



# A WTO reform agenda

Data flows and international regulatory cooperation

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## **ABSTRACT**

The World Trade Organization (WTO) is in need of reform, including new rules. While there is not yet a comprehensive reform agenda for the WTO, developing e-commerce rules should be seen as part of WTO reform in two respects. First, the development of such rules will allow the WTO to demonstrate a capacity to remain relevant to the challenges and opportunities governing international trade today. Second, many of the issues that need to be addressed in a comprehensive outcome on e-commerce would contribute to broader WTO reform. This paper proposes, among other things, that the WTO become a platform that can enable increased regulatory cooperation and encourage good regulatory practice. Such a result is needed to overcome many of the current barriers to e-commerce. Success in the e-commerce context would also position the WTO to better address regulatory barriers to trade more broadly.

# THE SCOPE OF THE WTO E-COMMERCE (DIGITAL TRADE) AGENDA

In the context of the WTO e-commerce discussions, there is no agreement amongst WTO members as to what aspects of digital trade merit attention. The 2019 Joint Statement by those WTO members participating in the e-commerce discussions refers to the need for negotiations on the “trade-related aspects of e-commerce.”<sup>1</sup> The 1998 WTO E-commerce Working Party defined e-commerce as “the production, distribution, marketing, sale or delivery of goods and services by electronic means.”<sup>2</sup> But the Working Party also stated that this definition of e-commerce was “exclusively for the purposes for the work programme,” revealing a clear intention that this definition would not bind or limit the potential scope of a WTO negotiation on e-commerce. In addition, there is no agreement as to whether the negotiations should be focused on goods purchased online or also include digital services.<sup>3</sup>

With respect to the development of WTO rules that can maximize the opportunities of e-commerce and cross-border data flows, this paper favors a broad scope, consistent with the approach taken by the E15 Expert Group on the Digital Economy.<sup>4</sup> The expert group’s report used the term digital trade instead of e-commerce. The term digital trade, as applied in this paper, refers to “use of the internet to search, purchase, sell and deliver a good or service across borders as well as how the internet and cross-border data flows enable international trade.”<sup>5</sup>

## THE ECONOMIC BENEFITS FROM DATA FLOWS AND DIGITAL TECHNOLOGIES

To assess what should be part of a WTO negotiation on digital trade, it is necessary to underscore the significance of data access and use for innovation, productivity, economic growth, and trade. Take artificial intelligence (AI)—a data-driven technology which could add trillions of dollars to global output over the next 10 years and accelerate the transition towards a services-driven global economy.<sup>6</sup> The McKinsey Global Institute estimates that AI could add around 16 percent, or \$13 trillion, to global

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<sup>1</sup> WTO Joint Statement on Electronic Commerce, WT/L/1056, January 25, 2019.

<sup>2</sup> WTO Work Programme on Electronic Commerce, WT/L/274, September 30, 1998.

<sup>3</sup> WTO Communication from China, “Joint Statement on Electronic Commerce, INF/ECOM/19, 24 April 2019; WTO Communication from the United States, “Joint Statement on Electronic Commerce”, INF/ECOM/5, 25 March 2019

<sup>4</sup> Meltzer, Joshua P. *Maximizing the Opportunities of the Internet for International Trade*. E15 Expert Group on the Digital Economy – Policy Options Paper, E15 Initiative, Geneva, ICTSD and World Economic Forum. 2016.

<sup>5</sup> Meltzer, Joshua P. *Maximizing the Opportunities of the Internet for International Trade*. E15 Expert Group on the Digital Economy – Policy Options Paper, E15 Initiative, Geneva, ICTSD and World Economic Forum. 2016.

<sup>6</sup> Jacques Bughin et al. “Notes from the AI Frontier, Modeling the Impact of AI on the World Economy,” *McKinsey Global Institute Discussion Paper*, September 2018. Paul Daugherty and Mark Purdy. “Why AI is the Future of Growth?” 2016. [https://www.accenture.com/t20170524T055435\\_\\_w\\_\\_\\_/ca-en/\\_acnmedia/PDF-52/Accenture-Why-AI-is-the-Future-of-Growth.pdf](https://www.accenture.com/t20170524T055435__w___/ca-en/_acnmedia/PDF-52/Accenture-Why-AI-is-the-Future-of-Growth.pdf).

output by 2030.<sup>7</sup> Cloud computing, another technology that relies on cross-border data flows, is already delivering economic benefits.

Increasingly, global data flows and the technologies emerging are key drivers of international trade. McKinsey estimated that, in 2014, cross-border data flows were worth around \$2.8 trillion—more than trade in goods.<sup>8</sup> According to a 2019 U.N. Conference on Trade and Development (UNCTAD) report, e-commerce globally was worth \$29 trillion in 2017, with around 1.3 billion people shopping online—up 12 percent from the previous year.<sup>9</sup> According to the WTO, using digital technologies to reduce trade costs could increase world trade by up to 34 percent by 2030.<sup>10</sup> This includes using digital technologies to reduce transport by increasing the efficiency of logistics, using robots to optimize storage and inventory, and using blockchain to facilitate customs processing. For example, by using AI, businesses are improving the management of supply chain risk, developing smart manufacturing, and using AI language translation services to increase exports to countries where language was a barrier to commerce.<sup>11</sup>

## THE DIGITAL TRANSFORMATION OF INTERNATIONAL TRADE

Global data flows and digital technologies are also transforming international trade in the following ways.

### International e-commerce opportunities

Already, around 12 percent of global goods trade is via international e-commerce.<sup>12</sup> Businesses can have their website or use digital platforms to become global. This is comprised of purchasing online and having the good delivered offline.

E-commerce provides a potentially significant opportunity to increase small business participation in international trade.<sup>13</sup> For instance, having a website gives small businesses an instant international presence without having to establish a physical presence overseas. In addition, the internet provides access to advertising and communication services, as well as information on foreign markets—all of which help

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<sup>7</sup> Jacques Bughin et al. “Notes from the AI Frontier, Modeling the Impact of AI on the World Economy.” *McKinsey Global Institute Discussion Paper*, September 2018.

<sup>8</sup> McKinsey & Company. 2016. *Digital globalization: The New Era of Global Flows*. <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows>

<sup>9</sup> UNCTAD. “Global e-commerce sales surged to \$29 trillion.” 2019. <https://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=2034>.

<sup>10</sup> WTO Trade Report 2018.

<sup>11</sup> Brynjolfsson, E, X Hui and Meng Liu. “Does Machine Translation Affect International Trade? Evidence from a Large Digital Platform.” *National Bureau of Economic Research Paper*, 2018. [http://ide.mit.edu/sites/default/files/publications/Machine\\_Translation\\_NBER.pdf](http://ide.mit.edu/sites/default/files/publications/Machine_Translation_NBER.pdf).

<sup>12</sup> McKinsey & Company. *Digital globalization: The New Era of Global Flows*. 2016. <http://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/digital-globalization-the-new-era-of-global-flows>.

<sup>13</sup> Meltzer, Joshua P. “Supporting the Internet as a Platform for International Trade: Opportunities for Small and Medium-Sized Enterprises and Developing Countries.” *Brookings Working Paper*, 69, February 2014.

small businesses participate in international trade.<sup>14</sup> In the U.S., for instance, 97 percent of small businesses on eBay export compared to 4 percent of offline peers.<sup>15</sup> Similar results play out across developed and developing countries. AI is also relevant here. For example, eBay's machine translation service has increased eBay based exports to Spanish speaking Latin America by 17.5 percent.<sup>16</sup> To put this growth into context, a 10 percent reduction in distance between countries is correlated with increased trade revenue of 3.51 percent—so a 13.1 percent increase in revenue from eBay's machine translation is equivalent to reducing the distance between countries by over 35 percent.

## Digital services trade

Internet access and cross-border data flows are going to be particularly significant for growth in services trade.<sup>17</sup> Services can increasingly be purchased and consumed online. This is particularly true for information technology (IT), professional, financial, retail, and education services.<sup>18</sup> New digital services such as cloud computing are becoming crucial business inputs.<sup>19</sup> The finance industry relies on the ability to transfer data across borders in order to complete electronic transactions and make money transfers.<sup>20</sup> AI requires access to large data sets as machine learning needs to be able to incorporate into future predictions as many past outcomes as possible.<sup>21</sup>

Figure 1 shows opportunities for exports of digital-deliverable services (DDS)—services that could be delivered online. In the U.S., for instance, DDS could be as high as 23 percent of total exports, and the value of DDS embodied in goods and services exports could account for 55 percent of total exports.

Engaging in digital services trade is also a development opportunity for some countries. For instance, India's ICT enabled exports in 2016-2017 were \$103 billion or 63 percent of total services exports and 80 percent of these digital services were delivered via Mode 1—over the internet.<sup>22</sup> More specifically, the key role of services as inputs into productions means that the opportunity for digital trade to liberalize services alongside effective regulation can contribute to broad-based improvements in efficiency and economic growth for developed and developing countries.<sup>23</sup>

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<sup>14</sup> OECD. "Top Barriers and Drivers to SME Internationalization." *Report by the OECD Working Party on SME and Entrepreneurship*. Paris: OECD Publishing, 2009.; Schoonjans, Bilittis, Van Cauwenberge, Philippe and Heidi Vander Bauwhede et al. Formal Business Networking and SME Growth. *Small Business Economics*. 41, 2013.

<sup>15</sup> Ebay. "Empowering People and Creating Opportunity in the Digital Single Market" An eBay report on Europe's potential, October 2015.

<sup>16</sup> Brynjolfsson, E, X Hui and Meng Liu. "Does Machine Translation Affect International Trade? Evidence from a Large Digital Platform." 2018.

<sup>17</sup> Aaditya Mattoo and Sacha Wunsch-Vincent, "Pre-empting Protectionism in Services: The GATS and Outsourcing", *Journal of International Economic Law* 7(4), 2004

<sup>18</sup> United States International Trade Commission. *Digital Trade in the U.S. and Global Economies, Part 2*. Investigation 332-540, Pub. No.4485, August 2014, p. 42.

<sup>19</sup> United States International Trade Commission. *Global Digital Trade 1: Market Opportunities and Key Foreign Trade Restrictions*. Pub. No 4716, August 2017, pp.58-66.

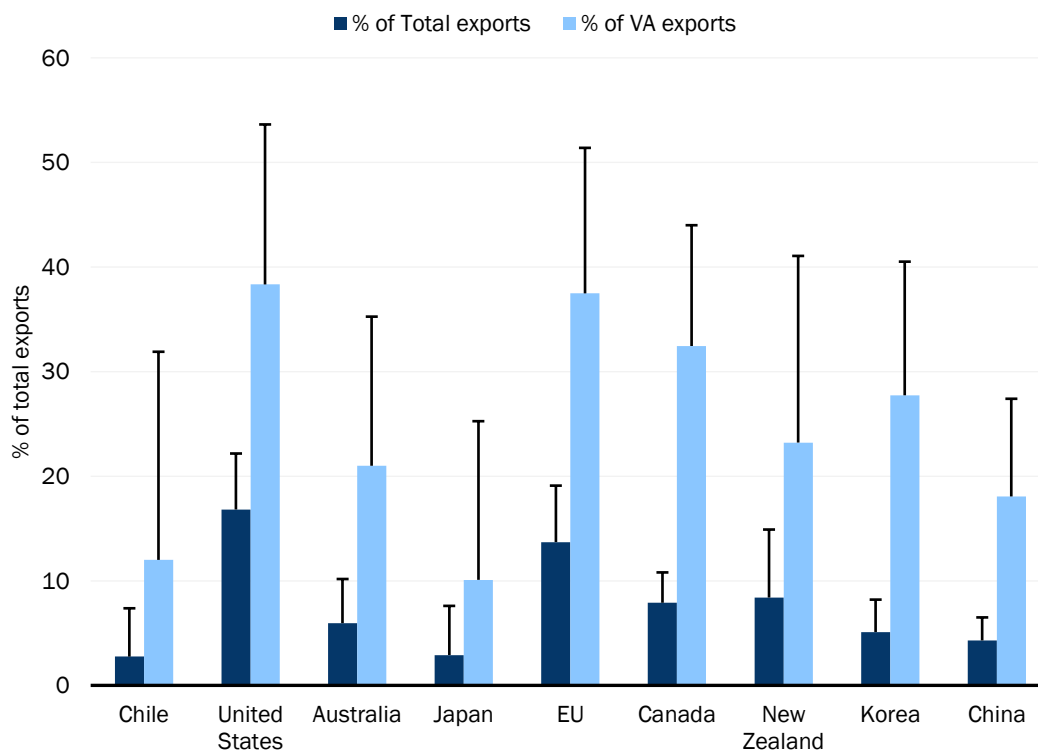
<sup>20</sup> D. Gozman and J. Liebenau. "The Role of Big Data in Governance: A Regulatory and Legal Perspective of Analytics in Global Financial Services." *SWIFT Institute Working Paper*, No. 2014-009, 6. 2015.

<sup>21</sup> Generative adversarial networks or use of digital twins can minimize need for large data sets to train AI.

<sup>22</sup> "India's Exports of ICT-enabled Services, An All-India Survey: 2016-2017." Indian Ministry of Commerce and Industry, June 2018, <http://dgciskol.gov.in/Writereaddata/Downloads/IctExportReport.pdf>.

<sup>23</sup> Aaditya Mattoo. "Developing Countries in the New Round of GATS Negotiations: Towards a Pro-Active Role", in *Legal Aspects in International Trade*, Proceeding of a World Bank Seminar 2001.

**FIGURE 1**  
Digitally deliverable services exports



Source: OECD TiVA, own calculations

### The digitization of goods exports

Data collection and analysis are allowing new digital services to add value to goods exports. Data flows across border enable digitization of the entire manufacturing enterprise, faster lifecycles, and collaborative and connected supply chains.<sup>24</sup> For example, data collected from sensors attached to mining and farming equipment allows businesses to improve their operations and thereby the value from the use of such equipment. Digital services are increasingly key inputs into manufacturing processes. This includes commercial services such as research and development (R&D), design, marketing, and sales. A 2016 PricewaterhouseCoopers survey of more than 2,000 companies identified data and data analytics as the key for successful transformation to smart manufacturing.<sup>25</sup> This reflects the importance of digital services in manufacturing for increasing productivity, which affects the capacity of firms to compete domestically and overseas.<sup>26</sup> In fact, taking account of the value of services embedded into goods exports, such as design, professional services and IT, the services that the EU exports make up over 55 percent of its total exports.

<sup>24</sup> L. Yu, et al. "Current Standards Landscape for Smart Manufacturing Systems." *NIST, NISTIR 8107*, February 2016.

<sup>25</sup> PricewaterhouseCoopers 2016. *Industry 4.0: Building the digital enterprise. 2016 Global Industry 4.0 Survey*.

<sup>26</sup> Hoekman, B. and Aaditya Mattoo. "Services Trade and Growth." *Policy Research Working Paper No. 4461*, Washington DC: World Bank 2008.; Liu, Xuepeng, Aaditya Mattoo, Zhi Wang, and Shang-Jin Wei. 2017. "Services Development and Comparative Advantage in Manufacturing." Unpublished manuscript.

## Increased participation in global value chains

Global data flows underpin global value chains (GVCs), creating new opportunities for participation in international trade.<sup>27</sup> For many economies, such participation in GVCs is the deciding factor for trading internationally. More than 50 percent of trade in goods and over 70 percent of trade in services is in intermediate inputs.<sup>28</sup> Data and digital technologies are affecting GVC participation in several ways. The development of GVCs has been enabled by global connectivity and cross-border data flows that facilitate communications and can be used to coordinate logistics.<sup>29</sup> Global data flows are also enabling so-called supply chain 4.0—where information flows are integrated and omnidirectional instead of linear flows from supplier to producers to consumers and back.<sup>30</sup> Integrated information flows enabled by supply chain 4.0 are creating new opportunities to enhance productivity and expand employment opportunities. There is a trend towards increasing the use of imported services inputs in manufactured goods exports, suggesting that digital services are being traded within GVCs as well.<sup>31</sup> This includes allowing SMEs to plug into GVCs to offer their own specific service or to strengthen more traditional e-commerce offerings. Global data flows have also allowed digital platforms to source key digital services globally, creating entirely digital value chains. Take Gojek, an Indonesian ride sharing platform. Gojek's digital supply chains includes a cloud-based company from Singapore, a payment service based in Singapore and New York and mapping service and software APIs from Silicon Valley.

## THE GROWTH IN DIGITAL PROTECTIONISM

As the opportunities presented by global data flows and digital technologies grow, governments are increasingly regulating in ways which restrict global data flows.<sup>32</sup> There are various forms of restrictions on data flows. They include measures that disallow the transfer of data outside national borders; measures that allow cross-border transfers but require a copy to be maintained domestically; and requirements of prior consent before data can be transferred overseas. There are also data localization restrictions that often also include restrictions on data flows. Figure 2 provides a taxonomy of local storage requirements and their impacts on cross-border flows.

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<sup>27</sup> Baldwin, R. "The Great Convergence: Information Technology and the New Globalization." Boston: Harvard University Press. 2016.

<sup>28</sup> OECD. "Mapping Global Value Chains", TAD/TC/WP/RD(2012)9. 2012.

<sup>29</sup> Helpman E. "Understanding Global Trade." Cambridge, Mass: Harvard University Press. 2011.

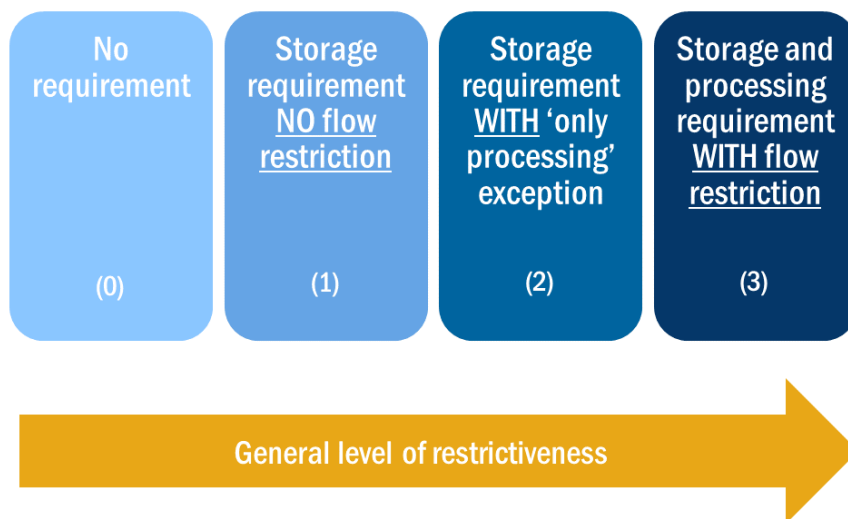
<sup>30</sup> Michael Ferentina and Emine Elcin Koten 2019, "Understanding supply chain 4.0 and its potential impact on global value chains", in Global Value Chain Development Report 2019 (WTO, IDE-JETRO, OECD, UIBE, World Bank)

<sup>31</sup> Miroudot S., Charles Cadestin. Services in Global Value Chains: From Inputs to Value-Creating Activities." *OECD Trade Policy Paper 197*, p. 16. 2017.

<sup>32</sup> OECD. "Trade and cross-border data flows." TAD/TC/WP(2018)19/FI. 2018.



**FIGURE 2**  
**Taxonomy of data localization requirements**



Source: Casalina and Gonzalez, OECD 2019

Measures that restrict data flows and require data to be localized are implemented for a range of reasons. One reason is to prevent data flows to jurisdictions with lower levels of regulatory protection. For example, the EU General Data Protection Regulation (GDPR), which came into effect in April 2018, prohibits business that collects personal data in the EU from transferring it outside the EU unless the receiving country has an equivalent level of privacy protection.<sup>33</sup>

Governments can also require data to be localized by arguing that regulators need access to data in order to perform their regulatory functions. The most common of these is in the financial services sector, where data localization requirements are justified on the basis that financial regulators require financial data to remain local in case they need access to the data for regulatory purposes. In 2018, India introduced a requirement that payment system operators store data locally in order to allow financial regulators to effectively perform their supervisory function.<sup>34</sup> China requires that insurers localize data in order for the insurance regulator to perform its responsibilities. Turkey's requirements that financial data be localized led PayPal to exit that country's market.

Ensuring cybersecurity is another rationale for requiring data to be local. The view here is that data localization decreases the risks of unauthorized access. Cybersecurity is another reason India provided for requiring financial data to be localized. China's Cyber Security Law requires data localization and access to source code for "critical information infrastructure."

<sup>33</sup> General Data Privacy Regulation Article 45. Personal data can also be transferred under Binding Corporate Rules (BCRs), Standard Contractual Clauses (SCCs) and in a limited number of other circumstances see Article 47.

<sup>34</sup> Reserve Bank of India Notification. "Storage of Payment Systems Data." RBI/2017-18/153; <https://www.reuters.com/article/us-india-data-localisation-exclusive/exclusive-india-panel-wants-localization-of-cloud-storage-data-in-possible-blow-to-big-tech-firms-idUSKBN1KP08J>.

Another reason for data flows restrictions is to control access to certain types of online content, usually on moral, religious, or political grounds. For example, Iran’s censorship aimed at creating the “Halal internet” limits access to content deemed offensive to Islam. China blocks access to 11 of the top 25 global websites among an estimated 3,000 prohibited foreign websites.<sup>35</sup> This is done in part to restrict access to political speech directed at the Chinese Communist Party. Vietnam’s 2018 Cybersecurity Law requires local retention of a range of personal and other data of Vietnamese users, in part so the state can regulate online content, which could include information opposing or offending the Socialist Republic of Vietnam or to block “defamatory propaganda,” such as any critical or dissenting statements made against the government.<sup>36</sup>

Data flow restrictions such as those proposed in Brazil and implemented in Russia, are also being driven by law enforcement needs. Here, the issue is the challenge getting access to data for law enforcement purposes in a timely manner when that data resides in a third country (often the U.S.—but not always, e.g., Microsoft Ireland case<sup>37</sup>).

Data localization measures are also being enacted for protectionist reasons. China’s blocking or degrading internet access has supported the development of local champions. For instance, blocking access to Google, Facebook and Netflix has been to the benefit of Baidu, Renren, Tencent, Alibaba, and Sina Weibo. India’s data localization laws also seem in part aimed at supporting the development of local businesses.

Many of the reasons leading governments to require data flows to be restricted or localized, such as protection of privacy and law enforcement, are themselves legitimate goals. Yet, whether data restrictions are optimal way of achieving these goals is less clear. For instance, in the case of law enforcement demands, instead of requiring all data to be local, governments could require data mirroring, where a copy of the data is retained locally. In other cases, such as cybersecurity, requiring data to be localized can be counterproductive where local data centers are less secure and by missing the opportunity for stronger cybersecurity protection provided by disaggregating data across global data centers.

## **THE APPLICATION OF EXISTING WTO RULES TO DIGITAL TRADE**

While the negotiations that ushered in the establishment of the WTO were conducted in the 1980s and early 1990s before much of the commercial internet existed, there are several WTO agreements relevant for digital trade. These include: the General Agreement on Tariffs and Trade (GATT); the General Agreement on Trade in Services (GATS); the Annex on Telecommunications, Information Technology Agreement (ITA) I

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<sup>35</sup> USTR National Trade Estimates Report 2017, p. 89-90.

<https://ustr.gov/sites/default/files/files/reports/2017/NTE/2017%20NTE.pdf>.

<sup>36</sup> Vietnam Decree No. 72 /2018/NC-CP amending and supplementing Decree No. 72/2013/ND-CP on Internet Services and Online Information; over-the-top refers to services that bypass traditional telecom and media distribution channels—e.g., Skype or Netflix.

<sup>37</sup> Microsoft v. U.S. 829 F.3d 197 (2d Cir. 2016).

& II; and the Agreement on Technical Barriers to Trade (TBT Agreement).<sup>38</sup> The most important WTO agreements when it comes to providing a legal framework supporting cross-border data flows is the GATS. In particular, GATS commitments are technologically neutral with respect to delivery. This means that where WTO members have scheduled a Mode 1 services commitment, there is also a commitment to allow the data to flow in order to deliver that service.<sup>39</sup> Data flows restrictions and data localization requirements can place international suppliers of digital services at a competitive disadvantage, in breach of a WTO member's GATS national treatment and market access obligation.<sup>40</sup> In addition, there is a WTO specific commitment to allow financial information to be transferred across borders "where such transfers are necessary to the conduct of the ordinary business of a financial service supplies."<sup>41</sup>

The GATS, however, is limited in terms of its capacity to support the range of data flows that enable digital trade. For one, in many services sectors GATS commitments are limited.<sup>42</sup> Even in sectors where GATS commitments are made, it is unclear where (if at all) new digital services such as cloud computing or online gaming are to be classified under the 1991 U.N. Provisional Central Product Classification (CPC Prov.) System or the Services Sectoral Classifications List used by most WTO members to schedule their commitments.<sup>43</sup>

GATS commitments are also subject to the GATS Article XIV exception that allows WTO members to restrict data flows where necessary to achieve legitimate public policy goals such as protecting privacy and public morals. The WTO commitment to allow transfers of financial data can be restricted to protect personal data and for prudential reasons.<sup>44</sup>

These WTO rules and exceptions provide a framework for balancing data flows commitments with WTO member's other regulatory goals. So far at least, these WTO rules have yet to be used to meaningfully constrain growth in data flow restrictions. As will be discussed in more detail, in order to develop effective digital trade governance, the WTO needs a comprehensive and clear data flow commitment, appropriately tailored exceptions to this commitment as well as support for mechanisms of international regulatory cooperation.

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<sup>38</sup> Meltzer, Joshua P. "Governing Digital Trade." Vol. 18, Special Issue S1 *World Trade Review* (April 2019), 1-26. 2

<sup>39</sup> WTO Panel Report, US–Gambling, para. 6.285; WTO Appellate Body Report, China-Audiovisuals, WT/DS363/AB/R (Dec. 21, 2009), para. 364.

<sup>40</sup> H.P. Hestermeyr and L. Nielsen (2014), "The Legality of Local Content Measures under WTO Law", *Journal of World Trade*, 48(3): 588.

<sup>41</sup> WTO Understanding on commitments in financial services.

<sup>42</sup> OECD, "Electronic Commerce – Existing GATS Commitments for online Supply of Services", 2000, Paris: Trade Directorate (Trade Committee of the OECD); Report No. TD/TC/WP(99)37/Final (2000).

<sup>43</sup> WTO Committee on Specific Commitments, 'Report of the Meeting Held on 18 September 2014, Note by the Secretariat', S/CSC/M/71; see also Shin-yi Pent, 'GATS and the Over-the-Top (OTT) Services – A Legal Outlook', *Journal of World Trade*, 50(1): 10–13.

<sup>44</sup> WTO Annex on Financial Services, Article 2(a).

## DEVELOPING DIGITAL TRADE RULES IN THE WTO

Progress in the WTO on digital trade should be assisted by the fact that many WTO members have already made various digital trade commitments in Free Trade Agreements (FTAs). Since the first stand-alone e-commerce chapter in an FTA between Australia and Singapore in 2013, there are now more than 70 FTAs with e-commerce<sup>45</sup> chapters of various scope and ambition.<sup>46</sup> These FTAs digital trade rules include rules on intellectual property, open data, and improved market access for services. The extent that these commitments could be part of a WTO digital trade outcome is not, however, addressed in this paper. Instead, the focus is on how the WTO can directly support cross-border data flows, including the development of international regulatory cooperation that can reduce the regulatory need to restrict data flows, as this is where many of the gains from digital trade reside and where barriers are increasing.

### Commitments to enable cross-border data flows

When it comes to digital trade rules in recent FTAs, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and United States-Mexico-Canada Agreement (USMCA) commitments to avoid restricting cross-border data flows and not to require data localization are significant additional commitments when compared to past FTAs. A similar horizontal data flow commitment will be essential if the WTO is going to meaningfully support growth in digital trade, including the broader economic opportunities from access to and use of data. Yet, such a data flow commitment will not be sufficient to provide an effective governance framework that can address the growth in data flows restrictions. As outlined above, regulatory needs and regulatory differences between countries in areas such as privacy and cybersecurity are the key drivers of restrictions on cross-border data flows. This highlights the key challenge: until regulators have confidence that allowing data to leave their jurisdiction will not undermine domestic regulatory goals, there will remain a strong incentive to restrict data flows and the opportunities for digital trade.<sup>47</sup> Without getting at these regulatory drivers of data restrictions, even with commitments to cross-border data flows, governments are expected to heavily rely on the exceptions provisions to continue to justify data flow restrictions, risking that the exception will become the rule. While GATS Article XIV requires that such restrictions are “necessary”—that no alternatives that are less restrictive exist that would make it possible to achieve the WTO member’s legitimate regulatory objective—this underscores the need to develop alternative, less trade-restrictive options. Such regulatory cooperation is particularly important for cybersecurity, privacy, AI, and consumer protection, including ensuring that products purchased online comply with domestic safety standards.

In this light, what is needed are WTO rules that can address the underlying domestic regulatory motives for restricting cross-border data flows. Making progress will require

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<sup>45</sup> In USMCA, it is called the digital trade chapter.

<sup>46</sup> Wu, Mark. “Digital Trade-Related Provisions in Regional Trade Agreements: Existing Models and Lessons for the Multilateral Trade System.” <http://e15initiative.org/wp-content/uploads/2015/09/RTA-Exchange-Digital-Trade-Mark-Wu-Final.pdf>

<sup>47</sup> Mattoo, Aaditya and Joshua P. Meltzer. “Data Flows and Privacy: the conflict and its resolution.” *Journal of International Economic Law*, Vol 21, Issue 4.

moving beyond typical mercantilist trade negotiating dynamics that are focused on balancing domestic reductions in barriers with identifying market access for exports elsewhere. Domestic regulators care less about market access overseas than they do about ensuring the effectiveness of domestic regulation.<sup>48</sup> Instead, domestic regulators need to assess the impact of reform of domestic regulation—in this case, reducing restrictions on data flows—on domestic regulatory goals, alternative courses of action, examination of what has worked in other countries and the cost/benefit of these approaches. This points to a role for the WTO as a platform that can facilitate such consideration, assessment, and dialogue.<sup>49</sup>

## **WTO support for developing international services standards for digital trade**

One solution for achieving domestic goals (like privacy protection) while optimizing cross-border data flows is to globally harmonize standards being developed by governments and privacy sector bodies. The goal of the international harmonization of standards to minimize trade barriers is not new but takes on additional urgency in a world where cross-border data flows are large and data flow restrictions are potentially very costly.

International standards can help address data flow restrictions. In areas such as cybersecurity and privacy, many of these standards are needed to build and maintain trust and in this respect are also constitutive of markets. International standards can reduce information costs to consumers of determining whether digital products are safe for instance, or adequately protect personal data. Standards will also be needed to enable supply chain 4.0 and smart manufacturing.

The WTO Technical Barriers to Trade (TBT) Agreement provides a useful framework for thinking about how to use trade rules, and to develop forms of international regulatory cooperation that can address the impact of divergent domestic standards on cross-border data flows and trade in digital services. First, the TBT Agreement distinguishes between regulations and standards. Regulations refer to domestic mandatory requirements and international standards are non-mandatory and approved by a recognized body for establishing such standards that is non-discriminatory and open to all relevant bodies from all WTO members.<sup>50</sup> This would include bodies such as the International Standards Organization (ISO) and the International Electrotechnical Commission (IEC), which also produce international services standards.

One aspect of the TBT Agreement relevant for digital trade is the commitment that where international standards exist, members will use the standards as a basis for their domestic technical regulations.<sup>51</sup> This then creates a presumption that the technical regulation is not an unnecessary barrier to trade.<sup>52</sup>

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<sup>48</sup> Geza, Feketekuty, “Needed: A new approach to reduce regulatory barriers to trade”, Vox CEPR Policy Portal, 19 June 2010.

<sup>49</sup> See generally Report of the High Level Board of Experts on the Future of Global Trade Governance, “Revitalizing Multilateral Governance at the WTO (Bertelsmann Stiftung 2018).

<sup>50</sup> The differences between a technical regulation and standards is not always that clear, as the AB in Tuna-Dolphin II found that a voluntary dolphin-safe labelling scheme was in effect a technical regulation.

<sup>51</sup> WTO TBT Agreement Article 2.4

<sup>52</sup> WTO TBT Article 2.5

However, the regulatory challenges raised by digital trade do not map cleanly onto the approach in the TBT Agreement for dealing with regulatory issues affecting trade in goods.<sup>53</sup> One difference is that many of the domestic regulatory issues leading to restrictions on data flows are not obviously amenable to being standardized globally by technically focused bodies such as the ISO. In some areas, such as cybersecurity, the ISO has had success, such as with its ISO/IEC 27000 set of cyber and information security standards. Yet, in areas such as privacy, consumer protection, and AI, the issues at stake—such as how to balance privacy and other values such as free speech and economic development—raise values that need to be traded-off, or balanced, in a more explicit political process. This may be why privacy, consumer protection, and AI principles have instead been initially developed in the OECD and the U.N., where the types of government-to-government bargaining, reason giving, and voting better reflect the interests at stake—underpinning the potential power of such norms.<sup>54</sup> The fact that some outcomes are expressed as general principles (such as the OECD privacy principles) underscores the challenges of building common ground on some of these issues.<sup>55</sup>

This suggests that when it comes to developing global international services standards, WTO flexibility is needed to include standards (and principles) that are developed in forum among a subset of WTO members. In fact, TBT also applies to standards not adopted by consensus and the WTO Appellate Body has been prepared to consider non-consensually developed standards.<sup>56</sup> But, the Appellate Body has also indicated greater scrutiny of the process of standards setting before a standard will be deemed the relevant benchmark.<sup>57</sup>

Where international standards are developed using only a subset of WTO members, those WTO members not party to the standards should not be required by the WTO to use them as a basis for their domestic regulation. However, requiring consideration of such standards when developing domestic regulation, including reasons for departing from such standards in domestic regulation would facilitate learning and dialogue at the WTO aimed at minimizing regulatory diversity and its impact on digital trade. In addition, such standards could be predicated on having in place procedures for voting, transparency, openness, and deliberation, which supports the legitimacy of the output of these bodies.<sup>58</sup>

Building on existing WTO and FTA commitments, a WTO digital trade agreement, with respect to referencing and using international standards, should consider the following types of commitments:

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<sup>53</sup> Hoekman, Bernard and Petros Mavroidis. “A Technical Barriers to Trade Agreement for Services?” *Robert Schuman Centre for Advanced Studies Research Paper No. RSCAS 2015/25*.

<sup>54</sup> Finnemore, Martha and Duncan B Hollis. “Constructing Norms for Global Cybersecurity.” 110 *Am. J. Int’l L.* 2016.

<sup>55</sup> Whether expressed as principles or as standards, what constitutes an ‘international standard’ for the purposes of the TBT agreement is determined by whether the process for agreeing the outcome complies with the TBT Agreement and related WTO TBT Decision.

<sup>56</sup> Appellate Body *Hormones*; *EC-Sardines*.

<sup>57</sup> Appellate Body *Tuna Dolphin II*.

<sup>58</sup> See TBT Committee Decision of 2000, which agreed six principles that should be observed by international standards setting bodies: transparency; openness, impartiality and consensus; effectiveness and relevance; and addressing the concerns of the developing world. FTAs such as CPTPP and USMCA references this TBT Decisions as laying out the process for establishing standards.

- A commitment to develop international services standards in key areas affected by global data flows such as with respect to privacy, cybersecurity and consumer protection.
- A commitment to use international services standards as a basis for domestic regulation.
- Where an international services standard does not exist, a commitment to consider whether standards developed by other WTO members and international organizations such as the OECD can fulfill its legitimate objective and to provide reasons for departing from such standards.

### **Limits to international standards in addressing the regulatory challenges to digital trade**

While there has been progress developing international services standards, such as in the OECD on privacy principles, these outcomes also reveal their limits in creating an enabling environment for cross-border data flows. In particular, much of the regulatory heterogeneity between countries that leads to data flow restrictions also reflects different underlying values, which is a break on the extent that international services standards can drive convergence at the local level. In the EU for example, privacy and data protection are constitutional rights guaranteed in the EU Charter of Fundamental Rights.<sup>59</sup> In contrast, in the U.S. there is a limited constitutional right to privacy-focused on the right of privacy as against the government, and when it comes to data protection by commercial enterprises, privacy regulation needs to be consistent with the constitutional right to free speech.<sup>60</sup> These differences have meant that agreement on privacy in the OECD was a set of principles that left governments with significant flexibility to craft privacy regulations to reflect domestic values and laws.

For example, the updated 2013 OECD Privacy Principles articulate core standards of privacy, the mechanisms for cross-border data flows, and under what conditions restrictions on such data flows are necessary. The OECD privacy principles affirm the accountability of the data controller for personal data under its control and recognize two cases where restrictions on cross-border transfers of personal data should be avoided—where the recipient country “substantially” observes the OECD privacy principles, or where there are safeguards to ensure that the recipient continues to protect personal data consistent with the OECD privacy principles.<sup>61</sup> As these OECD privacy principles are voluntary baselines, some OECD governments have chosen to go further in their domestic privacy regulation. For instance, the EU GDPR requirements of explicit consent—which limits the purposes to which personal data once collected can be used, as well as the right to forget—are some areas where GDPR has gone beyond the OECD privacy standards. As a result, GDPR diverges from where other OECD members such as the U.S. and Australia have ended up in their domestic privacy regulation, yet which regulations are also consistent with the OECD privacy principles. These differences in approach to privacy among OECD members meant that instead

<sup>59</sup> Charter of Fundamental Rights of the European Union, (2012/C 326/02), Article 8.

<sup>60</sup> *Sorrell v. IMS Health Inc.*, 131 S. Ct. 2653 (2011).

<sup>61</sup> 2013 OECD Privacy Principles paragraphs 16 & 17, [https://www.oecd.org/sti/ieconomy/oecd\\_privacy\\_framework.pdf](https://www.oecd.org/sti/ieconomy/oecd_privacy_framework.pdf).

of the EU allowing cross-border transfers of personal data to countries that “substantially” observe the OECD privacy principles, the GDPR requires that third countries provide “adequate” privacy protection, which requires having in place levels of privacy protection that is substantially equivalent to that provided under the GDPR.<sup>62</sup> Marring this much tighter requirement of a fit between the GDPR and the recipient country’s privacy regulation, along with the ratcheting up of data privacy standards in the GDPR has limited the potential of the OECD privacy principles to bridge differences in privacy regulations and facilitate cross-border data flows.

Despite these limits, the development of a common baseline on privacy principles has been useful. While not leading to common approaches in practice, OECD privacy principles have minimized regulatory heterogeneity, making the process of developing interoperability mechanisms that can bridge difference between domestic privacy regimes less challenging than it would otherwise be. In fact, Privacy Shield (and Safe Harbor before that) was facilitated by much of what is common (and OECD consistent) between the U.S. and EU on privacy. In other areas such as cybersecurity, which is more technically orientated than privacy, success developing a number of international standards such as the ISO/IEC 27000 series, indicates that there may be even greater scope for international standards leading to common global cybersecurity practice that gives cyber regulators confidence that cross-border data flows do not undermine cybersecurity.

### **The WTO as a platform for building international regulatory cooperation**

As outlined, there are not insignificant challenges developing international services standards and there are limits on the extent standards can overcome the regulatory diversity that leads to restrictions on data flows. This underscores the need for the WTO to also develop rules that underpin the international regulatory cooperation and interoperability mechanisms, such as the APEC Cross-Border Privacy Rules, that can bridge differences in domestic regulation which leads to data flow restrictions.<sup>63</sup>

Building bridges between countries with different regulatory systems to minimize the trade costs is not new. The OECD has identified 11 forms of international regulatory cooperation. That includes MRAs and recognition of equivalency.<sup>64</sup> Both of these interoperability mechanisms are the focus here due to their specifically intergovernmental nature and as examples of types of international regulatory cooperation that the WTO can enable.

#### Mutual Recognition Agreements

Under a typical MRA, there is no harmonization of the underlying regulation. An MRA for digital trade would have the data destination country apply the data source regulations to data imports and the data source country recognizing this arrangement

<sup>62</sup> Schrems v. Data Prot. Comm’r [2014] I.E.H.C. 310, para 73.

<sup>63</sup> <https://www.apec.org/About-Us/About-APEC/Fact-Sheets/What-is-the-Cross-Border-Privacy-Rules-System>

<sup>64</sup> OECD. International Regulatory Co-operation – Addressing Global Challenges, OECD Publishing. 2013.



and allowing the data to flow. This is in effect what occurs with the U.S.-EU Privacy Shield arrangement.<sup>65</sup>

One of the challenges of such MRAs for governments is having the capacity to apply another country's regulations to data collection and services trade and its enforcement. Under a so-called enhanced MRA, there is also regulatory alignment. However, these arrangements are limited to the EU and the Australia-New Zealand Closer Economic Relations Trade Arrangement.

### Equivalence

A data source country can also recognize that a data destination country's regulation is equivalent to its own. Equivalency can be granted unilaterally or by agreement. Equivalency is in effect what happens under GDPR when the European Commission issues a finding of adequacy with respect to another country's privacy protection regime.

While the WTO has rules on MRAs in the TBT Agreement, for instance, most MRAs are standalone agreements or incorporated into FTAs. This reflects a preference for bilateral arrangements and that ambitious MRAs (in particular enhanced MRAs) require similar regulatory systems and levels of development. Assuming this trend continues of MRAs being done outside the WTO, the WTO should seek to position itself as a platform that supports learning, best practices, transparency, and good regulatory practice—all of which can help create enabling conditions for international regulatory cooperation around digital trade.

To be a platform for international regulatory cooperation, the WTO should:

- Recognize MRAs and equivalency as means to address differences in regulation and encourage WTO members to develop such arrangements to avoid unnecessary barriers to cross-border data flows.
- Ensure that all forms of international regulatory cooperation, wherever developed are notified to the WTO and open to participation by other WTO Members.
- Commit to consider another WTO Members services regulation and conformity assessment as equivalent, and to provide reasons when it cannot do so.
- Consider providing technical assistance where requested to help countries establish the capacity to do conformity assessment.
- Consider sectoral approaches that bring together relevant regulators in each country around key issues of privacy, consumer protection and cybersecurity, with the flexibility to update and expand. For instance, a sectoral outcome on cybersecurity could include commitments to cooperation, setting up mechanisms to identify cyberattacks and to sharing information and best practice, including risk management practices.

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<sup>65</sup> Mattoo, Aaditya and Joshua P. Meltzer. "Data Flows and Privacy: the conflict and its resolution." *Journal of International Economic Law*. Vol 21, Issue 4.

## Regulatory best practice for digital trade

The development of good regulatory practice (GRP) has received some attention in the WTO TBT Committee and is an increasing feature of more recent FTAs.<sup>66</sup> Indeed, developing WTO rules on good regulatory practice would constitute an important stand-alone (i.e., not digitally specific) outcome that, through requirements of increased transparency and reason-giving, lead to services regulation that reduces unnecessary impacts on digital trade. In addition, GRP is likely a building block towards some of the forms of international regulatory cooperation outlined above.<sup>67</sup>

Good regulatory practice can include process elements, such as transparency, consultation, and reason giving as well as commitments aimed at improving regulatory outcomes, such as being welfare maximizing and cost-effective, and when it comes to trade, being least trade restrictive and not creating unnecessary barriers to trade.<sup>68</sup>

From a narrower digital trade perspective, GRP should be developed to mainstream consideration of the impact of regulation on data flows as well as access to data. This can be done by requiring regulators to conduct a regulatory impact assessment that includes the impact on cross-border data flows. Having regulators consider digital trade effects as part of the process of developing the regulation can also help identify less trade restrictive options. In the digital trade context, the increasing economy-wide use of data means that GRP should also emphasize the importance of coordination among government agencies when developing regulation that effects data flows.

To be a platform for regulatory best practices of digital trade, the WTO should:

- Enhance transparency requirements, such as a commitment by members to assess their regulation's impacts on data flows and to notify the WTO.
- Establish the WTO as a repository of all measures affecting data flows.
- Agree to conduct a regulatory impact assessment for all new regulation that includes impact of the regulation on cross-border data flows.
- Agree to publish in advance regulations affecting data flows, explain the rationale for the regulation, agree to consider alternatives, provide all interested parties with opportunities to comment on proposed regulations and publish reasons for the final approach taken.
- Develop a mechanism similar to the one Members have under the TBT Agreement to raise "specific trade concerns" in the WTO services committee with respect to regulation affecting digital trade and data flows.
- Consider developments in other WTO members when developing regulations (this could be supported by reference to a WTO database of best practice), including in other international, regional, and other fora.

<sup>66</sup> WTO, G/TBT/26; USMCA Article 28.2.

<sup>67</sup> OECD. "International Regulatory Co-operation and Trade: Understanding the Trade Costs of Regulatory Divergence and the Remedies." *OECD Publishing*, Paris., p. 34. 2017.

<sup>68</sup> Basedow, Robert and Celine Kauffmann 2016. "International Trade and Good Regulatory Practices: Assessing The Trade Impacts of Regulation." *OECD Regulatory Policy Working Papers No 4*.

Progress on all these issues could be part of a comprehensive WTO digital trade agreement. However, given the broader importance of international regulatory cooperation and transparency for WTO reform more broadly, progress could also be made on a number of these issues in parallel. For instance, there are proposals to improve transparency and notification requirements in the WTO committees which could be acted on.<sup>69</sup> The development dimensions would also need to be addressed here, including the need for technical assistance and capacity building.<sup>70</sup>

## CONCLUSION

Any concept of WTO reform must treat the successful completion of WTO digital trade negotiations as a key element. Unless WTO members can find a way to agree to rules relevant to the challenges and opportunities governing international trade today, no amount of improvements in WTO process will matter. What would constitute a comprehensive outcome in the WTO on digital trade is beyond the scope of this paper.

Instead, this paper has focused on what is needed to support cross-border data flows, as well as the international regulatory cooperation and good regulatory practice that is required to provide an effective mechanism for digital trade governance. When it comes to developing rules on international regulatory cooperation, this paper envisions the WTO as a platform for addressing behind-the-border regulation that is an increasingly key barrier to digital trade.

To be an effective platform, the WTO should take on four roles: (1) serving as a repository of measures affecting data flows; (2) making measures that effect digital trade more transparent; (3) sharing best practice experiences in regulating data flows; and; (4) providing a forum to better understand the impact of regulation on digital trade. Developing the WTO as a platform to support digital trade, including international regulatory cooperation and good regulatory practices, could be applied to behind-the-border regulation more broadly. Seen in this light, the digital trade negotiations can also test new ideas that, when expanded, would make the WTO better suited to deal with behind-the-border barriers to trade.

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<sup>69</sup> WTO Communication from Argentina, Australia, Canada, Costa Rica, The European Union, Japan, New Zealand, The Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, and the United States, Procedures to Enhance Transparency and Strengthen Notification Requirements Under WTO Agreements”, WTO Job GC/204/Rev.2, 27 June 2019.

<sup>70</sup> WTO Communication from Cuba, India, Nigeria, South Africa, Tunisia, Uganda and Zimbabwe, An Inclusive Approach to Transparency and Notification, Job/GC/218, 27 June 2019.



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