14

Digital Megaregulation Uncontested? TPP's Model for the Global Digital Economy

Thomas Streinz[*]

I. Introduction

Information, knowledge, and communication have always been critical for commerce. But exponentially increasing digitalization, computation, and global interconnectedness have been transforming the global economy profoundly since the last decade of the 20th century, akin to but arguably surpassing prior revolutionary turns in the history of economic development.[1] Contemporary advancements in big data analytics, machine learning, and distributed ledger technology are harbingers of continued substantial change of exponential scale, scope, and speed. While the insight that digitalized information (data) has become a crucial input factor for the global economy in the 21st century is now commonplace,[2] the implications for firms, markets, and trade—and the law undergirding these institutions—are far from being internalized.

Against this backdrop, the chapter analyzes the Trans-Pacific Partnership's (TPP's) effort to create "cutting-edge obligations … to promote the digital economy through a free and open Internet and commerce without borders."[3] The United States, home of the world's leading Internet companies and only rivaled by China in this respect, drafted and championed TPP's rules for the digital economy. Despite its withdrawal from TPP, the United States continues to advocate for their adoption in other settings and has pushed for a similar

[*] Adjunct Professor of Law, NYU School of Law; Fellow, Institute for International Law and Justice (IILJ). Email: thomas.streinz@law.nyu.edu. Earlier versions of what became this chapter were presented at the MegaReg workshop at NYU Law in July 2016, the International Business Law Roundtable at Brooklyn Law School in October 2016, the American Society of International Law (ASIL) midyear meeting in Seattle in November 2016, the MegaReg workshop in Tokyo in November 2016, the Annual Conference of the Law and Society Association (LSA) in Mexico City in June 2017, the Asian Society of International Law (AsianSIL) Young Scholars Workshop in Seoul in August 2017, the Privacy Research Group at NYU Law in February 2018, and the Joint North American Conference on International Economic Law at McGill University in September 2018. I thank the participants at these events for thought-provoking discussions. I also benefited greatly from teaching "digital trade law" in the IILJ Colloquia on the "International Law of Google" in Fall 2017 and Spring 2018. I am grateful to Julian Arato, Anupam Chander, Dan Ciuriak, Rochelle Cooper Dreyfuss, Daniel Francis, Robert Howse, Ira Rubinstein, and Katherine Strandburg for questions, comments, and suggestions. Finally, I would like to thank my colleagues in the IILJ's MegaReg project (www.iilj.org/megareg) Benedict Kingsbury, Richard B. Stewart, and, last but foremost, Paul Mertenskötter for their outstanding support and encouragement.

[1] Klaus Schwab, *The Fourth Industrial Revolution* (Portfolio Penguin, 2017); Erik Brynjolfsson and Andrew McAfee, *The Second Machine Age* (W.W. Norton & Company, 2016).

[2] *The Economist*, "The World's Most Valuable Resource Is No Longer Oil, But Data" (London, May 6, 2017) https://perma.cc/7JJB-KDQR.

[3] Office of the US Trade Representative (USTR), *The Digital2Dozen* (Washington DC, 2016) https://perma.cc/U9XY-22GZ.

Megaregulation Contested: Global Economic Ordering After TPP. First Edition. Edited by Benedict Kingsbury, David M. Malone, Paul Mertenskötter, Richard B. Stewart, Thomas Streinz, and Atsushi Sunami. Published 2019 by Oxford University Press.

set of provisions in the revised NAFTA agreement (officially the US–Mexico–Canada Agreement, USMCA).

The chapter seeks to make four distinct but related contributions. The first two sections together offer competing and complementary accounts of TPP's rules for the digital economy. The first section presents TPP's rules for the digital economy as the culmination of the US "digital trade agenda." This is in line with existing evaluations of TPP, which assume the WTO agreements and pre-TPP free trade agreements (FTAs) as their baseline and frame of reference.[4] This kind of analysis often treats new rules on "digital trade" and "electronic commerce" as necessary updates to the established norms of international trade law, which are perceived as outdated, because the WTO's founding in the mid-1990s predated the commercialization of the Internet and the digital transformation of the global economy. The second section goes on to show that TPP's rules for the digital economy are an integral part of its project of transnational economic ordering for which the framing chapter coins the term "megaregulation."[5] TPP continues in the trajectory of prior FTAs but operates on an extended geographical and economic scale, addresses a wider range of regulatory matters (with significant variation as to the specificity of its prescriptions), and seeks to facilitate economic flows through new forms of regulatory alignment. TPP's rules for the digital economy share these characteristics. Understanding them as "digital megaregulation" reveals the extent to which TPP's rules for the digital economy depart from conventional international trade law. This is particularly true for its provisions on free data flows and "data localization."

The third section compares and contrasts the US's approach to data governance with the EU's, China's, and India's. TPP instantiates the "Silicon Valley Consensus." It compels its parties to refrain from restricting transnational data flows and from requiring the use of domestic computing facilities, but it lets the mere existence of a legal framework for the protection of personal information suffice.[6]

The fourth section asks why the remaining eleven TPP parties endorsed the Silicon Valley Consensus in the Comprehensive and Progressive Agreement on Trans-Pacific Partnership (CPTPP) after the United States withdrew from TPP. CPTPP incorporates TPP's data governance provisions without any substantial modifications. The chapter suggests that the CPTPP parties lacked alternatives, and that their assessment might have been affected by persistent misperceptions about realities of the global digital economy that are, to some extent, attributable to the dominant "digital trade" framing: Trade negotiators might underestimate the importance of data governance questions, operate without reliable data about the global digital economy, continue to overlook the losers of the digital transformation, underappreciate the right to regulate data, and misjudge the extent to which global digital corporations transcend territorial-jurisdictional boundaries. Countries that have not yet signed or ratified TPP ought to reevaluate the Silicon Valley Consensus and develop alternative models.

[4] Mira Burri, "The Governance of Data and Data Flows in Trade Agreements: The Pitfalls of Legal Adaptation" (2016) 51 UCal Davis L Rev 65; Henry Gao, "The Regulation of Digital Trade in the TPP: Trade Rules for the Digital Age" in J. Chaisse and others (eds.), *Paradigm Shift in International Economic Law Rule-Making* (Springer, 2017) 345; see also Mark Wu, "Digital Trade-Related Provisions in Regional Trade Agreements: Existing Models and Lessons for the Multilateral Trade System" *RTA Exchange* (International Centre for Trade and Sustainable Development and Inter-American Development Bank, 2017) https://perma.cc/KHM9-33UC.

[5] Benedict Kingsbury and others, "The Trans-Pacific Partnership as Megaregulation," ch. 2 in this volume.

[6] TPP, art. 14.8 (personal information protection); art. 14.11 (cross-border transfer of information by electronic means); art. 14.13 (location of computing facilities). For a detailed analysis see Section IV.1 below.

In this spirit, the fifth section turns to the normative question: should trade agreements address data governance questions, and if so, how? The regulation of transnational data flows is an appropriate topic for trade agreements if international economic law is to retain its relevance as an instrument of global economic governance. But TPP's rules on data governance do not strike the right balance between facilitating free data flows while preserving space for digital industrial policy and experimental data regulation. Future rule-making for the global digital economy—even if pursued through instruments of international economic law—needs more flexibility and calibration than TPP. The chapter concludes by looking at the future of TPP's model for the global digital economy.

II. The US Digital Trade Agenda

TPP's set of rules for the digital economy is a consequence of the United States' "digital trade" agenda that can be traced back to the Clinton Administration's "Framework for Global Electronic Commerce."[7] While ostensibly supporting private sector governance of the Internet, the United States came to include numerous, varied, and occasionally quite detailed rules on questions of relevance to its IT sector into its trade agreements. TPP is only the latest iteration of this development. Prior to TPP, the most developed set of provisions on "electronic commerce" were included in the Korea–US Free Trade Agreement (KORUS), which serves as a useful baseline to assess TPP's continuities and novelties.[8]

In an attempt to generate support for TPP in an adverse political climate, the Office of the United States Trade Representative (USTR) published the "Digital2Dozen": a list of twenty-four objectives purportedly pursued in TPP provisions, concentrated in the electronic commerce chapter (Chapter 14) and enforceable through state–state dispute settlement,[9] but scattered across various other chapters as well.[10] The document is relevant as an authoritative explanation of key rationales undergirding TPP's provisions identified by the USTR, reflecting long-standing economic interests of key players in the US digital economy.[11] The document remains relevant despite the United States' ultimate withdrawal from TPP. In the last days of the Obama administration, the USTR reissued the "Digital2Dozen" without the references to TPP. It altered the mission statement, which now states that the United States "is committed to transforming the rules of international trade to promote the free flow of goods, services, and data across a free and open Internet."[12] It is not without irony that the

[7] William J. Clinton and Albert Gore, Jr., "The Framework for Global Electronic Commerce" https://clintonwhitehouse4.archives.gov/WH/New/Commerce/.

[8] KORUS, ch. 15.

[9] TPP, art. 14.18; Canada and Vietnam signed a side letter (dated Mar. 8, 2018) in which Canada agreed to refrain from initiating dispute settlement procedures against Vietnam's Cyber Security Law for a period of five years after CPTPP's entry into force for Vietnam (Jan. 14, 2019).

[10] The relevant chapters are the chapters on technical barriers to trade (8), investment (9), cross-border trade in services (10), financial services (11), telecommunications (13), state-owned enterprises (17), and intellectual property (18), as well as the core trade chapters (2) (national treatment and market access for goods) and (5) (customs administration and trade facilitation) and the horizontal regulatory chapters on regulatory coherence (25) and transparency and anti-corruption (26).

[11] Shamel Azmeh and Christopher Foster, "The TPP and the Digital Trade Agenda: Digital Industrial Policy and Silicon Valley's Influence on New Trade Agreements" (2016) LSE International Development Working Paper Series 2016 No. 16-175 https://perma.cc/Q4PV-3LPT.

[12] USTR, *The Digital2Dozen* (Washington DC, 2017) https://perma.cc/W43A-G95B.

staff at USTR who negotiated TPP had to change the very document written to promote its achievements on digital policy questions by eliminating all references to it; instead the document now states that the United States would negotiate, in the future, provisions which would achieve exactly the same goals.

USTR's continued desire to address digital economy questions by means of trade agreements is an example of trade policy continuity from the Obama to the Trump administration. While the Obama administration maintained close contacts to Silicon Valley companies,[13] efforts by the Trump administration to build connections to the tech sector quickly withered. Nevertheless, US Internet corporations remain "first" in the world, rivaled only by their Chinese counterparts. Furthermore, US tech companies' delivery of (online) services abroad creates a trade surplus that counterbalances the US' trade deficit generated by trade in goods—one of the key fixations of US President Donald Trump and some of his advisors.

The US digital trade agenda also featured in the NAFTA renegotiations. The Trump administration's key negotiation objectives included a ban on custom duties and discriminatory treatment of digital products as well as rules against restrictions of cross-border data flows, against requirements to use or install local computing facilities, and against mandatory disclosure of computer source code.[14] It should not come as a surprise then that the "digital trade" provisions in the recently concluded USMCA largely follow TPP's model. This remarkable continuity can also be explained by the congressional constraints under which USTR operates.[15] The trade promotion authority that the US Congress granted in 2015 sets negotiation objectives for digital trade in goods and services and cross-border data flows.[16]

However, the USMCA deviates from TPP in its framing. While TPP used "electronic commerce" as an umbrella term, in line with WTO terminology, USMCA has shifted toward "digital trade," which avoids some of the confusion caused by the colloquial use of "ecommerce" for online shopping.[17]

Assessing TPP's rules for the digital economy against the benchmark of established concepts and categories of international trade law reveals the extent to which "digital trade" and "electronic commerce" are useful paradigms to understand TPP's model. The "Digital2Dozen" can be categorized into six distinct sets of rules, catering to different interests of digital economy companies. First, TPP applies and adapts established concepts of international trade and investment law to the digital economy. Second, TPP encourages states to harness digital technologies for trade facilitation and customs administration. Third, TPP expands and re-balances intellectual property rights protections to some extent. Fourth, TPP creates rules to facilitate electronic commerce across borders. Fifth, TPP disciplines states' involvement in the digital economy. Sixth, TPP addresses a range of questions of Internet law and policy, the most consequential of which relate to questions of data governance.

[13] Siva Vaidhyanathan, "Was Obama Silicon Valley's President?" *The Nation* (New York, Dec. 13, 2016) https://perma.cc/GQ77-X39G.

[14] USTR, "Summary of Objectives for the NAFTA Renegotiation" (July 17, 2017) 8–9 https://perma.cc/3U7E-RXN4.

[15] Kathleen Claussen, "Separation of Trade Law Powers" (2018) 43 Yale J Intl L 315.

[16] Bipartisan Congressional Trade Priorities and Accountability Act of 2015, P.L. 114-26 sec. 102. (b)(6).

[17] Contrast USMCA, ch. 19 with TPP, ch. 14.

A. Applying and Adapting Established Trade and Investment Law Concepts to the Digital Economy

In many ways, TPP follows the standard model of FTAs as developed since World War II and ultimately consolidated in the WTO. The General Agreement on Tariffs and Trade (GATT) remains the frame of reference for "trade in goods." The General Agreement on Trade in Services (GATS) provides a template for liberalizing "trade in services" (with some specific arrangements for sectors such as telecommunication). While efforts to create a multilateral framework for investment protection within the WTO stalled, a complex web of bilateral investment treaties (BITs) emerged, and investment chapters became a staple of FTAs as well.

Like other FTAs, TPP applies these established concepts of international trade and investment law to the digital economy. By eliminating tariffs on manufactured products, TPP also reduces tariffs for information and communication technology products to zero. In addition, TPP requires its parties to become members of the WTO's Information Technology Agreement (ITA) which also entails a commitment to eliminating tariffs on IT products.[18]

Under the—contested—principle of technological neutrality in international economic law, TPP's liberalization of services and protection of investments apply regardless of technological change.[19] TPP uses a negative list approach, under which countries identify the sectors for which they want to retain non-conforming measures, which avoids gaps between commitments and actual policy, and might lead to progressive liberalization as new services sectors emerge.[20] Yet, the precise boundaries of the services nomenclature remain blurry and prone to legal uncertainty—one reason why TPP seeks to create additional, more specific rules for the digital economy.

For GATT and GATS, and their different models for trade liberalization, the distinction between goods and services is decisive. However, this distinction is increasingly challenged by questions arising from new realities in the digital economy: Should there be a categorical difference between the import of a physical object (for example, a book) and the download of a digital object (for example, an ebook)? What if the content on the physical object is digital? And what if the digital object is a blueprint for additive manufacturing (3D printing)?[21] TPP—like other FTAs before it—responds to these unresolved questions by creating the categories "digital products" and "electronic transmissions" and applying non-discrimination obligations and tariff bans to them.

1. Non-Discrimination of Digital Products

TPP defines "digital product" as a computer program, text, video, image, sound recording, or other product that is digitally encoded, produced for commercial sale or distribution, and can be transmitted electronically.[22] Digitized representations of financial instruments, including money and cryptocurrencies, are excluded (and dealt with in the financial

[18] TPP, art. 2.17; USTR, *Digital2Dozen*, no. 16. Brunei, Chile, Malaysia, and Mexico were not parties to the ITA prior to TPP.

[19] TPP, chs. 9, 10, and 11; USTR, *Digital2Dozen*, nos. 13 and 17.

[20] Patrick Low, "Rethinking Services in a Changing World" E15 Expert Group on Services—Policy Options Paper (International Centre for Trade and Sustainable Development and World Economic Forum, 2016) https://perma.cc/P3RF-PW33.

[21] Sam Fleuter, "The Role of Digital Products under the WTO: A New Framework for GATT and GATS Classification" (2016) 17 Chi J Intl L 153.

[22] TPP, art. 14.1.

services chapter).[23] Even though the TPP parties are careful to note that the definition of "digital product" should not be understood to reflect their views on whether trade in digital products through electronic transmission should be categorized as trade in services or trade in goods,[24] introducing the "digital products" category arguably relieves pressure from the long-standing and contested debates in the WTO about how to accommodate the growing "trade in bits."[25] In the long run, breaking out of the goods/services dichotomy might be essential for the coherence and balance of international trade law, because of the risk that an increasing amount of economic activity can be construed as either a digital good (by equating digital content to goods) or a digital service (by focusing on digital creation and delivery) with vastly different consequences. With the digital product category in place, treaty drafters can decide anew which trade law concepts, such as non-discriminatory (national) treatment, they want to apply to it.[26] In this regard, TPP's non-discrimination obligation falls short of the level of protection for digital products established in KORUS in two ways. First, while TPP's national treatment obligation only covers digital products that are territorially or personally affiliated with another TPP party, KORUS extended its national treatment protection to cover other like digital products made available in either party's territory, regardless of their territorial or personal origin.[27] Second, KORUS included an explicit most-favored-nation (MFN) obligation to ensure no less favorable treatment of digital products also in comparison to non-parties of the agreement.[28]

By guaranteeing national treatment of "digital products," TPP protects an increasingly important category of transnational economic activity. The treaty drafters were careful to make sure that this protection would not upset established protections under intellectual property law.[29] The explicit exclusion of broadcasting is also telling as it protects an established services market with a long history of discriminating between foreign and domestic content.[30] On the flipside, the apparent need for an explicit exclusion is easily turned into an argument for a broad understanding of the "digital product" category.[31] Once that category is firmly established in trade law, future trade rules can be constructed specifically for digital products—instead of just relying on the established toolkit under GATT and GATS, and other agreements.

2. No Customs Duties for Electronic Transmissions

TPP defines electronic transmissions as transmissions made using any electromagnetic means, including photonic means.[32] Every data flow on the Internet is an electronic transmission. Hence, the categorical ban on customs duties for electronic transmissions in TPP removes parties' ability to impose "data tariffs" while retaining the ability to impose internal taxes, fees, or other charges.[33] Interestingly, the provision refers to electronic transmissions

[23] TPP, art. 14.1, footnote 2; in USMCA, art. 19.1, the same exclusion was upgraded from footnote to main text during legal scrubbing.

[24] TPP, art. 14.1, footnote 3.

[25] Antony Taubman, "International Governance and the Internet" in Lilian Edwards and Charlotte Waelde (eds), *Law and the Internet* (3rd edn, Hart, 2009) 3, 33–44.

[26] TPP, art. 14.4; see also USTR, *Digital2Dozen*, no. 3.

[27] KORUS, art. 15.2(b).

[28] KORUS, art. 15.3.

[29] TPP, art. 14.4.2 (in case of inconsistencies, the IP chapter 18 takes precedence).

[30] TPP, art. 14.4.4.

[31] Cf. for a similar logic the carve-out for tobacco regulations from investor-state dispute settlement in TPP, art. 29.5.

[32] TPP, art. 14.1.

[33] TPP, art. 14.3; see also USTR, *Digital2Dozen*, no. 2.

between a person of one party and a person of another party, thereby requiring some form of "TPP party affiliation." In doing so, TPP ignores the complexity of "corporate nationality" in a global digital economy, which reduces the practical impact of such limitations significantly.[34]

TPP echoes the WTO's moratorium on custom duties for electronic transmission, that dates back to 1996, was formalized and included in the 1998 WTO work programme on electronic commerce,[35] and reaffirmed at every WTO ministerial meeting after, albeit with raising contestation.[36] By enshrining the ban on custom duties for electronic transmission into treaty law, the TPP parties commit to the moratorium regardless of its eventual fate in the WTO. This fulfills a key objective of the United States' "digital trade agenda." While ostensibly geared against future tariffs on electronic transmissions, the moratorium might lead to a de facto decrease in total tariff revenue over time as trade in physical goods is gradually being replaced by electronic transmissions of digital products.[37] TPP forecloses the possibility of imposing customs duties on data transfers per se by applying it to electronic transmissions generally and not just to electronic transmissions of digital products.[38] However, unlike KORUS and USMCA, the ban does not extend to "fees" and "other charges."[39]

In any case, imposing customs duties on electronic transmissions would require significant technological changes to the infrastructures commonly used for electronic transmissions. The trade law imagery of "stopping the transmission at the border to collect customs duties" is misleading. Currently, no such controls exist for electronic transmissions (even in jurisdictions that filter Internet traffic). The monitoring of electronic transmissions for duty imposition purposes would add a new layer of governmental control to the Internet architecture, acerbating concerns over its "fragmentation."[40]

B. Harnessing Digital Technologies for Trade Facilitation and Customs Administration

While re-creating borders to impose customs duties on electronic transmissions may seem artificial, physical borders remain a major impediment for trade in goods which need to go through customs inspection and clearance. A second category of "digital trade" rules seeks to harness digital technologies to improve these customs procedures.

TPP requires its parties to make customs laws, regulations, and general administrative procedures, as well as eventual advance rulings, available online;[41] to make electronic

[34] UNCTAD, World Investment Report 2016: Investor Nationality: Policy Challenges, UNCTAD/WIR/2016 (United Nations 2016) 123–89 https://perma.cc/XTF7-8XH6. Also see Sections IV.1 and V.5 below.

[35] WTO Ministerial Conference, "Declaration on Global Electronic Commerce," WT/MIN(98)/DEC/2 (May 25, 1998).

[36] Reaffirmation of the moratorium during the 2017 Buenos Aires ministerial meeting was uncertain and India and South Africa have called for a "re-think" of the moratorium: Communication from India and South Africa, "Moratorium on Customs Duties on Electronic Transmissions: Need for a Re-Think" WT/GC/W/747 (July 13, 2018).

[37] UNCTAD, *Rising Product Digitalisation and Losing Trade Competitiveness*, UNCTAD/GDS/ECIDC/2017/3 (2017) https://perma.cc/D7AC-CPE6.

[38] Contrast KORUS, art. 15.3.2(b) with TPP, art. 14.3.1 ("content transmitted electronically" is only a subcategory of "electronic transmissions").

[39] Contrast KORUS, art. 15.3.1 and USMCA, art. 19.3.1 with TPP, art. 14.3.1.

[40] Milton Mueller, *Will the Internet Fragment?* (Polity, 2017).

[41] TPP, art. 5.11; art. 5.3.8 (subject to confidentiality requirements established by domestic law).

systems accessible to customs users;[42] to employ electronic or automated systems for risk analysis and targeting;[43] and to provide for electronic submission and processing to expedite the release of goods from customs control upon arrival.[44] TPP also requires parties to endeavor to provide a single entry point where importers and exporters can electronically complete standardized import and export requirements.[45] In addition, TPP seeks to promote "paperless trade" as parties must endeavor to make available and to accept trade administration documents in electronic form.[46] In all these instances, digital technologies are supposed to improve the administration of traditional physical cross-border trade in goods. Whether or not the goods were ordered online is immaterial. And still, despite these categorical differences and being scattered across the customs administration and electronic commerce chapters of TPP, these provisions are an integral part of the "digital trade agenda."[47]

C. Expanding and Re-Balancing Intellectual Property Rights

Since the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) became part of the founding package of the WTO, requiring certain forms of intellectual property (IP) is a common feature of contemporary trade agreements, and TPP is no exception. However, the relevance of IP protection for the digital economy has undergone several fundamental changes since TRIPS entered into force and became the template for IP chapters in FTAs.

Interestingly, TPP expands IP protection in specific areas outside the IP chapter. For example, TPP's ban on performance requirements for investments explicitly mentions the transfer of technology, production processes, or other forms of proprietary knowledge.[48] Similarly, the TPP parties explicitly commit not to require such technology, process, and knowledge transfers regarding cryptographic products in their technical regulations and conformity assessment procedures.[49] They are further obliged not to require transfer of and access to proprietary source code of mass-market software ("except software used for critical infrastructure") according to a provision in the electronic commerce chapter.[50] All these provisions are about protecting certain types of proprietary information in response to demands by US digital economy companies.

Copyright protection used to be a main concern for US media and entertainment companies such as Disney, but it is not a priority for major Internet companies such as Google and Facebook. The expansion of the world wide web and the emergence of file sharing platforms during the late 1990s put severe pressure on copyright holders who had received extensive protection under TRIPS. Various attempts to fight back against pervasive file sharing were made domestically and internationally. The most serious effort to tighten international IP enforcement failed when the European Parliament voted against the plurilateral

[42] TPP, art. 5.6.1(b).
[43] TPP, art. 5.6.1(c).
[44] TPP, art. 5.10.2(b).
[45] TPP, art. 5.6.2.
[46] TPP, art. 14.9.
[47] USTR, *Digital2Dozen*, no. 18.
[48] TPP, art. 9.10.1.(f); USTR, *Digital2Dozen*, no. 6.
[49] TPP, Annex 8-B, sec. A, art. 3(a); USTR, *Digital2Dozen*, no. 12.
[50] TPP, art. 14.17; USTR, *Digital2Dozen*, no. 7.

Anti-Counterfeiting Trade Agreement (ACTA) in 2012. In hindsight, ACTA marked the highpoint of the United States' attempt to increase copyright protection and enforcement through instruments of international law.

The original TPP sought to expand copyright protection to life plus 70 years but the TPP11 signatories suspended this provision in CPTPP.[51] They kept, however, the requirement to confine limitations or exceptions to exclusive rights, with the aim of achieving an appropriate balance between rights holders and legitimate interests of journalists, scholars, and others.[52] This recognizes the desirability of "fair use" provisions—a significant departure from international IP law orthodoxy in trade agreements. One must neither overstate nor generalize this shift, significant as it is, as the United States continued to push for significant expansion of IP protection in other areas (for example, for biologics) and tried to impose its model for copyright enforcement by Internet service providers on the other TPP parties.[53] However, the fact remains that the US digital trade agenda *also* emphasizes the need for "balanced" IP protection.[54]

This shift is reflective of changed power structures among different digital economy companies. While IP protection remains relevant for most hardware and some software development, in the emerging data-driven economy, the economic value and growth potential lies increasingly in data itself.[55] However, and perhaps counterintuitively, not all potentially economically relevant data is subject to IP protection. It remains to be seen if future trade agreements will seek to create new categories of IP protection for certain categories of data currently not covered by established categories. The US digital trade agenda as instantiated in TPP does not go down that route.

D. Prescribing Rules for Electronically Facilitated Commerce

While the USMCA adopts "digital trade" for the chapter with the bulk of provisions with direct relevance to the digital economy, TPP uses the term "electronic commerce" which is also the official name of the WTO's work programme. Both terms lack precision and conceptual clarity and scholars and practitioners often use them interchangeably.[56]

There is, however, a narrower understanding of electronic commerce in which electronic means are used to facilitate the exchange of goods, services, and digital products between businesses (B2B) and businesses and consumers (B2C). In today's digital economy, the main example for the latter is online shopping on platforms such as Amazon or eBay. The accessibility of these platforms from abroad increases the potential for B2B and B2C trade across borders and makes "e-commerce" a focal point of the "digital trade agenda."

[51] TPP, art. 18.63; CPTPP Annex, art. 7(g).

[52] TPP, art. 18.65, 18.66.

[53] CPTPP suspended the provision on biologics (art. 18.51) as well as the safe harbor regime (art. 18.82), for which Canada and Chile had negotiated alternative regimes anyway (TPP, Annex 18-E and Annex 18-F). Interestingly, CPTPP retained the criminalization of trade secret theft (TPP, art. 18.78.2); see Rochelle Cooper Dreyfuss, "Harmonization: Top Down, Bottom Up—and Now Sideways?," ch. 15 in this volume.

[54] USTR, *Digital2Dozen*, no. 21 (promoting strong and *balanced* copyright protections and enforcement; emphasis added); no. 22 (transparent, strong, and *balanced* patent protections; emphasis added).

[55] Dan Ciuriak, "Data Collection Will Drive Industry Shifts," Centre for International Governance Innovation (2018) https://perma.cc/2Y6M-W6HK.

[56] Andrew D. Mitchell and Neha Mishra, "Data at the Docks: Modernising International Trade Law for the Digital Economy" (2018) 20 Vand J Ent & Tech L 1037, 1076 (fn. 2).

TPP contains two types of rules to facilitate electronic commerce. The first are transactional rules for contracting, authentication, and signatures that are supposed to improve the legal infrastructure for electronic transactions. TPP requires its parties to maintain a legal framework governing electronic transactions consistent with the UNCITRAL Model Law on Electronic Commerce of 1996 or the UN Convention on the Use of Electronic Communications in International Contracts.[57] In this way, TPP, as an instrument of public international law, entrenches private international law instruments. These model laws concern *domestic* electronic transactions. In other words, they do not *require* a cross-border element to be applicable. The same is true for TPP parties' commitment to endeavor to avoid unnecessary regulatory burdens on electronic transactions and to allow for participation by interested persons in developing the legal framework for electronic transactions.[58] On authentication, TPP outlaws state interference with private parties' choice of appropriate authentication methods, subject to performance standards or certification only for certain categories of transactions.[59] The TPP parties may not deny the legal validity of signatures in electronic form, except when provided under domestic law.[60] All these commitments concern domestic as much as transnational transactions. The absence of any cross-border requirement is indicative of the limits of the "digital trade" framing. Only an encouragement toward interoperability points toward transnational dimensions.[61]

The second category of rules that purport to support electronic commerce, narrowly understood, are regulatory rules about consumer and personal data protection. The somewhat tenuous connection of these rules to electronic commerce is established through the veneer of nurturing consumer trust in online commerce. Hence, TPP parties commit to consumer protection laws against fraudulent and deceptive commercial activities online.[62] In a similar vein, they pledge to take action against unsolicited commercial electronic messages (spam).[63] They are also required to adopt or maintain a legal framework for personal data protection in recognition of its economic and social benefits, with the announced aim of enhancing consumer confidence in electronic commerce.[64] However, in practical terms, *any* personal data protection regime suffices to fulfill TPP's data protection requirement, casting doubt on any tangible impact of the commitment. Here, as elsewhere in TPP, the most consequential impact might be the requirement to publish available remedies and the applicable legal framework (thereby increasing legibility of regulatory requirements for transnational businesses).[65]

E. Disciplining the State's Involvement in the Digital Economy

The digital trade agenda seeks to discipline states' involvement in the digital economy in three principal ways. First, via administrative-law type provisions applicable to states'

[57] TPP, art. 14.5.1.
[58] TPP, art. 14.5.2.
[59] TPP, art. 14.6.2–3.
[60] TPP, art. 14.6.1.
[61] TPP, art. 14.6.4.
[62] TPP, art. 14.7.2.
[63] TPP, art. 14.14 (footnote 8 suspends Brunei's obligation until its legal framework regarding unsolicited commercial electronic messages has been implemented).
[64] TPP, art. 14.8.1–2.
[65] TPP, art. 14.8.4.

regulatory decision-making; second, by imposing general disciplines on state-owned enterprises (SOEs); and third, through sector-specific commitments for states' regulation of telecommunication services.

In the first category, TPP features a wide array of administrative law-type provisions, scattered across sectoral chapters, and concentrated in the horizontally applicable chapters 25 (on regulatory coherence) and 26 (on transparency) that apply to domestic rule-making for the digital economy. In this regard, the US digital trade agenda carries forward and adapts the WTO's "deep regulation" agenda commonly associated with the WTO's TBT and SPS agreements. This includes commitments to accord national and MFN treatment (among TPP parties) to conformity assessment bodies of other parties.[66] In addition, TPP requires transparency and participation for persons of other parties in conformity assessment procedures.[67] This caters to the interests of the traditional ICT industry whose rapid development cycles may be hampered by lengthy and bureaucratic approval processes. However, TPP does *not* create specific provisions for ICT—with the notable exception of encryption products—but relies on the general framework of its TBT chapter.[68] Similarly, the horizontal provisions on transparency and regulatory coherence apply to states' rule-making generally. However, the absence of digital economy-specific provisions does not necessarily mean that these general provisions will not play out in digital economy-specific ways, as the relevance of disciplines on rule-making is tied to the importance of the rules being crafted.

The same is true for TPP's second category of rules disciplining states' interaction with the digital economy. TPP's novel disciplines for SOEs apply generally but may carry special significance for the competitive environment in the global digital economy. TPP's rules on SOEs are a direct response to and rebuke of China's model of digital economy development in which the state and the Chinese Communist Party retain an active role.[69]

Third, TPP's telecommunication chapter seeks to mobilize the regulatory state to ensure access to public telecommunication services and to reduce entry barriers for foreign telecommunication service providers.[70] At the same time, TPP constrains the state in its ability to discriminate in favor of government-owned telecommunication service providers, and requires transparent and non-discriminatory allocation of government-controlled resources.[71] In doing so, the telecommunications chapter exemplifies "regulation of state regulation of markets" that is a hallmark of megaregulation.[72]

Overall, the telecommunication's chapter illustrates the potential and limits of a sectoral approach to rule-making for the digital economy in trade agreements. While the relevance of telecommunications regulation is ever increasing, due to the crucial role of telecommunication service providers as Internet access providers, telecommunications regulation does not extend beyond establishing inter-connectivity—rule-making for the Internet economy at large is beyond its scope.

[66] TPP, art. 8.6.1; USTR, *Digital2Dozen*, no. 24.
[67] TPP, art. 8.7.
[68] TPP, ch. 8; USTR, *Digital2Dozen*, no. 15. For encryption products, see TPP, Annex 8-B, sec. A.
[69] Mark Wu "The 'China, Inc.' Challenge to Global Trade Governance" (2016) 57 Harv Intl L J 261.
[70] TPP, art. 13.7–8, 11–15; USTR, *Digital2Dozen*, no. 11.
[71] TPP, art. 13.16; art. 13.19.
[72] Benedict Kingsbury and others, "The Trans-Pacific Partnership as Megaregulation," ch. 2 in this volume.

F. Creating New Rules for the Internet Economy

The Internet provides the infrastructure for the global exchange of information. The US digital trade agenda recognizes its importance for the global economy but the specificity and force of TPP's provisions with direct relevance to the Internet economy vary considerably.

1. Aspirational Rules for an Open and Stable Internet

The "Digital2Dozen" places the promotion of a "free & open" Internet prominently at the start of the document, but the relevant provision, as included in TPP, is a mere recognition that consumers enjoy(commercial) benefits from Internet access (subject to applicable policies, law, and regulations).[73] The inadvertent exclusion of other, non-commercial Internet policy objectives (such as "digital rights," that is, the protection of human rights online) significantly reduces the appeal of TPP's prescriptions to Internet activists, and creates mismatches between the trade, national security, and human rights discourses on Internet law and policy.[74] Internet access is not the only case of "weak" treaty language in this context. Cooperation in cybersecurity matters is another example.[75] If these concerns had been USTR priorities, the negotiators would likely have pushed for more forceful legal language.

2. Binding Rules for Cross-Border Data Trade

In contrast, TPP rules for cross-border data flows and against "data localization" are binding commitments that are at the heart of the US digital trade agenda. In the "digital trade" framing, cross-border data flows are analogized to cross-border exchanges in goods and services. In line with liberal paradigms of economic openness, TPP requires states to not restrict cross-border data flows and to refrain from requirements to use local computing facilities, unless there are public policy justifications for such measures, which, in addition, must not be arbitrary or unjustifiable discrimination, a trade restriction in disguise, or more restrictive than necessary.[76] KORUS, in contrast, only committed its parties to endeavor to refrain from imposing or maintaining unnecessary barriers to cross-border data flows.[77]

However, on closer examination, it becomes clear that not every data flow is part of an economic exchange in the way that trade is commonly understood. Conventionally, trade law assumes that the exchange of goods and services across borders corresponds with payment flows. This paradigm holds in instances in which a digital product is consumed against a price (for example, a download of an ebook). But in many other instances consumers in the digital economy enjoy digital products "for free" (for example, a search on Google). Even if one conceptualizes these exchanges as "services" against "personal data" transactions, there remains a large number of data flows that do not concern the delivery of a digital product at all, but instead are part of the everyday operation of the global Internet ecosystem, where data largely flows unimpeded across borders.

Furthermore, the data flow as digital trade conceptualization reverses the default-exception paradigm under which trade law has operated so far. Traditionally, trade law has proceeded on the assumption that integrated national economies are the default and

[73] TPP, art. 14.10; USTR, *Digital2Dozen*, no. 1.

[74] Susan Aaronson, "Why Trade Agreements are not Setting Information Free: The Lost History and Reinvigorated Debate over Cross-Border Data Flows, Human Rights and National Security" (2015) 14 WT Rev 1.

[75] TPP, art. 14.16; USTR, *Digital2Dozen*, no. 14.

[76] TPP, art. 14.11, 14.13.

[77] KORUS, art. 15.8.

cross-nation trade is the exception. In contrast, cross-border data flows have become the norm in today's digital economy. Purely intra-country data flows are the exception, due to the Internet's digital infrastructure of re-routing and packet-switching with little regard to territorial limits. There are physical barriers to trade in goods and services (such as long distances, geographical impediments, etc.) whereas data generally flows freely and somewhat unpredictably as long as the necessary Internet infrastructure is in place. These crucial differences raise intricate questions about the accuracy and validity of conceptualizing data flows as "digital *trade*"—where trade denotes cross-jurisdictional commerce.[78]

III. Understanding TPP as Digital Megaregulation

The "digital trade" paradigm understands TPP's effort to create new rules for the digital economy as a continuation, adaptation, and modernization of established concepts of international trade law. This section will consider the analytical and explicatory value of "megaregulation" as a way of understanding TPP not just through the lens of international trade and investment law but as a new and distinctive form of global economic ordering. As the framing chapter explains, megaregulation has five defining characteristics: extended substantive scope to facilitate commercial flows, generalized freedom for firms to operate across jurisdictions, regulatory alignment of participating countries' regulatory rules and administrative practices, expanded scale of economic activity, and the use of a treaty under international law as its institutional form.[79] Foregrounding these features in the context of the digital economy is not a repudiation of the "digital trade" account per se. Both accounts are compatible to some extent and serve as complements, each highlighting different design features of the TPP project. Understanding TPP as "digital megaregulation" widens the perspective and reveals certain path-dependent idiosyncrasies in the established, and somewhat siloed, trade law discourse that might have influenced the assessment of TPP's rules for the digital economy by the TPP11.[80] In addition, the focus on *digital* megaregulation shows certain particularities of global economic ordering in the digital domain that are not equally present in other domains of TPP's megaregulatory project.

A. Megaregulation as Global Economic Governance

Trade law has never been "comprehensive." As seen above, post WWII international trade law focused initially on liberalization of trade in goods (GATT), later complemented by attempts to address so called non-tariff barriers to trade via the SPS and TBT agreements, and dedicated agreements to liberalize trade in services (GATS) and to integrate intellectual property rights into the trade regime (TRIPS). Despite ongoing contestation on the margins, these elements remain the core of international trade law. Attempts to address additional concerns such as government procurement or trade facilitation only led to plurilateral arrangements (GPA, TFA) or, as in the case of trade and competition, faltered

[78] Milton Mueller and Karl Grindal, "Is It 'Trade?' Data Flows and the Digital Economy" (TPRC 46: The 46th Research Conference on Communication, Information and Internet Policy, 2018) https://ssrn.com/abstract=3137819.

[79] Kingsbury and others, "The Trans-Pacific Partnership as Megaregulation," ch. 2 in this volume.

[80] See Section V below.

within the WTO where certain members resisted any expansion of trade law's substantive scope over concerns that states' policy space would be unduly curtailed. Increasingly, powerful economies turned toward FTAs to address a wider range of regulatory concerns than possible within the WTO.

CPTPP and the EU–Canada agreement CETA are the culmination of this expansion in that they openly announce their "comprehensive" nature. This is somewhat curious in the case of CPTPP which is arguably less "comprehensive" than the original TPP due to suspending a considerable number of provisions.[81] In both cases, the claim to comprehensiveness seems overstated (tax, for example, is conspicuously absent from TPP and CETA) and mainly motivated by political considerations. But conceptually, it signals a move away from agreements that are mainly concerned with trade as traditionally understood toward agreements that directly address questions of common concern in global economic governance.

Megaregulation calls attention to this systematic shift by pointing out the vast substantive scope of provisions included in agreements like TPP. Instead of asking to what extent a particular provision relates to "trade" to justify its existence, megaregulation accepts the expanded range and variety of provisions as the new normal. The example of TRIPS is particularly instructive in this regard. To make its inclusion into the WTO's founding package acceptable, the agreement claimed prominently in its title to be only concerned with the "trade related" aspects of intellectual property rights. However, on closer examination, TRIPS can easily be understood as a transnational regime for the regulation of intellectual property rights—irrespective of trade. The same is true for a wide range of provisions in TPP. Instead of construing a narrative in which the TPP parties recognize the importance of building cooperative cyberdefense capabilities to protect the relevant Internet infrastructure for "digital trade" and hence as "trade related," one can understand such provisions more readily as part of an effort to address questions of common concern in contemporary global economic governance. Importantly, this framing invites the assessment of any given provision in TPP in the context of parallel efforts to address similar questions in other venues of global economic governance.

This is particularly helpful in the context of TPP's rules for the digital economy which do not fit neatly into the "digital trade" paradigm, and which interact with other institutions with influence over the global Internet infrastructure. For example, TPP's requirement to provide online public access to a database with contact information for domain name registrants of country-code top-level domains might interfere with the multistakeholder processes commonly used to govern domain name policies.[82]

B. Promoting Commercial Data Flows

As the framing chapter explains, TPP seeks to promote the free flow of goods, services, capital, (high-level) personnel, and data in a multi-country and cross-oceanic "mega-region." The explicit aim of promoting commercial data flows recognizes the relevance of data as an exceedingly important input factor in the global digital economy. Data flows are essential to firms' increasingly complex and decentralized modes of production in multi-country

[81] CPTPP, Annex; see Benedict Kingsbury and others, "Introduction: The Essence, Significance, and Problems of the Trans-Pacific Partnership," ch. 1 in this volume for details.

[82] TPP, art. 18.28.1(b). This provision is conspicuously absent from the USTR's *Digital2Dozen*.

value chains.[83] Cloud computing, the backbone technology that allows companies to tap into vast storage and processing resources at scale, relies on unimpeded data flows and optimal location of data storage facilities. Free cross-border data flows enable businesses to accumulate data from different sources. The bigger the resulting datasets, the higher the potential for data mining, that is, the use of modern data science technologies to gain insights through algorithmic analysis of large datasets. Large datasets are particularly relevant for deep learning, a form of artificial intelligence in which algorithms increase their accuracy by training themselves through exposure to training data.

All these examples illustrate the economic relevance of data. They also indicate that neither "electronic commerce" nor the "digital economy" are usefully thought of as "sectors" for which specific rules of trade law could be crafted. Gradually, the whole economy will be more or less digitalized.

Against this backdrop, analogizing data flows to trade is both inaccurate and misleading. It is inaccurate due to the lack of exchange in many instances of cross-border data flows. It is misleading because it, maybe inadvertently, suggests a relevance of physical borders nonexistent in today's digital economy. Instead of understanding TPP's explicit aim of promoting cross-border data flows in terms of "digital trade," the free flow of data and its economic relevance can be assessed on its own terms, as an end in itself in the context of TPP's larger project of "digital megaregulation."

C. Preserving Digital Corporations' Freedom to Operate Across Jurisdictions

Megaregulatory agreements such as TPP seek to expand firms' freedom to operate across jurisdictions with ease. Dan Ciuriak's imaginative account explains how contemporary trade and investment agreements create a generalized freedom to operate beyond non-infringement of IP rights by creating a wider set of protections for firms' intangible assets.[84] The framing chapter expands this idea by analyzing TPP from the perspective of corporations operating across jurisdictions. In this way, megaregulation breaks with the standard account of international trade law, which tends to project the legal nature of trade agreements as instruments of international public law and hence genuinely inter-state affairs onto the realities of global trade in which not states but companies trade, in particular through global value chains and within firms.

Importantly, digital corporations whose business models revolve around online services already enjoy a generalized freedom to operate across most jurisdictions. Even though states could theoretically reign in digital corporations' operations, as China does, most have refrained from doing so in a systemic way that would realign the relevant scale of economic activity with their jurisdiction. Against this backdrop, TPP's project of digital megaregulation, in particular its guarantees for free data flows and protections against data localization, has to be understood as an effort to *preserve* rather than create a generalized

[83] Richard Baldwin, *The Great Convergence: Information Technology and the New Globalization* (Belknap Press, 2016).

[84] Dan Ciuriak, "Generalized Freedom to Operate," IILJ Working Paper 2016/3 (MegaReg Series) (Dec. 7, 2016) www.iilj.org/megareg.

freedom to operate. This necessitates a readjustment of the relevant baseline. In stark contrast to the intense state-led regulation of the non-digital industrial economy, the effective non-regulation of digital corporations' data operations is still the default in many jurisdictions (the EU's efforts in this regard notwithstanding). Entrenching the current state of affairs through provisions which constrain states' ability to regulate digital corporations is likely to have pre- and non-regulatory rather than de-regulatory effects.

D. Pre-Empting and Shaping Future Data Regulation

TPP's rules for the digital economy employ various means to constrain states' ability to regulate the digital economy, thereby preserving the regulatory alignment that is currently in place in a largely non-state regulated domain. If future data regulation cannot be preempted due to outsized pressure to intervene in pursuit of societal objectives, TPP's megaregulatory agenda at least demands adherence to certain administrative and regulatory practices to steer future regulation.

One legal technology prominently employed throughout TPP is the introduction of domestic administrative law principles granting "interested persons" rights to access information about current and proposed regulation (transparency), rights to involve themselves in the relevant rule-making efforts (participation), rights to understand the motivations and rationales behind regulatory decisions (reason giving), and, occasionally, rights to challenge such decisions before administrative or judicial tribunals (review). These global administrative law (GAL) obligations show significant variation in terms of specificity, which directly affects the ability of concentrated and diffuse interests to exercise voice.[85] Examples in the context of the digital economy concern, for instance, rule-making by telecommunications regulators and measures by public telecommunications services.[86] Non sector-specific regulation is subjected to less stringent demands via TPP's horizontal obligations in the chapter on "transparency."[87] Whether digital corporations will increasingly involve themselves in domestic legislation and rule-making efforts remains to be seen and will depend on states' implementation of TPP's GAL demands in practice.

In contrast, TPP's protections of cross-border data flows and against data localization constrain states' regulatory choice by requiring a legitimate public policy objective and subjecting the measure to an inquiry into arbitrariness, non-discrimination, trade restrictiveness, and necessity. The extent to which this test limits states' ability to regulate data crucially depends on the eventual interpretation of these provisions by the implementing parties and, in the case of dispute, by the panel interpreting these novel obligations. The US withdrawal from TPP significantly reduced the available institutional capacity among TPP parties to monitor relevant legislation and rule-making and to initiate dispute settlement procedures. Nevertheless, TPP carries forward the US approach to state-market relations in which the state needs to justify interference with the market through regulation.

[85] Paul Mertenskötter and Richard B. Stewart, "Remote Control: TPP's Administrative Law Requirements as Megaregulation," ch. 17 in this volume.
[86] TPP, art. 13.22.
[87] TPP, art. 26.2.

E. Matching the Extended Scale of the Global Digital Economy

Megaregulatory agreements cover a larger chunk of global economic activity and inter-country trade by extending their reach to a cross-regional scale. This extended scale corresponds with the extending scales on which corporations operate in a globalized economy. Multi-country agreements such as TPP are a better fit for multi-country corporations (the quasi-universal WTO would be an even better scale-match but seems unable to muster the consensus necessary for effective rule-making).

This is particularly true for digital corporations, some of which offer their services on a quasi-planetary scale (and some even beyond). Starts ups in the digital economy employ strategies of "blitzscaling" to exercise first-mover advantages to benefit from network effects and to gain a competitive edge, in particular in terms of gathering relevant data.[88] This involves scaling business operations abroad much earlier and faster than in the pre-digital economy. Distances, while still relevant for traditional trade in goods, lose relevance in a purely data-driven economy. This makes extended scale agreements such as TPP more feasible and relevant.

The intended and announced third party effects that megaregulatory agreements such as TPP create may be particularly pronounced in the digital domain. Once the TPP megaregion develops TPP-compliant templates of data regulation, governments and digital corporations in non-TPP countries will gravitate toward them ("TPP effect"). Legislators and rulemakers will weigh carefully if they want to deviate from TPP-compliant legislative templates and models for the regulation of the digital economy. These dynamics make TPP an effort in global economic ordering extending well beyond TPP's region.

F. The Exceptional Use of International Law in the Digital Domain

Employing instruments of international law to govern inter-country trade is commonplace. The conventional "digital trade" framing suggests that using these instruments to set the ground rules for the global digital economy is a natural continuation. This conceals the extent to which the use of traditional international instruments has been the exception rather than the rule in Internet governance. In this respect, TPP's project of digital megaregulation is a significant departure from the status quo. It might signal a surprising revival of the international treaty in the digital domain as digital economy companies have come to endorse and support TPP's efforts and are calling for international law interventions on cybersecurity questions as well.[89]

However, the traditional way in which TPP as a trade agreement has been negotiated is anathema to most stakeholders in Internet governance, and even drew a rebuke from digital corporations that were otherwise in favor of the agreement.[90] The trade expert-led, closed, and secret way in which TPP was negotiated contrasts and conflicts with the bottom-up,

[88] Reid Hoffman and Chris Yeh, *Blitzscaling* (Currency, 2018).

[89] Brad Smith, "The Need for a Digital Geneva Convention," *Microsoft on the Issues* (Feb. 14, 2017) https://perma.cc/U93X-PCV7.

[90] Kent Walker, "The Trans-Pacific Partnership: A step forward for the Internet," *Google Public Policy Blog* (June 10, 2016) https://perma.cc/MDC6-FYBB.

transparent, multi-stakeholder approach common in Internet governance institutions such as ICANN.[91]

The lack of other international law structures in the digital domain with which "digital trade" provisions in trade agreements can interact significantly reduces a key advantage of this form of global economic governance. International trade agreements can connect to and build on other sources of international law. The expert community of trade lawyers is part of the wider epistemic community of international lawyers. They are likely to view "digital trade" provisions in the context of established categories of international economic law and will interpret them according to general principles of international law; yet, they might not be aware of the extent to which the digital domain is regulated by institutions and stakeholders not subject to international law that wield significant control over key components of the global Internet infrastructure.

TPP shows wide variation in terms of specificity of commitments and occasionally opts for deliberately ambiguous obligations. The downside of this approach is the creation of new rules in the digital domain whose eventual interpretation, implementation, and impact are very difficult to predict. Due to the strict consensus principle under which trade agreements like TPP operate, it is very hard, if not outright impossible, to make readjustments to the rules as initially written in the event of unexpected or undesirable outcomes down the line. This is a significant problem in the context of a rapidly developing digital economy with fundamental technological changes and shifting asset evaluations. This raises the question concretely whether the provisions on free data flows and against "data localization" that form the core of TPP's digital megaregulation strike the right balance and offer sufficient flexibility to address regulatory concerns in the global digital economy.

IV. TPP's Model for Data Governance in Trade Agreements

TPP's data governance provisions purport to be a model for the global digital economy.[92] "Data governance" in this context is broader than data management within organizations. It describes a domain of governance in which a variety of actors (including states, international organizations, civil society, and business firms and their associations) regulate digitalized information (data) through a variety of means (including physical infrastructure, standards, and law). In this framing, data governance provisions in trade agreements are just one part of global data governance. They mainly operate as background rules and boundaries for states' data laws and regulations, including but not limited to intellectual property, privacy, and cybersecurity. In the case of TPP, they are a central part of its wider agenda of "digital megaregulation." TPP's key provisions on data flows and "data localization" show the potential of international trade law to entrench policy choices for international and domestic data governance that are of utmost importance for the development

[91] Neha Mishra, "The Role of the Trans-Pacific Partnership Agreement in the Internet Ecosystem: Uneasy Liaison or Synergistic Alliance?" (2017) 20 JIEL 31.

[92] Mira Burri, "New Legal Design for Digital Commerce in Free Trade Agreements" (2017) 107 Digiworld Econ J 1, calls TPP "the pinnacle of the existing efforts to endorse a new template for digital trade."

of digital economies and digital societies.[93] Their creation reflects powerful interests coalescing around a certain conception of data regulation which I will call the "Silicon Valley Consensus."[94]

The Silicon Valley Consensus is not universal. The EU has been vocal in its opposition because its comprehensive data protection regulation is at odds with core tenets of the Silicon Valley Consensus. Powerful emerging economies such as China and India have also been reluctant to include TPP-like provisions on data governance into their trade agreements,[95] albeit for different reasons. China restricts cross-border information flows through its "Great Firewall" while pursuing digital infrastructure investments as part of its Belt and Road Initiative and related industrial standard-setting.[96] India seeks to emulate China's success in developing a *domestic* digital economy by limiting some cross-border data flows and requiring "data localization" for certain types of data. [97] Such measures are at odds with the Silicon Valley Consensus and would be difficult to retain under TPP.[98]

A. The Silicon Valley Consensus

Like its namesake—the infamous Washington Consensus—the Silicon Valley Consensus is a set of policy prescriptions for economic development.[99] The Silicon Valley Consensus encapsulates the belief that the best way to develop digital economies is by preserving free data flows and by preventing "data localization" without constraining digital businesses through privacy or other forms of data regulation.

In a similar vein, Anupam Chander has argued that decisions by American lawmakers in the late 1990s were crucial to Silicon Valley's success by reducing the legal risks new Internet enterprises faced while largely refraining from regulating the new risks they introduced.[100] TPP exports these policy decisions into international trade law through its provisions for free data flows and against "data localization" while not requiring more than the mere existence of a personal data protection regime.

[93] Richard Hill, "Why Should Data Flow Freely?" (Second Contribution to the June–September 2017 Open Consultation of the ITU CWG-Internet ,June 19, 2017) https://perma.cc/5NVN-TXXR (arguing that free data flows is a policy decision with profound effects).

[94] The term "Silicon Valley Consensus"—while far from being as common and infamous—as the "Washington Consensus" has been invoked by several commentators to describe certain features of digital economy development for which the Silicon Valley is metonymous (see eg Ben Armstrong, "Unraveling the Silicon Valley Consensus" *Boston Review* (Cambridge MA, July 26, 2016) https://perma.cc/6NRF-FHUG). I owe it to a brainstorming session with my MegaReg colleagues Benedict Kingsbury and Paul Mertenskötter, who coined the phrase.

[95] The China–Australia FTA which entered into force in December 2015 includes a chapter (12) on "electronic commerce" but is silent on the question of data flows. The same is true for the 2005 Comprehensive Economic Cooperation Agreement between India and Singapore.

[96] On BRI, see Jing Tao, "TPP and China: A Tale of Two Economic Orderings?," ch. 4 in this volume.

[97] Department for Promotion of Industry and Internal Trade, "Draft National e-Commerce Policy: India's Data for India's Development" (Feb. 2019) https://perma.cc/2E9M-7WJP.

[98] Harsha Vardhana Singh, "TPP and India: Inspirations for Sequenced Reform," ch. 31 in this volume.

[99] John William coined the term Washington Consensus to denote the consensus among Washington economists that reforms undertaken by Latin American governments by the late 1980s were desirable; see his account "The Washington Consensus as Policy Description for Development" (Lecture delivered at the World Bank on Jan. 13, 2004) https://perma.cc/4HXL-AGLC.

[100] Anupam Chander, "How Law Made Silicon Valley" (2014) 63 Emory L J 639, 645.

However, the attempt to enshrine the US regime for the liability of Internet intermediaries for copyright violations received significant pushback from other TPP parties and was eventually abandoned in CPTPP.[101]

1. Free Data Flows

According to a much quoted study by the consulting firm McKinsey, cross-border flows of goods, services, and capital are still lower compared to pre-financial crisis levels, while cross-border data flows, measured by cross-border interregional bandwidth, have increased by a factor of 45 between 2005 and 2014. The authors of the study calculate that the contribution of data flows to global GDP growth exceeded the impact of traditional trade in goods during the same time frame.[102]

This provides a powerful rationale for provisions, such as TPP's, which require states to allow the cross-border transfer of information by electronic means, including personal information, when this activity is for the conduct of the business of a covered person.[103] The limitation to *business*-related data flows is a corollary of the inclusion of data governance provisions in *trade* agreements but likely inconsequential as states will find it difficult to establish and operate separate regimes for business-related and not business-related data flows.

The reference to a "covered person" ties the free data flow protection to the definitions for covered investments and investors and service suppliers in the investment and services chapters, respectively.[104] This introduces the distinction between party and non-party investors that hinges on individual or corporate nationality as a potential restriction on cross-border data flows. In theory, TPP parties only commit to cross-border data flows between firms with connections to other TPP parties while retaining the right to regulate data flows between their territory and non-TPP party associated entities. In practice, this distinction is likely difficult to maintain, if not entirely moot, due to the pervasive multinationality of corporations.[105]

The most consequential limitation in TPP's data governance provisions concerns the financial sector. The Silicon Valley Consensus did not extend to Wall Street, as investors in financial institutions and cross-border financial service suppliers were explicitly exempted from TPP's general data governance provisions.[106] US financial regulators concerned about security of data stored abroad and reliant on access to data during global financial crises advocated for the exemption.[107] Only the transfer of information "for data processing if such processing is required in the institution's ordinary course of business" is guaranteed, but TPP parties retain the right to adopt or maintain data protection, privacy, or confidentiality measures unconditionally. They may even require prior authorization based on prudential

[101] CPTPP, Annex, art. 7(k)(l)(m). TPP, art. 18.82 resembled the US Digital Millennium Copyright Act (DMCA) and was supported by Australia and Singapore which operate a similar regime. Canada and Chile secured alternative models in TPP, Annex 18-E and Annex 18-F, respectively. See Jyh-An Lee, "Digital Copyright in the TPP" in J. Chaisse and others (eds.), *Paradigm Shift in International Economic Law Rule-Making* (Springer, 2017) 371, 376–379; Lucas S. Michels, "The Effectiveness of the Trans Pacific Partnership's Internet Provider Copyright Safe Harbour Scheme" (2016) 38 EIPR 409.

[102] McKinsey Global Institute, *Digital Globalization: The New Era of Global Flows* (March 2016) https://perma.cc/UQ2X-X8T4.

[103] TPP, art. 14.11.2.

[104] TPP, art. 14.1.

[105] UNCTAD, World Investment Report 2016: Investor Nationality: Policy Challenges, UNCTAD/WIR/2016 (United Nations 2016) 123–89.

[106] TPP, art. 14.1 (footnote 1 also explicitly excludes credit reporting bodies as covered persons for Australia).

[107] Nigel Cory and Robert D. Atkinson, "Financial Data Does Not Need or Deserve Special Treatment in Trade Agreements" *Information Technology & Innovation Foundation* (April 2016) https://perma.cc/AH23-2QJX.

considerations.[108] In effect, the exemption created a glaring discrepancy between financial and non-financial data flows. Under pressure from its powerful banking sector which crucially relies on cross-border data flows, USTR promised to "fix" this gap via the Trade Service in Agreement (TiSA).[109] These efforts dwindled and the disparate treatment of financial and non-financial data flows persists.[110]

Under TPP, states may restrict free data flows for legitimate public policy objectives. However, any such measure must pass muster under a three-prong test—inspired by well-known trade law language—which asks whether the measure amounts to arbitrary or unjustifiable discrimination, is a trade restriction in disguise, or restricts the transfer of information more than necessary.[111] These limits are largely untested in the context of data regulations. Some fear that states might exploit the resulting uncertainty, thereby undermining the gains from enhanced cross-border data transfers.[112] But the uncertainty arguably cuts both ways and might cause regulatory chill on data protection measures and other forms of data regulation.

The USMCA retains TPP's language but adds a footnote which "clarifies" that a measure does not meet the conditions of an acceptable policy if it accords different treatment to data transfers solely on the basis that they are cross-border in a manner that modifies the conditions of competition to the detriment of service suppliers of another party.[113] This "clarification" significantly restricts Canada's and Mexico's ability to enact measures that would seek to counterbalance the asymmetric control over data that US digital corporations exercise.[114]

2. No "Data Localization"

TPP's guarantee of free data flows also guards against a particular kind of "data localization": when states impose stringent data transfer restrictions, they create incentives to store and process data within their territory. The EU's regime for the transfer of personal data under its General Data Protection Regulation (GDPR) is a prime example.[115] Other countries have emulated the EU's model. For instance, Malaysia restricts the transfer of personal data outside the country unless certain conditions are met.[116] Such de facto data localization incentives are conceptually different from de jure data localization in form of local processing or storage requirements.[117] For the latter, TPP includes an explicit prohibition to require a "covered person" to use or locate computing facilities in the Party's territory as a condition for conducting business in that territory.[118] This is formally a ban on "computer localization" as it concerns "computing facilities"—defined as computer servers and storage devices for processing or storing of information for commercial use. It responds to concerns

[108] TPP, Annex 11-B, sec. 2.

[109] *World Trade Online*, "Treasury Floats Financial Services Data Fix For TPP, Legal Text To Come" (Arlington VA, May 25, 2016).

[110] USMCA also retains a separate regime for cross-border financial data flows but expands the protections against "data localization"; see USMCA, arts. 19.1, 17.1, 17.17, and 17.18.

[111] TPP, art. 14.11.

[112] Andrew D. Mitchell and Jarrod Hepburn, "Don't Fence Me In: Reforming Trade and Investment Law to Better Facilitate Cross-Border Data Transfer (2017) 19 Yale J L & Tech 182.

[113] USMCA, art. 19.11.2, fn 5.

[114] See Section VI below for such proposals.

[115] Regulation (EU) 2016/679 (General Data Protection Regulation), OJ L 119/1, art. 44.

[116] Personal Data Protection Act 2010 (as of 15 June 2016), art. 129.

[117] Chan-Mo Chung, "Data Localization: The Causes, Evolving International Regimes and Korean Practices" (2018) 52 JWT 187, 189 provides a helpful typology (distinguishing between strong, de facto, partial, mild, and sector-specific data localization measures).

[118] TPP, art. 14.13.

of cloud computing providers whose interest in creating a transnational infrastructure for data storage and processing is at odds with computer localization requirements.[119] Cloud computing is an essential infrastructure for the digital transformation of the economy across all sectors.[120] Computer localization requirements seek to realign this infrastructure with territorial boundaries at the expense of economic expediency and efficiency.[121]

De jure "data localization" requirements in the form of local data storage or data processing requirements are captured by the ban on "computer localization" because these measures require the use of local IT infrastructure.

Ultimately, all "localization" efforts are attempts to exercise jurisdictional control. They can be motivated by a variety of reasons which also explains why "data localization" measures cut across the political spectrum of liberal and illiberal states.[122] Among the TPP parties, Australia forbids the storage and processing of health records abroad.[123] Two Canadian provinces require local storage and access for personal information held by public bodies.[124] Vietnam demands from organizations and enterprises that establish aggregated information websites to have at least one server system in Vietnam for inspection, storage, access, and consumer protection purposes.[125]

To the extent that states are able to exercise effective "extraterritorial" control over data storage and processing abroad, they will not require the use of "local" computing facilities. For example, the US CLOUD Act requires communications service providers under US jurisdiction to comply with requests by US law enforcement concerning data located abroad.[126] The EU's GDPR also has "extraterritorial" reach as it applies to personal data processing outside the EU when related to commercial offerings for or the monitoring of data subjects within the EU.[127]

TPP ignores these jurisdictional questions. It imposes a blanket ban on "computer localization" that forces states to justify their "localization" measures through public policy objectives, subject to the three-prong test of arbitrary or unjustified discrimination, disguised trade restriction, and necessity. States have advanced a variety of reasons for their "localization" measures ranging from privacy, cybersecurity, and surveillance concerns to questions of law enforcement access to data located outside a state's territory (or even nowhere).[128] Some countries have voiced the desire to develop a domestic data center industry as justification for "localization" measures. For each of these concerns, "localization" is widely seen as ineffective, unnecessary, and unsustainable.[129]

[119] Patrick S. Ryan, Sarah Falvey, and Ronak Merchant, "When the Cloud Goes Local: The Global Problem with Data Localization" (December 2013) 46 Computer 54.

[120] Daniel Castro and Alan McQuinn, "Cross-Border Data Flows Enable Growth in All Industries" (Information Technology & Innovation Foundation, Feb. 2015).

[121] Matthias Bauer and others, "The Costs of Data Localisation: A Friendly Fire on Economic Recovery" (2014) ECIPE Occasional Paper No. 3/2014 https://perma.cc/UL8T-Y5SR.

[122] Neha Mishra, "Data Localization Laws in a Digital World" (2016) The Public Sphere 136.

[123] Personally Controlled Electronic Health Records (PCEHR) Act, sec. 77.

[124] Nova Scotia Personal Information International Disclosure Protection Act 2006, sec. 5; British Columbia Freedom of Information and Protection of Privacy Act 1996, sec. 30.1.

[125] Decree No. 72/2013/ND-CP (Jul. 15, 2013), art. 24.2.

[126] Clarifying Lawful Overseas Use of Data Act, Pub.L. 115–41. The legislation resolved the dispute at issue in *United States v. Microsoft Corp.*, No. 17-2 (U.S. Apr. 17, 2018).

[127] Regulation (EU) 2016/679 (General Data Protection Regulation), art. 3.

[128] Paul M. Schwartz, "Legal Access to the Global Cloud" (2018) 118 ColumL Rev 1681, 1694–1707 (distinguishing three different cloud computing models and analyzing their implications for law enforcement access to data).

[129] Chan-Mo Chung, "Data Localization: The Causes, Evolving International Regimes and Korean Practices" (2018) 52 JWT 187 diagnoses a "Galapagos syndrome, in which a short-term comfortable life in isolation leads to

However, the fact remains that localization is an effective way to establish jurisdiction over data storage and processing. It is likely to retain relevance for states that are not able to effectively exercise legal authority without such measures. They might also lay the groundwork for future efforts to require mandatory access to data to address the pervasive data control asymmetries in the global digital economy. The Silicon Valley Consensus rejects such ideas as "data protectionism," if not "data nationalism,"[130] that are at odds with and unlikely to survive review under TPP's provisions against "data localization."

3. Permissive Personal Data Protection

The Silicon Valley Consensus views privacy and data protection regulations as impediments to innovation.[131] TPP reflects this sentiment by requiring only the mere existence of a "legal framework that provides for the protection of the personal information of the users of electronic commerce."[132] Among the TPP12 only Brunei did not have such a legal framework in place. The generosity under which literally any form of privacy regulation—whether in form of comprehensive privacy, personal information or personal data protection laws (such as the EU's GDPR), sector-specific laws addressing certain privacy concerns (as in the US under HIPAA and COPPA), or laws that provide for the enforcement of voluntary privacy commitments by private entities—suffices to satisfy TPP's substantive demands *for* data protection stands in stark contrast to TPP's stringent rules for free data flows and against "data localization" that exert justificatory pressure *against* different forms of data regulation, including (but not limited to) personal data protection. This is not to say that divergent data protection laws are not creating significant costs for Internet enterprises operating in different jurisdictions. Indeed, TPP makes an attempt at mitigating these costs by requiring the Parties to publish information about the applicable data protection regime, including how "business can comply with any legal requirements."[133]

The USMCA retains TPP's weak language on substantive personal data protection but adds a recognition of key data governance principles.[134] This is combined, however, with a recognition that restrictions on cross-border flows of personal information must be "necessary" and "proportionate" to the risks presented.[135] Hence, the fact remains that the Silicon Valley Consensus views personal data protection as an impediment to "digital trade" in need of justification.

B. Brussels' Opposition

The EU opposed the Silicon Valley Consensus in its negotiations with the United States for the Transatlantic Trade and Investment Partnership (TTIP) and the multi-country Trade in Services Agreement (TiSA). The insistence to not negotiate data protection and privacy questions in trade agreements also reflects internal institutional dynamics within the European Commission, in which DG Trade enjoys authority over trade negotiations while

long-term extinction"; Anupam Chander and Uyên P. Lê, "Data Nationalism" (2015) 64 Emory L J 678, 713–39 view data localization as a distraction from superior forms of protecting the privacy and security of individuals' data.

[130] Chander and Lê, "Data Nationalism" 678.
[131] Yafit Lev Aretz and Katherine J. Strandburg, "Better Together: Privacy Regulation and Innovation Policy" (Oct. 26, 2018) http://dx.doi.org/10.2139/ssrn.3273483.
[132] TPP, art. 14.8.2.
[133] TPP, art. 14.8.4.(b).
[134] USMCA, art. 19.3.
[135] USMCA, art. 19.3.

DG Justice is in charge of personal data protection and privacy. The decision to not integrate the negotiations of a revised arrangement between the EU and the United States on transatlantic flows of personal data into the TTIP negotiations turned out to be beneficial for both sides, as the EU–US privacy shield was successfully concluded while the TTIP negotiations withered away amidst persistent controversies over investor–state dispute settlement until they were effectively terminated with the election of Donald Trump.

The EU's ostensible commitment to data protection and privacy does not only manifest itself in opposition to data flow provisions in trade agreements. In CETA, the EU voiced concerns about the privacy impact of disclosure obligations throughout the agreement.[136] In the absence of a general free data flow provision, the liberalization of data-related services under CETA depends on the Parties' commitments in the various services chapters. A general exception—echoing GATS-language—applies to justify measures necessary to protect the privacy of individuals in relation to the processing and dissemination of personal data. As under TPP, such measures must not amount to an arbitrary or unjustifiable discrimination or a disguised restriction on trade in services.[137]

In contrast to TPP, CETA does not include a general free data flow provisions. Its rules on the transfer of financial data—in which the EU and Canada commit to allowing financial institutions or cross-border financial service suppliers to transfer data for data processing if required in their ordinary course of business—resemble TPP's model.[138] However, the commitment to free financial data flows is coupled with a commitment to maintain adequate safeguards to protect privacy, in particular with regard to the transfer of personal information. This also recognizes, implicitly, that there is commercially relevant data that is not personal data. In the case of personal data, the relevant data protection law of the territory of the party where the transfer has originated applies.[139]

In its negotiations with Japan for the Japan–EU Economic Partnership Agreement (JEEPA), the EU was faced with Japanese demands, likely inspired by the concurrent TPP negotiations, to include a general provision on free data flows into the agreement. In the end, the parties settled on a provision requiring them to reassess the inclusion of provisions on free data flows within three years of entry into force of the agreement.[140]

Only after the negotiations with Japan were effectively concluded did the European Commission reach an internal compromise on a new template for horizontal provisions for cross-border data flows *and* for personal data protection.[141] This template entails a commitment to cross-border data flows "to facilitate trade in the digital economy" and bans an enumerated list of specific measures, including "computer localization" requirements for data transfers or processing, "data localization" requirement for storage or processing, or limitations on storage or processing in the other Party's territory.[142] This list is more specific

[136] CETA, art. 10.4.2 (subjecting data sharing regarding temporary entry of business persons to each party's privacy and data protection law); art. 20.5 (affirming that intellectual property related disclosure of information was not required if exempt under either party's privacy law); art. 21.4(e) (subjecting provision of proposed regulations to applicable privacy law); art. 32.1 of the Protocol on rules of origin and origin procedures (affirming furnishing or access to information was not required if contrary to either party's personal data protection and privacy law).

[137] CETA, art. 28.3.2(c)(ii). Cf GATS, art. XIV(c)(ii).

[138] Compare CETA, art. 13.15.1 with TPP, Annex 11-B, sec. 2.

[139] CETA, art. 13.15.2.

[140] JEEPA, art. 8.81.

[141] EU template for horizontal provisions for cross-border data flows and for personal data protection in EU trade and investment agreements (emphasis added) <https://perma.cc/KSQ2-T4MW>.

[142] EU template, art. A.

than TPP's general obligations and incurs less risk of regulatory chill. However, it shares with TPP the sentiment that the costs that "localization measures" incur outweigh the benefits of establishing territorial jurisdiction over data storage and processing. In stark contrast to TPP, the EU's model requires its negotiating partners to sign on to its conception of personal data protection and privacy as a fundamental right.[143] An explicit carveout makes sure that the anti-localization provisions cannot be directed against personal data protection and privacy safeguards.[144] The controversy around "national security" exceptions in the WTO is indicative of the downsides of such carveouts. They achieve, however, the EU's aim of shielding the GDPR from external pressure. Indeed, the carveout even extends to the dialogue on regulatory issues of digital trade.[145]

The EU's reluctance to subject its data protection and privacy laws to the scrutiny of trade dispute settlement mechanisms, or to even discuss privacy questions in venues of regulatory cooperation, reflects the EU's self-understanding as the primary supplier of global privacy regulation. The EU leverages the "Brussels effect" of voluntary adoption of its privacy standards by transnational businesses.[146] In addition, it requires "adequacy" with the GDPR in return for facilitated personal data export out of the EU.[147] Japan had to amend its data protection laws to receive the coveted adequacy decision in parallel with (but not as part of) the trade negotiations for JEEPA.[148] Even though the decision was formally "reciprocal" (for the first time also covering data imports into the EU), the EU effectively exported its data protection regime.[149] In future, it will require its trading partners to sign on to its conception of personal data protection and privacy as fundamental rights in its trade agreements.[150]

V. The Endorsement of the Silicon Valley Consensus in TPP11

The eleven CPTPP parties endorsed TPP's model for data governance in trade agreements without any significant modifications. This challenges established theories about the ways in which powerful nations shape the content of international trade agreements. One such standard account posits that big market economies, such as the United States, can leverage their might to induce their trading partners to accept constraints on domestic policy space in pursuit of economic liberalization in return for increased market access. But this cannot explain why TPP11 countries agreed to significantly restrict their policy space on data governance without continued pressure or inducements from the United States government to do so. Why did the TPP11 parties endorse the Silicon Valley Consensus?

The desire to revive TPP altogether might have trumped individual countries' concerns about particular provisions, including the ones on data governance. The absence of the

[143] EU template, art. B.1.
[144] EU template, art. B.2.
[145] EU template, art. X.3.
[146] Anu Bradford, "The Brussels Effect" (2012) 107 NWU L Rev 1, 22–26 (discussing the Brussels' effect under the GDPR's predecessor, the Data Protection Directive).
[147] Regulation (EU) 2016/679 (General Data Protection Regulation), art. 45.
[148] The announcement coincided with the signing of JEEPA; see the (separate) press releases of July 17, 2018: "The European Union and Japan Agreed to Create the World's Largest Area of Safe Data Flows" https://perma.cc/HA54-95S5; "EU and Japan Sign Economic Partnership Agreement" <https://perma.cc/K5T3-PQUF>.
[149] Paul M. Schwartz "The Global Diffusion of EU Data Protection Law" (2019) 94 NYU L Rev.
[150] The new EU template (fn. 141) was discussed during the trade negotiations between the EU and Indonesia. The EU's explanatory note describes the protection of personal data as a fundamental right as "not negotiable" https://perma.cc/PUN3-SGLM.

United States as an eventual rule enforcer—either formally via initiating state–state dispute settlement procedures or by informal means—might have made it easier to accept these commitments, because eventual violations might have seemed less likely to be policed. Both explanations are likely contributing factors to TPP11's decision not to suspend any of the data governance provisions in the original TPP.

Yet, this section argues that TPP11 endorsed the Silicon Valley Consensus due to lack of alternatives. They came to accept the US' policy prescriptions for a global digital economy. However, their assessment might have been affected by persistent and interrelated misperceptions common in the discourse surrounding "digital trade" and "electronic commerce." The "digital megaregulation" framing may provide a useful corrective.

A. Underestimating the Importance of Data Governance

The first misperception is that data governance questions are ancillary issues, addressed in the periphery of trade agreements. The fact that TPP—like other trade agreements—treats "electronic commerce" as a separate subject matter in a dedicated chapter clouds the significance of *some* of its provisions. The hype surrounding "digital trade" among trade policymakers, negotiators, and lobbyists obscures further that some of TPP's provisions are "infrastructural" rather than "sectoral" commitments. As this chapter has shown, TPP's provisions for free data flows and against "data localization" apply to very different forms of data regulation.[151] Importantly, they provide background rules for the regulation of cloud computing, for which data flows and server location are essential, and which has emerged as a key infrastructure for the global digital economy in the early 21st century.

This is why the "digital trade" and "electronic commerce" monikers are so misleading. They suggest the existence of separate, if ill-defined, domains and conceal a reality in which increased digitalization and interconnectedness affect all sectors of the economy. This, in turn, has implications for the relative relevance of the various components of international economic law. As the global economy becomes more and more reliant on transnational data flows, the rules undergirding these flows become increasingly important. Yet, TPP11 parties might still have underestimated the relevance of TPP's data governance provisions due their relative novelty and negotiators' focus on other, seemingly more important issues.

B. Lack of Reliable Data on the Global Digital Economy

Even if trade policymakers recognized the relevance of TPP's data governance provisions for their current and future digital economies, TPP11 parties might have miscalculated their economic impact due to the somewhat ironic lack of credible economic models and trade data about different forms of "digital trade."

The discrepancies between published trade data are significant but at least explainable.[152] More puzzling is the uncritical reliance on economic models to assess the effects of trade agreements which struggle to estimate governance effects beyond mere tariff reductions

[151] See Sections IV.1 and IV.2 above.

[152] Esteban Ortiz-Ospina and Diana Beltekian, "International Trade Data: Why Doesn't It Add Up?," *Our World in Data* (June 5, 2018), https://perma.cc/A4F2-DBMB.

and the regulatory and economic spillover effects on third parties. This is fatal in the case of "megaregulatory" agreements like TPP, where these features are central to the project's logic.[153] It leads to a "trade numbers game" in which proponents and opponents alike operate without credible data.[154]

The situation is arguably even worse in the case of "digital trade." Behind definitional ambiguities lurk conceptual questions compounded by a lack of publicly available data:[155] how to account (or not?) for ubiquitous online services such as "search" (Google) and social exchange (Facebook) that are offered "for free"?[156] How to measure intangible investments?[157] How to account (or not?) for (different kinds of) data? These questions also plague national economic statistics, most notably the Gross Domestic Product (GDP)[158] that often also serves as point of reference for the alleged effects of trade agreements. But they are especially significant in the "digital trade" context where they shape the policy discourse about how to govern economic activity that is increasingly intrinsically global. Various international organizations are engaged in efforts to remedy this problem through definitional and conceptual consensus-building.[159] Even if they succeed, they might still need to overcome the lack of publicly available data about digital corporations' operations. Until these challenges are resolved, policymakers operate without reliable data while making consequential decisions about the future of global data governance.

C. Overlooking the Losers of the Digital Transformation

The push for TPP-style data governance provisions is sustained by a persistent win–win narrative surrounding "digital trade" and "electronic commerce" that is further exacerbated by the lack of reliable data about the effects of digitalization on the economy. There has been extensive political push back against overly generalized claims about trade "lifting all the boats" and "growing the pie" and leading trade economists have emphasized the extensive trade-offs involved in trade liberalization.[160] Yet, in the discourse on "digital trade" and "electronic commerce," trade policymakers arguably continue to over-emphasize the expected gains from the digital transformation of the global economy while downplaying the costs.

[153] Benedict Kingsbury and others, "The Trans-Pacific Partnership as Megaregulation," ch. 2 in this volume.

[154] Dani Rodrik, "The Trade Numbers Game," *Project Syndicate* (Prague, Feb. 10, 2016) https://perma.cc/M44C-5S22.

[155] The OECD and IMF Statistics Departments concede in "Towards a Handbook on Measuring Digital Trade: Status Update" Thirty-First Meeting of the IMF Committee on Balance of Payment Statistics (Oct. 24–26, 2018) that "little empirical and internationally comparable information currently exists, inhibiting a full understanding of the scale and policy challenges of Digital Trade" https://perma.cc/57CG-NX2P.

[156] As Shoshana Zuboff explains in *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (Public Affairs, 2019): These services are, of course, not for free as users "pay" with their personal data, time, and attention but the point is that they replace, at least to some extent, traditional offline services that would have been accounted for. See also Mariana Mazzucato, *The Value of Everything: Making and Taking in the Global Economy* (Public Affairs, 2018).

[157] Jonathan Haskel and Stian Westlake, *Capitalism without Capital* (Princeton University Press, 2017).

[158] Diane Coyle, "Why GDP Statistics Are Failing Us" (US Chamber of Commerce Foundation, 2015) https://perma.cc/FX87-QYHX.

[159] Javier López González and Marie-Agnes Jouanjean, "Digital Trade: Developing a Framework for Analysis" (2017) OECD Trade Policy Papers No. 205 http://dx.doi.org/10.1787/524c8c83-en.

[160] Dani Rodrik, "Populism and the Economics of Globalization" (2018) 1 JIBP 12.

The shift to a digital economy inevitably creates winners and losers.[161] To the extent to which transnational rules, such as those contained in TPP, facilitate, as they purport to do, the transformation toward a global digital economy, endorsing such rules incurs a responsibility for the corresponding, inevitable outfall. This requires developing commensurate mechanisms of compensation, domestically or transnationally. For the latter, TPP11 parties have chosen to stick to trade law orthodoxy which maintains that compensatory and other re-distributive mechanisms are to be devised domestically.[162] This might come back to haunt them as such domestic policies are increasingly hard to pursue in a globally interconnected digital economy.

D. Underappreciating the Right to Regulate Data

Should any of the TPP11 parties decide to engage in meaningful domestic data regulation, they are likely to regret a third misperception about TPP's data governance provisions, which is to underestimate the restriction of domestic policy space they entail. While the "right to regulate" has been a staple of the trade and investment law discourse in recent years and resulted in new rules designed to safeguard states' policy space, including in TPP, and even more prominently in the EU–Canada agreement CETA, the TPP11 parties have chosen to bind themselves to rules specifically restricting their ability to regulate the key asset of the emerging digital economy—data. By creating new and yet untested hurdles for "data localization," they not only forego outright protectionist regulation as an option for digital industrial policy, but might also impede innovative (and at times necessarily experimentalist) regulatory interventions such as mandatory data sharing requirements (designed to capture and distribute the value that comes with the low cost replicability of data). Instead, policymakers tend to underappreciate the salience of access to data questions and lack imagination as to the desirability of future data governance provisions, while underestimating the constraints that come with novel and hence untested provisions.

E. Misjudging the Transnational Nature of the Digital Economy

The TPP parties endorse the "Silicon Valley Consensus" of unimpeded data flows even though it is far from clear that this is truly the right model for every country now or in the future. This is related to a final misperception about the realities of contemporary economic globalization, not restricted to "digital trade" but arguably most pronounced and most consequential in the global digital economy.

Trade economists have long emphasized that "trade between countries" is just a model (with misleading metrics such as "trade deficits") while actual trade is happening between––and increasingly within––companies that operate transnationally with relative ease. Despite this fact, the structure of international trade law and the corresponding political economy

[161] Nicolas Lamp, "How Should We Think about the Winners and Losers from Globalization? Three Narratives and their Implications for the Redesign International Economic Agreements" Queen's University Legal Research Paper No. 2018-102 (Dec. 2018) http://dx.doi.org/10.2139/ssrn.3290590.

[162] For one idea to challenge this paradigm, see Thomas Streinz, "Re-embedding Liberalism: Introducing Passporting Fees for Free Trade" in Alvaro Santos, Chantal Thomas, and David M. Trubek (eds.), *World Trade and Investment Law Reimagined: A Progressive Agenda for an Inclusive Globalization* (Anthem Press, 2019).

remain nation-state based, centered on the question of whether or not increased "trade" is beneficial to the "national economy." But in a global digital economy, transnational economic entities are increasingly the default, not the exception.

These entities, not countries, are the relevant scale to assess the winners and losers, costs and benefits of increased trade liberalization. It is beyond ironic that due to this misperception, the main beneficiaries of TPP's free data flow agenda are likely US-born Internet corporations through their subsidiaries in the Asia-Pacific—despite the United States' withdrawal from the agreement. It seems not farfetched to assume that they continued to lobby for CPTPP preserving the data governance provisions contained in TPP. They will have faced little opposition from domestic digital economies in the TPP11, which crucially rely on the digital services, particularly cloud computing and cyber security, that foreign companies provide. The absence of a mature domestic digital economy might have contributed to a lack of articulation of defensive interests in the domestic trade policy discourse.

This second problem is conceptual. While the established trade discourse and, crucially, trade law remain inter-national, supplemented by largely intra-national mechanisms of interest aggregation and political engagement, businesses and consumers in the digital economy increasingly operate transnationally or even globally. "Transnational" in this sense denotes a scale that is not just inter-national, that is, between nation states, acknowledging the physical and jurisdictional boundaries between them, but surpassing (if not ignoring) these boundaries with relative ease, with some "global" aspirations toward planetary universality. This reality should reverse the conventional baseline deeply engrained in trade narratives, concepts, and law, according to which national economic activity is the norm and transnational economic activity the exception (in need of coordination and governance, and maybe even justification). Multinational corporations have of course already challenged this world view while digitalization was in its infancy, but global digital corporations raise the question even more acutely due to their ability to shift financial and digital capital (data) across jurisdictions with relative ease. Even though digital multinationals are physically present in territorially confined jurisdictions and subject to nation states' laws, their operations can scale globally rapidly and are to a significant extent non-physical. Ignoring or downplaying these features risks undermining a careful assessment of the prescriptions contained in a megaregulatory agreement such as TPP.

F. Reevaluating the Silicon Valley Consensus and Developing Alternatives

All this is not to say that there are not strong reasons to endorse TPP's model for a global digital economy. But any country that signs on to the Silicon Valley Consensus needs to be mindful of the relevance of free data flows for the digital economy, its ambivalent economic effects (even if positive in aggregate), and the extent to which policy space is restricted through TPP-style commitments.

At the same time, the global digital ordering strategies that the EU and China are pursuing are not available to smaller economies, particularly developing countries. The EU's outward projection of the GDPR relies on the EU's significant market power and strong regulatory capacity. China's infrastructure-driven global data ordering requires significant investments and technology companies in a position to shape standards.

Digital development strategies need to grapple with the dominance of US digital economy companies that are only rivaled by their Chinese counterparts. TPP's model for a global digital economy may currently be regarded as the "gold standard" in trade policy circles, but future trade agreements should explore how to balance better the competing interests associated with the digital transformation of the global economy.

VI. The Future of Data Governance in Trade Agreements

If trade agreements are to be understood as tools for states to address pertinent questions of global economic governance of common concern, then data is "treaty ready."[163] However, trade agreements, including TPP, are not "data ready" in the sense that they fail to preserve sufficient domestic policy space for experimental data regulation and innovative digital industrial policy. Future trade agreements should provide more flexibility than TPP to allow states and other actors to respond promptly, creatively, and effectively to emerging data regulation needs.

In the data-driven economy, access to data is quickly emerging as a key concern for businesses and policymakers. The capacity to collect and control data is highly uneven among private and public actors, and so far policy responses have been timid. Several countries have signed onto open data initiatives which make government data publicly available.[164] But countries have not yet engaged in initiatives that require companies to share data with competitors or governments.[165] However, with growing data concentration asymmetries, governments with the necessary political and economic weight might come to endorse such ideas. Future data governance provisions in trade agreements should be crafted to allow for such experimentation. The EU proposal for privacy carve-outs gives guidance on how to prevent extreme forms of data localization while preserving sufficient policy space for societal aims.[166]

Digital industrial policy will look differently from the established models of economic development in the pre-digital era. Inbound influx of capital needs to be balanced against the cost of potential data extraction.[167] Concerns over automation's impact on the future of human labor loom large. It seems exceedingly unlikely that a one-size-fits-all approach to digital development strategies will work. Therein lies the danger of endorsing the Silicon Valley Consensus and enshrining it in international trade law prematurely.

To escape the rigidity of international law, one might need to reconsider international trade law's aversion against flexibility enhancing provisions such as sunset clauses. The cost of increased legal uncertainty needs to be balanced against the benefit of allowing for more

[163] In response to Dan Ciuriak, "Digital Trade: Is Data Treaty-Ready?," Centre for International Governance Innovation (Jan. 20, 2018) https://perma.cc/S55P-YFKY.

[164] USMCA, art. 19.8 recognizes that facilitating public access and use of government data fosters economic and social development, competitiveness, and innovation. The parties commit to modest efforts to make open government data accessible in machine readable format and to cooperate with each other to expand access and use of government data.

[165] For this idea, see Viktor Mayer Schönberger and Thomas Ramge, *Reinventing Capitalism in the Age of Big Data* (Basic Books, 2018).

[166] EU template (fn. 141); see Section IV.2 above.

[167] Dan Ciuriak, "Frameworks for Data Governance and the Implications for Sustainable Development in the Global South, Notes for Remarks at the Workshop 'Big Data, Meager Returns? Fairness, Sustainability and Data for the Global South'" Centre for International Governance Innovation (Oct. 12, 2018) http://dx.doi.org/10.2139/ssrn.3266113.

experimental regulation, especially in light of pervasive economic uncertainty about the future shape of the global digital economy.

Recalibrating international trade law by tailoring obligations toward country-specific capacity and needs on the basis of constantly updated (and maybe even real-time) data could be one way to preserve the policy space necessary to navigate societies through the digital transformation of the global economy.

VII. Conclusion

As CPTPP seems likely to attract more parties to join the agreement, the Silicon Valley Consensus as instantiated in TPP is likely to expand throughout the Asia-Pacific. Countries such as Canada and Japan that signed trade agreements with the EU and enjoy adequacy declarations for their privacy regimes will need to balance their data governance commitments under TPP with the EU's demands for personal data protection. But the larger question for countries around the world is how to adjust their economic policies to the realities of a global digital economy. This requires new thinking about the role of law and regulation in an increasingly data-driven economy. This chapter has tried to make some modest steps in this direction by using the concept of digital megaregulation to understand TPP's effort to create rules for the global digital economy.