Article 40(1)). See, n 72.

[174] Jesslene Lee, Thi Hang Banh, and Kway Guan Tan, 'Comparative Analysis of Digital Trade Provisions: Challenges and Lessons for Singapore' (2023) ACI Research Paper No. 06-2023, 12 <https://lkyspp.nus.edu.sg/docs/default-source/aci/acirp202306.pdf>.

[175] Admittedly, it might be unnecessary to force transnational harmonisation of AI regulations. However, the situation with too many diverse rules could cause confusion among AI-related actors. For this reason, the present paper attaches weight to a certain degree of convergence in AI regulation. See affirmative opinions for transnationally consistent rules, e.g. Olivia J. Erdélyri and Judy Goldsmith, 'Regulating Artificial Intelligence: Proposal for a Global Solution' (2022) 39 Government Information Quarterly 1, 6 <DOI: https://doi.org/10.1016/j.giq.2022.101748> See also the discussion in Section 4.3.

4.2. Convergence in the International Sphere

There are some signs that may signal a convergence in AI regulations.[176] The fourth Ministerial meeting of the Trade and Technology Council (TTC), a comprehensive negotiation framework aimed at coordinating approaches to key global trade, economic, and technology issues between the US and the EU, came up with a statement on 31 May 2023 implying a slight convergence in AI regulation approaches between the two players. It declared that the EU and the US 'reaffirm their commitment to a risk-based approach to AI to advance trustworthy and responsible AI technologies'.[177] In addition, the TTC had already published the 'TTC Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management',[178] showing that both sides are willing to work together to construct AI regulation grounded on a risk-based approach. Although such engagements are not in place yet (and there is no certainty that they will materialise in a joint regulatory framework), the movement implies that a risk-based approach may become a central tenet in international AI regulation.[179]

Another important channel for the development of rules regarding the digital economy, the Indo-Pacific Economic Framework for Prosperity (IPEF), may not be as progressive as expected. The 'Digital Economy' is included in the scope of Pillar I (Trade).[180] To date, all four pillars except the first pillar—namely, Pillar II (Supply Chains)[181], Pillar III (Clean Economy)[182] and Pillar IV (Fair

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[176] Lewin Schmitt, 'Mapping Global AI Governance: A Nascent Regime in a Fragmented Landscape' (2022) 2 AI and Ethics 303, 311; Nathalie A. Smuha, 'Form a "Race to AI" to a "Race to AI Regulation": Regulatory Competition for Artificial Intelligence' (2021) 13(1) Innovation & Technology 57, 62 <DOI: https://doi.org/10.1080/17579961.2021.1898300>.

[177] U.S.-EU Joint Statement of the Trade and Technology Council, 31 May 2023, <https://www.whitehouse.gov/briefing-room/statements-releases/2023/05/31/u-s-eu-joint-statement-of-the-trade-and-technology-council-2/> accessed 30 August 2024. This position is reaffirmed in the newer statement, Joint Statement EU-US Trade and Technology Council of 4-5 April 2024 in Leuven, Belgium <https://www.whitehouse.gov/briefing-room/statements-releases/2024/04/05/u-s-eu-joint-statement-of-the-trade-and-technology-council-3/> accessed 26 August 2024.

[178] TTC Joint Roadmap on Evaluation and Measurement Tools for Trustworthy AI and Risk Management, 1 December 2022, <https://www.nist.gov/system/files/documents/2022/12/04/Joint_TTC_Roadmap_Dec2022_Final.pdf#:~:text=This%20Joint%20Roadmap%20aims%20to%20guide%20the%20development,shared%20dedication%20to%20democratic%20values%20and%20human%20rights> accessed 23 August 2024. (hereinafter, TTC Joint Roadmap).

[179] Generally, we can see a slight convergence in digital policies between the EU and the US in that the US is moving towards the EU's regulatory position. Bradford (n 172) 225. The same trend can be seen in AI regulation. Ibid. 251. See also, Kaminski (n 72).

[180] Ministerial Text for Trade Pillar of the Indo-Pacific Economic Framework for Prosperity, Pillar I – Trade <https://ustr.gov/sites/default/files/2022-09/IPEF%20Pillar%201%20Ministerial%20Text%20(Trade%20Pillar)_FOR%20PUBLIC%20RELEASE%20(1).pdf> accessed 23 August 2024.

[181] Indo-Pacific Economic Framework for Prosperity Agreement Relating to Supply Chain Resilience.

[182] Indo-Pacific Economic Framework for Prosperity Agreement Relating to Clean Economy.

Economy)[183]—are finalised. The trade pillar is lagging behind the other pillars, signifying a loss of opportunity for the coordination of AI regulations. Moreover, as reported recently, the US has suspended negotiations,[184] and it is uncertain whether this forum will bear fruit in the near future, even though a Democratic administration remains in the White House.

Amid these movements, the development of AI convention under the Council of Europe (CoE) can also be seen as an important sign in predicting the convergence of AI regulation. The Council of Europe includes 46 members, 27 of which are EU member states. Therefore, it was expected that the rules developed under the Council of Europe—namely, the 'Framework Convention on Artificial Intelligence Human Rights, Democracy and the Rule of Law', adopted by the Committee of Ministers of the Council of Europe on 17 May 2024[185]—would resemble the EU AI Regulation. Indeed, both embrace a risk-based approach. However, the two legal instruments differ in several important respects.[186] For instance, while the EU AI Regulation focuses on product safety, the Framework Convention places more emphasis on protecting human rights.[187] If the latter approach gains more support from the international community, the Framework Convention may become the template for AI regulation.[188]

Compared with the discussions under the CoE, while there are various international movements for developing global-scale AI governance, they do not go beyond principle-based general agreements. In addition to the OECD principles,[189] as the outcome of the Hiroshima AI Process, in 2023 the G7 published the International Guiding Principles[190] and the Code of Conduct.[191] Although these documents herald a risk-based approach, they do not stipulate how risk-based regulations should be shaped.[192] The Global Partnership on Artificial Intelligence was also established as a forum to foster

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[183] Indo-Pacific Economic Framework for Prosperity Agreement Relating to a Fair Economy.

[184] David Lawder, 'U.S. Suspends Indo-Pacific Talks on Key Aspects of Digital Trade Lawmakers' *Reuters* (9 November 2023) <https://www.reuters.com/business/finance/us-suspends-indo-pacific-talks-key-aspects-digital-trade-lawmakers-2023-11-08/> accessed 17 August 2024.

[185] Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law, Council of Europe Treaty Series, No. 225.

[186] Almada and Radu (n 137) 15.

[187] Walter (n 141) 6. The difference in the two is partly reflected in the purpose of the EU's Regulation and the CoE's Framework Convention. The former lists various values as the subjects of protection (Article 1 EU AI Regulation), whereas the latter concentrates on human rights, democracy, and the rule of law (Article 1 Framework Convention). Another important difference is that the Framework Convention does not contain the concept of 'prohibited AI practices'.

[188] Almada and Radu (n 137) 16. At the same time, the EU AI Regulation and the Draft Framework Convention may be mutually complementary.

[189] See n 2.

[190] Hiroshima Process International Guiding Principles for Organisations Developing Advanced AI System, 30 October 2023 <https://www.mofa.go.jp/files/100573471.pdf> accessed 2 September 2024.

[191] Hiroshima Process International Code of Conduct for Organisations Developing Advanced AI Systems, 30 October 2023 <https://www.mofa.go.jp/files/100573473.pdf> accessed 2 September 2024.

[192] However, the Code of Conduct could be incorporated into the EU AI Regulation via Article 56, which encourages

international cooperation among various actors not limited to government organisations. The partnership has made some progress, for instance, the Ministerial Declaration in 2023.[193] However, it is viewed as having few meaningful accomplishments to date.[194]

These international instruments vaguely suggest the potential for the permeation of a risk-based approach. The caveat is, however, that even if countries can harmonise in introducing risk-based approach, the precise meaning of risk will differ depending on the situation and, hence, across countries.[195] Even in each country, the risk content may change from time to time.[196] Moreover, there are no clear answers regarding the appropriate degree of convergence. To what extent should the world converge its AI regulations? Surely, perfect harmonisation is not, or cannot be, the ultimate goal.[197] Because there is no clear ethical consensus regarding AI regulation, there must be some flexibility in regulation, even under a harmonised structure. Therefore, it can be argued that not only regulation harmonisation, but also a flexible mechanism based on a dialogue process, which reflects changing situations, should be incorporated into global or international AI regulation. The next section discusses an international framework that could contribute to achieving harmonisation while, at the same time, maintaining flexibility.

4.3. Global AI Governance and the Contribution of FTAs/DEAs

Global AI governance has only just begun. As this new technology is developing on a path with no precedent and of no similar scale, people are exploring the world, searching for ideal international or global AI regulation.[198] Thus far, numerous attempts have been made to create an international

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drawing up of codes of practice in line with international approaches.

[193] Global Partnership on Artificial Intelligence 'GPAI Ministerial Declaration 2023', 14 December 2023 <https://gpai.ai/2023-GPAI-Ministerial-Declaration.pdf> accessed 2 September 2024.

[194] Huw Roberts et al. 'Global AI Governance: Barriers and Pathways Forward' (2024) International Affairs 1, 3 <DOI: https://doi.org/10.1093/ia/iiae073>. The Global Partnership on Artificial Intelligence announced that it will further an integrated partnership with the OECD.

[195] Smuha (n 176) 9; Rishi Gulati, 'An International Body will Need to Oversee AI Regulation, but We Need to Think Carefully About What it Looks Like' (*The Conversation*, 12 January 2024) <https://theconversation.com/an-international-body-will-need-to-oversee-ai-regulation-but-we-need-to-think-carefully-about-what-it-looks-like-220907> accessed 12 August 2024. The same thing can be said for 'acceptable' (such as that in Article 9(5) EU AI Regulation). For this point, see, Johann Laux et al. 'Trustworthy Artificial Intelligence and the European Union AI Act: On the Conflation of Trustworthiness and Acceptability of Risk' (2024) 18 Regulation & Governance 3, 6. For the comprehensive research regarding the issues surrounding 'risk', see Kaminski (n 72).

[196] In this connection, the TTC's working group (WG1) has grappled with defining the term 'risk'. However, this word was included in 'pending terms'. See, TTC 'EU-U.S. Terminology and Taxonomy for Artificial Intelligence: First Edition', Annex A <https://ec.europa.eu/newsroom/dae/redirection/   document/96104> accessed 4 September 2024.

[197] Liu and Lin (n 79) 446.

[198] There is a fundamental question as to whether AI is a global issue. For an affirmative position, see Rostam J. Neuwirth, 'The Global Institutional Governance of AI: A Four-Dimensional Perspective' (2024) 1(1) International Journal of Digital Law and Governance 113, 117.

framework for AI regulation, including those under the OECD, UNESCO, the G7, and the G20. However, those frameworks do not go beyond the codification of principles, except for the Convention devised under the CoE.[199] The divergence in the positions on AI regulation across countries, as discussed in Section 4.1, makes it difficult for international forums to create globally unified rules related to AI regulation. Although the Brussels Effect may contribute to the development of a unified regime, by disseminating the EU's regulatory approach, it remains uncertain whether this will occur. Therefore, the current global AI regulation situation can be best described as polycentric and fragmented,[200] or as a 'race to AI regulation'[201] (or going furtherer as 'a race to the moon'[202] instead of 'a race to the bottom' or 'a race to the top') or in 'imperial rivalries',[203] although there are some signs of a partial convergence in regulatory approaches as discussed.

It seems logical to insist that a certain degree of convergence in global AI regulations is needed. As the effects of AI technology and accompanying regulations are, by their nature, transboundary,[204] differences in AI regulation may create inefficiencies for all AI-related actors, such as AI developers, users, and even governments, ultimately impeding innovation and enforceable regulation.[205] At worst, conflicts in rules make it impossible for interested parties to comply with separate contrasting rules. As AI technologies have a direct impact on the economic, or sometimes geopolitical and geo-economic, status of the regulating country, there remains a strong incentive to craft regulations in a way that reflects the interests of the regulating country.[206] Without any coordination across countries, there is the risk that overly complicated regulatory relationships will cause confusion and increase the cost of managing technologies for AI developers and users. Although regulatory competition may be perceived as a sound policy environment for regulating technologies with outstanding progress, such as AI,[207] the disadvantages of uncoordinated development would outweigh the benefits of any regulatory diversity.

Despite this, the establishment of centralised and unified global AI regulations is, at the least in the short term, unfathomable.[208] In addition to the gaps in AI regulations across the major players, the

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[199] For the position that suggests a principle-based approach is not enough to achieve trustworthy AI, see Brent Mittelstadt, 'Principles Alone Cannot Guarantee Ethical AI' (2019) 1 Nature Machine Intelligence 501, 505.

[200] Schmitt (n 176) 311; High-Level Advisory Board on Effective Multilateralism (HLAB), *A Breakthrough for People and Planet: Effective and Inclusive Global Governance for Today and the Future* (United Nations University, 2023) 58.

[201] Smuha (n 176) 4.

[202] Walter (n 141) 2.

[203] Bradford (n 172) 11.

[204] Tallberg et al. (n 65) 6; Erdélyri and Goldsmith (n 175) 6.

[205] Cihon et al. (n 70) 548; Walter (n 141) 11.

[206] Roberts (n 194) 5; Tallberg et al. (n 65) 6.

[207] Smuha (n 176).

[208] Erdélyri and Goldsmith (n 175) 7; Roberts et al. (n 194) 8.

lack of a clear institutional system to deal with AI issues will delay the establishment of a centralised framework for AI regulation.[209] As AI technology covers a wide range of matters, it is unsurprising that various institutions, regimes, and actors have some interest in the development and regulation of AI technologies. This leads us to the conclusion that rather than creating a centralised AI regime from scratch, enhancing the coordination among various AI-related regimes is the most realistic path to creating a centralised global AI regulation framework in the future.[210]

In this situation, FTAs and DEAs may work as connections and liaisons among major countries and international regimes. The current situation of global AI governance is illustrated in Figure 2. Many countries have started to establish their own domestic AI regulations. They have also begun to join international regimes. However, there is no unified international regime dedicated to AI regulations. Some countries may join a particular international regime, while others may not. This situation itself is not problematic, as countries can decide which regime to join.[211] Nevertheless, such a pick-and-choose approach may spur further fragmentation of AI regulations. When individual rules developed under international regimes conflict with each other, it will be difficult for countries to join multiple regimes and eventually create and stabilise regulatory blocks.

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[209] Paul Samson, 'On Advancing Global AI Governance' (*Centre for International Governance Innovation*, 1 May 2023) <https://www.cigionline.org/articles/on-advancing-global-ai-governance/> accessed 30 August 2024. For a proposal that expects the G20 to address the coordination of various regimes, see Thorsten Jelinek et al. 'Policy Brief: The Creation of a G20 Coordinating Committee for the Governance of Artificial Intelligence' (2021) AI and Ethics 141.

[210] Erdélyri and Goldsmith (n 175) 7; Roberts et al. (n 194) 2.

[211] This current interconnected framework of various AI regulations and institutions can also be described as 'weak regime complex' as expressed by Roberts et al. (n 194) 4.

Figure 2. Fragmented AI regulations and path for convergence
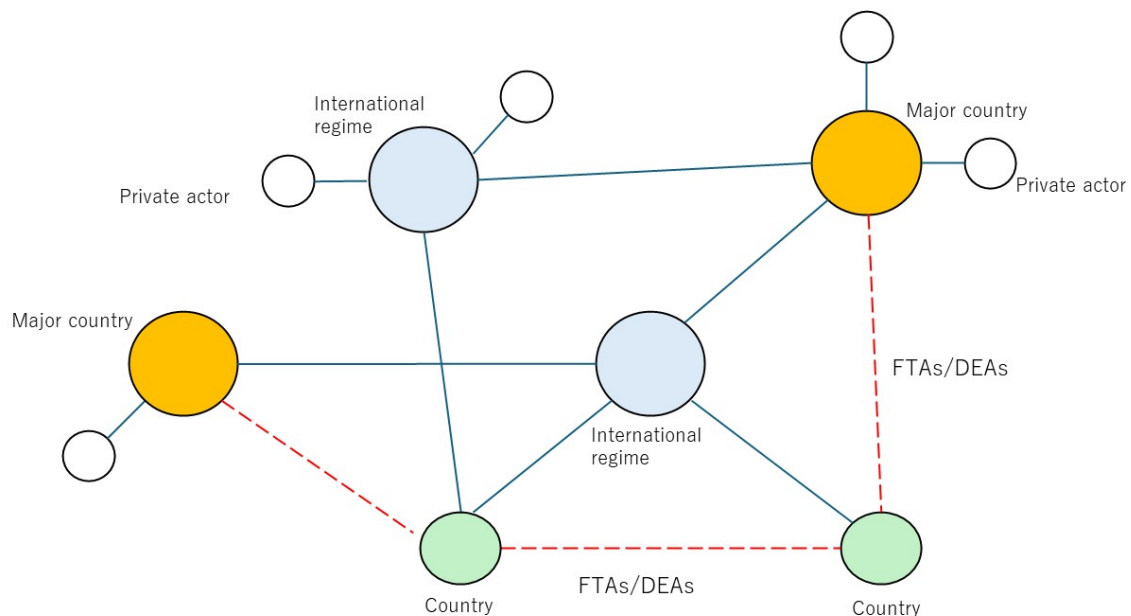
FTAs/DEAs may serve as platforms for the coordination of AI regulation between parties by providing opportunities for recurring dialogue on related matters. Compared with large regimes, bilateral or plurilateral frameworks enable participating parties to communicate frequently, fostering a deeper mutual understanding of their attitudes towards AI regulations.[212] Beyond the dialogue on international AI regulation, these platforms may also be used for information exchange regarding domestic AI regulation—akin to the allegation system on specific trade concerns[213] under the Agreement on Technical Barriers on Trade (TBT Agreement) in the WTO.[214] As explained in Section 3.2, the development of dialogue processes among parties can begin with softer instruments, such as

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[212] Certainly, coordination within FTAs/DEAs does not impede activities in other forums, such as coordination in the UN. The advantage of the FTAs/DEAs is that they are limited in participants, thereby enabling a more detailed dialogue among the parties.

[213] Specific trade concerns offered by WTO Members are usually discussed under the WTO committees, such as the Committee on Technical Barriers to Trade (TBT Committee). This dialogue process is praised as a well-functioning system because trade conflicts are often settled in the consultation process under committees and thus, they are not escalated into the formal dispute settlement mechanism. Kateryna Holzer, 'Addressing Tensions and Avoiding Disputes: Specific Trade Concerns in the TBT Committee' (2018) WTO Staff Working Paper ERSD-2018-11, 14 <https://www.wto-ilibrary.org/content/papers/25189808/229/read> accessed 20 August 2024.

[214] Indeed, China has raised the EU's Regulation as a specific trade concern in the TBT Committee. China's main argument relates to the participation of the third-party notified body to the conformity assessment and the amount of fines. See, e.g. TBT Committee, 'Minutes of the Meeting 21-23 June 2023', G/TBT/M/90, Section 3.1.3.50.

MoUs attached to the FTAs/DEAs,[215] and then incrementally expand to more solid frameworks.[216]

While the establishment of a centralised system would theoretically enhance consistency and efficiency in global AI regulation, it cannot be achieved overnight, as it requires enormous resources and time.[217] However, the FTAs/DEAs can function as intermediate processes in the establishment of a global AI governance structure.[218] Moreover, the detailed dialogue process enables the incorporation of a certain level of flexibility in regulation via mutual understanding and trust. Expanded participation, namely, the inclusion of businesses, experts, developers, users, and consumer organisations, among others, is more practical and effective in FTAs/DEAs, as there are only two countries participating in the dialogue in the case of bilateral agreements.

In some instances, FTAs/DEAs may also offer a place to experiment with collaborative AI regulation, as they have the advantage of swift decision-making. The framework could be updated or modified even after the rules are established. Thus far, most FTAs that have substantively amended and updated their content are related to digital trade. Examples include the Australia– Singapore FTA, the UK–Singapore FTA, and the Korea–Singapore FTA.[219] These indicate that FTAs are more responsive to the dynamic development of the issue.

One concrete way for FTAs and DEAs to contribute to the development of AI regulation is through the creation of mutual recognition frameworks.[220] If AI regulations increase in various countries, coordination between these regulations will become more indispensable. To avoid the duplication of procedures, such as those related to certification or conformity assessments, there must be a system that can validate the certification issued in the exporting country that is also effective in the importing country. Bilateral frameworks are appropriate starting points for the development of such frameworks.[221]

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[215] Paragraph V Australia–Singapore MoU.

[216] Private actors can be involved in this dialogue process and eventually it can be connected to private-led international frameworks, such as the Partnership of AI (PAI) and the World Economic Forum.

[217] Erdélyri and Goldsmith (n 175) 7.

[218] Erdélyri and Goldsmith propose the establishment of an organisation in the form of a steering committee that is dedicated to collaboration and information exchange between all parties involved in various governance frameworks. Ibid. 10. FTAs/DEAs may work in a similar sense as they may connect major countries and frameworks. However, they may have advantages in that the participants are limited to the parties of the agreement (the steering committee may stagnate if there are diverging opinions among the participants).

[219] The EU–Japan EPA also succeeded in updating the provisions on the free flow of data. European Commission, 'EU and Japan Conclude Landmark Deal on Cross-Border Data Flows at High-Level Economic Dialogue', 28 Oct. 2023 <https://ec.europa.eu/commission/presscorner/detail/en/ip_23_5378> accessed 5 September 2024.

[220] Meltzer (n 121) 33. Meltzer also proposes a common auditing system as another area that can be developed under FTAs/DEAs. For a sceptical view on the feasibility and effectiveness of a mutual recognition framework, see Ciuriak and Artyushina (n 74) 14.

[221] The mutual recognition system does not have to be dedicated to AI. The Australia–Singapore DEA recognises the effectiveness of cross-border recognition of conformity assessment results in digital trade in general (Article 30.5).

Another important point that supports the fusion of AI regulations into trade or economic agreements is that AI is often germane to trade. Because AI technologies are becoming rapidly and deeply embedded in trade activities, new trade rules cannot be developed independently from AI technologies. Installing institutions and mechanisms for the coordination of AI regulation within trade agreements is necessary, as it enables flexible and timely responses to the development of AI in trade. When regular dialogue is institutionally stable, it provides continuous opportunities to generate new ideas. Admittedly, AI regulation may be seen as being foreign to the traditional perspective of trade, but the dichotomy of 'trade and …' is outdated, as many non-trade issues are embedded in trade activities. [222] Whether AI regulation should be incorporated into 'trade' agreements is no longer the critical issue, as the trade will provide the actual examples where coordination of AI regulation is necessary.

FTAs/DEAs may (indirectly) contribute to the harmonisation of international regimes. Although FTAs/DEAs cannot directly influence the decision-making process of international regimes, some convergence of AI regulations in FTAs/DEAs would provide a foundation for concessions in individual regimes. It is more likely that an agreement can be reached regarding an international AI governing regime when the parties have experience with each other in prior agreements. Alternatively, considering that there are only a limited number of institutions that may directly coordinate the relationship among AI regulatory regimes, FTAs/DEAs could supplement these if the parties to the FTAs/DEAs join multiple regimes. For instance, looking at Figure 2, a country on the bottom left could partly incorporate the content of an international regime on the top left in the FTAs/DEAs concluded with a country on the bottom right or a major country on the left side. This may lead to the indirect injection of the rules of top left international regimes into countries that do not participate in the regime via FTAs/DEAs. Such a process provides a concrete example of the means for coordinating different international rules, even though these international frameworks do not interact directly.

Finally, FTAs/DEAs may be used not only for regulating AI but also as tools to enhance the benefits of AI technology—the realisation of distributive justice.[223] As a risk of AI technology is that it may harm people who cannot effectively utilise or manage it, FTAs/DEAs could include a mechanism that distributes the benefits of AI to society.[224] To date, although FTAs/DEAs contain provisions for the promotion of cooperation and information sharing in state-of-the-art technologies, they do not

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[222] Neuwirth (n 198) 122.

[223] Eva Erman and Markus Furendal, 'The Global Governance of Artificial Intelligence: Some Normative Concerns' (2022) 9(2) Moral Philosophy and Politics 267, 283.

[224] Tallberg et al. (n 65) 15.

encompass explicit provisions embracing developmental aspects, such as capacity building, technology transfer, and literacy education. The primary reason such provisions are not included is that the agreements are between technologically developed countries.[225] However, these agreements are sufficiently flexible to incorporate development-related provisions when a country with insufficient AI management experience is involved.[226] Bilateral or plurilateral agreements have the advantage of crafting agreements that are suited to all participants.[227]

Nonetheless, FTAs/DEAs have limitations. They do not necessarily contribute to the connections between major countries. The conclusion of FTAs/DEAs between major countries is challenging. The EU, US, China, and possibly India and Brazil are important potential hubs in terms of AI regulations. However, to date, there are no economic agreements among these countries. The Comprehensive Agreement on Investment (CAI), a bilateral investment agreement between China and the EU, is a significant example of an agreement between hubs. Unfortunately, it does not include digital matters. Moreover, the agreement has never materialised.[228] Likewise, the so-called US–China Phase One agreement does not contain extended rules related to the digital economy, except for a few indirect provisions related to online infringement and counterfeiting in the e-commerce market.[229] Although some mega agreements, such as the CPTPP, RCEP, and USMCA, contain expansive provisions regarding digital trade, they are not necessarily 'mega' in the current context, as they merely include one (sometimes two) of those hub countries.[230]

The fact that FTAs/DEAs are vulnerable to power imbalances compared with multilateral frameworks is another concern.[231] These frameworks might be used for, or may reinforce, the regulatory race or exports of regulations, especially by rule makers, that is, major countries. Nevertheless, the benefit of bilateral agreements is that smaller countries may not be buried in the

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[225] Existing agreements often contain provisions titled as 'digital inclusion', which promote the benefit of digital trade for all people. E.g. Article 15.20 UK–NZ FTA. While those provisions can be a basis of realising distributive justice, more specific provisions may be established for AI.

[226] For instance, the Australia–Singapore MoU indicates that any form of cooperation can be a subject of cooperation between parties (Paragraph III(h)).

[227] However, it should not significantly deviate from international efforts, as it may foster the fragmentation of rules.

[228] This conclusion is derived from the published draft text of CAI. European Commission, 'EU-China agreement in principle' <https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/china/eu-china-agreement/eu-china-agreement-principle_en>. accessed 30 August 2024.

[229] Section E of Chapter 1 of the US–China Economic and Trade Agreement.

[230] Of course, the cooperation does not necessarily take the form of economic agreement. A cooperative framework dedicated to AI matters could be constructed. See, for example, the cooperative framework between Germany and India, Government of India, 'India-Germany Vision to Enhance Cooperation in Innovation and Technology', 25 February 2023 <https://www.mea.gov.in/bilateral-documents.htm?dtl/36298/IndiaGermany_Vision_to_Enhance_Cooperation_in_Innovation_and_Technology> accessed 4 September 2024.

[231] Olivier Cattaneo, 'The Political Economy of PTAs' in Simon Lester et al. (eds) *Bilateral and Regional Trade Agreements: Commentary and Analysis 2nd Ed.* (Cambridge University Press, 2015) 28, 49.

major countries' battles, as seen in the larger framework. Bilateral agreements can provide greater opportunities for smaller countries to be heard by a larger partner within the dialogue mechanism established under the FTAs/DEAs.

To overcome the limitations of FTAs/DEAs, a multilateral system, such as the WTO, has a role to play. When the regulatory coordination through small frameworks (i.e. FTAs/DEAs) amounts to the compartmentalisation of the global market by blocs with like-minded members and the fragmentation of regulation is entrenched so that an overhaul of regulation is necessary, a multilateral regime may work as a platform. Even if rules cannot be unified, the peer review of individual regulations under the WTO, sometimes in concert with other related multilateral organisations, would foster policy coordination on a global scale.[232] With regard to power imbalances, wide participation in a multilateral framework would alleviate the influence of major countries, with smaller countries able to align themselves to avoid being marginalised.

Coordination under the WTO has an advantage in that its long experience, both in terms of the operation of rules and institutions, can be used in the process. For instance, the TBT Agreement contains a rule that assigns due weight to international standards in individual sectors.[233] Guidelines and practices[234] for managing the relationship between international standards and technologies that evolved under the TBT Agreement can also be applied to AI technologies, with necessary modifications.[235] Moreover, the risk-based approach can be elaborated on by relying on the experiences under the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement).[236]

AI technologies should be considered relevant to the WTO, as those technologies can be directly incorporated into its system and institutions. AI can be used for improved negotiations on market access, increased transparency, accurate calculations of trade measures (including trade remedies), enhancement of technical assistance for developing countries, and securing non-economic values such as human rights, sustainability and crime prevention.[237] This may even contribute to the

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[232] Gregory Shaffer, 'Trade Law in a Data-Driven Economy: The Need for Modesty and Resilience' in Shin-yi Peng et al. (eds) *Artificial Intelligence and International Economic Law: Disruption, Regulation, and Reconfiguration* (Cambridge University Press, 2021) 29, 48.

[233] Article 2.4 TBT Agreement.

[234] For instance, the TBT Committee adopted a decision regarding international standards in 2000. TBT Committee, 'Decision of the Committee on Principles for the Development of International Standards, Guides and Recommendations with Relation to Articles 2, 5 and Annex 3 of the Agreement' G/TBT/9, Annex 4, 13 November 2000.

[235] Both the EU and the US confirmed that they would be adhere to the WTO TBT principles. See, TTC Joint Roadmap (n 178) 4.

[236] Meltzer (n 121) 32.

[237] Lisa Toohey, 'Trade Law Architecture after the Fourth Industrial Revolution' in Shin-yi Peng et al. (eds) *Artificial*

resolution of disputes without relying on formal dispute settlement procedures.[238] The experience of using AI technologies within the WTO may provide valuable information that supports a real understanding of AI systems, contributing to the development of its governance.

Theoretically, the WTO can be customised in line with advancements in AI systems. Some propose devising a mechanism that may promote the involvement of private actors in decision-making or dialogue within the organisation.[239] There is a proposal that goes even further by stating that the WTO should step beyond its current function and contribute to the development of technical standards for AI technologies.[240] These suggest that the WTO must be updated to adjust to new technologies, and that such modifications seem to be a precondition for the WTO to become involved in global AI governance.[241]

However, it is doubtful whether the WTO can yield tangible outcomes for global AI governance. The WTO has not produced any impressive accomplishments in a while. Thus, the recent decline in its influence is creating a certain level of scepticism around its usefulness going forward. This reaffirms the importance of FTAs/DEAs in developing coordinated AI regulations. In light of this, strong efforts should be made to include AI matters in FTAs/DEAs among major countries or in mega-agreements. Although the incorporation of explicit rules is impossible, establishing institutions for AI cooperation may enhance the opportunities to discuss and develop international AI regulation. Putting AI matters into a larger context, such as digital economy development and international trade, rather than restricting it to a narrow framework focusing on AI, will afford various options for AI promotion and regulation.

Taking all of this into consideration, countries, including the EU, are encouraged to include AI issues in their FTAs/DEAs. As discussed in Section 3.2, EU's FTAs do not contain expansive provisions related to AI. New EU FTAs/DEAs may include not only existing provisions introduced in previous FTAs, such as cooperation in AI technologies, but also concrete provisions related to the newly established EU AI Regulation and those that may contribute to the development of global AI governance. As explained earlier, FTAs may have advantages in terms of flexibility, meaning that rules can be developed incrementally. Thus, the idea of agile governance[242] can be incorporated into

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Intelligence and International Economic Law: Disruption, Regulation, and Reconfiguration (Cambridge University Press, 2021) 337, 347.

[238] Ibid. 350.

[239] Liu and Lin (n 79) 446; Mishra (n 87) 273.

[240] Mishra, ibid. See also, Meltzer (n 121) 35.

[241] See also, e.g. Kim (n 84) 88.

[242] Habuka (n 158) 3; Wendell Wallch and Gary E. Marchant, 'An Agile Ethical/Legal Model for the International and National Governance of AI and Robotics', (AIES Conference 2018) <https://www.aies-

AI rules under FTAs/DEAs.

5. Conclusion

The EU AI Regulation may serve as a starting point for the international regulatory race to govern AI technologies. Other countries and international regimes can also accelerate the enactment of AI-related rules. The EU AI Regulation is prominent in that it introduces risk-based regulations and relies on a hard law approach, in contrast to other major regulations. Although the Act is legitimate in that it went through the EU citizens' deliberation,[243] the uniqueness of the Act may incite concern that AI governance will become fragmented, conflicting with the general expectation for integrated global AI regulation. The Brussels Effect may contribute to the unification of AI governance if other countries and economic entities follow the EU regulations. However, this remains to be seen.

The convergence of AI regulations is not a short process. It is expected that the fragmented situation of AI regulation will persist, and major global-level efforts will remain in a principle-based framework for a while. Meanwhile, FTAs/DEAs can act as connections and liaisons between countries and international regimes. These may also work as experimental fields for regulation and harmonisation. Indeed, some countries have already begun to include AI-related provisions in their FTAs/DEAs. Although these attempts are still in a nascent stage and, hence, conceptual, future provisions will become more substantial when more countries start to adopt full-scale AI regulations. Thus, the role of the FTA/DEA as a coordinator of AI regulation has the potential to expand in the future.

The EU, although one of the major regions that promote the conclusion of trade agreements, has not yet included AI matters in its FTAs. Although the EU has exercised restraint in expanding digital provision in its FTAs and DEAs, cooperation and coordination in AI regulation could be included under the scope of these agreements. As discussed earlier, as the EU AI Regulation could have a strong impact, these AI policies may create additional costs for other countries. Therefore, to enhance the mutual understanding of respective regulations, FTAs/DEAs need to include effective systems and institutions for AI cooperation. As AI technologies have strong connections to trade and economic activities, FTAs/DEAs are appropriate channels for discussing AI matters. Further, bilateral or plurilateral agreements have advantages in terms of a prompt reaction to a changing world,

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conference.com/2018/contents/papers/main/AIES_2018_paper_77.pdf> accessed 5 September 2024.

243 It took 3 years from the European Commission's initial proposal of regulation. Admittedly, some people may say that there was insufficient deliberation on the EU Regulation for their enactment.

compared with multilateral frameworks with diversified competing participants. Thus, not only should the EU promote AI regulation through unilateral legislation, but it should also promote further coordination of AI regulation through its FTAs and DEAs going forward.