ADDRESSING THE GLOBAL DATA DIVIDE THROUGH DIGITAL TRADE LAW

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Abstract: The global data divide has emerged as a major policy challenge threatening equitable development, poverty alleviation, and access to information. Further, it has polarised countries on either side of the data schism, who have often reacted by implementing conflicting and sub-optimal measures. This paper surveys such policy measures, the politics behind them, and the footprints they have left on the digital trade or electronic commerce rules contained in free trade agreements (FTAs). First, this paper details an understanding of what constitutes the global data divide, focusing on three components, namely access, regulation, and use. Second, the paper surveys electronic commerce or digital trade rules in FTAs to understand whether existing rules deal with the widening data divide in a comprehensive manner and, if so, how. Our primary argument is that the existing FTA disciplines are deficient in addressing the global data divide. Key problems include insufficient participation by developing countries in framing digital trade rules, nonrecognition of the data divide affecting developing countries, and lack of robust and implementable mechanisms to bridge the data divide. Finally, we present a proposal to reform digital trade rules in line with best practices emerging in FTA practice and the main areas where gaps must be bridged. Our proposals include enhancing technical assistance and capacity-building support, developing a tailored special and differential treatment (SDT) mechanism, incentivising the removal of data-related barriers by designing appropriate bargains in negotiations, and boosting international regulatory cooperation through innovative and creative mechanisms.

I. INTRODUCTION

The datafication of the global economy presents enormous possibilities and challenges for policymakers worldwide. From an economic perspective, datafication can be understood as the increased use of digital data and data-driven technologies in generating economic value across

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industries.¹ Datafication provides several ready opportunities for innovation, such as creating novel products and services.² However, these opportunities are not equally spread across all countries.³ The asymmetry of digital development across countries means that the ability of developing countries and especially Least Developed Countries (LDCs) to foster data-driven sectors and technologies for their economic growth is considerably limited compared to digitally advanced countries.⁴ This gap across countries is termed as the 'global data divide' in this paper.

The paper studies the legal and policy challenges associated with the global data divide from an international trade law perspective, i.e., what is the impact of international trade law on the global data divide? Can trade rules better address the global data divide and, if so, how? The link between trade and development has been debated for decades in trade bodies, without any clear consensus.⁵ This link has become even more tenuous in emerging data-driven sectors,⁶ given the unprecedented network economies of scale and the 'winner takes most' dynamics of the digital economy.⁷ The COVID-19 pandemic has exposed the stark contrast

¹ Dan Ciuriak, *The Economics Of Data: Implications For The Data-Driven Economy*, CTR. FOR INT'L GOVERNANCE INNOVATION (Mar. 5, 2018), https://www.cigionline.org/articles/economics-data-implications-data-driven-economy.

² Tomas Champura Propagato. The Escential Components of Digital Transformation.

² Tomas Chamorro-Premuzic, *The Essential Components of Digital Transformation*, HARV. BUS. REV. (Nov. 23, 2021), https://hbr.org/2021/11/the-essential-components-of-digital-transformation.

³ Ulises A. Mejias & Nick Couldry, *Datafication*, 8(4) INTERNET POL. REV. (2019) 6-7.

⁴ See Closing the Digital Divide, WORLD BANK LIVE (Oct. 16, 2020), https://live.worldbank.org/closing-the-digital-divide.

⁵ Hunter Nottage, *Trade and Development*, *in* THE OXFORD HANDBOOK OF INTERNATIONAL TRADE LAW 481, (Daniel Bethlehem et al. eds., 2009) 481-504.

⁶ See generally Andrew Imbrie et al., *The Question of Comparative Advantage in Artificial Intelligence: Enduring Strengths and Emerging Challenges for the United States*, CTR. FOR SEC. & EMERGING TECH. (2020), https://cset.georgetown.edu/publication/the-question-of-comparative-advantage-in-artificial-intelligence-enduring-strengths-and-emerging-challenges-for-the-united-states/; Susan Ariel Aaronson, *A Future Built on Data: Data Strategies, Competitive Advantage and Trust*, CTR. FOR INT'L GOVERNANCE INNOVATION (2022).

⁷ Dan Ciuriak, *The Data-Driven Economy: Implications for Canada's Economic Strategy*, CTR. FOR INT'L GOVERNANCE INNOVATION(2019). *See also*, David S. Evans & Richard Schmalensee, *Why Winner-Takes-All Thinking Doesn't Apply to the Platform Economy*, HARV. BUS. REV. (May 4, 2016), https://hbr.org/2016/05/why-winner-takes-all-thinking-doesnt-apply-to-silicon-valley.

between the developed and developing world, even in basic aspects of economic life such as access to digital services and ability to work remotely.⁸ The ability of developing countries to participate in the data economy is not just limited by a lack of sufficient physical infrastructure, but also other 'softer' components including weak or counterproductive laws and regulations, absence of relevant international frameworks, and the lack of relevant skills, adequate resources and support.⁹

The global data divide is an obvious manifestation of the digital development asymmetry across countries; however, this paper deliberately distinguishes digital divide and data divide as two interrelated concepts. For instance, this paper leaves aside issues related to the physical infrastructure of the digital economy such as last mile connectivity of broadband networks, the pricing of internet access services, and traditional e-commerce issues such as the availability of regulatory framework for electronic transactions, logistics, and other digital trade facilitation measures. While these areas are extremely important for the growth of the global digital economy, this paper focuses on whether international trade law can bridge gaps in the virtual and regulatory infrastructure of the data-driven economy. Therefore, data divide can be seen to be a subset of the broader digital divide.

As Part II outlines in detail, the global data divide is reflected across three distinct but interrelated components: (i) access component or the ability of individuals to access data and data-driven technologies and services; (ii) regulatory component denoting the regulatory framework protecting rights and interests of individual participants in the data economy; and (iii) use component or the ability of entities within a country to use domestic data to foster economic growth. This section then argues that various aspects of the global data divide shape the dynamics of digital trade in the world

⁸ John Roese, COVID-19 Exposed the Digital Divide. Here's How We Can Close It, WORLD ECONOMIC FORUM (Jan. 27, 2021), https://www.weforum.org/agenda/2021/01/covid-digital-divide-learning-education/.

⁹ See generally, Nanjira Sambuli, In My View: The Promises, Pitfalls and Potential of Global Technology Governance, OECD LIBRARY (2021), https://www.oecd-ilibrary.org/sites/ce08832f-

en/1/3/2/1/index.html?itemId=/content/publication/ce08832f-

en&_csp_=17c2a7153f8f3e72e475ec60ee15c40c&itemIGO=oecd&itemContentType=b ook [hereinafter Sambuli].

today. While this paper explores the global data divide from a trade perspective, this divide also has significant social and political repercussions.¹⁰ To the extent relevant, we highlight these aspects in the paper.

Part III surveys existing international trade agreements to understand if and how they relate to the global data divide. The predominant focus of this part is on the rules contained in Electronic Commerce (E-commerce) or Digital Trade Chapters of Free Trade Agreements (FTAs) and some recent digital-only agreements. This is because treaties of the World Trade Organization (WTO) do not contain any explicit rules on digital trade (this is not to say that WTO treaties do not apply to digital trade-related issues). While we identify and discuss the relevant provisions in several core areas under three components of the global data divide, majority of the extant rules are ineffective in practice, especially those related to the *use* component. Further, the rules in the other two components vary significantly across FTAs and often do not adequately represent the interests of the developing countries in a holistic manner.

Concerns around the global data divide are often sidelined in several mainstream policy dialogues on digital trade. This indifference engenders undesirable results, including a turn towards digital protectionism in several developing countries, leading to varied frameworks on data and digital trade regulation across countries, thereby fragmenting the global framework for digital trade.¹¹ Part IV identifies the learning from the extant FTA practice and sets out our proposal for reforming trade rules and making them more responsive towards policy problems in global data divide. First, we argue that developing countries do not often participate

¹⁰ See generally, Teresa Carlson & Kriss Deiglmeier, Here's How We Can Bridge the 'Data Divide' for a More Equitable Future, WORLD ECONOMIC FORUM (Jan. 19, 2022), https://www.weforum.org/agenda/2022/01/bridging-the-data-divide-for-a-more-equitable-future/; Splunk Brandvoice, The Data Divide Is Real, and Could Be Highly Destabilizing, FORBES (Mar. 01, 2022), https://www.forbes.com/sites/splunk/2022/03/01/the-data-divide-is-real-and-could-be-highly-destabilizing/?sh=414d6de71174; NICK COULDRY & ULISES A. MEJIAS, THE COSTS OF CONNECTION: HOW DATA IS COLONIZING HUMAN LIFE AND APPROPRIATING IT FOR CAPITALISM (2019) 83-153.

¹¹ Ziyang Fan & Anil K Gupta, *The Dangers of Digital Protectionism*, HARV. BUS. REV. (Aug. 30, 2018), https://hbr.org/2018/08/the-dangers-of-digital-protectionism.

as actively in formulating digital trade rules as their developed country counterparts. For instance, the interests and perspectives of many important developing countries, especially those in Africa, South Asia, and the Caribbean, are inadequately represented in FTAs due to their non-participation. Second, most provisions relevant to e-commerce have not been designed considering the detrimental impact of the data divide on the global economy. Several examples are discussed in Part IV. Finally, we argue that digital trade rules rarely contain a robust mechanism for regulatory assistance and technical capacity building to enable developing countries to bridge the data divide, including rules on technology transfer.

We, therefore, propose that trade law should be reformed to address these gaps by (i) building robust mechanisms for technical assistance and capacity building support in digital trade agreements; (ii) developing a streamlined Special and Differential Treatment (SDT) mechanism applicable to the digital sector; (iii) enabling developing countries to progressively improve their regulatory framework, remove unnecessary data-related barriers, and liberalise their domestic sectors in exchange for SDT and technical assistance; and (iv) identifying areas of common interest such as net neutrality, international regulatory cooperation, and mutual recognition mechanisms, where FTA commitments are currently weak or absent.

II. UNDERSTANDING WHAT THE GLOBAL DATA DIVIDE MEANS FOR GLOBAL DIGITAL ECONOMY

No universal consensus exists on the definition of the global data divide. However, it is widely acknowledged that the capacity of individuals and businesses from a majority of developing countries to participate and maximise the benefits of the global digital economy is often constrained. As digital markets increasingly become 'datafied' the ability of individuals to access and benefit from the data-driven economy is integral to their economic growth and well-being. Yet, several gaps exist, leading to what we term as 'global data divide' in this paper. In this part, we explore the idea of global data divide from three inter-related perspectives: (i) access

Electronic copy available at: https://ssrn.com/abstract=4276764

¹² U.N. Conf. on Trade & Dev., Digital Economy Report 2021, at 132-134, UNCTAD/DER/2021 (Sep. 29, 2021) [hereinafter Digital Economy Report]; WORLD BANK GROUP, WORLD DEVELOPMENT REPORT: DIGITAL DIVIDENDS 5-8, 18-25 (2016).

component; (ii) regulatory component; and (iii) use component. In understanding the role of trade law in addressing the global data divide, it is therefore important to consider a holistic and multidimensional perspective of the global data divide.

The access component, in simple words, refers to the ability of individuals to access the economic benefits of a data-driven economy. This ability can be limited due to various reasons. For instance, users have inadequate access to data where it is either not available (especially in digitalisable form) or held in silos that are not easily commercialisable. 13 Further, in certain contexts, consumers do not have access to reliable and competitive data-driven services, ¹⁴ or regulatory restrictions may exist limiting how data can be processed, used, and transferred across borders. 15 In authoritarian economies, digital services and apps may also be heavily censored, thereby reducing access to several global digital platforms for local users. 16 Stringent regulation of the internet can also result from governmental control over physical infrastructure such as IXPs or imposing regular internet shutdowns. For instance, internet shutdowns have prevented certain entrepreneurs from conducting their e-commerce businesses while also depriving local users of benefiting from these businesses.¹⁷

The *regulatory component* focuses on the laws and regulations that enable individuals to participate freely and effectively in a data-driven economy by protecting their rights and key interests. These laws and regulations can be implemented at different levels of governance, ranging from local laws to international treaties. In other words, this component begs the question

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¹³ Darragh O'Keeffe, *Break Down the Silos, Says Data Chief*, GOV'T NEWS (Nov. 14, 2018), https://www.governmentnews.com.au/break-down-the-silos-says-data-chief/.

¹⁴ U.N. Conf. on Trade & Dev., E-Commerce and the Digital Economy in LDCs: At Breaking Point in COVID-19 Times, UNCTAD/DTL/STICT/2022/1 (Mar. 17, 2022) 9-17.

¹⁵ Matthias Bauer et al. ., *The Costs Of Data Localisation: Friendly Fire On Economic Recovery*, Eur. Ctr. for Int'l Pol. Econ. (2014) [hereinafter Bauer] 3-4.

¹⁶ Adrian Shahbaz, *The Rise of Digital Authoritarianism*, FREEDOM HOUSE (2018), https://freedomhouse.org/report/freedom-net/2018/rise-digital-authoritarianism.

Number of Affected Users and Economic Cost of Internet Shutdowns in Selected Sountries in 2021, STATISTA (July, 2021), https://www.statista.com/statistics/1095831/economic-cost-internet-shutdowns/.

whether laws and regulations empower individuals to participate in the data-driven economy? Given that international frameworks on data governance are almost absent, the focus of this paper is mostly on domestic initiatives. Although different developing countries may choose a different path of data-driven development, the regulatory component is what we consider the 'building block' of addressing the global data divide.

Developing countries face a lack of expertise and budget gaps in implementing comprehensive regulatory frameworks, especially in highly complex or dynamic areas of digital regulation such as data protection, online consumer protection, cybercrimes, and the regulation of crossborder data flows, as compared to developed countries. In several instances, the regulatory model followed by developed countries may not necessarily be apposite for a country with limited regulatory expertise or technical capacity. One commonly cited example in this regard is the difficulties faced by developing countries in implementing GDPR-like frameworks. Therefore, evidence-based and contextual development of digital regulations is essential to strengthen the regulatory component.

The alignment of regulatory frameworks is essential to enable digital trade flows; yet there can be several difficulties in practice. For instance, two countries may be informed by different ideas of privacy or security, or they could be pursuing very different tools to achieve domestic digital development (e.g., liberalising the digital sector versus imposing digital industrialisation policies),²¹ or the process to obtain interoperability of regulatory frameworks may be too expensive or burdensome for many developing countries.²² Further, even when countries adopt laws in a

¹⁸ OECD, Development Co-operation Report (Dec. 21, 2021).

¹⁹ Bhaskar Chakravorti, *Why the Rest of the World Can't Free Ride on Europe's GDPR Rules*, HARV. BUS. REV. (Apr. 30, 2018), https://hbr.org/2018/04/why-the-rest-of-world-cant-free-ride-on-europes-gdpr-rules.

²⁰ Anupam Chander et al., *Achieving Privacy*: Costs of Compliance and Enforcement of Data Protection Regulation (World Bank Group, Working Paper No. 9594, 2021).

²¹ Christopher Foster & Shamel Azmeh, *Latecomer Economies and National Digital Policy: An Industrial Policy Perspective*, 56(7) J. DEV. STUD. 1247-1262 (2019).

²² Michael Pisa et al., *Why Data Protection Matters for Development: The Case for Strengthening Inclusion and Regulatory Capacity*, CTR. FOR GLOB. DEV. (Dec. 06, 2021), https://www.cgdev.org/publication/why-data-protection-matters-development-case-strengthening-inclusion-and.

certain area (e.g., laws on e-transactions or privacy protection), the substantive content and quality of such laws and regulations may vary substantially across countries.²³

Finally, the *use component* of the global data divide focuses on the ability of individuals in developing countries to use data and data-driven technologies to improve quality of life and achieve economic growth (thus, distinguishing "use" from mere access). Thus, the use component is, in particular, interlinked to the access component. This component shifts attention to what is happening on the ground, i.e., how are users able to use available data and data-driven technologies for their benefit and what kind of policy initiatives and regulatory interventions will enable better use. The lack of meaningful access to data and a weak regulatory framework, as discussed above, has a compounding effect on the ability of individuals to use data. Several studies have indicated that entrepreneurs in developing countries cannot often make the best use of appropriate data technologies and high-quality open datasets.²⁴ In particular, their ability to leverage these technologies to create new digital solutions (e.g., customised for local markets) is limited due to lack of expertise and finance.²⁵ Some countries also do not provide the appropriate regulatory environment to protect the business interests of emerging companies including protecting proprietary technologies and security of the networks.²⁶ For instance, intellectual property rules may be unsuitable for developing country priorities or underdeveloped in key areas that hamper the incentives especially for small-sized enterprises to innovate.

²³ Alexander Beyleveld & Franziska Sucker, *Cross-Border Data Flows in Africa: Policy Considerations for the AfCFTA Protocol on Digital Trade* (Oct. 21, 2022) 26-39 https://cseaafrica.org/cross-border-data-flows-in-africa-policy-considerations-for-the-afcfta-protocol-on-digital-trade/ (in the context of digital laws in several African countries).

²⁴ David Gunderman & Eric Vance, *Low- and Middle-Income Countries Lack Access to Big Data Analysis – Here's How to Fill the Gap*, The Conversation (July 20, 2021), https://theconversation.com/low-and-middle-income-countries-lack-access-to-big-data-analysis-heres-how-to-fill-the-gap-159412.

²⁵ Penelope Naas, *The Digital Divide: Why SMEs Must Cross Borders*, WORLD ECONOMIC FORUM (April 03, 2021), https://www.weforum.org/agenda/2022/08/smessmall-medium-business-cross-border-enterprise/.

²⁶ Sambuli, *supra* note 9.

Conclusively, the global data divide shapes the dynamics of the global economy: the winners and the losers; the rule-makers and the rule-takers. The difference in the ability of individuals in the developing and developed world to access and use data for their economic well-being is reflected in the yawning digital divide across countries. For instance, countries that implement robust regulations protecting internet users and enabling an open and secure environment for data flows and data-driven technologies are likely to foster more meaningful and inclusive participation of individuals in the digital economy. Alternatively, the lack of an open internet or weak regulations can ultimately lead to reduced opportunities for individuals and businesses to foster data-driven innovation and growth in a country.

III. GLOBAL DATA DIVIDE IN INTERNATIONAL TRADE AGREEMENTS: A SURVEY

Having introduced our understanding of the global data divide and its components, we now examine the cobweb of FTAs to identify the variety of obligations that countries have been undertaking on each component. This exercise identifies the nature and depth of these obligations; the countries that lead the rule-making process for digital trade; and how these provisions impact the global data divide as discussed in Part II. This part will also bifurcate the three components into sub-components by identifying relevant provisions which fall under these components. This would lay the groundwork for Part IV, wherein we shall investigate whether these provisions are adequate and if not, how trade rules can bridge the gaps.

This section is structured as follows: first, we discuss the state of rulemaking in digital trade, explaining why FTAs have emerged as the primary rulemaking instruments despite ongoing plurilateral negotiations under the aegis of the WTO; second, we introduce the sub-components of each of the three components: access, regulatory, and use. We explain why we focus on specific types of provisions and not others, and their relevance to the global data divide; and third, we set out our survey of various FTAs, for each component, to dissect the current state of commitments and approaches to the global data divide.

The paper heavily relies on and makes use of the TAPED (Trade Agreements Provisions on Electronic-commerce and Data) dataset, created by researchers from the University of Lucerne led by Mira Burri and the University of Bern led by Manfred Elsig.²⁷ This survey, as of August 2022, has studied around 379 FTAs to identify the rules they contain on digital trade.²⁸ In conducting this survey, we examine clauses across FTAs to understand how they impact the data divide. The TAPED dataset classifies the degree of commitment taken by parties in each of the 379 FTAs on various issues: no commitment, soft commitments (where implementation is optional or on a best-efforts basis), or hard commitments (where implementation is mandated). The authors have relied on this classification to identify a representative sample of FTAs (as explained below) to further their goal of understanding the global data divide.

In conducting the survey of FTAs, the paper identifies relevant provisions on the following bases: the countries or regions involved (with the prior knowledge that some countries/regions are actively taking part in digital trade rule-making whereas some have avoided the same);²⁹ time period of the signing of the FTAs (with an assumption that more recent FTAs are likely to have deeper commitments on digital trade); level of commitment as identified by TAPED; and if the FTA directly addresses the digital economy (a new suit of digital trade agreements like the DEPA have gained traction in recent years).

A. The Resurgence of the Spaghetti Bowl of Digital Trade Rules

During the G20 Summit in 2019, WTO Director-General Roberto Azevedo commented that the fragmentation of the digital economy and its regulatory system based on national boundaries would heighten entry barriers and inflate operational costs, hurting everyone, especially

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²⁷ Mira Burri & Rodrigo Polanco, *Digital Trade Provisions in Preferential Trade Agreements: Introducing a New Dataset*, 23(1) J. INT'L ECON. L. 187, 220 (2020).

²⁸ Mira Burri, *TAPED – A Dataset on Data-related Trade Provisions*, UNIV. OF LUCERNE (Jun. 06 2022), https://www.unilu.ch/en/faculties/faculty-of-law/professorships/burrimira/research/taped/ [hereinafter TAPED Dataset].

²⁹ Arindrajit Basu, *Can the WTO Build Consensus on Digital Trade?* HINRICH FOUND. (Oct. 05, 2021), https://www.hinrichfoundation.com/research/article/wto/can-the-wto-build-consensus-on-digital-trade/[hereinafter Basu].

developing countries and small businesses."30 Experts recognise that rules on digital trade are increasingly fragmented especially with the expanding network of FTAs.³¹ The WTO adopted the Work Programme on Electronic Commerce as early as 1998.³² However, twenty-four years later, the intense politicisation of negotiations at the WTO³³ has meant that a fullfledged multilateral agreement on e-commerce or digital trade is still unrealised.³⁴ This gap in the multilateral framework has created negotiation fatigue for many countries. Some countries have chosen to enter into plurilateral agreements exclusively dedicated to the digital economy (like the Digital Economy Partnership Agreement (DEPA) or the Digital Economy Agreements entered into by Singapore) or included increasingly detailed and comprehensive chapters on e-commerce within the framework of regional trade and investment agreements (starting with the Singapore-Australia FTA in 2003).³⁵ Over 138 FTAs (of the 379 FTAs listed in the TAPED dataset) contain provisions on e-commerce, of which 106 FTAs have dedicated e-commerce chapters. This scenario has arguably led to the re-invention of Jagdish Bhagwati's hypothetical 'Spaghetti Bowl' in the realm of digital economy regulation, emulating the political fragmentation of the pre-WTO era. 36 The Spaghetti Bowl theory hypothesized that if countries signed multiple FTAs, it would create an entanglement of varying rules and mechanisms leading to more loopholes and providing a route for countries to impose trade restrictions.

Nonetheless, several countries are making sustained efforts to coordinate on digital trade rules. Over the last few years, various countries have

³⁰ Azevêdo Joins Prime Minister Abe and Other Leaders to Launch "Osaka Track" on the Digital Economy, WTO (Jun. 28, 2019), https://www.wto.org/english/news/e/news19/e/dgra/28jun19/e.htm.

³¹ Mira Burri, *The Regulation of Data Flows through Trade Agreements*, 48(2) GEORGETOWN J. INT'L L. 407, 448 (2017).

E-commerce, https://www.wto.org/english/thewto_e/minist_e/mc12_e/briefing_notes_e/bfecom_e.ht m

³³ William A. Reinsch, *Whither, or Wither, WTO?*, CTR. FOR STRATEGIC & INT'L STUD. (Aug. 06, 2018), https://www.csis.org/analysis/whither-or-wither-wto.

³⁴ Mira Burri, *Towards a New Treaty on Digital Trade*, 55(1) J. WORLD TRADE 77, 100 (2021).

³⁵ Basu, *supra* note 29.

³⁶ Jayant Menon, From Spaghetti Bowl to Jigsaw Puzzle? Fixing the Mess in Regional and Global Trade, 1(3) ASIA & PAC. POL. STUD. 470, 483 (2014).

participated in plurilateral discussions on digital trade. In 2017, seventy-one countries issued a joint statement on initiating exploratory work towards future WTO negotiations on trade-related aspects of electronic commerce;³⁷ later that year, ten developing countries came together to make a declaration as 'Friends of E-commerce for Development'.³⁸ In 2019, Japan along with twenty-three other countries issued the Osaka Declaration on Digital Economy;³⁹ later Japan, in cooperation with Australia and Singapore as convenors and seventy-three other nations as participants also began the Joint-Statement Initiative (JSI) on E-Commerce.⁴⁰ Currently, eighty-six Members are participating in this initiative.

On the other side, many developing countries such as India, South Africa, Vietnam, Bolivia, Venezuela, and many African and Caribbean countries have shrugged such initiatives. Some countries like India have even questioned the legitimacy of the JSIs under the WTO. Others have expressed concerns as to whether regional forums are apposite for negotiating rules on digital trade that can affect billions of poor people across the world. In particular, developing countries are apprehensive

³⁷ WTO, Joint Statement On Electronic Commerce, WTO Doc. WT/MIN(17)/60 (Dec. 13, 2017).

³⁸ Friends of E-commerce for Development Launch Roadmap for International Trade and Development Policy, UNCTAD (May 04, 2017), https://unctad.org/news/friends-e-commerce-development-launch-roadmap-international-trade-and-development-policy.

³⁹ Osaka Declaration on Digital Economy, WTO (June 28-29, 2019), https://www.wto.org/english/news_e/news19_e/osaka_declration_on_digital_economy_e.pdf.

Joint Statement Initiative on E-commerce: Statement by Ministers of Australia, Japan and Singapore, WTO (Dec. 14, 2021), https://www.meti.go.jp/english/speeches/ministers_statements/2021/20211214_01.html.
 U.N. Conf. on Trade & Dev., What is at Stake for Developing Countries in Trade Negotiations on E-Commerce? The Case of the Joint Statement Initiative, UNCTAD/DITC/TNCD/2020/5 (Feb. 19, 2021) 9 [hereinafter UNCTAD].

⁴² Jane Kelsey, *The Illegitimacy of Joint Statement Initiatives and Their Systemic Implications for the WTO*, 25(1) J. INT'L ECON. L. 2, 24 (2022).

⁴³ WTO, Communication from India and South Africa: The Legal Status of Joint Statement Initiatives' and Their Negotiated Outcomes, WTO Doc. WT/GC/W/819 (Feb. 19, 2021); Kritika Suneja, *India and South Africa Revive Multilateral Talks on Ecommerce*, ECON. TIMES (Dec. 10, 2020), https://economictimes.indiatimes.com/news/economy/policy/india-and-south-africa-revive-multilateral-talks-on-ecomm/articleshow/79650347.cms?from=mdr; Peter

that they may be forced to sign unreasonable clauses in bilateral negotiations, as against being able to present a unified stand at the WTO. Others are unwilling to participate in negotiations on e-commerce unless enabling issues such as SDT, ICT infrastructure and trade, trade logistics, Intellectual Property (IP) rights, and complete market access are resolved.⁴⁴ Yet, several developing countries are also enthusiastically participating in plurilateral frameworks dedicated to e-commerce or the digital economy.⁴⁵ Some developed countries, like the European Union (EU), have also been relatively less active in taking part in trade agreements given their interest in developing an indigenous model of responsible and inclusive digital economy.⁴⁶

B. Identifying Relevant Provisions

The global data divide, as this paper posits, is the asymmetry in the ability of countries to utilise data and its novel forms of use to support their socioeconomic development. As such every trade rule affecting how countries regulate data, its creation, processing, usage, purpose, and consequences, is relevant to our study. The contours of this interaction between digital trade and the global data divide have already been identified in Part II, which notes that the unequal access to data, weak regulatory frameworks, and inadequate opportunities for making effective use of data in the developing world are the key reasons behind the global data divide.

Ungphakorn, *India and South Africa Pour Cold Water on Alternative Approach to WTO Talks*, TRADE BETA BLOG (Feb. 22, 2021), https://tradebetablog.wordpress.com/2021/02/22/india-south-africa-plurilaterals/.

⁴⁴ Leonila Guglya & Marilia Maciel, Addressing the Digital Divide in the Joint Statement Initiative on E-Commerce: From Enabling Issues to Data and Source Code Provisions, INT'L INST. SUSTAINABLE DEV. 9-27 (2020) [hereinafter Guglya & Maciel]; Rashmi Banga, Joint Statement Initiative on E-Commerce (JSI): Economic and Fiscal Implications for the South, UNCTAD/SER.RP/2021/1, 14 (2021).

⁴⁵ UNCTAD, supra note 41, at 10.

⁴⁶ Bhaskar Chakravorti et al., *Which Economies Showed the Most Digital Progress in 2020*?, HARV. BUS. REV. (Dec. 18, 2020), https://hbr.org/2020/12/which-economies-showed-the-most-digital-progress-in-2020?ab=hero-subleft-3 [hereinafter Chakravorti]; Richard Youngs & Sinan Ülgen, *The European Union's Competitive Globalism, in* REWIRING GLOBALIZATION (Sinan Ülgen ed., 2022) 51-56.

1. Access Component

For the 'access' component, we focus on rules that affect the ability of individuals to participate in the global data-driven economy. The barriers to access could be actual or notional. While provisions on physical digital infrastructure such as access to broadband, last mile connectivity etc., are certainly relevant to access, we shall instead focus on laws and policies that affect the virtual infrastructure and transborder data flows. Specifically, we will be focusing on provisions related to: first, introducing a permanent ban on customs duties on electronic transmissions, second, net neutrality/network management rules, third, facilitation of cross-border data flows for digital trade, fourth, non-discrimination of digital products and market access in domestic digital markets, and fifth, fostering open government data initiatives. Below we explain relevance of each of these provisions.

Since 1998, WTO members have agreed to a temporary moratorium on custom duties on electronic transmissions (e-transmissions).⁴⁷ There is no definition of e-transmissions, but the mainstream view is that it covers both e-transmission and the underlying content of the transmissions.⁴⁸ In the previous years, the moratorium was renewed without much controversy but in the recent years it became a more divisive issue. Certain developing countries have argued that they are facing severe revenue losses due to non-imposition of custom duties on data movements.⁴⁹ However, the imposition of such duties on electronic e-transmissions, would lead to two major stress-points on access: first, it would impose additional costs on access, especially when access to the internet remains a concern in many developing countries; and second, it would slow down the cross-border

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⁴⁷ WTO Provisionally Agrees to Extend E-commerce Tariff Moratorium - sources, REUTERS (June 16, 2022), https://www.reuters.com/markets/commodities/wto-provisionally-agrees-extend-e-commerce-tariff-moratorium-sources-2022-06-16/.

⁴⁸ Comments of Lee Tuthill at the Webinar on E-Commerce Regulation after MC12 – author's notes, (June 22, 2022) https://digitaltradelaw.ch/webinar-e-commerce-regulation-after-mc12/.

⁴⁹ WTO Members Highlight Benefits and Drawbacks of E-commerce Moratorium, INT'L INST. FOR SUSTAINABLE DEV. (July 23, 2020), https://sdg.iisd.org/news/wto-members-highlight-benefits-and-drawbacks-of-e-commerce-moratorium/.

movement of data, and in many cases completely restrict it, by creating a fragmented customs system.⁵⁰

Net neutrality is another integral factor in creating a level playing field and allowing unrestricted movement of data. The principle of net neutrality entails that internet service providers should treat all internet content equally and has been an important precursor to the digital economy.⁵¹ Safeguarding net neutrality rules means that users can access the services they value the most and enables smaller companies to reach their audience without bearing any additional costs.⁵²

The next provision that is relevant in the context of *access* is whether trade agreements facilitate the free flow of data across borders or not. Data as a resource has unique characteristics, which cannot be analysed by looking at it merely from the silos of state sovereignty.⁵³ In economic terms, resources can have two key qualities: they can be rivalrous (i.e., depleting with usage) and excludable (i.e., where access can be limited to select people).⁵⁴ Data can be classified as a non-rivalrous good as it does not deplete if more people use it for various purposes (unlike oil, with which it is often compared). While IP laws often protect proprietary datasets created by companies (e.g., containing customer data), the underlying data itself is not excludable. For instance, another company may collect the same information for providing its services.

However, when governments restrict the collection, storage, and usage of data, they limit how market players are able to access the data necessary

⁵⁰ Andrea Andrenelli & Javier López González, *Electronic Transmissions and International Trade - Shedding New Light on the Moratorium Debate* (OECD, Working Paper No. 233, 2019) 22-30.

⁵¹ Klint Finley, *The WIRED Guide to Net Neutrality*, WIRED (May 05, 2018), https://www.wired.com/story/guide-net-neutrality/.

⁵² Jeremy Malcolm, *Net Neutrality and the Global Digital Divide*, ELEC. FRONTIER FOUND. (July 24, 2014), https://www.eff.org/deeplinks/2014/07/net-neutrality-and-global-digital-divide; BART PURSEL, INFORMATION, PEOPLE, AND TECHNOLOGY 145-156 (2022).

⁵³ We Need to Talk About Data: Framing the Debate Around Free Flow of Data and Data Sovereignty, Internet & Jurisdiction Pol. Network 14-19 (2021).

⁵⁴ R.G. Holcombe, *Public Goods Theory and Public Policy, in* LIBERALISM: NEW ESSAYS ON LIBERAL THEMES (J. Narveson & S. Dimock eds., 2000) 126.

to participate in the digital economy. This converts data into an excludable resource, limiting its potential, even when it does not have to be so. To illustrate, if a government decides to restrict the access of government data for foreign companies, it could limit the choice of available services for end-consumers. Similarly, if a government limits the flow of certain type of content (e.g., through a ban on apps from a certain country on national security grounds), it would limit people's participation in those digital platforms and associated economy. Further, if a government decides that all data (for instance, personal data) must be localised, it would acutely restrict progress in data sciences and analytics, affecting overall GDP.55 When data is couched in policy debates as an economic resource being stolen by foreign neo-colonisers,56 the instinctive reaction from several governments is to limit access to such data, especially to foreign companies; however, such policies do not necessarily take into account how those data restrictions impact the digital services market as a whole. The Digital Services Trade Restrictive Index, which studied seventy-four countries from across the world, found that only thirteen countries had reasonable to no restrictions on the flow of digital services.⁵⁷

We do not suggest that governments do not have a reasonable basis to restrict cross-border data movements; but rather argue that since restrictions on data flows deeply affect the domestic economy, they must be measured, proportionate, and in sync with the economic realities. As public choice theorists have demonstrated, when policies try to limit access to a good which provides maximum benefits by remaining open, it leads

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⁵⁵ Bauer, *supra* note 15; Anupam Chander & Uyên P. Lê, *Data Nationalism*, 64 EMORY L. J. 677 (2015).

⁵⁶ Revati Prasad, *People as Data, Data as Oil: The Digital Sovereignty of the Indian State*, 25(6) INFO., COMMC'N & SOC'Y 802, 815 (2022); Patrik Hummel et al., *Data Sovereignty: A Review*, 8(1) BIG DATA & SOC'Y 1, 17 (2021); Dhwani Goel, *The Global Digital Divide is Reminiscent of Colonialism*, LSE BREXIT (May 06, 2021), http://eprints.lse.ac.uk/111255/2/brexit_2021_05_06_the_global_digital_divide_is_reminiscent of.pdf.

⁵⁷ Douglas Lippoldt, Regulating the Digital Economy: Reflections on the Trade and Innovation Nexus, CTR. FOR INT'L GOVERNANCE INNOVATION (Feb. 14, 2022), https://www.cigionline.org/articles/regulating-the-digital-economy-reflections-on-the-trade-and-innovation-nexus/; Digital Services Trade Restrictiveness Index, OECD, https://stats.oecd.org/Index.aspx?DataSetCode=STRI DIGITAL. [hereinafter OECD].

to a market-failure.⁵⁸ A hypothetical scenario, where a government limits the access to the light coming from a lighthouse only to those boats which pay a fee, demonstrates the underlying market failures. This measure would not only be costly but would defeat the very purpose of a lighthouse, which it to help boats reach the shore.⁵⁹ Widespread restrictions on data flows engenders a similar situation, i.e., it would be self-defeating and costly. Instead of imposing unilateral restrictions, governments would be better off agreeing upon uniform 'rules of the road' for enabling cross-border data flows and enhancing its developmental dividends. As we argue below in our survey, certain provisions in FTAs on cross-border data flows can potentially facilitate this goal.

The next set of provisions deal with market access for foreign digital services and service suppliers. These provisions focus on principles of non-discrimination, wherein the access that foreign suppliers of digital services have to the domestic markets is no less favourable than that of local suppliers (as captured by obligations on national treatment or NT).⁶⁰ Further, a country that is party to a trade agreement may also agree that it will not discriminate between digital services and service suppliers of different countries (encapsulated in the obligations on Most Favoured Nation or MFN treatment). Finally, countries may agree to not impose market access restrictions on foreign digital services suppliers or digital services, such as by prescribing quotas for number of service operations or completely banning supply of certain foreign digital services or service suppliers. Limits on market access diminish the economic potential of data services and create trade barriers, especially for smaller businesses.⁶¹ Policymakers often defend discriminatory restrictions on digital services trade by arguing that such measures are necessary for infant industry

⁵⁸ Elinor Ostrom & Vincent Ostrom, *The Quest for Meaning in Public Choice*, 63(1) AM. J. ECON. & SOCIO. 105, 147 (2004); Francis M. Bator, *The Anatomy of Market Failure*, 72(3) Q. J. ECON. 351, 379 (1958).

⁵⁹ R. H. Coase, *The Lighthouse in Economics*, 17(2) J. L. & ECON. 357, 376 (1974).

⁶⁰ F. Casalini, J. López González & E. Moïsé, *Approaches to Market Openness in the Digital Age* 4-7 (OECD, Working Paper No. 219, 2019).

⁶¹ J. López González & J. Ferencz, *Digital Trade and Market Openness* 34-35 (OECD, Working Paper No. 217, 2018).

development or data security and sovereignty.⁶² However, such restrictions make it harder for smaller platforms and start-ups to do business, including by requiring them to pay more for lower quality services.

Lastly, under the *access component*, we examine commitments undertaken to support open government data. Governments have control over huge volumes of data, which can be put to various uses that can shape peoples' lives in a meaningful manner. If governments ensure that their data is easily accessible in user-friendly formats, then it can improve innovation in digital services and enable the public to use data-driven technologies.⁶³

Under open government data initiatives, governments can undertake several initiatives including: (i) making all the laws, rules, and regulations, available online for easy access; (ii) providing relevant information on government services online (e.g., information on public transport timetables and fares can become the basis for navigation apps); (iii) providing access to data on functioning of public bodies (e.g., information on expenditures, current projects, and revenues of local bodies can become the basis for 'know your government' apps); and (iv) releasing data having socio-commercial value into the public domain (like land records or traffic data).

2. Regulatory Component

In assessing how FTAs impact the regulatory component of the global data divide, we examine provisions enabling regulatory frameworks protecting individuals and their rights and interests. This includes provisions on data protection, online consumer protection, spam control, cybersecurity, cryptography, AI ethics, and lastly, data localisation and protection of legitimate public policy objectives (e.g., through exceptions and applicable non-conforming measures). As argued in Part II, both

⁶² David Collins et al., A Soft Landing for Developing Countries and Non-Discrimination in Digital Trade: Possible Lessons from Asian Countries, 55(4) J. WORLD TRADE 649, 653-55 (2021)[hereinafter Collins et al.].

⁶³ OPEN DATA IN 60 SECONDS, http://opendatatoolkit.worldbank.org/en/open-data-in-60-seconds.html.

global and domestic regulatory frameworks are important trust-building tools that support public participation in the digital economy. The survey below examines the type and depth of commitments that countries have made with respect to enabling relevant regulatory frameworks. Many factors, including, the maturity of domestic regulations, availability of institutions to implement them, and economic interests influence the type of commitments countries have undertaken, as explained below.

3. Use Component

Borrowing the language of Gigler, provisions affecting digital trade can only be meaningful "when they improve people's lives by enriching them economically, socially, politically, and culturally, and enhance their livelihood and educational outcomes". ⁶⁴ Therefore, under this component, we focus on FTA provisions enabling realisation of developmental dividends for the public. This includes provisions on supporting medium and small enterprises ("MSMEs"), requirements for SDT (example, preferential treatment to developing countries, providing additional time to developing countries to implement their commitments etc.), digital inclusion; digital identities, regulatory sandboxes, competition policy, and source code/algorithm disclosure. Below we contextualise the interface of each of these provisions with the global data divide.

Supporting MSMEs in developing countries is central to ensure meaningful participation and innovation in the domestic data economy. For instance, MSMEs in developing countries can create customised digital solutions and prevent them from becoming mere consumers of services supplied by the developed countries.⁶⁵ However, at the same time, MSMEs in developing countries also benefit from global digital platforms or services; for instance, MSMEs can hugely benefit from global ecommerce platforms or e-payment solutions, especially to reach markets outside their local economy.⁶⁶

⁶⁴ Björn-Sören Gigler, Development as Freedom in a Digital Age: Experiences from the Rural Poor in Bolivia (2015) xxxi-xxxiv.

⁶⁵ Guglya & Maciel, *supra* note 44, at 16, 29-32.

⁶⁶ Nick Agnew, *Digital Trade Supports Economic Development*, ASIAN TRADE CTR. (Mar. 24, 2022), http://asiantradecentre.org/talkingtrade/digital-trade-supports-economic-development.

Further, various domestic obstacles exacerbate the domestic data divide. For instance, digital inclusion initiatives are important to ensure that maximum number of people can use and benefit from digital and data-driven services. These initiatives can be more efficient when coupled with digital identity mechanisms, which help people establish online presence and participate in the digital economy freely and safely. At the same time, experts have noted that digital identities must not illegally track citizens.⁶⁷ Regulatory sandboxes are increasingly becoming instrumental in testing out novel services and uses of data, and would be especially vital in emerging markets where local innovations are occurring.⁶⁸ Similarly, competition policy commitments (an area where commitments are almost absent, as discussed later) could improve user choice and affordability by ensuring a competitive and fair market. For instance, several jurisdictions impose data portability requirements on technology platforms.⁶⁹

Finally, we cover provisions on source code/algorithm disclosure under the use component. The underlying issues are intricate: on the one hand, protecting IP rights (including proprietary algorithms and datasets) of inventive firms and individuals is important to incentivise creation of new technologies by exploring innovative means of using data; on the other hand, many developing countries lack a level of technological know-how which can help them become suppliers of digital services. Therefore, questions of technology transfer could intersect with the restrictions on source code/algorithmic disclosure requirements set out in FTAs. The manner in which FTA provisions on trade secrets and source code disclosure balance these priorities is critical to the global data divide.

4. Cross-cutting issues

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⁶⁷ Rina Chandran, *Afghan Panic Over Digital Footprints Spurs Call for Data Collection Rethink*, Thomson Reuters Found. (Aug. 20, 2021), https://news.trust.org/item/20210820080622-5wjww/.

⁶⁸ Department for Digital, Culture, Media & Sport, Government of United Kingdom, Sandboxes for Data: Creating Spaces for Agile Solutions Across Borders, 9-22 (2022).

⁶⁹ Gabriel Nicholas, *The New Portability Designing Portability with Competition in Mind*, ENGELBERG CTR. ON INNOVATION L. & POL. (2020) 4-6.

Finally, in the survey presented in the next part, we cover provisions cutting across all the three-abovementioned components. These include provisions on transparency in digital trade policies, mutual recognition of regulatory standards, and international regulatory cooperation. These provisions are important in supporting regulatory convergence, promoting interoperability, and allowing the unrestricted flow of data.

Transparency in both publication and enforcement of domestic digital trade laws and policies ensures that businesses, especially MSMEs, have information regarding applicable legal requirements, restrictions, beneficial policies, and trade conditions. A minimum access to relevant information is a pre-condition to ensure that individuals and entrepreneurs can access and use data technologies in a beneficial and informed manner. Mutual recognition of regulatory complements transparency by ensuring that businesses do not have to undertake costly modifications to do business in different countries and thereby enables ease of use and access for consumers. By recognising each other's regulatory systems, countries accept that despite their differences, these systems are equally competent. This eases the regulatory burden on cross-border businesses. International regulatory cooperation adds to this by ensuring that not only countries recognise each other's systems but also cooperate to align them, thus aiding interoperability.

Classification of Trade Commitments Affecting Data Divide

Component	Specific Commitments
1. Access	• Customs duties on electronic transmissions
Component	 Net neutrality rules
	 Unrestricted cross-border data flows
	• Non-discrimination of digital products and
	market access
	 Open government data.
2. Regulatory	Data protection
Component	 Online consumer protection
	• Spam control
	• Data localisation and protection of
	legitimate public policy objectives

	Cybersecurity
3. Use Component	Supporting MSMEs
	Digital inclusion
	Digital identities
	Regulatory sandboxes
	Competition policy
	Source code/algorithm disclosure
4. Cross-cutting	Transparency in digital trade policies
Issues	Mutual recognition of regulatory standards
	International regulatory cooperation

C. Surveying FTAs

The complex political economy of the global digital economy is reflected in the emerging network of FTAs containing rules on digital trade. In the earlier decades, major countries like the US and its allies led in formulating rules, setting standards, and creating convergence.⁷⁰ In the current era, however, the major blocs, led by the US, the EU, and China have not been able to agree on uniform trade rules, given their differing approaches to the digital economy.⁷¹ Many smaller countries, from varying developmental stages, have made use of this vacuum in policy leadership to craft their versions of digital trade rules.⁷² Countries like Singapore (which has over twenty FTAs with e-commerce chapters,⁷³ highest for any

⁷⁰ CRAIG VANGRASSTEK, THE HISTORY AND FUTURE OF THE WORLD TRADE ORGANIZATION 3-39 (2013); WTO, The United States Would Strengthen the Multilateral Trading System by Reducing Remaining Trade Barriers, WTO Doc. PRESS/TPRB/172 (Sept. 17, 2001), https://www.wto.org/english/tratop_e/tpr_e/tp172_e.htm.

⁷¹ Henry Gao, *E-commerce Governance: Back to Geneva?*, CTR. FOR INT'L GOV. INNOVATION (Feb. 14, 2022), https://www.cigionline.org/articles/e-commerce-governance-back-to-geneva/.

⁷² Jay Heisler, *Smaller Economies See Big Opportunities in Digital Trade Pact*, VOA (Apr. 21, 2019), https://www.voanews.com/a/economy-business_smaller-economies-see-big-opportunities-digital-trade-pact/6204836.html.

⁷³ Ministry of Trade and Industry, Singapore, All You Need to Know About Singapore's Free Trade Agreements and Digital Economy Agreements (2022).

country;⁷⁴ the US in comparison has thirteen such FTAs⁷⁵) and New Zealand (which in addition to FTAs is also a party to DEPA and AANZFTA), with some surprising interest from Chile (also a part of the DEPA) and Peru (which has over eight FTAs containing e-commerce chapters), have undertaken major commitments on digital trade. This may be explained by the fact that small countries benefit from unilateral liberalisation, like the Asian tigers did in the 60s and 70s.⁷⁶

While Singapore and New Zealand may be trying to repeat their past success, Chile and Peru come from a very different developmental stage and seem to be making use of trade negotiations to drive domestic policy. Both countries had low ranks in the Digital Trade Restrictiveness Index as of 2020 and marked as highly restrictive. The another report, which studied digital progress of countries, Chile had been able to move out of the watchout zone (countries having little existing capabilities and lacking momentum for future changes) into the break-out zone (countries with little existing capabilities and but showing rapid progress). Peru, however, was still characterised as a watch-out economy.

Amongst major economies, Australia, which has fourteen FTAs containing e-commerce chapters, has been a frontrunner. The US has made significant progress by incorporating e-commerce chapters in many of its FTAs and the US- Mexico-Canada Agreement (USMCA) and entering into a digital-only agreement with Japan. Further, some countries leading the rule-making are becoming centres of convergence on digital trade rules in their region. For instance, Chile is both a proactive participant in international digital trade agreements and has diffused several liberalising

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⁷⁴ TAPED Dataset, *supra* note 28, another survey.

⁷⁵ Digital Trade & E-Commerce FTA Chapters, UNITED STATES TRADE REPRESENTATIVE, https://ustr.gov/issue-areas/services-investment/telecom-e-commerce/e-commerce-fta-chapters.

⁷⁶ Gonzalo Salinas & Ataman Aksoy, *Growth Before and After Trade Liberalization* 22-7, 27-28 (World Bank Group, Working Paper No. 406, 2006).

⁷⁷ OECD, supra note 57.

⁷⁸ Chakravorti, *supra* note 46.

rules through FTAs with regional partners (e.g., FTAs with Brazil,⁷⁹ Argentina,⁸⁰ and Paraguay⁸¹).

Nonetheless, even with countries negotiating new rules on digital trade, our survey demonstrates that progress on including dedicated disciplines to limit the global data divide have been absent or largely very limited. Even one of the most comprehensive digital economy agreements, the DEPA, is predominantly focused on increasing the volume of digital trade. It lacks a clear paradigm to deal with the data divide, for instance, by supporting effective participation of MSMEs and individuals from developing countries in the digital economy.⁸²

1. FTA Commitments on the Access Component

i. Customs Duties on Electronic Transmissions

Unlike several of the provisions we discuss below, the prohibition on the imposition of custom duties on e-transmissions is an area where convergence already exists at the WTO since 1998, wherein all WTO Members signed a moratorium on customs duties on e-transmissions.⁸³ However, a several countries, academics and policy-makers have constantly challenged the moratorium in recent years. India and South Africa have argued against the moratorium.⁸⁴ Banga, researching for the UNCTAD, has argued that developing countries faced revenue losses to

⁷⁹ Chile-Brazil Free Trade Agreement, Chile-Braz., Nov. 21, 2018 [hereinafter Chile-Brazil FTA].

⁸⁰ Chile-Argentina Free Trade Agreement, Chile-Arg., Feb. 11, 2017 [hereinafter Chile-Argentina FTA].

⁸¹ Chile-Paraguay Free Trade Agreement, Chile-Para., Dec. 01, 2021 [hereinafter Chile-Paraguay FTA].

⁸² Jane Kelsey, *DEPA Lacks Added Value*, EAST ASIA FORUM (Apr. 10, 2020), https://www.eastasiaforum.org/2020/04/10/depa-lacks-added-value/.

⁸³ The WTO Moratorium On Customs Duties On Electronic Transmissions - A Primer For Business, ICCWBO (2019), https://iccwbo.org/content/uploads/sites/3/2019/11/2019-icc-wto-moratorium-custom-duties.pdf [hereinafter ICCWBO].

⁸⁴ Dilasha Seth, *Goyal Presses for Reviewing E-transmission Moratorium*, LIVEMINT (June 15, 2022), https://www.livemint.com/news/india/goyal-presses-for-reviewing-e-transmission-moratorium-11655311241114.html; WTO, Communication From India And South Africa: The E-Commerce Moratorium And Implications For Developing Countries, WTO Doc. WT/GC/W/774 (June 04, 2019).

the tune of US\$ 10 billion just in 2017 due to the moratorium, whereas developed countries lost merely US\$ 289 million.⁸⁵ Researchers from the European Centre for International Political Economy (ECIPE) have countered Banga's argument, and argued that by improving economic potential and consumptions, the moratorium actually generates a tariff surplus.⁸⁶ As per their findings, the discontinuation of the moratorium would result in GDP losses of US\$ 10.6 billion and investment losses of US\$ 13.7 billion for developing countries.⁸⁷

Given these contradictory views, it is safe to assume that any certainty on the costs-benefit analysis of the moratorium is currently absent. This uncertainty also points us to an observable reality: it is almost impossible to accurately track cross-border movements of data and determine when governments must impose custom duties. Further, a new tariff would inevitably lead to a deadweight loss to the society. In such a scenario, a tariff is only suitable when the activity in question has negative externalities (e.g., environmental pollution or drug trade). However, the absence of customs duties on e-transmissions is likely to have a net positive impact on both economic and social frontiers and may be vital to reduce the global data divide.

100 FTAs (of the 379 studied, and of the 138 having provisions on e-commerce) include hard commitments (mandatory) on non-imposition of custom duties. These 100 FTAs represent several countries in different stages of development across the world. However, depending on the parties, the provision is qualified differently. While the US, the UK, or the

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⁸⁵ Rashmi Banga, *Should Digitally Delivered Products Be Exempted From Customs Duties?*, UNCTAD (July 16, 2020), https://unctad.org/news/should-digitally-delivered-products-be-exempted-customs-duties.

⁸⁶ See generally Hosuk Lee-Makiyama & Badri Narayanan, *The Economic Losses From Ending the WTO Moratorium on Electronic Transmissions* 11-12 (Eur. Ctr. for Int'l Pol. Econ., Policy Brief No. 3, 2019).

⁸⁷ Id.

⁸⁸ ICCWBO, supra note 83.

⁸⁹ Effects on Tariff Revenue, Consumer Surplus and Welfare, WITS WORLD BANK (2010), https://wits.worldbank.org/wits/wits/witshelp/Content/SMART/Effects%20on%20Tariff%20Revenue.htm.

Rodney D. Ludema & Ian Wooton, Cross-Border Externalities and Trade Liberalization: The Strategic Control of Pollution, 27(4) CAN. J. ECON. 950, 966 (1994).
 TAPED Dataset, supra note 28.

EU do not add any qualifier to this provision, ⁹² India's recent FTA with the UAE, for example, reads "[e]ach Party may adjust its practice referred to in paragraphs 1 and 2 with respect to any further outcomes in the WTO Decisions on customs duties on electronic transmission within the framework of the Work Programme on Electronic Commerce." Article 9.3(4) prevents the parties from seeking dispute resolution on matters related to this and other digital trade matters, effectively neutralising any force the provisions may carry. Similar provisions appear in its FTA with Singapore. ⁹⁴ The Regional Comprehensive Economic Partnership (RCEP), which includes a gamut of developing countries, provides a similar qualifier. Art. 12.11 provides:

- 3. Each Party may adjust its practice referred to in paragraph 1 with respect to any further outcomes in the WTO Ministerial Decisions on customs duties on electronic transmissions within the framework of the Work Programme on Electronic Commerce.
- 4. The Parties shall review this Article in light of any further WTO Ministerial Decisions in relation to the Work Programme on Electronic Commerce.

It is useful to note that India was also a negotiating party in RCEP before opting out at the last stage.⁹⁵

⁹² See, e.g., UK-Singapore Digital Economy Agreement, U.K.- Sing., Feb. 25, 2022 [hereinafter UKSDEA]. Art. 8.59 reads, "Neither Party shall impose customs duties on electronic transmissions, including content transmitted electronically, between a person of a Party and a person of the other Party." The Agreement between the United States of America, the United Mexican States, and Canada, Nov. 30, 2018 [hereinafter USMCA] contains a similar clause. Art. 19.3.1 provides, "No Party shall impose customs duties, fees, or other charges on or in connection with the importation or exportation of digital products transmitted electronically, between a person of one Party and a person of another Party." The EU-Mercosur Association Agreement, July 01, 2019 [hereinafter EU-Mercosur FTA] provides, in art. 44, "Neither Party shall impose custom duties on electronic transmissions between a person of one Party and a person of the other Party." ⁹³ India-UAE Comprehensive Economic Partnership Agreement, India-U.A.E., art. 9.15.3, Feb. 18, 2022 [hereinafter India-UAE CEPA].

⁹⁴ India-Singapore Comprehensive Economic Cooperation Agreement, India-Sing., art. 10.4.1, n. 10-3, June 29, 2005 [hereinafter India-Singapore CECA].

⁹⁵ Prabha Raghavan, *Explained: The Economic Implications of India Opting out of RCEP*, THE INDIAN EXPRESS (Nov. 26, 2020), https://indianexpress.com/article/explained/india-out-of-rcep-china-economy-trade-angle-7053877/.

However, some other developing countries have taken a different route and unequivocally affirmed their support for the moratorium. The CPTPP, which includes many developing countries provides, "[no] Party shall impose customs duties on electronic transmissions, including content transmitted electronically, between a person of one Party and a person of another Party." Many Latin American developing countries have also affirmed their support. Similarly, certain Middle-Eastern countries, have committed to the moratorium through their FTAs with the USA. None of the African countries (except Morocco) have undertaken any such commitment. On

ii. Rules on Net Neutrality

Net neutrality rules, as discussed earlier, ensure greater freedom of choice and access on the internet. Despite their importance, only four FTAs have explicitly committed to net neutrality in their FTAs. Three of those involve Chile as a party: Chile-Brazil FTA,¹⁰¹ Pacific Alliance Additional Protocol (PAAP),¹⁰² and the Chile-Argentina FTA.¹⁰³ For example, the Chile-Argentina FTA provides, "[e]ach Party shall adopt or maintain measures to ensure compliance with the neutrality of the network without discrimination or blocking of services." The fourth agreement is between India and the UAE, which only has a soft requirement. Art. 9.18(a) reads, "access and use services and applications of their choice, unless prohibited by the Party's laws and regulatory framework." Thus, is little international commitment on net neutrality, and countries see it more as a domestic matter to be managed by internet service providers.

⁹⁶ Comprehensive and Progressive Agreement for Trans-Pacific Partnership, art. 14.3.1, Mar. 8, 2018 [hereinafter CPTPP].

⁹⁷ See, e.g., Dominican Republic-Central America Free Trade Agreement, art. 14.3.1, Aug. 5, 2004 [hereinafter CAFTA-DR].

⁹⁸ See U.S.-Jordan Free Trade Agreement, U.S.-Jordan, art. 7.1, Oct. 24, 2000; U.S.-Bahrain Free Trade Agreement, U.S.-Bahr., art. 13.3, Sept. 14, 2004 [hereinafter U.S.-Bahrain FTA]; U.S.-Oman Free Trade Agreement, U.S.-Oman, art. 14.3.1, Jan. 1, 2009.

⁹⁹ U.S.-Morocco Free Trade Agreement, U.S.-Morocco, art. 14.3.1, June 15, 2004.

¹⁰⁰ TAPED Dataset, *supra* note 28.

¹⁰¹ Chile-Brazil FTA, *supra* note 79, art. 11.11.

¹⁰² Additional Protocol to the Framework Agreement of the Pacific Alliance, art. 14.18, Feb. 10, 2014 [hereinafter PAAP].

¹⁰³ Chile-Argentina FTA, *supra* note 80, art. 10.10.

iii. Promoting Digital Trade and Enabling Cross-Border Data Flows

Provisions on cross-border data flows include commitments to facilitate digital trade, thereby protecting the free movement of data, and addressing barriers to data flows. Sixty-two FTAs have commitments have high-level provisions on the promotion of digital trade, of which fifty-two have soft commitments and only ten contain binding commitments. These agreements are spread across different kinds of jurisdictions.

Electronic commerce provisions in FTAs generally do not create an obligation on the part of developed countries to support developing countries improve their potential participation in digital and data flows. Some FTAs make a casual reference to digital development-related objectives in preambular clauses. The EU-Mercosur FTA, for instance, provides, "the Parties, recognising that electronic commerce increases trade opportunities in many economic activities, agree to promote the development of electronic commerce between them, including by cooperating on the issues raised by electronic commerce under the provisions of this Section."¹⁰⁴ The USMCA also sets out the goal to, "identify priority projects and policies to develop a modern physical and digital trade- and investment-related infrastructure, and improve the movement of goods and provision of services within the free trade area."105 Such provisions are nonetheless not very common. Only five out of seventeen FTAs by the EU contain such clauses; only four out of seventeen FTAs by the US contain such clauses. Some other countries focus on digital market unification in their FTAs, without mentioning digital development. The GCC Agreement provides, "Member Countries shall take all necessary actions to facilitate banking and trade exchange through electronic means of communication, and unify their electronic commerce legislation." ¹⁰⁶

Provisions that specifically enable the free flow of data for digital trade have limited permeability. Only forty-three FTAs contain some degree of commitment on the same, with merely twenty having hard obligations.

¹⁰⁵ U.S.-Mexico-Canada Agreement, art. 26.1, Dec. 10, 2019.

¹⁰⁴ EU-Mercosur, *supra* note 92, art. 42.

¹⁰⁶ Economic Agreement between the Gulf Cooperation Council (GCC) States, art. 25, Dec. 31, 2001 [hereinafter GCC Agreement].

Even these agreements often contain broad and sometimes unclear national security and public policy exceptions to this commitment. The US-Colombia FTA includes, "[e]ach Party shall ensure that enterprises of another Party may use public telecommunications services for the movement of information in its territory or across its borders and for access to information contained in databases or otherwise stored in machine-readable form in the territory of any Party." The same provision provides the parties with the ability to impose restrictions to maintain security and privacy. The exact clause is repeated in the US-Panama FTA. The suith a soft provision merely make a recommendation to maintain free flow of data. For instance, the PAAP states that parties will work together to "maintain cross-border information flows as an essential element in the promotion of a dynamic environment for electronic commerce". The instance of the content of the promotion of a dynamic environment for electronic commerce.

While developing countries are expected to be reluctant about making hard commitments on data flows, the same is not always the case in practice. For instance, FTAs involving developing countries, like the Mexico-Panama FTA, 110 the CPTPP, 111 Chile-Uruguay FTA, 112 Chile-Argentina FTA, 113 and Indonesia-Australia CEPA 114 contain hard clauses on free flow of data. Often, the unwillingness to agree to an obligation on data flows is attributable to cautiousness about preserving policy flexibility in regulating the digital sector. A similar view emerges from the FTAs of the EU. None of them contain a hard clause on data flows except for the UK-EU FTA. 115 This approach is attributable to EU's reluctance to forego its policy flexibility on privacy and data security.

¹⁰⁷ U.S.-Colombia Free Trade Agreement, U.S.- Colom., art. 14.2, Nov. 22, 2006.

¹⁰⁸ U.S. -Panama Free Trade Agreement, U.S.- Pan., art. 13.2, June 28, 2007 [hereinafter U.S.-Panama FTA].

¹⁰⁹ PAAP, *supra* note 102, art. 13.12.

¹¹⁰ Mexico-Panama Free Trade Agreement, art. 14.1, Apr. 3, 2014 [hereinafter Mexico-Panama FTA].

¹¹¹ CPTPP, *supra* note 96, art. 14.11.

¹¹² Chile-Paraguay FTA, *supra* note 81, art. 8.1.

¹¹³ Chile-Argentina FTA, *supra* note 80, art. 11.6.

¹¹⁴ India-Australia Comprehensive Economic Partnership Agreement, Indon.-Austl., art. 9.14, Mar. 2019 [hereinafter IA-CEPA].

¹¹⁵ TAPED Dataset, *supra* note 28.

An integral element of a commitment on data flows is mechanisms for addressing data barriers, as and when they arise. These barriers maybe in the nature of restrictive laws and policies. Mechanisms and institutions through which parties can receive information and investigate such barriers can be critical (this is in addition to dispute settlement mechanism under the FTA, which may or may not apply). Most FTAs, nonetheless, do not contain such mechanisms. Only eleven FTAs have some kind of consultation mechanism in place, with only six of them containing binding provisions. EU-Colombia-Peru FTA provides for a working group that would deal with data flow barriers. 116 IA-CEPA prescribes a Committee on Trade in Services¹¹⁷ and the Japan-Mongolia EPA creates a Sub-Committee on Electronic Commerce for the same. 118 The Vietnam-Korea FTA has a soft provision, recommending, "each Party shall, to the extent possible, make cooperative efforts with competent authorities."119 Other notable FTAs with such a clause include the PAAP,¹²⁰ Mexico-Panama FTA, 121 Chile-Argentina FTA, 122 and India-UAE FTA. 123 DEPA does not have such a mechanism in place, although the Singapore-Australia Digital Economy Agreement (SADEA) has such a mechanism. 124

iv. Non-Discrimination of Digital Products

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¹¹⁶ Trade Agreement between the European Union and its member states and Colombia and Peru, art. 109(c), Jun. 26, 2012 [hereinafter EU-Colombia-Peru FTA].

¹¹⁷ IA-CEPA, *supra* note 114, art. 9.14(d).

¹¹⁸ Japan-Mongolia Economic Partnership Agreement, Japan-Mong., art. 9.13, Feb. 10, 2015 [hereinafter Japan-Mongolia EPA].

¹¹⁹ Vietnam-South Korea Free Trade Agreement, Viet.-S. Kor., art. 10.8.3, May 05, 2015. ¹²⁰ PAAP, *supra* note 102, art. 13.13. It provides, "parties will work together to achieve the objectives of this Chapter through various means, such as information technology and communications, face-to-face meetings or working groups with experts"

¹²¹ Mexico-Panama FTA, *supra* note 110, art. 14.12. It appoints general trade authorities of both the countries as bodies responsible for coordinating on digital trade matters.

¹²² Chile-Argentina FTA, *supra* note 80, art. 11.11. It has a similar wording as the PAAP. ¹²³ India-UAE CEPA, *supra* note 93, art. 9.2(b). It provides, "parties seek to foster an environment conducive to the further advancement of digital trade, including electronic commerce and the digital transformation of the global economy, by strengthening bilateral cooperation on these matters".

¹²⁴ Singapore-Austrlia Digital Economy Agreement, Sing.-Austl., Annex A-art. 19.8-9, Aug. 6, 2020.

As explained previously, FTAs ensure non-discriminatory treatment of digital products through three sets of provisions: obligations on MFN and NT, , mandating technological neutrality (non-discrimination between suppliers of similar physical goods and digital services), and minimising the regulatory burden on electronic transactions and e-commerce.

Although WTO members already grant MFN and NT status for most physical goods, the same is not true for digital services, primarily due to infant industry protection policies. ¹²⁵ Only thirty-five FTAs have some commitments on MFN (of which only twenty-two are obligatory) and thirty-nine FTAs deal with NT (of which twenty-five are obligatory), most of them overlapping with each other. Usually, such clauses take the following form:

- 3. Neither Party shall accord less favourable treatment to some digital products transmitted electronically than it accords to other like digital products transmitted electronically:
- (a) on the basis that:
- i. the digital products receiving less favourable treatment are created, produced, published, stored, transmitted, contracted for, commissioned, or first made available on commercial terms outside its territory; or
- ii. the author, performer, producer, developer, or distributor of such digital products is a person of the other Party or non-Party;
- 4. Neither Party shall accord less favourable treatment to digital products transmitted electronically:
- (a) that are created, produced, published, stored, transmitted, contracted for, commissioned, or first made available on commercial terms in the territory of the other Party than it accords to like digital products transmitted electronically that are created, produced, published, stored, transmitted, contracted for, commissioned, or first made available on commercial terms in the territory of a non-Party; or
- (b) whose author, performer, producer, developer, or distributor is a person of the other Party than it accords to like digital products

¹²⁵ Collins et al., *supra* note 62.

transmitted electronically whose author, performer, producer, developer, or distributor is a person of a non-Party. 126

However, some FTAs like the USMCA and DEPA do not have individual clauses for NT and MFN.¹²⁷ Instead, they have an omnibus clause against non-discrimination. For instance, Art. 19.4 of the USMCA provides,

No Party shall accord less favorable treatment to a digital product created, produced, published, contracted for, commissioned, or first made available on commercial terms in the territory of another Party, or to a digital product of which the author, performer, producer, developer, or owner is a person of another Party, than it accords to other like digital products.

Similar clauses are also present in US' FTAs with other countries.¹²⁸ The EU has on the other hand completely discarded MFN and NT clauses. None of its seventeen FTAs, surveyed in TAPED, have either of these clauses.

FTAs rarely mention technological neutrality, at least explicitly. Merely twenty-eight FTAs contain commitments on it, with twenty-three of them being non-obligatory commitments. Canada-Peru FTA, which only has a soft commitment, provides,

the Parties recognize the importance of avoiding unnecessary barriers to trade conducted by electronic means. Having regard to its national policy objectives, each Party shall endeavour to guard against measures that: unduly hinder trade conducted by electronic means; or, have the effect of treating trade conducted by electronic means more restrictively than trade conducted by other means.

The Japan-Swiss FTA has one of the strongest measures on technological neutrality. Not only it recognises the principle of technological neutrality

¹²⁶ Singapore-Costa Rica Free Trade Agreement, Sing.-Costa Rica, art. 12.4 (3-4), Apr. 6, 2010.

¹²⁷ See, Digital Economy Partnership Agreement, art. 3.3, June 11, 2020 [hereinafter DEPA].

¹²⁸ See, e.g., U.S.-Bahrain FTA, supra note 98, art. 14.3.

but also requires parties to "ensure that its measures governing electronic commerce do not discriminate the supply of services transmitted electronically against the supply of like services by other means". 129

Electronic transactions (e-transactions) are the backbone of the global economy today and thus an urgent need exists to enable them. Over eightythree FTAs contain provisions committing that parties will remove undue barriers to e-transactions, with only twelve FTAs taking up hard commitments. The RCEP, several of whose members are increasingly moving to e-payments, provides, "[e]ach Party shall endeavour to avoid any unnecessary regulatory burden on electronic transactions." ¹³⁰ The EU-Mexico FTA, which creates a binding obligation of equal treatment of electronic contracts reads, "[t]he Parties shall ensure that their legal systems allow for the formation of contracts by electronic means and that contracts shall not be denied legal effect, validity or enforceability for having been made by electronic means."131 Some other FTAs, however, create a weaker obligation of minimising the burdens on e-commerce, as against eliminating them. For instance, the China-Australia FTA contains, "[e]ach Party shall: (a) minimise the regulatory burden on electronic commerce." ¹³² A similar provision is also found in the ASDEA. ¹³³

v. Open Government Data

Open government data enables the public use of government-controlled data. Government data can improve access to public services and help in the innovation of new services (for e.g., being able to find bus routes on a third-party app requires open government data). This could potentially open doors for companies to provide customised and innovative digital

¹²⁹ Japan-Switzerland Economic Partnership Agreement, Japan-Switz., art. 74, Feb. 19, 2002 [hereinafter Japan-Swiss FTA]. Art. 71.2 provides, "The Parties recognise the principle of technological neutrality in the sense that any provisions related to trade in services do not distinguish between the different technological means through which a service may be supplied".

¹³⁰ Regional Comprehensive Economic Partnership, art. 12.1, Nov. 15, 2020 [hereinafter RCEP].

European Union-Mexico FTA, Eur.-Mex., art. 5, Aug. 12, 1997 [hereinafter EU-Mexico FTA].

¹³² China-Australia FTA, China- Austl., art. 12.5, June 17, 2015 [hereinafter China-Australia FTA].

¹³³ *Id.*, art. 8.3.

services across the developing world. However, very few FTAs contain obligations on open government data; just eleven of the total FTAs covered in the TAPED dataset contain relevant provisions on this, all of which are soft.

A standard clause is found in the India-UAE FTA, which provides: "[e]ach Party shall endeavour to ensure that such open data is allowed to be searched, retrieved, used, reused, and redistributed freely by the public, to the maximum extent possible, subject to its laws and regulations." A more credible provision is found in the Chile-Paraguay FTA, which not only encourages parties to make all public data available as open data, but also provides substantive cooperation measures on it. These measures are,

- (a) jointly identify sectors where open data sets, particularly those of global value, can be used to facilitate technology transfer, talent development and innovation, among others;
- (b) encourage the development of new products and services based on open data sets, and
- (c) encourage the use and develop open data licensing models in the form of standardized public licenses available online, which will allow anyone to freely access, use, modify and share open data for any purpose permitted by the Parties' respective laws and regulations, and which are based on open data formats.¹³⁵

Despite the lack of development within FTAs, press reports indicate that an agreement on open government data was reached at the ongoing negotiations under the Joint Initiative on Electronic Commerce at the WTO in 2021.¹³⁶

E-government measures, an allied concept requiring governments to make laws, regulations, and services available online to improve transparency and efficiency, has had slightly better acceptability in FTAs. Thirty-six

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¹³⁴ India-UAE CEPA, *supra* note 93, art. 9.12.

¹³⁵ *Id.*, art. 7.15.

¹³⁶ E-commerce Talks: Two "Foundational" Articles Cleaned; Development Issues Discussed, WTO, (Sept. 13, 2021), https://www.wto.org/english/news_e/news21_e/jsec_12sep21_e.htm. [hereinafter E-commerce Talks].

FTAs contain soft commitments on the same and usually mention it in the passing in their chapters on cooperation. The UK-Japan FTA provides egovernment as one of the twelve areas in which both governments shall endeavour to cooperate.¹³⁷ The ASDEA provides for cooperation on digital government in Art. 33..

2. Commitments on Regulatory Component

i. Data Protection

Data protection is an integral component of the digital economy. Optimal data protection laws are important to encourage participation and bridge the data divide, in a responsible way. Most governments have implemented data protection laws; although there can be significant variation in both the quality and substantive content of data protection law across jurisdictions. 138 While there is no clear consensus on standards of data protection principles, most countries agree at a fundamental level that data protection is necessary. 139 Consequently, 116 FTAs have commitments on data protection, with twenty-five of these FTAs containing hard commitments. In most FTAs, parties recognise that differences in data protection systems are unavoidable, given its intrinsic linkage to cultural, legal and political norms. 140 The China-Australia FTA, for instance, provides, "[n]otwithstanding the differences in existing systems for personal information protection in the territories of the Parties, each Party shall take such measures as it considers appropriate and necessary to protect the personal information of users of electronic commerce."141

¹³⁷ Japan-U.K. Comprehensive Economic Partnership Agreement, Japan-U.K., art. 8.83(2), Oct. 23, 2020.

¹³⁸ Andrada Coos, *Data Protection Legislation Around the World in 2021*, ENDPOINT PROTECTOR (Jan. 8, 2021), https://www.endpointprotector.com/blog/data-protection-legislation-around-the-

world/#:~:text=Currently%2C%20there%20are%20more%20than,legislative%20agend as%20the%20world%20ove.

¹³⁹ See, e.g., G.A. Res. 75/176, The Right to Privacy in the Digital Age (Dec. 28. 2020). ¹⁴⁰ Svetlana Yakovleva, *Privacy Protection(ism): The Latest Wave of Trade Constraints*

on Regulatory Autonomy, 74(5) UNIV. MIA. L. REV. 416 (2020); Jacqueline Brehmer, Data Localization The Unintended Consequences Of Privacy Litigation, 67(3) Am. UNIV. L. REV. 6 (2017).

¹⁴¹ China-Australia FTA, *supra* note 132, art. 12.8(1).

Several FTAs have taken a practical approach in requiring all partners to adopt a domestic framework for data protection. For instance, thirty-one FTAs explicitly recognise that international standards must be followed in adopting a domestic framework for data protection, while twenty FTAs have soft obligations on the same. Contrary to its approach in the FTA with Australia, China in its FTA with New Zealand agreed to take into account international standards in framing its domestic data protection regulations. Art. 9 (of Ch. 19) provides, "[i]n the development of its legal framework for the protection of personal information, each Party shall take into account international standards, principles, guidelines and criteria of relevant international organisations or bodies". The USMCA has recognised the Asia Pacific Economic Partnership (APEC) Privacy Framework as a key international standard, despite it being a North American agreement.¹⁴² While convergence on internationally the best practices is a welcome development, the lack of a universally binding instrument on data protection means that most countries have a significant margin in determining how to incorporate the relevant international standards, principles, and guidelines on data protection in domestic laws.

The Canada-Korea FTA reads, "[e]ach Party shall adopt or maintain measures for the protection of the personal information of the users of electronic commerce. In the development of personal information protection standards, each Party shall take into account international standards of relevant international organisations." India-UAE FTA also provides for measures to facilitate compliance efforts for businesses with such laws to avoid any undue burdens on small businesses. The relevant provides for each party to publish information about their data protection laws to help both individuals and businesses.

The DEPA has one of the most comprehensive provisions on data protection. In addition to basic measures, it also lists the principles country may follow. They include: "(a) collection limitation; (b) data quality; (c)

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¹⁴² China-New Zealand Free Trade Agreement, China-N.Z., art. 19.8, Apr. 7, 2008.

¹⁴³ Canada-South Korea Free Trade Agreement, Can.- S. Kor., art. 13.4, Mar. 11, 2014.

¹⁴⁴ India-UAE CEPA, supra note 93, art. 9.10(3).

purpose specification; (d) use limitation; (e) security safeguards; (f) transparency; (g) individual participation; and (h) accountability." ¹⁴⁵

In all, twenty-two FTAs surveyed in the TAPED dataset contain an illustrative list of principles on data protection. In addition to the principles contained in the DEPA, FTAs also contain other requirements on data protection such as the application of the principle of non-discriminatory application in data protection laws, ¹⁴⁶ requirements regarding anonymisation of data, ¹⁴⁷ and ensuring that the data protection law should be as less trade restrictive as possible. ¹⁴⁸ DEPA also provides mechanisms to address the differences in regulatory systems of the parties. It provides three mechanisms through which parties can allow unrestricted movement of personal data despite their differences: "(a) the recognition of regulatory outcomes, whether accorded autonomously or by mutual arrangement; (b) broader international frameworks; (c) where practicable, appropriate recognition of comparable protection afforded by their respective legal frameworks' national trustmark or certification frameworks."¹⁴⁹

ii. Online Consumer Protection

Most countries already have robust online consumer protection laws in place, though implementation may differ due to institutional differences. ¹⁵⁰ Consumer protection issues are also perceived to be less political or sensitive. This is apparent from the fact that a final agreement was achieved on this provision in the ongoing joint initiative on ecommerce negotiations. ¹⁵¹ Over 101 FTAs surveyed in the TAPED dataset contain commitments on online consumer protection. These commitments typically require parties to provide consumers engaging in digital trade a level of protection equivalent to that of offline trade. Chile-Thailand FTA,

¹⁴⁵ DEPA, *supra* note 127, art. 4.2(3).

¹⁴⁶ See Chile-Brazil FTA, supra note 79, art. 10.4; USMCA, supra note 92, art. 19.8.

¹⁴⁷ See Id., art. 10.4.

¹⁴⁸ USMCA, *supra* note 92, art. 19.8; *See*, *e.g.*, US-Panama FTA, *supra* note 108, art. 13.2; U.S.-Japan Digital Trade Agreement, U.S.-Japan, art. 15, Oct. 7, 2019; U.S.-Chile Free Trade Agreement, U.S.-Chile, art. 13.2.4, June 6, 2004; U.S.-Australia Free Trade Agreement, U.S.-Austl., art. 12.2.4, May 18, 2004.

¹⁴⁹ DEPA, *supra* note 127, art. 4.2(6).

¹⁵⁰ Online Consumer Protection Legislation Worldwide, UNCTAD, https://unctad.org/page/online-consumer-protection-legislation-worldwide.

¹⁵¹ E-commerce Talks, *supra* note 136.

for example, requires parties to "provide protection for consumers using electronic commerce that is at least equivalent to that provided for consumers of other forms of commerce under their respective laws, regulations, and policies, to the extent possible and in a manner considered appropriate by each Party". 152

The DEPA, however, contains a broad and detailed section on consumer protection. The relevant provision not only provides for extending similar level of protection to online consumers, but also lays down the basic principles that must be incorporated in consumer protection laws. It lists the key anti-consumer activities in digital trade by defining 'fraudulent, misleading or deceptive conduct' as:

- (a) making misrepresentations or false claims as to material qualities, price, suitability for purpose, quantity or origin of goods or services;
- (b) advertising goods or services for supply without intention to supply;
- (c) failing to deliver products or provide services to consumers after the consumers have been charged; or
- (d) charging or debiting consumers' financial, telephone or other accounts without authorisation.¹⁵³

Further, it requires that parties maintain laws allowing consumers the right to seek appropriate redressal if "at the time of delivery, goods and services provided to be of acceptable and satisfactory quality, consistent with the supplier's claims regarding the quality of the goods and services". Let use provisions are significant in building trust for internet users to freely purchase from different countries, especially if the suppliers are from developing countries. The DEPA also recognises that countries may lack strong institutional mechanisms to implement such provisions and proposes online alternate dispute resolution as a possible recourse. Let

¹⁵² Chile-Thailand Free Trade Agreement, Chile-Thai., art. 11.7(1-k), Sept. 4, 2013.

¹⁵³ DEPA, *supra* note 127, art. 6.3(3).

¹⁵⁴ *Id.*, art. 6.3(4).

¹⁵⁵ *Id.*, art. 6.3(8).

iii. Regulating Spam

Controlling spam or unsolicited commercial electronic messages is closely connected to consumer protection, as frauds are often perpetrated through spams. Sixty-four FTAs in the TAPED dataset have commitments on preventing and regulating spam. There are three key aspects that most FTAs contain: first, suppliers of spam must seek express permission of the receiver; second, they must provide the user an option to unsubscribe from such spam; and third, if these rules are not followed, an appropriate mechanism to penalise the suppliers must be in place. A standard clause can be found in the RCEP. It requires parties to, "adopt or maintain measures regarding unsolicited commercial electronic messages that: (a) require suppliers of unsolicited commercial electronic messages to facilitate the ability of recipients to stop receiving such messages; (b) require the consent, as specified according to its laws and regulations, of recipients to receive commercial electronic messages". 156 Further, it requires them to "provide recourse against suppliers of unsolicited commercial electronic messages who do not comply with its measures". 157 An exact clause also appears in the Australia-Hong Kong FTA¹⁵⁸ and a slightly modified version is found in the DEPA¹⁵⁹ and India-UAE FTA.¹⁶⁰

iv. Data Localisation

Restricting data localisation is indispensable to avoid the fragmentation of the internet.¹⁶¹ The free movement of data holds significant benefits for society and widespread data localisation can reduce welfare significantly. However, there are grave public policy considerations informing data localisation measures that cannot be brushed aside.¹⁶² For instance, governments are worried about the security of sensitive data in light of rising cyber-attacks and political surveillance, sometimes even perpetrated

¹⁵⁶ RCEP, *supra* note 130, art. 12.9(1).

¹⁵⁷ *Id.*, art. 12.9(2).

¹⁵⁸ Australia-Hong Kong Free Trade Agreement, Austl.-H.K., art. 11.11, Jan. 17, 2020.

¹⁵⁹ DEPA, *supra* note 127, art. 6.2.

¹⁶⁰ India-UAE CEPA, *supra* note 93, art. 9.9.

¹⁶¹ William J. Drake et al., *Internet Fragmentation: An Overview*, WORLD ECONOMIC FORUM 41-45 (2016).

¹⁶² Neha Mishra, *Data Localization Laws in a Digital World: Data Protection or Data Protectionism?* NUS CTR. FOR INT'L L. RES. PAPER NO. 19/05 (Dec. 4, 2015).

by developed countries like the US and Israel. ¹⁶³ Localisation of data may also be required for the purposes of law enforcement and cross-border enforcement of data protection laws. ¹⁶⁴ Given these policy concerns, data localisation norms are spreading. A report by Information Technology & Innovation Foundation (ITIF) found that in 2021, sixty-two countries had 144 restrictions on cross-border movement of data. ¹⁶⁵

Given the sensitivity and uncertainty surrounding data localisation, it is perhaps unsurprising that only twenty-four FTAs surveyed in the TAPED dataset contain commitments on prohibition of data localisation measures. These commitments have been undertaken by developing countries who are part of regional FTAs like the CPTPP, RCEP, PAAP, USMCA and Mercosur, and select developed countries like the UK, Australia, Japan, Singapore, New Zealand, etc. Regions like the EU are conspicuously absent, except for in its FTA with the UK and New Zealand. The IA-CEPA contains a standard clause requiring parties to not,

require a covered person to use or locate computing facilities in that Party's territory as a condition for conducting business in that territory.

3. Nothing in this Article shall prevent a Party from adopting or maintaining: (a) measures inconsistent with paragraph 2 to achieve a legitimate public policy objective, provided that the measure is not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade; or (b) any measure that it considers necessary for the protection of its

essential security interests. 166

¹⁶³ John Selby, *Data Localization Laws: Trade Barriers or Legitimate Responses to Cybersecurity Risks, or Both?*, 25(3) INT'L J. L. & INFO. TECH. 213, 232 (2017).

Ministry of Electronics and Information Technology, A Free and Fair Digital Economy Protecting Privacy, Empowering Indians: Committee of Experts under the Chairmanship of Justice B.N. Srikrishna (2018), https://www.meity.gov.in/writereaddata/files/Data_Protection_Committee_Report.pdf.

¹⁶⁵ Nigel Cory & Luke Dascoli, *How Barriers to Cross-Border Data Flows Are Spreading Globally, What They Cost, and How to Address Them*, INFO. TECH. & INNOVATION FOUND. (July 19, 2021), https://itif.org/publications/2021/07/19/how-barriers-cross-border-data-flows-are-spreading-globally-what-they-cost/.

¹⁶⁶ IA-CEPA, *supra* note 114, art. 13.12.

An even more broadly worded provision on data localisation (with entirely self-judging exception) has been included in the RCEP.¹⁶⁷

In contrast, the CPTPP contains a prohibition on data localisation that is subject to an exception for measures necessary for parties to achieve a "legitimate public policy objective", provided that such a measure satisfies other requirements such as not being "arbitrary or unjustified discrimination", "a disguised restriction on trade' and is 'no more trade restrictive than necessary". ¹⁶⁸ The latter approach appears to be more balanced as it can limit the increasingly deep and general character of data localisation measures but permit localisation provided it is reasonable and based on legitimate grounds.

v. Cybersecurity Cooperation

Commitments on cybersecurity are present in fifty-six FTAs surveyed by TAPED. They are all soft commitments. Cybersecurity is closely connected to both national security and socio-cultural characteristics (e.g., some countries may believe blasphemy on social media is a cybersecurity issue, while others may not). Further, cybersecurity commitments are also being negotiated at other international forums like the ASEAN, ¹⁶⁹ African Union, ¹⁷⁰ League of Arab Countries, ¹⁷¹ etc. making FTAs a less attractive negotiation space. The EU-Japan CEPA, to illustrate, provides, "nothing in this [s]ection shall affect the right of a Party to define or regulate its own levels of protection in pursuit or furtherance of its public policy objectives in areas such as: (h) personal data and cybersecurity". ¹⁷² Chile-Columbia

¹⁶⁸ CPTPP, *supra* note 96, art. 14.12.

¹⁶⁷ RCEP, *supra* note 130, art. 12.14.

¹⁶⁹ Ass'n of Se. Asian Nations [ASEAN], Cybersecurity Cooperation Strategy (2021 – 2025) (2022), https://asean.org/wp-content/uploads/2022/02/01-ASEAN-Cybersecurity-Cooperation-Paper-2021-2025_final-23-0122.pdf.

Convention on Cyber Security and Personal Data Protection, AFRICAN UNION (Jun. 27 2014), https://au.int/en/treaties/african-union-convention-cyber-security-and-personal-data-protection.

Arab Convention on Combating Information Technology Offences, Dec. 21, 2010, https://www.asianlaws.org/gcld/cyberlawdb/GCC/Arab%20Convention%20on%20Combating%20Information%20Technology%20Offences.pdf.

¹⁷² European Union-Japan Economic Partnership Agreement, EU- Japan, art. 18.2, July 17, 2018.

FTA, on the other hand, proposes cooperation on it, as do most FTAs. Art. 12.5 provides, "share information and experiences about laws, regulations, and programs in the field of . . . cyber security". The UKSDEA, which has one of the more comprehensive clauses, recognises the importance of building cybersecurity capabilities, establishing or strengthening existing collaboration mechanisms, maintaining a dialogue, establishing mutual recognition of a baseline security standard, workforce development, and collaborative cyber security research and development.¹⁷³

3. FTA Commitments on the Use Component

i. Supporting MSMEs

Negotiating support systems for MSMEs is a key concern, not just for developing countries but also the developed ones, as they struggle with limiting the concentration of economic power under a handful of corporations.¹⁷⁴ Growth of MSMEs in the digital sector is directly linked with redistribution of its economic benefits, creation of jobs, and increased opportunities for developing countries.¹⁷⁵ While fifty-seven FTAs contain provisions on MSMEs, they are all soft in nature and do not have any obligatory requirements. The USMCA, for instance, which should have ideally included a comprehensive MSME package given that one of the parties is a developing country, only includes the following clause: "[t]he Parties recognize the importance of the promotion of interactive computer services, including for small and medium-sized enterprises, as vital to the

¹⁷³ U.K.-Singapore Digital Economy Agreement, U.K.-Sing., art. 8.61-L, Jun. 14, 2022 [hereinafter UKSDEA].

¹⁷⁴ See generally Tim Wu, The Curse of Bigness: Antitrust in the New Gilded Age (2018).

Payal Dalal, Enabling European Micro, Small & Medium Enterprises in the Digital Economy, OECD FORUM (Jun. 28, 2021), https://www.oecd-forum.org/posts/enabling-european-micro-small-medium-enterprises-in-the-digital-economy; Economic Research Institute for ASEAN and East Asia, Study on MSMEs Participation in the Digital Economy in ASEAN - Nurturing ASEAN MSMEs to Embrace Digital Adoption (2019); Chan Kah Mei, Opportunities for MSMEs in the Digital Economy: Sharing by Singapore, UNCTAD (2017), https://unctad.org/system/files/non-official-document/dtl eWeek2017p45 ChanKahMei en.pdf.

growth of digital trade."¹⁷⁶ The CPTPP, which carries multiple developing county partners, does not even provide for cooperation on MSMEs. Most other FTAs only mention MSMEs in the omnibus cooperation article.¹⁷⁷ The RCEPproposes cooperation, "to assist small and medium enterprises to overcome obstacles in the use of electronic commerce".¹⁷⁸

In this regard, DEPA has presented a progressive package of commitments which other FTAs should emulate. It has a dedicated module on MSMEs, which requires parties to not only mandatorily cooperate, share information, and maintain dialogue, but also cooperate on measures to support the digital rejuvenation of MSMEs by helping them undertake regulatory adaptation, access credit, and take part in government procurement.¹⁷⁹ Under the aegis of the DEPA, the parties have also instituted a Digital SME Dialogue forum to undertake regular discussions and policy brainstorming.¹⁸⁰

ii. Digital Inclusion

Efforts to ensure digital inclusion, despite its importance to the global data divide, have not seen much progress within FTAs. Merely five of the 379 FTAs surveyed had provisions referring to digital inclusion. These include the DEPA, ¹⁸¹ UK-New Zealand FTA, ¹⁸² Chile-Paraguay FTA, ¹⁸³ India-UAE FTA, ¹⁸⁴ and UKSDEA. ¹⁸⁵ The UK-New Zealand FTA, which specifically addresses digital divide and inclusion is the only FTA with a hard clause on this. It requires the parties to "cooperate on matters relating to digital inclusion, including participation of Māori, women, persons with disabilities, rural populations, and low socio-economic groups as well as other individuals and groups that disproportionately face barriers to digital

¹⁷⁶ USCMA *supra* note 91, art. 19.17.

¹⁷⁷ See for example, India-UAE CEPA, *supra* note 93, art. 9.2.

¹⁷⁸ RCEP, *supra* note 130, art. 12.4.

¹⁷⁹ DEPA, *supra* note 127, art. 10.2-10.3.

¹⁸⁰ *Id.*. art. 10.4.

¹⁸¹ *Id.*, art. 11.1.

¹⁸² U.K.-New Zealand Free Trade Agreement, U.K.- N.Z., art. 15.2, Feb. 28, 2022 [hereinafter UK-New Zealand FTA].

¹⁸³ Chile-Paraguay FTA, supra note 81, art. 7.22.

¹⁸⁴ India-UAE CEPA, *supra* note 93, art. 9.13(2).

¹⁸⁵ UKSDEA, *supra* note 173, art. 8.61-P.

trade". ¹⁸⁶ It also lists possible avenues of cooperation. They include: (a) enhancing people-to-people links; (b) identifying and addressing access barriers (c) improving digital skills (d) sharing methods and procedures for developing datasets and conducting analysis to identify barriers and trends. ¹⁸⁷ The DEPA has a similar chapter. ¹⁸⁸ Most other FTAs have a short recommendatory clause. The India-UAE FTA, for instance, reads, "adopting open and inclusive government processes focusing on accessibility, transparency, and accountability in a manner that promotes digital inclusion and overcomes digital divides". ¹⁸⁹

iii. Digital Identities

Commitments on digital identities are also rarely mentioned in FTAs. The TAPED survey reveals that only five FTAs contain a provision on digital identities, with four of them overlapping with the provision on digital inclusion. A comprehensive module on digital identities can be found in the DEPA and the UK-New Zealand FTA.¹⁹⁰ The DEPA encourages parties to cooperate on digital identities to improve connectivity and interoperability.¹⁹¹ It proposes steps which may be taken for the same. They include: (a) establishment of a digital identity framework; (b) comparable protection of digital identities; (c) supporting a broader international framework; and (d) exchange of technical expertise.¹⁹²

iv. Regulatory Sandboxes

Regulatory sandboxes are rare in FTAs and included in certain recent FTAs. In total, eight FTAs contain relevant provisions. However, unlike the dedicated modules on digital identity and inclusion, no substantial provision has been negotiated on regulatory sandboxes in any FTA. Instead, most FTAs only encourage cooperation on enabling regulatory

¹⁸⁶ UK-New Zealand FTA, supra note 182, art. 15.2.

¹⁸⁷ Id.

¹⁸⁸ *Id.*, Module 11.

¹⁸⁹ India-UAE CEPA, *supra* note 93, art. 9.13(2).

¹⁹⁰ UK-New Zealand FTA, supra note 182, art. 8.61-S.

¹⁹¹ DEPA, *supra* note 127, Module 7.

¹⁹² *Id*.

sandboxes, but do not lay down any specific principles that must be followed. For instance, the UK-New Zealand FTA provides, "collaborating on data sharing projects, including projects involving researchers, academics and industry, using regulatory sandboxes as required to demonstrate the benefits of the cross-border transfer of information by electronic means". The India-UAE FTA also contains a provision to "facilitate innovation and competition and the introduction of new financial and electronic payment products and services in a timely manner, such as through adopting regulatory and industry sandboxes".

v. Digital Competition Policy

Competition policy has historically shared a tenuous relationship with trade law. The same holds true for the interface of competition policy and digital trade rules. Just five FTAs have provisions on competition policy, and all of them involve either Singapore, Australia, New Zealand, UK or Chile. These five FTAs all provide for cooperation on competition policy and do not create any legal or policy obligation. The DEPA, for instance, encourages parties to, "consider undertaking mutually agreed technical cooperation activities" on competition policy. 195

vi. Disclosure of Source Code and Algorithms

Source code/algorithm disclosure, as mentioned earlier, has become a highly contested issue. One of the key methods through which developing countries became economically advanced is either by securing technology transfers from developed countries (like in the case of the Asian tigers), or by emulating basic technologies of developed countries to build cheaper products (like in the case of China). The changing paradigm in digital trade cooperation and the insurgence of the China-USA technology rivalry has made such technology transfers controversial. Western countries have accused China and other major developing countries of forced technology transfer and technology theft, especially of technology relating to the

¹⁹³ UK-New Zealand FTA, supra note 182, art. 8.61-I.

¹⁹⁴ India-UAE CEPA, *supra* note 93, art. 9.17(d).

¹⁹⁵ DEPA, *supra* note 127, art. 8.4.

¹⁹⁶ Michel Dumont & Ludo Cuyvers, *Tigers and Pussy-Cats: The Importance of International Technology Transfer for Asian Felines*, CAS DISCUSSION PAPER No. 30 (2000).

digital economy.¹⁹⁷ As such, there is an urge amongst technologically advanced countries to push for prohibitions on mandatory disclosure of source codes or algorithms, which should be protected as an IP.¹⁹⁸ Developing countries, even as large and advanced as China, find this to be a difficult proposition since access to technology (in accordance with IP laws) is necessary for developing countries for economic advancement. Further, access to source code and algorithms entail various law enforcement issues (e.g., antitrust, data protection, and cybersecurity laws).¹⁹⁹

Given this disjunction, most FTAs lack commitments on prohibiting source code disclosures. Eighteen FTAs in the TAPED dataset had such commitments. The IA-CEPA contains a typical clause in this regard. It mandates parties not to "require the transfer of, or access to, source code of software owned by a person of another Party, as a condition for the import, distribution, sale or use of such software, or of products containing such software, in its territory".²⁰⁰ The exceptions to this rule are essential security interests, commercially negotiated contracts, requiring modification in source codes to comply with laws or regulations, and in cases patent disputes. The EU-Mexico FTA has broader exceptions and provides parties the flexibility in cases of legitimate public policy objective, "including to ensure security and safety, for instance in the context of a certification procedure, in accordance with [reference to general exception, security exception and prudential carve-out]".²⁰¹ It also

¹⁹⁷ Julia Ya Qin, *Forced Technology Transfer and the US-China Trade War: Implications for International Economic Law*, 22 J. Int'l Econ. L. 743 (2019); United States Trade Representative, Findings Of The Investigation Into China's Acts, Policies, And Practices Related To Technology Transfer, Intellectual Property, And Innovation Under Section 301 Of The Trade Act Of 1974 (2018); B. Davis, *How China Systematically Pries Technology From U.S. Companies*, Wall Street J. (Sept. 26, 2018), https://www.wsj.com/articles/how-china-systematically-pries-technology-from-u-s-companies-1537972066.

¹⁹⁸ Rajan Sabitha Neeraj, *Trade Rules on Source Code: Deepening the Digital Inequities by Locking up the Software Fortress* (Ctr. for WTO Studies, Indian Institute of Foreign Trade, Working Paper No. 200, 2017).

¹⁹⁹ Magdalena Słok-Wódkowska & Joanna Mazur, Secrecy by Default: How Regional Trade Agreements Reshape Protection of Source Code, 25(1) J. INT'L ECON. L. 91, 109 (2022).

²⁰⁰ IA-CEPA, *supra* note 114, art. 13.13.

²⁰¹ EU-Mexico FTA, *supra* note 131, art. 9.

explicitly mentions IP and antitrust enforcement as acceptable exceptions.²⁰² This approach of the EU is guided by its strong regulatory systems related to public welfare, internal market, and competition concerns.

The US, on the other hand, which is the most threatened due to source code disclosure mandates, has negotiated a much stricter clause, as found in the USMCA. The only exception it provides is in case of judicial requirements, subject to strong safeguards against unauthorised leakages. It reads.

> This Article does not preclude a regulatory body or judicial authority of a Party from requiring a person of another Party to preserve and make available the source code of software, or an algorithm expressed in that source code, to the regulatory body for a specific investigation, inspection, examination, enforcement action, or judicial proceeding, subject to safeguards against unauthorized disclosure. 203

Agreements involving China lack such clauses, except for the RCEP, which recommends future discussion and cooperation on source code disclosures ²⁰⁴

4. Commitments on Cross-cutting Issues

Transparency in digital trade policies has received wide recognition in FTAs. Sixty-nine of the surveyed FTAs have provisions encouraging parties to maintain transparency of their digital and e-commerce policies, with twenty-nine of them being obligatory. The DEPA contains an entire module providing for a practical mechanism to ensure transparency. It mandates the parties to "ensure that its laws, regulations, procedures, and administrative rulings of general application with respect to any matter covered by this Agreement are promptly published or otherwise made available in such a manner as to enable interested persons and Parties to

²⁰² *Id.*, art. 9.

²⁰³ USCMA, *supra* note 92, art 19.16.

²⁰⁴ RCEP, *supra* note 130, art. 12.16(1)(b).

become acquainted with them".²⁰⁵ It also requires parties to have administrative mechanisms, and review and appeals system in place for individuals from the parties to seek adequate information and redressal.²⁰⁶ The China-Mauritius FTA, which has similar provisions, adds to this by requiring parties to ensure that individuals from the parties who seek a license or permission related to digital trade receive reasons in cases of denial, revocation, refusal to renew, or the imposition or modification of conditions.²⁰⁷ The UK-New Zealand FTA also imposes a time-period of sixty days or a reasonable period depending on circumstances, for making material information available.²⁰⁸

Provisions facilitating mutual recognition of technical standards, certifications, regulatory mechanisms in e-commerce etc., are not as commonly found in FTAs as transparency-related provisions. Mutual recognition requires a pre-existing regulatory assimilation between countries, which is currently absent. Only three FTAs contain explicit provisions on mutual recognition in specific areas. The UKSDEA, for instance, provides for mutual recognition of electronic authentication framework,²⁰⁹ of a baseline security standard for cybersecurity,²¹⁰ and for digital identities.²¹¹ Similar provisions are found in the UK-New Zealand FTA.²¹²

Finally, international regulatory cooperation on digital trade (which spans across the various provisions related to the use, access and regulatory component of the global data divide) is mentioned in sixty-one of the surveyed FTAs in the TAPED dataset. While most of these provisions are hortatory in nature, seven FTAs provide for mandatory cooperation. A typical obligatory clause takes the form of what is observed in the China-Cambodia FTA. It requires parties to "actively participate in regional and multilateral fora to promote the development of electronic commerce in a

²⁰⁵ DEPA, *supra* note 127, art. 13.2.

²⁰⁶ *Id.*, art. 13.3-4.

²⁰⁷ China-Mauritius Free Trade Agreement, China-Mauritius, art. 7.12, Oct. 18, 2019.

²⁰⁸ UK-New Zealand FTA, *supra* note 182, art. 8.61-D(5).

²⁰⁹ UKSDEA, *supra* note 173, art. 8.61(4).

²¹⁰ *Id.*, art. 8.61-L(1)(d).

²¹¹ Id

²¹² UK-New Zealand FTA, *supra* note 182, art. 15.17.

cooperative manner".²¹³ The UK-New Zealand FTA mandates the parties to, "where appropriate, cooperate and participate actively in international fora, including the WTO, to promote the development of international frameworks for digital trade." ²¹⁴

IV. ADDRESSING DATA DIVIDE IN INTERNATIONAL TRADE LAW

A. What We Can Learn from Current FTA Practices

The survey presented in Part III reveals that majority of rules contained in the FTAs do not meaningfully address the various problems of the global data divide. The first key issue is that most FTAs containing rules on digital trade are concentrated between digitally developed and select developing countries (like Chile, Peru, and Colombia). Most African countries are missing from the FTAs. As can be observed above, not a single FTA involving an African nation (barring North Africa) contained obligations relevant to digital trade and the widening divide. These countries are the most affected by the global data divide: data aggregation is practically absent in most of these countries and governance has not kept pace with digital advancements.²¹⁵ Back in 2002, the UN Secretary General remarked, "digital divide yawns as widely as ever in Africa". 216 Not much has changed in twenty years. These fault lines were exposed during COVID-19, where unlike the rest of the world, human activity came to a standstill: students did not have access to e-learning; medical services did not have access to open data; citizens could not rely on e-government

²¹³ China-Cambodia Free Trade Agreement, China- Cambodia, art. 10.9(4), Oct. 12, 2020.

²¹⁴ UK-New Zealand FTA, *supra* note 182, art. 15.21.1.

²¹⁵ Stefania Milan & Emiliano Treré, *A Widening Data Divide: COVID-19 and the Global South*, OPEN DEMOCRACY (Apr. 3, 2020), https://www.opendemocracy.net/en/openmovements/widening-data-divide-covid-19-and-global-south/ [hereinafter Milan & Trere]; Christian Fuchs & Eva Horak, *Africa and the Digital Divide*, 25 TELEMATICS & INFORMATICS 99, 116 (2008).

²¹⁶ Press Release, Office of the High Commissioner, United Nations Human Rights, 'Digital Divide' Still Yawns as Widely as Ever, Says Secretary-General, as General Assembly Opens Two-Day Session on Information Technologies, (June 17, 2002), https://www.ohchr.org/en/press-releases/2009/10/digital-divide-still-yawns-widely-ever-says-secretary-general-general.

services; and using digital systems to streamline limited public resources was not possible.²¹⁷

Citizens in several of the digitally less developed countries are not suffering from the lack of developmental dividends (which the rest of the world is enjoying), but also experiencing increasing restrictions on their freedoms because of wrongful deployment of the limited digital infrastructure. In India, for instance, digital surveillance by the state has become a key tool against freedom of speech and expression. Similar patterns are observed for many other developing countries, which have few FTAs containing digital trade commitments: Nepal (none), Venezuela (none), Sri Lanka (one FTA), Cambodia (one), Laos, Philippines, and Myanmar (only as part of ASEAN), India (one), Caribbean countries (one, as CARIFORUM), and so on. If these countries commit to FTAs containing comprehensive rules on digital trade, they are more likely to foster a supportive environment for global digital connectivity and prosperity.

The second concern is the conspicuous absence of meaningful and binding disciplines in FTAs that could eke out sizeable developmental dividends. Most FTAs contain weak commitments on digital development and seamless data flows. Further, obligations on regulatory cooperation and

²¹⁷ Addisu Lashitew, *Covid-19 Exposes Africa's Digital Divide*, AFR. BUS. (Sept. 17, 2020), https://african.business/2020/09/technology-information/covid-19-exposes-africas-digital-divide/; Milan & Trere, *supra* note 210; ; Vladimir Korovkin, *Will Africa Close the Digital Divide*, BRICS MAG. (2020), https://www.bricsmagazine.com/ru/articles/will-africa-slose-the-digital-divide-c1fa94af-6dc1-4839-9258-387f196e428b.

²¹⁸ Tony Roberts, *Twice as Many Tactics and Techniques Used to Close than Open Digital Space in Ten African Countries*, INST. DEV. STUD. (Mar. 2, 2021), https://www.ids.ac.uk/news/twice-as-many-technologies-tactics-and-techniques-used-to-close-than-open-digital-space-in-ten-african-countries/.

²¹⁹ Billy Perrigo, *India's New Internet Rules Are a Step Toward 'Digital Authoritarianism,' Activists Say. Here's What They Will Mean*, TIME (Mar. 12, 2021), https://time.com/5946092/india-internet-rules-impact/; Billy Perrigo, *Why Twitter Blocked Accounts Linked to Farmers' Protests in India—Only to Reverse Course*, TIME (Feb. 1, 2021), https://time.com/5935003/india-farmers-protests-twitter/; Manoj Joshi, *Why India's Process for Authorising Surveillance on Citizens is Deeply Flawed*, THE WIRE (July 21, 2021), https://thewire.in/government/pegasus-india-surveillance-authority.

convergence are limited (e.g., only five FTAs have commitments on competition policy, few FTAs commits to basic principles on data protection; merely three FTAs discuss mutual recognition of regulatory standards). Where provisions exist regarding cross-border data flows, they are encumbered by loosely worded exceptions especially pertaining to national security (most FTAs provide for broad public policy and national security exceptions).²²⁰ Further, digitally advanced countries have shown little interest to build capacity and share technology with developing countries in FTAs (no FTA goes beyond recommendations of mutual cooperation or support to bridge data divide). Matters related to digital inequality, including digital inclusion and identities, net neutrality, or MSME development, have received scant attention and lack concrete commitments from developed countries. There is no clear vision in majority of FTAs to create pragmatic institutional mechanisms to deal with digital trade disputes and support data flows is underdeveloped (only six FTAs include a mandatory requirement to set up a mechanism, none of which describes the role and nature of the institution).

The third major concern is the absence of any meaningful commitments on regulatory, technical, and capacity building assistance. Thus, most FTAs are at the risk of becoming "paper tigers". Large number of developing countries have weak institutional capabilities, lack proper digital, and data governance mechanisms.²²¹ If these regulatory gaps remain unaddressed, it is unlikely that the expected advantages of digital trade would reach the people.²²² Further, in the absence of effective implementation of consumer, data, or spam protection standards through government and judicial bodies, the regulations would not have much value. None of the FTAs, even the most progressive and detailed ones, engage with these gaps.

²²⁰ While governments certainly may have legitimate reasons for restricting cross-border flows of certain kind of sensitive or secret data, loosely worded exceptions increase legal uncertainty.

²²¹ Carol Graham, Strengthening Institutional Capacity in Poor Countries: Shoring Up Institutions, Reducing Global Poverty, BROOKINGS (Apr. 1, 2002), https://www.brookings.edu/research/strengthening-institutional-capacity-in-poor-countries-shoring-up-institutions-reducing-global-poverty/. [hereinafter Graham]. ²²² Patrick Low, Rethinking Services in a Changing World, E15 INITIATIVE 20,23 (Jan. 2016), http://e15initiative.org/wp-content/uploads/2015/09/E15-Services-Low-FINAL-1.pdf, .

A tool that can be potentially used to craft inclusive trade agreements is providing for targeted SDT for differently placed countries. In the context of digital trade, this would mean more time to abide by commitments on data localisation, data protection, market access, source code disclosure, and so on in return for getting regulatory assistance and technical support at every stage. Such form of targeted SDT can act as an incentive in two key ways: (i) it will incentivise more developing countries to join digital trade agreements; (ii) it will provide a pragmatic approach by providing developing countries the time needed to jump-start their digital economies. .²²³ It also helps create pressure on the richer countries to extend aid to the developing countries to hasten the process of transition and graduation.²²⁴ For instance, the technical assistance provided by developed countries could be used by developing countries to develop a more evidence-based policy approach in transitioning to a regulatory framework that enables global data flows.²²⁵ No trade agreement, involving two or more countries placed at different stages of the developmental ladder, can be practical in the absence of meaningful provisions on SDT. Some benefits (like institutional support or technology sharing) need to be unidirectional: flowing from developed countries to developing ones, in exchange for their assent to opening their market. FTAs, especially those in which developing countries are involved (like the DEPA, RCEP or CPTPP). should have presented a blueprint on this. However, our survey indicated that such provisions are absent.

Lastly, none of the surveyed FTAs contain substantive provisions on transfer of technology. The rationale behind technology transfer is simple: for any meaningful progress, the have-nots need access to base technology and knowledge to sustain future efforts for an innovative, efficient, and

²²³ Constantine Michalopoulos, *The Role of Special Differential Treatment for Developing Countries in GATT and the World Trade Organization* (World Bank Policy Research Working Paper, Paper No. 2388, 2002).

²²⁴ Peter Kleen & Sheila Page, *Special and Differential Treatment of Developing Countries in the World Trade Organization*, GLOB. DEV. STUD. (2005), https://cdn.odi.org/media/documents/3320.pdf.

²²⁵ See, e.g., Beyleveld & Sucker, *supra* note 23, 58.

competitive economy.²²⁶ Studies show that trade agreements containing provisions on technology transfer generate a significantly higher volume of trade.²²⁷ As such, any attempt to bridge the data divide will necessarily require digitally advanced countries to agree to technology sharing/transfer mechanisms. None of the FTAs have tendered such a proposal, bringing into question if developed countries are approaching the negotiations with a view to support holistic digital development or protecting their short-term economic interests.

B. Moving Towards Reforming Digital Trade Agreements

In reforming FTAs to address the global data divide, trade policymakers and negotiators should consider three key possibilities: what developed countries can do; what developing countries can offer in exchange; and where both groups of countries have shared common interests.

In enabling digital trade rules that address the global data divide, developed countries must focus on core areas of interest to developing countries. This includes designing a tailored SDT mechanism, enabling technology transfer and sharing (including through IP licensing and knowledge-sharing initiatives), and committing to capacity building and technical support, especially to develop domestic regulatory frameworks.

Commitments in these areas should ideally be unidirectional, flowing from the digitally advanced countries to those on the other side of the global data divide. Despite the expected upfront costs to developed countries, these measures are worth considering because they can bring many developing countries within the fold of digital trade negotiations and help create an unfragmented world market. Such a market in turn also creates economic benefits for the developed world (so it is not entirely a moral obligation). These efforts can be coordinated within the WTO or through other institutions under FTAs or regional bodies that can act as a resource

²²⁶ Transfer of Technology and Knowledge-sharing for Development: Science, Technology and Innovation Issues for Developing Countries, UNCTAD CURRENT STUD. ON SCIENCE, TECH. & INNOVATION NO. 8 (2014).

²²⁷ I. Martínez-Zarzoso & S. Chelala, *Trade Agreements and International Technology Transfer*, 157 Rev. World Econ. 631, 665 (2021).

pool, advisory body, and an oversight mechanism.²²⁸ The eTrade for All initiative provides an example of a successful model in developing such efforts.²²⁹ The WTO Members negotiating the Joint Initiative on Electronic Commerce recently agreed upon a new initiative for capacity building called the E-Commerce Capacity Building Framework.²³⁰

Developed countries would also benefit economically with more meaningful participation of developing countries in the digital economy, including opportunities for exploring new markets and research and collaboration opportunities in data-driven sectors (e.g., instituting cross-border regulatory sandboxes to test new initiatives). Executed with the right motive and in the appropriate manner, these initiatives could potentially lead to a win-win situation for both groups of countries. Another area where developing countries need more willing support from the developed world is enabling them to participate in developing international technical standards and best practices for regulating for data-driven sectors (currently dominated by rich countries). This kind of participation is essential for developing countries to chart their own unique path of digital development.²³¹

In return for such support, developing countries, must commit to not impose undue data localisation measures, remove custom duties on electronic transmissions (which in any case can be expensive to implement

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²²⁸ Graham, *supra* note 221.

²²⁹ Torbjörn Fredriksson, *Cultivating New Capacities, the Case of E-commerce, in* Development Co-operation Report 2021: Shaping a Just Digital Transformation (2021) <a href="https://www.oecd-ilibrary.org/sites/ce08832f-en/1/3/2/4/index.html?itemId=/content/publication/ce08

en&_csp_=17c2a7153f8f3e72e475ec60ee15c40c&itemIGO=oecd&itemContentType=b ook.

²³⁰ E-Commerce JSI Co-convenors Announce Capacity Building Support, WTO, https://www.wto.org/english/tratop e/ecom e/jiecomcapbuild e.htm.

²³¹ For instance, based on their digital comparative advantage. *See*, Elizabeth Stuart, *Determining National Priorities in the 4th Industrial Revolution, in* DEVELEOPMENT CO-OPERATION REPORT 2021: SHAPING A JUST DIGITAL TRANSFORMATION (2021) https://www.oecd-ilibrary.org/sites/ce08832f-

en/1/3/2/8/index.html?itemId=/content/publication/ce08832f-

en&_csp_=17c2a7153f8f3e72e475ec60ee15c40c&itemIGO=oecd&itemContentType=b_ook.

in practice),²³² agree to phased access to market and non-discrimination against digital products, limit restrictions on data flows, and implement regulations on spam control, consumer protection, and data protection. This means countries must be prepared to make more open and transparent commitments and use the relevant institutional mechanism (e.g., FTA monitoring bodies and WTO committees) to provide relevant information (e.g., notify new measures) and share best practices including difficulties in implementing FTA obligations.

Several developing countries are the primary bearers of the brunt of the global data divide. However, they have equally failed to participate proactively in rule-making exercises on digital trade inter alia due to their political differences with the developed world. Additionally, developing countries and especially LDCs face severe resource constraints, as powerfully conveyed by Ivory Coast in a JSI submission few years ago.²³³ A reticent approach is however self-defeating; digital trade rules continue to be negotiated, and arguably in favour of those countries that currently participate in the negotiations. Not agreeing to liberal rules that preserve an unfragmented digital world, also means not opening to new markets and depriving local consumer base of high-quality, competitive digital services that can enable them to participate in the digital economy.²³⁴ While some trade rules may seem cumbersome due to their impact on infant industries (at least in the short run),²³⁵ these supposed harms can be neutralised in other ways. For instance, provisions on SDT, instituting technology grants for entrepreneurs in developing countries, and regulatory assistance, capacity building and technical support in exchange for gradual commitments on opening up the domestic digital markets, can all be potential mechanisms to balance short-term priorities with long-term interests.

²³² Simon J. Evenett, *Is the WTO Moratorium on Customs Duties on E-commerce Depriving Developing Countries of Much Needed Revenue?*, GLOB. TRADE ALERT (Nov. 22, 2021), https://www.globaltradealert.org > download.

WTO, Joint Statement On Electronic Commerce - Communication From Côte d'Ivoire, WTO Doc. INF/ECOM/49 (Dec. 16, 2019).

²³⁴ UNCTAD, *supra* note 12, at 63-96.

²³⁵ W. MAX CORDEN, TRADE POLICY AND ECONOMIC WELFARE 139 (1997).

Many experts consider the phased implementation of commitments (i.e. linked to capacity building support from the developed world) under the WTO's Trade Facilitation Agreement as a gold standard for implementing special and differential treatment.²³⁶ Yet, such provisions are not found in e-commerce chapters of FTAs, resulting in a conspicuous gap. An important factor in these negotiations could be the criteria to differentiate between countries at varied stages of digital development, as discussed below.

International development organisations such as World Bank, UNCTAD and others play a key role in enabling developing countries to shape their domestic data economies in an optimal manner. Bodies such as the WTO and regional organisations must coordinate their efforts to bridge the data with these organisations (including where divide multistakeholder bodies) to maximise the benefits of technical assistance programmes, capacity building support and regulatory assistance initiatives. Further, the digital economy measurement benchmarks (e.g., eTrade Readiness Index of UNCTAD; Digital Inclusion Navigator of the UNDP and WEF) developed by these bodies can shape SDT rules for the digital economy. As experts argue, SDT is most effective when it is granted on a case-by-case basis rather than based on the current selfselection approach.²³⁷ For instance, certain developing countries such as China are far more digitally advanced than other developing countries. These differences must be considered in determining the design of SDT policies instead of adopting the one-size-fits-all approach in current WTO practice.

Both developed and developing countries have failed to take up new obligations in certain emerging areas such as net neutrality and agreeing to basic regulatory principles such as mutual recognition mechanisms that can facilitate regulatory convergence. For instance, countries must agree to provisions which completely prohibit the creation of different versions of the internet for different companies. That is just fragmentation in another form.²³⁸ The clause in Chile-Paraguay FTA (Art. 10.10), providing

²³⁶ James Bacchus & Inu Manak, The Development Dimension Special and Differential Treatment in Trade 19-20, 52-53, 66-67 (2021).

²³⁸ Drake et al., *supra* note 161, 50-52.

for a strongly worded obligation to not violate net neutrality, without any exceptions, is a great model for other FTAs to emulate. FTAs should also provide for how to make holistic use of open government data and encourage cooperation on the same, like the Chile-Paraguay FTA does.²³⁹ FTAs can also provide adequate policy space for regulatory sandboxes necessary to test new data-driven technologies, especially those that can serve public interests in the developing world.²⁴⁰

Lastly, countries must use FTAs as a platform to agree on basic principles (typically, by incorporating international best practices by reference) on various regulatory spheres, including data protection, competition policy, cybersecurity, and digital identities.²⁴¹ The benefits of the global datadriven economy can only be maximised in an interconnected, interoperable, and inclusive world. To creates these synergies, FTAs play a key role. Although FTAs cannot set standards for regulation of digital technologies, they can incorporate relevant international standards and benchmarks by reference. This can create legal interoperability and greater digital trust among trading partners.²⁴² In particular, as more governments across the world have started open data initiatives for various public purposes, it is increasingly important for countries to agree on a common set of principles in relation to data regulation. For instance, frameworks on sharing of anonymised or non-personal data between public and private sector and between different private companies is likely to become important in the future.²⁴³ Similarly, mechanisms for data certification (such as data seals or trustmarks) could enable more open and secure digital connectivity across countries.²⁴⁴

²³⁹ Chile-Paraguay FTA *supra* note 81, art. 7.15.

²⁴⁰ DEPA, *supra* note 127, art. 2.7(2)(f) & 9.4(1).

²⁴¹ Beyleveld & Sucker, *supra* note 23, 72-74 (setting out some proposals for including disciplines on competition in trade instruments).

²⁴² Andrew D Mitchell & Neha Mishra, *Regulating Cross-Border Data Flows in a Data-Driven World: How WTO Law Can Contribute*, 22(3) J. INT'L ECON. L. 389, 416 (2019). ²⁴³ *See*, *e.g.*, *Free flow of non-personal data*, EUR. COMM'N (Aug. 19, 2022), https://digital-strategy.ec.europa.eu/en/policies/non-personal-data; R. Jain & V. Pingali, *India's Non-personal Data Framework: A Critique*, 9 CSI TRANSACTIONS ON ICT 171, 183 (2021).

²⁴⁴ See, e.g., Denmark's New Labelling Program for IT Security and Responsible Sse of Data, https://d-seal.eu/.

Let us take an example where the debate is well understood. Regulatory differences can hinder cross-border data flows.²⁴⁵ Experts have proposed that parties can use FTAs to reduce such barriers while finding common ground on regulatory areas critical to enable cross-border data flows such as data protection and legitimate grounds for data localisation.²⁴⁶ Thus, FTAs can become platforms where countries acknowledge their basic obligations and principles on enabling cross-border data flows and relevant frameworks as well as sharing best practices and experience in a pragmatic manner. It is important that such provisions do not take the form of mere recommendations or a one-line policy advice. For instance, the provision on data protection in the DEPA and the USMCA present a possible blueprint by including basic principles in the context of data protection laws, enabling mutual recognition and non-discriminatory practices on data protection and requiring all parties to adhere to fundamental international standards on data protection.²⁴⁷ In the long run, such provisions create more opportunities for synergies and regulatory convergence that can ultimately help bridge the global data divide. It is important however that such provisions acknowledge more meaningfully the role of regulatory assistance and capacity building necessary for developing countries to build the relevant frameworks. A good starting point may be for more developing countries to sign up to the Joint Initiative on Services Domestic Regulation, which provides various procedural principles to enable domestic regulations in service sectors.²⁴⁸

Ultimately, the problem of global data divide is a problem of digital trust.²⁴⁹ If developing countries feel threatened by foreign digital powers

²⁴⁵ Key Barriers to Digital Trade, UNITED STATES TRADE REPRESENTATIVE, https://ustr.gov/about-us/policy-offices/press-office/fact-sheets/2017/march/key-barriers-digital-trade.

²⁴⁶ Mira Burri, *The Governance of Data and Data Flows in Trade Agreements: The Pitfalls of Legal Adaptation*, 51 UC DAVIS L. REV. 65, 132 (2017).

²⁴⁷ DEPA, *supra* note 127, art. 4.2(3); USMCA, *supra* note 92, art. 19.8.

²⁴⁸ J. Drake-Brockman et al., *Digital Trade and the WTO: Top Trade Negotiation Priorities for Cross-Border Data Flows and Online Trade in Services* (Jean Monnet TIISA Network, Working Paper No. 11, 2021) 3-12.

²⁴⁹ See generally, Neha Mishra, Can Trade Agreements Narrow the Global Data Divide?, HINRICH FOUND. (Jan. 25, 2022), https://www.hinrichfoundation.com/research/wp/digital/trade-agreements-global-data-divide/.

(often encapsulated in the political battle against 'data colonialism'), then inward-looking measures will continue. Therefore, as this paper proposes, the global data divide can be resolved by interventions that bridges gaps between both groups of countries through mutual commitments and shared responsibilities. None of this entails a purely moral obligation on the part of the developed countries, nor should it be perceived as being appropriation of developing countries resources. Rather, trade rules must be shaped, as much as possible, to create mutually advantageous solutions such that the global data economy benefits in the long run.

V. CONCLUSION

International trade law must empower developing countries to break out from the global data divide rather than being locked into it. This paper sets out a proposal to move in this direction by examining the various possibilities and deficiencies in existing international trade agreements. It argues that trade agreements can play a contributory role in enabling inclusive digital transformation of developing countries and bridging the global data divide. Our proposal is based on a mutual give-and-take between the developing and developed world in finding solutions to address the global data divide, while also acknowledging that certain questions of data governance cut across all groups of countries, irrespective of the level of digital development.