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Digital Trade-Related Provisions in Regional Trade Agreements: Existing Models and Lessons for the Multilateral Trade System

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Overview Paper



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List of Abbreviations

APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CARIFORUM	Caribbean Forum
ccTLD	country-code top-level domain
CPC	Central Product Classification
EFTA	European Free Trade Association
EPA	economic partnership agreement
EU	European Union
FTA	free trade agreement
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
IPR	intellectual property rights
ISP	internet service provider
ITA	Information Technology Agreement
MC11	Eleventh Ministerial Conference (WTO)
MFN	most-favoured nation
RCEP	Regional Comprehensive Economic Partnership
RMI	rights management information
RTA	regional trade agreement
SPS	sanitary and phytosanitary standards
TBT	technical barriers to trade
TFA	Trade Facilitation Agreement
TiSA	Trade in Services Agreement
TPA	trade promotion agreement
TPM	technological protection measure
TPP	Trans-Pacific Partnership
TRIPS	Trade-Related Intellectual Property Rights
UNCITRAL	United Nations Commission on International Trade Law
US	United States
WCO	World Customs Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

1. Introduction

The rapid growth and diffusion of internet and digital technologies are rapidly upending global trade. As internet penetration, speed, and reliability increase, industries worldwide are being transformed in the way they structure production, do business, and trade. Digital technologies can increase business productivity and have facilitated the growth of global value chains by allowing for further disaggregation of production. They are also transforming the means through which firms communicate with suppliers and customers and through which they raise funds.

While digital trade was once seen largely as the domain of advanced economies, that is no longer the case today. Increasingly, developing countries are affected by these developments. Internet technologies allow producers and individuals in developing countries an easier means to capture a place along the global value chains, particularly for services. They also allow small and medium-sized enterprises to tap into global markets, while also bringing new services into rural communities. Some of the most promising companies for facilitating digital trade and services are situated in developing countries. Nevertheless, a large digital divide persists, both within and across countries in the developing world.

The rules of the World Trade Organization (WTO) are agnostic as to the medium through which trade is conducted. The obligations and disciplines found within the General Agreement on Trade in Services (GATS) do not distinguish between different technological means through which services are delivered. Furthermore, the Agreement on Trade-Related Intellectual Property Rights (TRIPS) is also technology-neutral. TRIPS protections extend to online digital content. Hence, trade conducted via e-commerce and digital means are also subject to WTO rules.

As early as 1998, governments recognised the need to clarify the relationship between trade rules and

emerging online modes for trade. The WTO Work Programme on Electronic Commerce was tasked with exploring WTO rules and the production, distribution, marketing, sale or delivery of goods and services by electronic means. Nevertheless, efforts to update digital trade rules at the multilateral level have stalled. Among most trade policymakers, the view exists that WTO rules are increasingly outdated for the digital era.

As trade is moving progressively more online, businesses are raising growing concerns over digital protectionism. Governments do possess multiple valid reasons to regulate the internet, including online content and platforms. These include concerns for public security, law enforcement, national security, privacy, consumer protection, speech, and so forth. However, some raise worries that certain forms of regulation are essentially disguised restrictions on trade, designed to protect local producers from foreign competitors. Additionally, some fear that governments may be using related digital regulations to assist domestic producers in obtaining access to new technologies from foreign competitors as a condition for market access.

The possible barriers affecting digital trade are numerous. One set of major issues concerns impediments to the free flow of data across borders and the requirements to store data locally. Related to this are limitations on digital finance, including ensuring a secure digital payment system. Another set of issues concerns market access restrictions for digital services and goods related to the Internet of Things. Governments may also limit investment or establish certain conditions for the provision of digital and electronic services. This may include disclosure of source code for review by national authorities. Additionally, other digital protectionist measures concern traditional trade-related measures extended to the digital sphere. For example, customs procedures, licensing and so forth for e-commerce might be applied in a discretionary pattern favouring certain local players.

Due to the slow pace at which the multilateral trading system is updating trade rules for the digital era, much of the innovation is occurring in regional trade agreements (RTAs). This paper provides an overview of the types of provisions found within RTAs that impact e-commerce and digital trade. In the absence of a wide-ranging WTO mandate for digital trade, RTAs have emerged as the primary laboratories for new rules and disciplines. As will be discussed, the rules emerging out of these RTAs draw on existing contributions to the regulation of e-commerce and digital trade made in a variety of international bodies such as the United Nations Commission on International Trade Law (UNCITRAL), World Customs Organization (WCO) and the World Intellectual Property Organization (WIPO).

This project reviewed almost all of the RTAs which were signed between 2001 and 2016 and notified to the WTO, with an eye towards identifying those RTAs with a standalone e-commerce chapter or with provisions specifically addressing e-commerce/digital trade. It identified 69 RTAs with a standalone e-commerce chapter or article(s), dating back to 2001, including a small number that have not yet entered into force as of this writing. It also identified at least 21 other RTAs without a dedicated e-commerce chapter or article, but with one or more provisions specifically addressing paperless trading, digital rights management, or general promotion. The content of these 90 agreements were then examined in depth.

The aim of this paper is threefold: First, it attempts to provide an inventory of the various legal disciplines and obligations found within RTAs that impact digital trade. Second, it provides a typology and overview of the different approaches taken by major trading powers towards drafting digital trade-related provisions within RTAs. Third, it identifies areas of potential convergence across RTAs as well as points of tension/conflict in the system. This includes a discussion of best practices, innovative approaches, and areas where additional thinking will be required.

As the trade community debates whether and/or how to address digital trade issues at the WTO's

Eleventh Ministerial Conference (MC11) in Buenos Aires, Argentina, and beyond, the hope is that this overview paper will serve to inform policymakers as they decide what positions to take on the series of proposals being floated by WTO members.

This paper is organised as follows: Section 2 discusses how existing WTO agreements affect digital trade and highlights shortcomings, some of which RTA provisions attempt to fix. Section 3 then provides an overview of the current state of RTAs with standalone e-commerce chapters and other provisions related to digital trade. The next six sections (Sections 4–9) discuss the details and variations of specific digital trade-related provisions organised around the themes of general provisions, market access, trade facilitation, user protection, cutting-edge issues, and cooperation/dispute settlement. Section 10 then highlights the key provisions in the intellectual property rights (IPR) chapter of RTAs. The final section then concludes with a discussion of the prospects for greater convergence in trade agreements ahead and highlights a number of challenges that will need to be resolved among WTO members.

2. Existing WTO Agreements and Their Limitations

2.1. How Existing WTO Agreements Govern Digital Trade

To understand the impetus for additional rules on digital trade in RTAs, it is important to understand how existing WTO rules touch upon digital trade and their shortcomings. The WTO agreements date back to 1994, when many of today's digital technologies and applications did not exist. Nevertheless, several WTO agreements do have bearing on digital trade.

The most significant of these for digital trade is the General Agreement on Trade in Services. The GATS

defines trade in services through four different modes of supply. Mode 1 covers cross-border supply of service from one territory to another and is technology-neutral. It therefore includes the delivery of a service via electronic means. Hence, any WTO member that has made commitments to open up a given sector to mode 1 delivery has agreed to open up that service sector to digital trade of that service, subject to the limitations listed in its GATS schedule. Furthermore, mode 2 covers the provision of a service in the territory of one WTO member to a consumer from another WTO member. To the extent that venturing onto the internet to procure a service is considered “consumption abroad,” mode 2 commitments are also of relevance.

In addition, the GATS schedule covers commitments in a number of service sectors critical for enabling digital trade. Foremost among these are computer and related services, as well as telecommunications services. For example, the WTO Annex on Telecommunications requires that each WTO member allow service suppliers to use any protocol of choice in the supply of telecommunications services.¹ Other relevant sectors include banking and other financial services, postal and courier services, insurance services, distribution services, storage services, and so forth. For such sectors, GATS commitments in modes 3 and 4 are particularly relevant. Mode 3 commitments clarify whether a foreign service provider is allowed to establish a commercial presence in the territory to deliver such a service. Mode 4 commitments clarify whether an individual foreigner from a given WTO member may be temporarily present in the territory to supply such a service.

GATS requires that WTO members extend certain general principles across the board, such as most-favoured nation (MFN) treatment. It also requires certain transparency elements concerning the promulgation of regulations governing service sectors. Beyond these principles, GATS schedules

govern market access, including limitations on the number, value, type of legal entity, and the extent of foreign capital that may participate in the given sector.

Several WTO cases have confirmed that GATS disciplines and obligations extend to services supplied electronically. For example, in *US – Gambling*, the Panel report confirmed that mode 1 covers all means of delivery, including those over the internet.² In *China – Audiovisual Products*, the Panel found that the service commitments extend to services delivered in a non-physical form, such as via the internet.³ WTO dispute settlement, therefore, has further confirmed that the reach of existing GATS commitments can extend to new online means for delivering services that have emerged since the GATS was concluded in 1994.

Beyond the GATS, other existing WTO agreements are also of relevance. For example, if the internet is simply the channel through which the transaction for a given physical product is made, the good will still need to be delivered physically across borders from the territory of one WTO member to another. The legal disciplines and obligations established in the General Agreement on Tariffs and Trade (GATT) 1994, which govern trade in goods, will be of relevance in such circumstances. This extends to various forms of e-commerce, including business-to-consumer, business-to-business, and business-to-government.

Beyond the GATT 1994 itself, the various multilateral agreements found under Annex 1A of the WTO Agreement are also of relevance. Foremost among these is the Agreement on Technical Barriers to Trade (TBT) which governs technical regulations and standards. These obligations affect a wide range

¹ WTO Annex on Telecommunications, para. 5(a)(iii).

² Panel Report, *United States – Measures Affecting the Cross-Border Supply of Gambling and Betting Services*, WT/DS285/R, 10 Nov. 2004.

³ Panel Report, *China – Measures Affecting Trading Rights and Distribution Services for Certain Publications and Audiovisual Entertainment Products*, WT/DS363/R, 12 Aug. 2009.

of governmental measures with implications for digital trade. Examples include standards governing the telecommunications and broadband networks, interoperability and portability standards across carriers and networks, regulations on encryption and security, privacy regulations, data storage regulations, and so forth. Other Annex 1A agreements that are also of relevance, including the Agreement on Customs Licensing, the Agreement on Import Licensing Procedure, and the Agreement on Sanitary and Phytosanitary Standards (SPS) (for electronic phytosanitary certification, for example).

In addition, the legal disciplines and obligations found in the TRIPS Agreement also impact digital trade. E-commerce platforms and digital services trade often implicate IPRs. For example, use rights defined through the copyright regime are implicated when music or audiovisual services are traded via the internet. Again, the TRIPS Agreement is technology-neutral and extends to IPRs embedded in digital form.

More recent plurilateral agreements also impact digital trade. The market access commitments made under the Information Technology Agreement (ITA) and its subsequent expansion at the Nairobi Ministerial Conference (ITA-II) have lowered barriers for trade in much of the critical infrastructure equipment necessary for digital trade. In addition, the WTO Trade Facilitation Agreement (TFA) includes commitments for WTO members to adopt and maintain procedures, to the extent practicable, for electronic pre-arrival processing of documents; for electronic payment of customs duties, fees, and other charges; and for acceptance of electronic versions of supporting documentation required by customs authorities.

2.2. The Limitations of Existing WTO Rules

If the existing WTO agreements are cross-cutting, technology-neutral, and can evolve to cover new technologies, then what is the problem? Why do certain WTO members seek to establish additional

legal obligations to govern digital trade through RTAs? Several problems exist:

- Definitional:** What exactly constitutes a digitally traded product? How are non-physical digital goods and services to be treated as compared to physical ones? This gives rise to several questions. While the classification over certain digitally traded services falls clearly under the ambit of GATS mode 1, it is not necessarily as clear for others. For example, a longstanding debate exists over whether internet services are governed under mode 1 or mode 2. For goods traded over the internet, the impact of digital technologies can vary from simply serving as the interface where a producer and consumer interact (such as on an e-commerce platform) to the medium in which a given good is created, produced, stored and transmitted (such as for digital video or software). Which of these fall under the ambit of existing GATT commitments or commitments made under the moratorium on customs duties collection for e-commerce, for example? RTA provisions seek to clarify some, but not necessarily all of these questions. In addition, as the distinction between services and goods blurs with the rise of the Internet of Things and service-embedded goods, additional definitional questions lurk on the horizon.
- Classification:** Several services that play a key role in digital trade concern technological advances that have emerged since 1994. For example, although the technology for search engines existed at the time, their ubiquitous role in the digital economy emerged in the latter half of the 1990s. Questions exist as to how they are to be treated under the existing GATS schedules of WTO members. The classification scheme underlying those schedules stem from a sectoral classification list (commonly referred to as the W/120) dating back to 1991.⁴ The classification

⁴ World Trade Organization, "Services Sectoral Classification List," MTN.GNS/W/120, 10 July 1991.

scheme cross-references the Provisional Central Product Classification (CPC) of the United Nations. Although the CPC has undergone intermittent revisions in the intervening quarter-century, WTO members have not agreed to update their commitments to reflect the revised CPC. This gives rise to how services tied to new digital technologies are to be treated under the existing GATS schedules. Beyond search engine services, multiple other examples exist, such as cloud-related services, internet platform services, mobile application services, and so forth.

- **Market access:** The lack of progress in multilateral trade negotiations for market access since the Uruguay Round has given rise to complaints that existing GATT and GATS commitments are inadequate for facilitating trade of all forms, including digital trade, between WTO members. Several WTO members have been reluctant to grant additional market access commitments at the multilateral level until legacy Doha Round issues, such as agricultural subsidies, are addressed. Hence, RTAs have emerged as the primary means to further market access commitments between trading partners.
- **Cross-border data flows:** Increasingly, with the rise of big data and advances in artificial intelligence, data take on increasing commercial importance. Several WTO members have passed measures regulating how companies that obtain these data from its citizens are to handle their treatment of such data. This may include data localisation measures requiring that the data be stored in its territory and/or not be transmitted outside of its jurisdiction. Such measures to impede the free flow of data across WTO members have given rise to increased trade conflicts as companies complain that they raise operational costs and complicate their ability to deliver services efficiently to customers. RTAs again serve as a possible means to clarify the boundaries of what is permissible in terms of such measures and to establish common principles across a subset of WTO members.
- **Consumer-related regulatory measures:** Beyond data, the rise of the digital economy has given rise to a host of other regulations that impact digital trade. These include several rules designed to protect consumers, including measures that must be taken to protect personal data provided by individuals who use internet services and measures to prevent unsolicited electronic messages such as internet spam. In addition, some WTO members have also enacted regulations designed to protect their citizens' privacy on the internet, such as the European Union (EU) and the right to be forgotten. RTAs can also serve as a means to establish common principles across a subset of WTO members and to enhance cooperation between them.
- **Security-related regulatory measures:** In recent years, governments in several WTO members have also enacted regulations to protect national security and domestic law enforcement concerns to counteract criminal activities over the internet. Such activities may take place exclusively in the digital realm, such as cybertheft, cyberattacks, and cyberespionage. They may also simply concern the use of digital tools to foster traditional criminal practices and terrorism. The range of relevant regulations include those concerning electronic signatures and other forms of electronic authentication, as well as regulations requiring the disclosure of source code for inspection by national authorities or requiring that certain data must be turned over to law enforcement authorities under certain circumstances. Again, RTAs can serve as a means to set boundaries on what constitutes a permissible practice and to establish a set of common principles across a subset of WTO members.
- **Trade facilitation:** Although the TFA includes several references to electronic documentation and other electronic means for facilitating trade at the border, e-commerce was not included as an explicit part of the WTO negotiations on trade facilitation. RTAs can also serve as a mechanism

for further promoting enhanced trade facilitation through electronic means and to promote such cooperation among customs authorities.

Not all RTAs necessarily tackle the full range of problems just noted. In particular, given the intractability and political sensitivities associated with certain issues, many RTAs continue to skirt some, if not most, of these issues. Nevertheless, with the stalled nature of WTO multilateral negotiations, RTAs have served as a means by which a number of WTO members have sought to advance trade rules in this emergent domain.

3. Current State of RTAs with Digital Trade-Related Provisions

The first RTA to include an explicit standalone chapter to address e-commerce was the free trade agreement (FTA) between Australia and Singapore, which entered into force on 28 July 2003.⁵ In the 18 months following, four more RTAs would also enter into force that would include e-commerce chapters. Each of these involved Australia, Singapore, the United States, or some combination thereof. These included the US–Chile FTA and the US–Singapore FTA (both of which entered into force on 1 January 2004), as well as the US–Australia FTA and the Thailand–Australia FTA (both of which entered into force on 1 January 2005).

Beyond the e-commerce chapter, several of these RTAs included provisions in the IPR chapter

that impact digital trade. For example, many US FTAs contained provisions addressing digital rights management. Furthermore, commitments made on service sectors, such as financial and telecommunications services as well as computer-related services, also impact digital trade.

This project found that as of September 2017, at least 69 RTAs exist which include an e-commerce chapter or article(s) dedicated to e-commerce. This includes several RTAs that have been negotiated but not yet entered into force, as of this writing, such as the Trans-Pacific Partnership (TPP) negotiated between 12 countries in the Asia-Pacific but from which the US has already withdrawn, the EU–Singapore FTA, and the EU–Vietnam FTA.

However, the scope and depth of these chapters differ widely. At one extreme are a number of relatively recent RTAs whose e-commerce chapters address a wide range of digital trade issues, including data localisation and the treatment of source code. At the other extreme are those that do no more than mandate no customs duties for e-commerce transactions and seek cooperation between regulatory authorities.

Beyond these 69 RTAs, several other major trade agreements are being negotiated with provisions impacting digital trade. As of this writing, the EU and Japan already have announced agreement in principle on an FTA, but the specific text has yet to be released. In addition, several other yet-to-be-completed negotiations, including the Regional Comprehensive Economic Partnership (RCEP) in Asia and the plurilateral Trade in Services Agreement (TiSA), also seek to address digital trade-related issues.

One myth that should be dispelled upfront is that advanced economies are the only ones demanding robust e-commerce chapters of their RTA partners while developing countries are almost always reluctant to agree to such provisions. Undoubtedly, a number of WTO members do conform to these stereotypes. For example, the e-commerce chapters in US and Australian FTAs are consistently robust. On

⁵ Several earlier agreements included one or more limited articles dedicated to e-commerce, but not a standalone chapter. These include the US–Jordan FTA, Japan–Singapore Economic Partnership Agreement (EPA), the EC–Chile FTA, and the Gulf Cooperation Council Economic Agreement. Note that the Japan–Singapore EPA did include a chapter on paperless trading.

the other hand, Brazil, India, Nigeria, and South Africa all have been reluctant to agree to RTAs with extensive digital trade provisions. But these stereotypes do not hold across the board. For example, the Costa Rica–Colombia FTA includes an extensive e-commerce chapter that addresses issues such as paperless trading and consumer protection. On the other hand, the EU–Vietnam FTA and the Canada–Ukraine FTA both represent relatively recent RTAs where an advanced economy has agreed to a light-touch e-commerce chapter, rather than demanding more of a developing country partner.

Altogether, of the 164 WTO members, approximately half have entered into at least one RTA with an e-commerce chapter. Several have done so only in the context of RTAs negotiated through regional integration institutions to which it belonged, such as the Association of Southeast Asian Nations (ASEAN), Caribbean Forum (CARIFORUM), or the Gulf Cooperation Council.

The triad of Australia, Singapore, and the US has played a particularly important role in the proliferation of RTAs with e-commerce chapters. More than 30 WTO members first agreed to such an RTA with one of these three countries.

Besides Australia, Singapore, and the US, other WTO members that have actively sought to include e-commerce chapters in its free trade agreements include Canada, the EU, Japan, and more recently, South Korea. However, their efforts began at a later stage than the initial three.

The first EU trade agreement to include an e-commerce chapter was the EU–CARIFORUM Economic Partnership Agreement (EPA), which entered into force in 2008.⁶ The first Canadian agreement to do so was the Canada–Peru FTA, while the first Japanese agreement to do so was the Japan–

Switzerland EPA, both of which entered into force in 2009.⁷ South Korea has negotiated e-commerce chapters dating back to the Korea–Singapore FTA in 2006; however, it was only with the Korea–Vietnam FTA, which entered into force in 2015, where South Korea is clearly identified as the party pushing for including such a chapter in an RTA with a developing country.

To date, no WTO member classified as a least developed country by the United Nations or as a low-income country by the World Bank has agreed to an RTA with an e-commerce chapter. Haiti signed the EU–CARIFORUM EPA, but has yet to ratify it. Furthermore, no WTO member in sub-Saharan Africa has ever agreed to an RTA with an e-commerce chapter or dedicated e-commerce provisions.

Among WTO members classified as lower-income countries by the World Bank, 15 countries, or slightly less than one-third of the group, have agreed to an RTA with e-commerce provisions. These include Cambodia, El Salvador, Georgia, Guatemala, Honduras, India, Indonesia, Jordan, Lao PDR, Mongolia, Morocco, Nicaragua, the Philippines, Ukraine, and Vietnam. All have done so only in the context of an RTA with an advanced economy that insisted upon it as a condition for the agreement. While many of these were with the US, EU, or Japan, some were with other smaller advanced economies. For example, India agreed to a limited number of e-commerce provisions in its Comprehensive Economic Cooperation Agreement with Singapore in 2005. However, e-commerce provisions do not feature in the EPAs that India subsequently negotiated with larger advanced economies such as Japan or South Korea.

Thirteen countries classified as upper-middle-income countries by the World Bank have also

⁶Note that the EC–Chile FTA, concluded in 2003, included a limited article covering basic cooperation in e-commerce, but did not have a dedicated chapter.

⁷Note that Japan–Singapore EPA, which was concluded several years earlier in 2002, had several provisions addressing e-commerce but did not have a dedicated chapter. However, there was a chapter for paperless trading.

entered into RTAs with e-commerce provisions. They include Belize, Bulgaria, China, Colombia, Costa Rica, the Dominican Republic, Jamaica, Malaysia, Mexico, Panama, Peru, Romania, and Thailand. A few did so as EU members.⁸ Among the others, all first agreed to include e-commerce provisions in an RTA with an advanced economy. However, several of the developing countries in Latin America have gone on to insist upon including such provisions in their own RTAs. For example, such provisions can be found in the FTA concluded between Colombia and the Northern Triangle countries (El Salvador, Guatemala, and Honduras) which entered into force in 2009. They are also found in Mexico's FTAs with Central America and Panama, which entered into force in 2012 and 2015, respectively.

The scope and depth of commitments reflected in the various RTAs vary greatly. Over time, the scope of these provisions has expanded to cover a broader range of issues. For example, earlier RTAs did not include provisions directly addressing data localisation and data flows. However, as more governments have enacted measures to this effect, more recent RTAs negotiated by the US and others have included provisions seeking to restrict their use. In general, RTAs negotiated with an advanced economy tend to cover a broader and deeper range of issues.

Not all advanced economies have necessarily sought a broad-reaching e-commerce chapter. For example, the European Free Trade Association (EFTA)—which consists of Iceland, Liechtenstein, Norway, and Switzerland—has included a brief Annex on e-commerce in three of the most recent FTAs that it has concluded since 2008. These focus primarily on information exchange between the parties rather than more robust substantive provisions. The e-commerce sections of the EU's trade agreements also place a greater emphasis on regulatory dialogue and are less

ambitious in scope than the RTAs negotiated by WTO members in the Asia-Pacific region.

Besides having a dedicated e-commerce chapter, an RTA will affect digital trade through market access provisions in its services schedule. Because expanded service sector openings are relatively common in RTAs, this project does not focus on examining these terms in depth. In addition, a number of RTAs have provisions that are directed at digital trade without a dedicated chapter to this effect. For example, the ASEAN–Korea Framework Agreement on Comprehensive Economic Cooperation includes a provision that requires increased cooperation in information and communication technology, including the promotion of e-commerce and of anti-spam efforts.⁹

Finally, whereas most RTAs treat e-commerce as its own standalone chapter, a few embed e-commerce provisions as part of a broader chapter. In particular, the EU has tended to conclude RTAs with a chapter dedicated to "Trade in Services, Establishment, and Electronic Commerce." Within that chapter, a section is devoted specifically to e-commerce. In some instances, commitments relevant for digital trade can be found in the telecommunications or financial services chapter of an RTA.

With this background in mind, let us turn to examine similarities and differences in the content of specific provisions found in the RTAs themselves.

⁸ Bulgaria and Romania both entered into commitments as a result of their accession to the European Union in January 2007.

⁹ See Annex of the Framework Agreement on Comprehensive Economic Cooperation Among the Governments of the Member Countries of the Association of Southeast Asian Nations and the Republic of Korea, art. 8, 13 Dec. 2005.

4. General Provisions

4.1. Definitions

Many RTAs contain definitions of terms to be found in the e-commerce chapter. Interestingly, however, the choice of terms requiring definition is not necessarily consistent across agreements. Among the more common terms that are defined are the following:

- **Digital product:** Most US, Singaporean, and several recent Canadian FTAs have included a definition of what constitutes a digital product. As elaborated upon in the TPP, a “digital product means a computer programme, text, video, image, sound recording or other product that is digitally encoded, produced for commercial sale or distribution and that can be transmitted electronically.” Furthermore, the TPP includes a footnote clarifying that the term “does not include a digitised representation of a financial instrument, including money.” This clarification is found in other American and Singaporean FTAs, but not necessarily others that include a definition of the term. Furthermore, the TPP also includes a footnote that clarifies that “[t]he definition of a digital product should not be understood to reflect a Party’s view on whether trade in digital products through electronic transmission should be categorized as trade in services or trade in goods.” Again, this clarification emerges out of earlier US FTAs and is not necessarily found in other RTAs with a definition of a digital product.
- **Electronic authentication:** Several RTAs include a definition of this term. While the concept is relatively consistent across agreements, the exact language does differ. For example, the TPP defines the term as “the process or act of verifying the identity of a party to an electronic communication or transaction and ensuring the integrity of an electronic communication.” The ASEAN–Australia–New Zealand FTA defines the term as “the process of testing an electronic

statement or claim, in order to establish a level of confidence in the statement’s or claim’s reliability.”

- **Electronic transmission:** Many RTAs also include a definition of what constitutes an electronic transmission. This definition is relatively standard. It tends to emphasise that the terminology refers to a transmission made by electromagnetic means, including photonic means.
- **Unsolicited commercial electronic message:** To the extent that RTAs choose to include this term in its definitions, it is relatively standard. The TPP defines this term as “an electronic message which is sent for commercial or marketing purposes to an electronic address, without the consent of the recipient or despite the explicit rejection of the recipient, through an Internet access service supplier or, to the extent provided for under the laws and regulations of each Party, other telecommunications service.” A similar definition is found, for example, in the Korea–Australia FTA, except that it uses the term “Internet carriage service.”

Other terms that are commonly defined include digital certificates, trade administration documents, carrier medium, and telecommunications.

As issues of data, privacy, and localisation requirements take on increasing importance, the definitions will likely broaden to include terms such as “computing facilities” and “personal information.” Both terms, for example, are defined in the TPP, but are not defined in most earlier RTAs that do not cover these concepts.

4.2. Non-discriminatory Treatment of Digital Products

Non-discrimination is a core principle underlying the rules-based international trade regime. Most of the RTAs with a relatively robust e-commerce

chapter include a provision that seeks to extend the principles of national treatment and MFN treatment to the digital realm. To that end, they tend to include a specific provision mandating non-discrimination of like digital products.

The TPP provision on this commitment, which emulates the formulation of the Singapore–Australia FTA, reads as follows: “No Party shall accord less favourable treatment to digital products created, produced, published, contracted for, commissioned or first made available on commercial terms in the territory of another Party, or to digital products of which the author, performer, producer, developer or owner is a person of another Party, than it accords to other like digital products.”¹⁰ It includes a footnote further clarifying that “to the extent that a digital product of a non-Party is a ‘like digital product’, it will qualify as an ‘other like digital product’ for the purposes of this paragraph.”¹¹

Most RTAs requiring non-discriminatory treatment of like digital products will also include stipulations clarifying the extent of this obligation. For example, the Australia–Singapore FTA and the TPP note that the obligation does not apply to the extent of any inconsistency with the obligations of the IPR chapter¹² nor does it extend to broadcasting.¹³ In addition, the agreements further note that the obligation “does not apply to subsidies or grants provided by a Party, including government-supported loans, guarantees and insurance.”¹⁴ Some RTAs also include a carve-out for government procurement; several Japanese RTAs contain such an exception.¹⁵

Besides having an explicit carve-out in the text of the provision itself, a large number of RTAs use an approach of including a schedule or a list of non-conforming measures. For example, this is the approach taken generally with US FTAs as well as in other agreements such as the Korea–Singapore FTA, the Mexico–Central America FTA, and the Japan–Mongolia EPA.¹⁶ Such schedules can take the form of either a positive-list or negative-list approach.

Note that some FTAs also include additional language prohibiting the accordance of less favourable treatment “so as otherwise to afford protection to the other like digital products that are created, produced, published, stored, transmitted, contracted for, commissioned, or first made available on commercial terms in its territory.”¹⁷ In addition, some non-discrimination provisions make use of the “disguised restriction on trade” language commonly found in WTO agreements. For example, the India–Singapore Comprehensive Economic Cooperation Agreement states that a “Party shall not accord treatment less favourable to some products on digital trade . . . which have the effect of affording protection to its own digital products and/or which act as a disguised restriction to trade in digital products of the other Party.”¹⁸ Presumably, such language is included to ensure that the comprehensiveness of the national treatment obligation for digital products is in line with physical goods.

4.3. Affirmation of WTO Rules

A number of RTAs also include an explicit provision affirming the applicability of WTO rules to measures affecting e-commerce. Note that US FTAs have included such language in their introductory general

¹⁰ Trans-Pacific Partnership, art. 14.4.1.

¹¹ Trans-Pacific Partnership, art. 14.4.1, fn. 4.

¹² Trans-Pacific Partnership, art. 14.4.2; Australia–Singapore FTA, art. 5.2.

¹³ Trans-Pacific Partnership, art. 14.4.4; Australia–Singapore FTA, art. 5.4.

¹⁴ Trans-Pacific Partnership, art. 14.4.3; Australia–Singapore FTA, art. 5.3.

¹⁵ See, e.g. Australia–Japan EPA, art. 13.4.3(c); Japan–Mongolia EPA, art. 9.4.2(a).

¹⁶ Korea–Singapore FTA, art. 14.4.4; Mexico–Central America FTA, art. 15.4.5; Japan–Mongolia EPA, art. 9.4.2(e).

¹⁷ See, e.g. US–Morocco FTA, art. 14.3.4(b); US–Oman FTA, art. 14.3.3(b); Korea–Singapore FTA, art. 14.4.3(b).

¹⁸ India–Singapore Comprehensive Economic Cooperation Agreement, art. 10.4.4.

provision.¹⁹ Several of Singapore’s FTAs also do so, including those with Costa Rica, India, Panama, and South Korea.²⁰ Other examples of RTAs where such language can be found include the Australia–Thailand FTA, the FTA negotiated between Nicaragua and Taiwan, and the Peru–Korea FTA.²¹ However, such language is noticeably absent from the TPP.

5. Market Access

Several provisions within RTAs are designed to ensure continued or increased market access for digital products to the markets of RTA partners. In addition, traditional market access concessions for physical goods (such as information technology products) and services that enable digital trade are also standard in many RTAs. The breadth and scope of concessions will vary, depending on the agreement, as well as the timeframe for enacting them.

5.1. Customs Duties

By far, the most common provision found in RTAs with digital trade provisions is an obligation to not impose customs duties on digital products. This provision facilitates commerce in downloadable products such as software, e-books, music, movies, and other digital media. A study from the WTO Secretariat suggests that refraining from imposition of customs duties on digital products encourages a wider adoption of e-commerce; this has a number of positive economic spillover effects with only a limited negative effect on

customs revenues.²² Despite the commonality of this provision, some differences exist in how the language of the obligation is drafted.

The most common approach taken in RTAs is to ban the imposition of customs duties, fees, or charges in connection with the importation or exportation of a digital product by electronic transmission. Note that certain EU agreements, instead of referring to electronic transmissions, simply ban duties on “deliveries by electronic means.”²³

In many instances, this obligation extends across the board to all digital products, regardless of source. This approach is highly practicable. In a world where the data necessary to create a digital product can be stored in and flow through various jurisdictions, determining the origin of a digital product can be complicated.

However, in select RTAs, the obligation extends only to digital products of the RTA partner and does not extend on an MFN basis to non-RTA partners. For example, this narrower approach is taken in the Korea–Singapore FTA.²⁴ In such agreements, the origin of a digital product takes on additional importance. While the e-commerce chapter in the Korea–Singapore FTA is silent on this question, a

¹⁹ See, e.g. US–Panama Trade Promotion Agreement, art. 14.1.1; US–Peru Trade Promotion Agreement, art. 15.1.1.

²⁰ Costa Rica–Singapore FTA, art. 12.1.1; India–Singapore Comprehensive Economic Cooperation Agreement, art. 10.1; Panama–Singapore FTA, art. 13.1; Korea–Singapore FTA, art. 14.2.1.

²¹ Australia–Thailand FTA, art. 1101; Nicaragua–Republic of China (Taiwan) FTA, art. 14.01.2; Peru–Korea FTA, art. 14.1.

²² World Trade Organization, *Fiscal Implications of the Customs Moratorium on Electronic Transmissions: The Case of Digitisable Goods*, 20 December 2016, JOB/GC/114. The study found that digitisable goods—in other words, physical goods that can be digitised and sent across borders electronically—represented less than 1% in global goods trade and generated fiscal customs revenue of about 0.25% of all customs revenues.

²³ See EU–Central America Association Agreement, art. 201.3. In the EU’s agreement with Colombia and Peru, the agreement specifically states that delivery by electronic means “shall be considered as a provision of services” and subject to no customs duties, but other agreements leave open whether electronic products are goods or services. See Trade Agreement Between the EU and Columbia and Peru, art. 162.3.

²⁴ Korea–Singapore FTA, art. 14.4.1.

small number of RTAs do raise it. For example, the Japan–Switzerland EPA states that the parties “shall cooperate in international organisations and fora to foster the development of criteria determining the origin of a digital product, with a view to considering the incorporation of such criteria into the Agreement.”²⁵

With digital trade, a dichotomy exists between digital products which are transmitted by electronic means and those whose sale occur over the internet but are physically transported over borders. Consider, for example, the difference between a book purchased over the internet which is then downloaded electronically onto a tablet, laptop, mobile phone, or other reader versus a book which is then shipped in hard copy to a physical address. Some RTAs choose to address this difference explicitly, while others are silent.

In many US FTAs, for example, customs duties are prohibited on “digital products by electronic transmission,” but when transmitted physically, the customs value is limited to the value of the carrier medium alone and not the value of the electronic content.²⁶ A similar stipulation can be found in the Chile–Colombia FTA, the Gulf Cooperation Council–Singapore FTA, and the Colombia–Northern Triangle FTA.²⁷ The Korea–Singapore FTA requires that each government “shall determine the customs value of an imported carrier medium bearing a digital product in accordance with the Customs Valuation Agreement.”²⁸

A few RTAs explicitly link this obligation to the contours of the WTO Work Programme on Electronic Commerce. For example, the Australia–China FTA states that the obligation to not impose customs

duties extends only so far as it is consistent with the WTO Ministerial Decision of 7 December 2013, extending the Work Programme at the WTO’s Bali Ministerial.²⁹ It stipulates that such an obligation may be extended given future Ministerial Declarations but does not make this mandatory.³⁰ In the EFTA–Central America FTA, the parties simply “confirm their current practice under the terms of the decision of 17 December 2011 of the WTO Ministerial Conference of not imposing customs duties on electronic transmission.”³¹ Similarly, in the Japan–Switzerland EPA, the two parties simply “confirm their current practice of not imposing customs duties on electronic transmissions under paragraph 46 of the Hong Kong Ministerial Declaration of December 2005” and agree to “cooperate to make this practice binding within the framework of the World Trade Organization, with a view to considering its incorporation into this Agreement.”³² As compared to the more commonly found language prohibiting customs duties for electronic transmissions altogether, this type of provision simply reaffirms WTO obligations rather than seeking to expand towards a WTO-plus obligation.

Finally, some RTAs make clear that the obligation extends only to customs duties and not internal taxes or other charges. For example, the TPP includes language that clarifies that the obligation “shall not preclude a Party from imposing internal taxes, fees or other charges on content transmitted electronically, provided that such taxes, fees or charges are imposed in a manner consistent with this Agreement.”³³ Similar language is found in other RTAs such as the Canada–Honduras FTA, Colombia–Northern Triangle FTA, Costa Rica–Singapore FTA, and the Additional Protocol of the Pacific Alliance, among others.³⁴

²⁵ Japan–Switzerland EPA, art. 73.4.

²⁶ See, e.g. US–Columbia Trade Promotion Agreement art. 15.3.1–15.3.2; US–Morocco FTA, art. 14.3.1–14.3.2.

²⁷ Chile–Colombia FTA, art. 12.3; Gulf Cooperation Council–Singapore FTA, art. 7.4; Colombia–Northern Triangle FTA, art. 14.4.2.

²⁸ Korea–Singapore FTA, art. 14.4.2.

²⁹ Australia–China FTA, art. 12.3.1.

³⁰ Australia–China FTA, art. 12.3.2.

³¹ EFTA–Central America FTA, Annex II, art. 2.

³² Japan–Switzerland EPA, art. 76.

³³ Trans–Pacific Partnership, art. 14.3.2.

³⁴ Canada–Honduras FTA, art. 16.3.2; Colombia–Northern Triangle FTA, art. 14.2.2; Costa Rica–Singapore FTA, art. 12.1.2; Additional Protocol to the Framework Agreement of the Pacific Alliance, art. 13.4.

In select instances, the obligation on non-imposition of customs duties on digital products by electronic transmissions serves as the central crux of the e-commerce chapter. For example, this is the only binding legal obligation found in the e-commerce chapter of the Canada–Jordan FTA and the EU–Central America Association Agreement.³⁵ In the India–Singapore Comprehensive Economic Cooperation Agreement, the only instance in which India has ever agreed to digital trade provisions in an RTA, this serves as one of the two key legal provisions in the chapter (with the other being a non-discrimination obligation).³⁶

5.2. Services

The expansion of market access opportunities in service sectors in RTAs can have significant bearing on digital trade as well. This is particularly true of expanded commitments for modes 1 and 2 for services that can be delivered through electronic transmission. It is also true of expanded commitments in modes 3 and 4 for sectors such as telecommunications services, financial services, computer-related services, logistics services, and other services that enable digital trade. Because an examination of the services schedules in RTAs lies beyond the scope of the study, I simply note the relevance of market access commitments found in the services schedules of RTAs for digital trade.

³⁵ Canada–Jordan FTA, art. 3.1; EU–Central America Association Agreement, art. 201. The latter includes a second provision establishing a regulatory dialogue.

³⁶ India–Singapore Comprehensive Economic Cooperation Agreement, art. 10.4. Note that the chapter does include a few other provisions concerning, for example, transparency.

6. Enabling Digital Trade

Many RTAs also contain a series of provisions aimed at growing and facilitating digital trade. These include requirements to establish a domestic legal and regulatory framework for e-commerce, as well as various trade facilitation measures.

6.1. Adoption of the UNCITRAL Model Law

Several RTAs require that the parties commit to adopt or maintain domestic laws and regulations governing electronic transactions. Most often, this takes the form of a binding commitment, although possibly subject to a caveat that the adoption be as soon as practicable.³⁷

In 1996, UNCITRAL established a Model Law on Electronic Commerce. Its purported aim is to provide a set of model rules for national legislators to remove obstacles and establish a predictable legal framework for e-commerce. According to UNCITRAL, its Model Law on Electronic Commerce “was the first legislative text to adopt the fundamental principles of non-discrimination, technological neutrality and functional equivalence” of paper-based and paperless trading.³⁸ As of November 2017, legislation based on or influenced by the UNCITRAL Model Law has been adopted in 71 countries.³⁹

A number of Australian and New Zealand RTAs make reference to the UNCITRAL Model Law on Electronic Commerce as the basis for domestic laws and regulations for electronic transactions. Some agreements, such as the ASEAN–Australia–

³⁷ See, e.g. ASEAN–Australia–New Zealand FTA, art. 4.

³⁸ United Nations Commission on International Trade Law, UNCITRAL Model Law on Electronic Commerce (1996), http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model.html.

³⁹ See http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/1996Model_status.html.

New Zealand FTA and the New Zealand–Hong Kong EPA, simply require that the domestic laws and regulations “take into account” the UNCITRAL Model Law on Electronic Commerce.⁴⁰ Others explicitly require that the domestic legal framework be based on the UNCITRAL Model Law. Examples include the Malaysia–Australia FTA, Korea–Australia FTA and the Australia–China FTA.⁴¹ The latter two both state that the parties should take into account, as appropriate, other relevant international standards.⁴²

In addition to the UNCITRAL Model Law on Electronic Commerce, UNCITRAL has also promulgated the United Nations Convention on the Use of Electronic Communications in International Contracts (2005). This convention builds on the Model Law on Electronic Commerce and serves as a binding multilateral treaty in which its signatories grant assurance that contracts concluded and exchanged electronically are as valid and enforceable as their traditional paper-based equivalents.⁴³ It entered into force in 2013. As of this writing, eight countries have ratified or acceded to the treaty, with the largest of these being Russia and Singapore; 13 other countries, including China and South Korea, have signed the convention but not yet ratified it.⁴⁴

The TPP requires that each party shall maintain a domestic legal framework governing electronic transactions, but provides an option that the framework be consistent with either the UNCITRAL Model Law on Electronic Commerce or the United Nations Convention on the Use of Electronic

Communications in International Contracts.⁴⁵ It is unusual in offering this option. To date, other regional or bilateral trade agreements have not included a binding requirement which references the United Nations Convention on the Use of Electronic Communications in International Contracts.

Certain RTAs, such as several of the bilateral ones negotiated by Japan, make no reference whatsoever to the UNCITRAL Model Law but simply require that all domestic laws and regulations affecting e-commerce adhere to certain principles. For example, in the Japan–Mongolia EPA, each party commits that “all its measures are administered in a transparent, objective, reasonable and impartial manner, and are not more burdensome than necessary to meet legitimate policy objectives.”⁴⁶ Note that the Japan–Switzerland EPA has similar language, but the provision is drafted as a “shall endeavour” obligation rather than a hard “shall” obligation.⁴⁷

In a few instances, the drafting of the obligation concerning domestic regulation within an RTA takes the form of a list of negative obligations (i.e. a list of what the parties will not do). For example, in the Australia–Japan EPA, both governments commit that they will not enact “measures regulating electronic transactions that (a) deny the legal effect, validity or enforceability of a transaction, including a contract solely on the grounds that it is in the form of an electronic communication, or (b) discriminate between different forms of technologies.”⁴⁸

The Australia–Japan EPA also includes a binding obligation for each government to “take into account the importance of industry-led development of electronic commerce” when formulating any new

⁴⁰ ASEAN–Australia–New Zealand FTA, art. 4.

⁴¹ Malaysia–Australia FTA, art. 15.5; Australia–China FTA, art. 12.5; Korea–Australia FTA, art. 15.4.1.

⁴² Australia–China FTA, art. 12.5; Korea–Australia FTA, art. 15.4.1.

⁴³ United Nations Commission on International Trade Law, United Nations Convention on the Use of Electronic Communications in International Contracts, 23 Nov. 2005, http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/2005Convention.html.

⁴⁴ See http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/2005Convention_status.html.

⁴⁵ Trans-Pacific Partnership, art. 14.5.

⁴⁶ Costa Rica–Colombia FTA, art. 9.9; Japan–Mongolia EPA, art. 9.9.

⁴⁷ Japan–Switzerland EPA, art. 77.

⁴⁸ Agreement Between Australia and Japan for an Economic Partnership, art. 13.5.2.

regulations.⁴⁹ Furthermore, it also requires that each government “shall encourage the private sector to adopt self-regulation, including codes of conduct, model contracts, guidelines and enforcement mechanisms, with a view to facilitating electronic commerce.”⁵⁰

The TPP adopts a weaker, non-binding version of this concept of consulting with industry in developing legal and regulatory frameworks. Furthermore, the TPP employs the language of “interested persons” rather than referring explicitly to industry. The relevant provision reads: “Each Party shall endeavour to: (a) avoid any unnecessary regulatory burden on electronic transactions; and (b) facilitate input by interested persons in the development of its legal framework for electronic transactions.”⁵¹

6.2. Electronic Authentication/ Electronic Signatures

Given the need for parties to validate an online transaction, electronic authentication technologies play a key role in enabling digital trade. Often, the authentication mechanism takes the form of an electronic signature, a digital counterpart to the handwritten version required for physical goods. Laws and regulations which limit and restrict the use of digital authentication technologies can serve to impede digital trade. At the same time, governments need to ensure that the accepted technologies are safe and secure, especially as their courts may be called upon to resolve disputes concerning digital transactions.

Some provision addressing the issue of digital authentication and/or e-signatures is to be found in approximately half of the RTAs examined as part of this project. These include RTAs concluded among

developing countries, such as the Mexico–Panama FTA. Among advanced economies, commitments on authentication/e-signatures are noticeably absent from bilateral FTAs negotiated by Canada. Note that this commitment also appears in some, but not all, US bilateral FTAs. For example, a provision addressing digital authentication exists in the US–Peru Trade Promotion Agreement (TPA) but not in the US–Oman FTA, which entered into force at the same time, or the US–Panama TPA, which entered into force later.

A key provision found in most RTAs is a requirement that a government not limit parties to an electronic transaction to certain designated authentication technologies and implementation models. Instead, the parties to an electronic transaction should be able to determine for themselves the appropriate authentication technology, with a chance to prove that they satisfy regulators’ performance requirements.⁵² Furthermore, if challenged, the parties should be allowed to prove in court that their electronic transactions comply with any legal requirement.⁵³

Provisions of the form described in the preceding paragraph are found most frequently in bilateral RTAs negotiated by Australia, Japan, South Korea, and the US. Given that several of these countries were key players in the TPP, its provision on electronic authentication and electronic signature reflects this approach.⁵⁴ Not surprisingly, then, they are also found in the FTAs that these countries have negotiated with each other, including the US–Australia FTA, the Australia–Japan EPA, Korea–Australia FTA, and the Korea–US FTA.⁵⁵ They are also found in several of the bilateral RTAs that each of these four countries have negotiated with others. Examples include

⁴⁹ Agreement Between Australia and Japan for an Economic Partnership, art. 13.5.3.

⁵⁰ Agreement Between Australia and Japan for an Economic Partnership, art. 13.5.4.

⁵¹ Trans-Pacific Partnership, art. 14.5.2.

⁵² See, e.g. Korea–Australia FTA, art. 15.5; Japan–Switzerland EPA, art. 78.

⁵³ See, e.g. ASEAN–Australia–New Zealand FTA, art. 5.1.

⁵⁴ Trans-Pacific Partnership, art. 14.6.2–14.6.3.

⁵⁵ US–Australia FTA, art. 16.5.1; Agreement Between Australia and Japan for an Economic Partnership, art. 13.6.1; US–Korea FTA, art. 15.4.1.

Australia's FTAs with Chile, China, and Malaysia;⁵⁶ in Japan's RTAs with Mongolia and Switzerland;⁵⁷ in South Korea's FTA with China;⁵⁸ and in US TPAs with Colombia and Peru.⁵⁹ Beyond these four nations, the provision can also be found in a select number of other RTAs, such as the EPA between Singapore and Taiwan.⁶⁰ The ASEAN–Australia–New Zealand FTA not only requires the adoption of such measures, but also requires that they be based on international norms for electronic authentication.⁶¹

A handful of agreements specifically call out the right of government to establish performance requirements for authentication technologies, or are based on a specific electronic certificate issued by an accredited certification authority, provided that the requirement serves a legitimate policy objective and is substantially related to achieving that objective. This provision can be found, for example, in the Korea–US FTA, the Japan–Mongolia EPA, the Japan–Switzerland EPA, and the EPA signed between Singapore and Taiwan.⁶² In the China–Korea FTA, China expressly reserved in a footnote that “for any electronic signature to be certified by a third party to the electronic transaction, the authentication service must be provided by a legally established authentication service provider which shall be approved by an authority accredited in accordance with domestic law.”⁶³

Some RTAs designate only a portion of these requirements in its treaty text. Furthermore, some may draft the language in negative, rather than positive, terms. For example, the Chile–Colombia FTA simply states that neither party shall adopt or maintain legislation on authentication that prevents parties from having the opportunity to establish before a judicial or administration authority that the electronic transaction complies with any authentication requirement.⁶⁴ It is otherwise silent on other issues, including whether the parties are able to select their own authentication technology or implementation model. The Colombia–Northern Triangle FTA takes a similar approach.⁶⁵

A number of predominantly Australian RTAs also provide that RTA partners should work towards mutual recognition of digital certificates and electronic signatures that are issued or recognised by governments. Examples include Australia's FTAs with Chile, China, Malaysia, South Korea, Thailand, and the US.⁶⁶ In addition, similar language is found in the China–Korea FTA.⁶⁷ The ASEAN–Australia–New Zealand FTA contains an even softer commitment to such effect, using the language of “shall, where possible, endeavour to work towards [mutual recognition].”⁶⁸ Note that the commitment in the US–Australia FTA is limited to the central government only.⁶⁹

A number of RTAs further stipulate that the legal validity of a signature cannot be denied simply because it is in electronic form. The TPP contains such a provision, but with a caveat allowing for governments to designate conditions when this is the

⁵⁶ Australia–Chile FTA, art. 16.6.3; Australia–China FTA, art. 12.6; Australia–Malaysia FTA, art. 15.6.1.

⁵⁷ Japan–Mongolia EPA, art. 9.5.1; Japan–Switzerland EPA, art. 78.1.

⁵⁸ China–Korea FTA, art. 13.4.2.

⁵⁹ US–Colombia TPA, art. 15.6; US–Peru TPA, art. 15.6.

⁶⁰ Agreement Between Singapore and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu on Economic Partnership, art. 11.5.1.

⁶¹ ASEAN–Australia–New Zealand FTA, art. 5.1.

⁶² US–Korea FTA, art. 15.4.2; Japan–Mongolia EPA, art. 9.5.2; Japan–Switzerland EPA, art. 78.2; Agreement Between Singapore and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu on Economic Partnership, art. 11.5.2.

⁶³ China–Korea FTA, chap. 13, fn. 5.

⁶⁴ Chile–Colombia FTA, art. 12.7.

⁶⁵ Colombia–Northern Triangle FTA, art. 14.7.

⁶⁶ Australia–Chile FTA, art. 16.2; Australia–China FTA, art. 12.6.2; Australia–Malaysia FTA, art. 15.6.2; Australia–Korea FTA, art. 15.5.3; Australia–Thailand FTA, art. 1104.2; US–Australia FTA, art. 16.5.2.

⁶⁷ China–Korea FTA, art. 13.4.3.

⁶⁸ ASEAN–Australia–New Zealand FTA, art. 5.2.

⁶⁹ US–Australia FTA, art. 16.5.2.

case explicitly in its national law.⁷⁰ Other examples include the US–Korea FTA, the China–Korea FTA, and the EPA between Singapore and Taiwan.⁷¹

A handful of RTAs also note the importance of interoperability among authentication technologies, but these tend to take the form of soft commitments. For example, the TPP encourages, but does not require, TPP countries to use interoperable electronic authentication.⁷² Note that among the RTAs that have such a provision, a small number limit the encouragement for interoperability to the business sector rather than across the board. Some examples include the Australia–Malaysia FTA, the Australia–Thailand FTA, and the China–Korea FTA.⁷³

The EU has adopted a different and much lighter-touch approach to this issue in its RTAs. Rather than require firm commitments from the parties, EU trade agreements simply seek to establish a dialogue on regulatory issues that includes “the recognition of certifications of electronic signatures issued by the public and the facilitation of cross-border certification services.”⁷⁴ Only in the EU–Singapore FTA does the EU proceed further to draft a dedicated article; however, it simply commits the two sides to “take steps to facilitate the better understanding of each other’s electronic signatures framework . . . and to examine the feasibility of having in the future a mutual recognition agreement on electronic signatures.”⁷⁵

6.3. Paperless Trading

Paperless trading refers to the process of making trade administration documentation available in digital format and of allowing importers and exporters to submit such documentation electronically. Digitisation of the process increases the ease of completing the paperwork for traders as well as lowers the cost of administration for government officials. One study by a United Nations agency found that full implementation of cross-border paperless trade could generate an additional US\$257 billion worth of exports annually for the Asia-Pacific region alone.⁷⁶ Despite potential long-term cost savings and increased trade facilitation, the cost of building and maintaining a digital trade administration system can be challenging for many countries, especially those in the developing world.

While those traders that would take advantage of a paperless trading system are not necessarily all engaged in digital trade, the lack of a paperless trading system can prove especially troubling and a hassle for those individuals engaged in digital trade. When much, if not all, of the transaction occurs electronically through a digital format, the prospect of then having to complete and maintain paperwork in a hard copy, physical format increases the transaction costs.

Approximately half of the RTAs with a standalone e-commerce chapter also contain provisions addressing paperless trading. While there is significant overlap between those RTAs with provisions addressing electronic authentication/electronic signatures and those addressing paperless trade, they are not exactly identical. For example, Colombia has agreed to specific provisions on paperless trading but not digital authentication in the e-commerce chapters of its FTAs with Canada, Costa

⁷⁰ Trans-Pacific Partnership, art. 14.6.1.

⁷¹ US–Korea FTA, art. 15.4.1(c); China–Korea FTA, art. 13.4.1; Agreement Between Singapore and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu on Economic Partnership, art. 11.5.1(c).

⁷² Trans-Pacific Partnership, art. 14.6.4.

⁷³ Australia–Malaysia FTA, art. 15.6.3; Australia–Thailand FTA, art. 1104; China–Korea FTA, art. 13.4.4.

⁷⁴ See, e.g. EU–Korea FTA, art. 7.49.1; EU–Moldova Association Agreement, art. 255.1.

⁷⁵ EU–Singapore FTA, art. 8.60.

⁷⁶ UN Economic and Social Commission for Asia and the Pacific, “Estimating the Benefits of Cross-Border Paperless Trade,” 24 June 2014, <http://www.unescap.org/resources/estimating-benefits-cross-border-paperless-trade>.

Rica, and South Korea; the opposite, however, holds true of its FTA with the Northern Triangle countries (El Salvador, Guatemala, and Honduras).

The commitments made on paperless trading in RTAs most often take the form of soft, rather than hard binding commitments. Frequently, negotiators employ the “shall endeavour” language in their drafting. Among the RTAs with binding commitments are the Australia–Malaysia FTA, the Australia–Singapore FTA, the Australia–Thailand FTA, and the New Zealand–Thailand EPA.⁷⁷

Two elements are frequently found in RTA provisions on paperless trading. The first is for a government to make publicly available electronic versions of all trade administration documents. The second element is for a government to accept trade administration documents submitted electronically as the legal equivalent of the paper version of such documents.

While many RTAs with provisions on paperless trading contain both elements, not all do. For example, the Australia–Thailand FTA and New Zealand–Thailand EPA contain only a binding commitment on the second element but are silent on the first.⁷⁸ In the Australia–Malaysia FTA, only the second commitment is binding, while the first falls under a soft “shall endeavour” commitment.⁷⁹

In instances where the second element is a binding requirement, there may be some exceptions listed in the treaty. For example, in the Australia–Singapore FTA and the Australia–Thailand FTA, exceptions exist for instances where: “(a) there is a domestic or international legal requirement to the contrary; or (b) doing so would reduce the effectiveness of the trade administration process.”⁸⁰

⁷⁷ Australia–Singapore FTA, art. 10; Australia–Thailand FTA, art. 1107; New Zealand–Thailand EPA, art. 10.6.

⁷⁸ Australia–Thailand FTA, art. 1107; New Zealand–Thailand EPA, art. 10.6.

⁷⁹ Australia–Malaysia FTA, art. 15.9.

⁸⁰ Australia–Singapore FTA, art. 10.2; Australia–Thailand FTA, art. 1107.1.

A handful of RTAs also contain language requiring the parties to cooperate bilaterally and in international fora to enhance the acceptance of electronic versions of trade administration documents. Examples include the Australia–Singapore FTA, the Japan–Mongolia EPA, the Japan–Switzerland EPA, and the New Zealand–Thailand EPA.⁸¹ In addition, some require the RTA partners to take into account the methods agreed by international organisations when developing paperless trading initiatives. Some examples include the Australia–Malaysia FTA and the Australia–Korea FTA.⁸² Among this subset, a few agreements, such as the Agreement Between New Zealand and Taiwan on Economic Cooperation, explicitly make mention of the WCO.⁸³

As the examples above suggest, the push towards including commitments, especially binding ones, on paperless trade has been driven traditionally by Australia and New Zealand. Note that provisions on paperless trading are not found in all US FTAs, but have been included in most recent FTAs, albeit as a soft commitment. As far as the EU is concerned, a provision on paperless trading is not found in most agreements, with the major exception being the EU’s FTA with Colombia and Peru.⁸⁴

Paperless trading is one of the main areas where an RTA without a standalone e-commerce chapter might nevertheless have a treaty provision addressing the topic. Of the agreements examined for this study, 17 agreements had no e-commerce provisions but did have a provision addressing paperless trading. For example, the China–Peru FTA requires each country’s

⁸¹ Australia–Singapore FTA, art. 10.3; Japan–Mongolia EPA, art. 9.8.3; Japan–Switzerland EPA, art. 79.3.

⁸² Australia–Malaysia FTA, art. 15.9; Australia–Korea FTA, art. 15.7.3.

⁸³ Agreement Between New Zealand and the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu on Economic Cooperation, art. 3.2.

⁸⁴ Trade Agreement Between the EU and Colombia and Peru, art. 165. A commitment to cooperate in the development of paperless trading also features in Article 7.49 of the EU–Korea FTA.

customs administration to “apply information technology to support customs operations, where it is cost-effective and efficient, particularly in the paperless trading context, taking into account developments in this area within the WCO.”⁸⁵ In their RTA, Japan and Thailand have a chapter devoted exclusively to paperless trading, which requires the governments to exchange views and establish a sub-committee on the issue.⁸⁶ Interestingly, this is the only major digital trade issue addressed as the RTA does not otherwise have an e-commerce chapter. Similarly, Japan’s FTA with Singapore in 2002 also includes a series of articles on paperless trading, but does not have a dedicated e-commerce chapter.

7. Protection of Users of Electronic Commerce

A number of provisions in RTAs are also aimed at curtailing potential harm arising from the growth of digital trade, so as to increase the confidence and trust of consumers and producers in doing business electronically.

7.1. Consumer Protection

One of the most common provisions found in the e-commerce chapter of RTAs is a provision aimed at consumer protection. Approximately two-thirds of the RTAs examined address this particular issue. However, the content varies across agreements.

A small number of RTAs contain a binding obligation requiring that the government adopt or maintain consumer protection laws. Examples include the TPP, the Australia–Singapore FTA, and the Japan–Mongolia EPA.⁸⁷ These are often qualified by language

such as “to the extent possible” or “in accordance with [a party’s] respective laws and regulations.” Most RTAs that address consumer protection contain milder language in which the parties simply recognise the importance of adopting and maintaining measures that are aimed at protecting consumers from fraudulent and deceptive commercial activities. Several further qualify that such measures should be “transparent and effective.”⁸⁸

A number of RTAs also call on the government to provide for protection of e-consumers that is at least equivalent to that provided for consumers of other forms of commerce. Examples of RTAs with such a provision include the Australia–China FTA, the Australia–Malaysia FTA, the Korea–Vietnam FTA (with a qualifier of “where possible”), and New Zealand–Thailand EPA.⁸⁹ In some instances, such as the Australia–China FTA, this is the only commitment made on consumer protection in the RTA.

Finally, several RTAs also call for cooperation between their respective consumer protection agencies on providing for online consumer protection. The primary emphasis of EU FTAs is on regulatory dialogue for consumer protection.⁹⁰ Canada’s FTAs with Colombia, Honduras, Peru, and South Korea all call for the exchange of information and experiences on national approaches for the protection of consumers engaging in e-commerce.⁹¹ A similar provision also can be found, for example, in the Korea–Peru FTA.⁹²

⁸⁵ China–Peru FTA, art. 61.1.

⁸⁶ Japan–Thailand Economic Partnership Agreement, arts. 57–61.

⁸⁷ Trans-Pacific Partnership, art. 14.7.2; Australia–Singapore FTA, art. 8.3; Japan–Mongolia EPA, art. 9.6.3.

⁸⁸ See, e.g. Trans-Pacific Partnership, art. 14.7.1; Japan–Switzerland EPA, art. 80.1.

⁸⁹ Australia–China FTA, art. 12.7; Australia–Malaysia FTA, art. 15.7; Korea–Vietnam FTA, art. 10.5.2; New Zealand–Thailand EPA, art. 10.4

⁹⁰ See, e.g. EU–Central America Association Agreement, art. 202; EU–Georgia Association Agreement, art. 128.

⁹¹ Canada–Colombia FTA, art. 1504; Canada–Honduras FTA, art. 16.4; Canada–Peru FTA, art. 1505; Canada–Korea FTA, art. 13.6.2.

⁹² Korea–Peru FTA, art. 14.5.2.

7.2. Protection of Personal Information

Approximately one-third of the RTAs also contain a provision with requirements for the protection of personal information of users of e-commerce. Although this issue features prominently in policy debates in the EU, European negotiators, to date, have not proactively sought such an obligation from their RTA partners. Instead, it is a handful of countries that form part of the Asia-Pacific Economic Cooperation (APEC) that have most frequently pushed to include such a provision in RTAs. Note that APEC ministers already have endorsed the APEC Privacy Framework, which has among its aims the protection of the data of individual natural persons in e-commerce.⁹³

The Australia–Singapore FTA, for example, requires each party to adopt or maintain a legal framework that provides for the protection of personal information, while taking into account the principles and guidelines of relevant international bodies.⁹⁴ It also contains a clarification footnote noting that a country may comply with this obligation through a number of different approaches, including comprehensive privacy laws, sector-specific privacy laws, personal information or personal data protection laws, or laws that provide for the enforcement of voluntary undertakings on privacy by enterprises.⁹⁵ The identical language was then transplanted to the TPP.⁹⁶

Binding language obliging the parties to adopt or maintain individual data protection laws can also be found in at least a dozen other RTAs. Many of these are RTAs that involve Australia, Canada, New Zealand, South Korea, or some combination thereof. Examples

include the China–Korea FTA, the Australia–Japan EPA, and the New Zealand–Thailand EPA.⁹⁷ Many of the RTAs also include language requiring each party to take into account international standards and the criteria of relevant international bodies.⁹⁸

More recently, Colombia and Peru have also regularly sought to include such a provision in their recent RTAs. For example, the Costa Rica–Colombia FTA includes a provision on the protection of personal information in its e-commerce chapter.⁹⁹ However, prior to the TPP, a provision on personal data protection was not a regular feature of US or Japanese FTAs, even though both are APEC members.

Some RTAs, such as the New Zealand–Thailand EPA, weaken the obligation by allowing each party to implement the measures that it considers appropriate and necessary. Others contain a loophole making clear that although the trade agreement may have binding language, it does not oblige a country to adopt domestic laws or regulations for personal data protection per se; the RTA's obligation only kicks in on the date when the government enacts a domestic law or regulation.¹⁰⁰

A few RTAs have even weaker language in which the parties simply recognise the need for such protection and/or employ the “shall endeavour” language. For example, the EU's trade agreement with Colombia and Peru softens the commitment by using the qualifier that the parties “shall endeavour, insofar as possible, and within their respective competencies” to develop or maintain regulations for the protection of personal data.¹⁰¹ This is the only EU trade agreement

⁹³ Asia-Pacific Economic Cooperation, “APEC Privacy Framework,” <https://www.apec.org/Publications/2005/12/APEC-Privacy-Framework>.

⁹⁴ Australia–Singapore FTA, art. 9.2.

⁹⁵ Australia–Singapore FTA, chap. 14, fn. 6.

⁹⁶ Trans-Pacific Partnership, art. 9.2.

⁹⁷ China–Korea FTA, art. 13.5; Agreement Between Australia and Japan for an Economic Partnership, art. 13.8; New Zealand–Thailand EPA, art. 10.5.

⁹⁸ See, e.g. Australia–Chile FTA, art. 16.8; Pacific Alliance Additional Protocol, art. 13.8.

⁹⁹ Costa Rica–Colombia FTA, art. 16.6.

¹⁰⁰ Trans-Pacific Partnership, chap. 14, fn. 5; Agreement Establishing the ASEAN–Australia–New Zealand Free Trade Area, art. 7.2.

¹⁰¹ Trade Agreement Between the EU and Colombia and Peru, art. 164.

with such a provision. In the EFTA trade agreements, the parties simply “recognise the need to create an environment of trust and confidence for users of electronic commerce which covers, *inter alia*: (i) protection of privacy of individuals in relation to the processing and dissemination of personal data; [and] (ii) protection of confidentiality of individual records and accounts.”¹⁰²

7.3. Unsolicited Electronic Messages

Slightly more than one-quarter of the RTAs examined also contain a provision aimed at stemming the proliferation of unsolicited electronic messages. This refers to spam and other marketing messages that annoy users of e-commerce and may undermine their willingness to engage in business digitally.

Many of the RTAs with provisions addressing unsolicited electronic messages are relatively weak. For example, the provision in EFTA trade agreements is simply a recognition of the problem by the parties. It states that the parties “recognise the need to create an environment of trust and confidence for users of electronic commerce which covers, *inter alia* . . . measures against unsolicited communications.”¹⁰³

The most frequent reference is found in the EU’s trade agreements. The provision is consistent across agreements and relatively short. It is limited to maintaining a regulatory dialogue on “the treatment of unsolicited electronic commercial communications” and does not mandate the adoption of any particular measures.¹⁰⁴ Similarly, the Japan–Switzerland EPA

includes a provision in which the parties agree that they “shall endeavour to share information and experiences, including on related laws, regulations and best practices” in relation to the “fight against unsolicited commercial messages transmitted through the Internet such as electronic mails.”¹⁰⁵

Only a few RTAs include a binding commitment that obligates governments to establish a national legal framework to protect users against unsolicited electronic messages. Australia has served as the primary instigator of such a provision. The earliest RTA with a binding commitment was the Australia–Malaysia FTA in which the parties agree to adopt or maintain measures to “minimise unsolicited commercial electronic messages” and to cooperate bilaterally and in international forums.¹⁰⁶ In the Australia–Japan EPA, the provision is found in the telecommunications, rather than e-commerce, chapter. It requires each party “to take appropriate and necessary measures to regulate unsolicited electronic messages” “in accordance with its laws and regulations.”¹⁰⁷ A weaker “shall endeavour” provision can also be found in the Australia–Korea FTA which is limited to minimising unsolicited spam and telemarketing.¹⁰⁸ The recently concluded Pacific Alliance Additional Protocol includes a binding commitment mandating that parties “shall adopt or maintain measures to protect users from unsolicited electronic commercial messages.”¹⁰⁹

By far, the most well-developed and advanced set of binding commitments on this issue are those found in the TPP. TPP countries must adopt or maintain measures regarding unsolicited electronic messages that meet certain specified guidelines. These include (a) requiring suppliers of unsolicited electronic messages to facilitate the ability of recipients to

¹⁰² See, e.g. EFTA–Central America FTA, Annex II, art. 1; EFTA–Colombia FTA, Annex I, art. 1.

¹⁰³ See, e.g. EFTA–Central America FTA, Annex II, art. 1; EFTA–Colombia FTA, Annex I, art. 1.

¹⁰⁴ See, e.g. Economic Partnership Agreement Between the CARIFORUM States and the European Community, art. 120; Agreement Establishing an Association Between Central America and the EU, art. 202; Association Agreement Between the EU and Georgia, art. 128; EU–Korea FTA, art. 7.49.

¹⁰⁵ Japan–Switzerland EPA, art. 82.2(b).

¹⁰⁶ Australia–Malaysia FTA, art.

¹⁰⁷ Agreement Between Australia and Japan for an Economic Partnership, art. 10.20.

¹⁰⁸ Australia–Korea FTA, art. 15.9.

¹⁰⁹ Pacific Alliance Additional Protocol, art. 13.10.

prevent ongoing reception of those messages; (b) requiring the consent of recipients to receive commercial electronic messages; and (c) providing for the minimisation of unsolicited commercial electronic messages.¹¹⁰ In addition, each TPP party is obligated to provide recourse against suppliers of unsolicited commercial electronic messages that do not comply with the measures adopted or maintained.¹¹¹

8. Other Cutting-Edge Issues

In recent years, a handful of WTO members, led by the US and Japan, have begun introducing provisions in RTAs aimed at ensuring the free flow of information/data across borders and curtailing practices that might foster digital protectionism. In particular, some WTO members have expressed concern that others may be implementing industrial policies for the digital realm similar to those enacted for traditional manufacturing in which they take advantage of the relative openness of their trading partners' markets while curtailing openness in their own markets so as to foster national champions. They seek to embed norms to guard against such practices. However, a key challenge has been to find ways to do so while balancing against legitimate governmental regulatory objectives.

8.1. Cross-Border Information Flows

The ability to transfer data across borders is vital to the functioning of e-commerce and digital trade. Already its importance is increasing as more producers and consumers of digital services rely upon cloud services, where data storage moves across jurisdictions. In addition, data flows are taking

on increased importance with the rise of the Internet of Things and with advances in artificial intelligence, virtual reality, autonomous vehicles, and other data-driven machinery.

The US–Korea FTA was the earliest to have a specific provision aimed at ensuring free flow of information across borders. The two sides agreed to language in which each “shall endeavour to refrain from imposing or maintaining unnecessary barriers to electronic information flows across borders.”¹¹² Because the provision is not written with binding language, the agreement does not spell out what constitutes a necessary restriction on information flows.

The TPP contains the state-of-the-art RTA provision seeking to guarantee cross-border data flows. TPP countries agreed that each party “shall 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.”¹¹³ The term “covered person” encompasses a covered investment as defined in the TPP’s investment chapter, an investor of a TPP party other than a financial institution, or a service supplier of a party as defined in the TPP’s services chapter.¹¹⁴ The provision notes that each government retains the right to enact measures to regulate information flows for “a legitimate public policy objective” but requires that such a measure not “constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade” and that it “does not impose restrictions on transfers of information greater than are required to achieve the objective.”¹¹⁵ It draws from the familiar language principles of GATT Article XX and GATS Article XIV.

Among RTAs concluded between developing countries, the Mexico–Panama FTA stands out for having a binding commitment on cross-border data

¹¹⁰ Trans-Pacific Partnership, art. 14.14.

¹¹¹ Trans-Pacific Partnership, art. 14.14.

¹¹² US–Korea FTA, art. 15.8.

¹¹³ Trans-Pacific Partnership, art. 14.11.2.

¹¹⁴ Trans-Pacific Partnership, art. 14.1.

¹¹⁵ Trans-Pacific Partnership, art. 14.11.3.

flows, albeit with qualifications. The two countries agreed to “allow its persons and persons of the other Party to transmit electronic information to and from its territory” in accordance with personal data protection and international practices.¹¹⁶

Most other RTAs that address cross-border information flows simply seek to promote regulatory cooperation on this issue. In Canada’s FTAs with Colombia, Honduras, Peru, and South Korea, the two parties “affirm the importance of . . . working together to maintain cross-border flows of information as an essential element in fostering a vibrant environment for electronic commerce.”¹¹⁷ Language emphasising regulatory cooperation to maintain cross-border flows of information can be found in a number of recent Latin American FTAs, especially those involving Colombia. Examples include Costa Rica–Colombia FTA, the Chile–Colombia FTA, and the Colombia–Northern Triangle FTA.¹¹⁸ Several RTAs between Latin American countries and APEC members also contain similar language on cooperation. Examples include the US–Chile FTA, the Panama–Singapore FTA, and the Peru–Korea FTA.¹¹⁹ The Pacific Alliance Additional Protocol simply commits the parties to “consider” negotiating a cross-border flow of information provision at a later date.¹²⁰

It should be noted that one controversy that has arisen out of the TPP is the fact that its provision governing cross-border flow of information does not cover financial institutions because of the TPP’s definition of “covered person.” This has drawn the ire of financial services providers, including digital payment services necessary for online transactions.

Any future trade agreement seeking to address digital flows will likely need to address this gap.

Although not formally an RTA, ongoing TiSA negotiations between some WTO members offer a preview of how this might be addressed as well as potential flashpoints between the parties. The leaked TiSA draft of November 2016 for the financial services chapter includes possible language stating that “Each Party shall allow a financial service provider of another Party to transfer information in electronic or other form, into and out of its territory when this activity is for the conduct of business within the scope of the license, authorization, or registration of that financial service supplier.”¹²¹ As of this writing, however, TiSA negotiations remain stalled and reports have emerged of possible differences between the US, the EU, and others over the exact language.¹²²

8.2. Data Localisation

By prohibiting data from being transferred out of its territory, a government can enact a particular form of restriction on data flows. Some governments do not bar data transfer altogether but simply require that a copy of the data be stored within its territory. Both types of requirements can impede the conduct of business, raising costs for firms and possibly even dissuading them from offering particular services within a given country. Among the reasons that governments offer for enacting such restrictions are a desire to protect citizens’ data and ensuring access to data for law enforcement purposes. Yet, some governments worry that data localisation requirements operate as a protectionist policy akin to a local content requirement to benefit national firms, especially as data take on increasing value with big data services and the growth of artificial intelligence.

¹¹⁶ Mexico–Panama FTA, art. 14.10.

¹¹⁷ Canada–Colombia FTA, art. 1507; Canada–Honduras FTA, art. 16.5; Canada–Korea FTA, art. 13.7; Canada–Peru FTA, art. 1508.

¹¹⁸ Costa Rica–Colombia FTA, art. 16.7; Chile–Colombia FTA, art. 12.5; Colombia–Northern Triangle FTA.

¹¹⁹ Panama–Singapore FTA, art. 13.4; Peru–Korea FTA, art. 14.9; US–Chile FTA, art. 15.5.

¹²⁰ Pacific Alliance Additional Protocol, art. 13.11.

¹²¹ See the proposed and bracketed text of the Nov. 2016 leak of the Trade in Services Agreement text, art. X.10.

¹²² Brett Fornam, “Leak Reveals TISA Parties at Odds over Language on Cross-Border Data Flows,” *Inside U.S. Trade*, 30 Jan. 2017.

They therefore have sought to use trade agreements to curb the ability of their trading partners to enact data localisation requirements.

Note that specific language barring data localisation requirements is not absolutely necessary to combat this practice. General language prohibiting a party from imposing or maintaining unnecessary barriers to information flows can serve as a means to combat illegitimate data localisation requirements. Nevertheless, a few relatively recent RTAs have specific disciplines on enacting data localisation requirements.

The TPP's provision governing the location of computing facilities states: "No Party shall require a covered person to use or locate computing facilities in that Party's territory as a condition for conducting business in that territory." The provision includes two further clarifications. The first states that "each Party may have its own regulatory requirements regarding the use of computing facilities, including requirements that seek to ensure the security and confidentiality of communications." A second makes clear that "Nothing in this Article shall prevent a Party from adopting or maintaining [inconsistent measures] to achieve a legitimate public policy objective, provided that the measure: (a) is not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on trade; and (b) does not impose restrictions on the use or location of computing facilities greater than are required to achieve the objective."¹²³ This language draws from the balancing principles found elsewhere in the WTO agreements, including the GATT and GATS exceptions as well as the TBT agreement.

The third revision of the Australia–Singapore FTA contains language identical to that of the TPP.¹²⁴ In addition, the Japan–Mongolia EPA also includes a provision prohibiting a data localisation requirement

as a condition for conducting business in its territory along similar principles.¹²⁵

Note that, as drafted, a prohibition against data localisation extends only to investors and service suppliers of the RTA partner, as well as covered investments of investors who are nationals of the RTA partner. It does not necessarily prohibit a government from enacting a data localisation requirement against service suppliers, investors, or covered investments of other countries that are not part of the RTA.

8.3. Treatment of Source Code

The three RTAs with provisions addressing data localisation also contain a provision seeking to limit governments from enacting requirements that a firm disclose its source code for review as a condition of doing business in its territory. Some governments have enacted or are considering such requirements, due to fears of potential backdoors embedded into certain technology products that may compromise national security or citizens' privacy. The worry is that such a requirement could also facilitate illegitimate technology transfer and IPR theft.

The TPP provision on source code states "No party shall require the transfer of, or access to, source code of software owned by a person of another Party, as a condition for the import, distribution, sale or use of such software, or of products containing such software, in its territory." This limitation applies only to "mass-market software or products containing such software," but not "software used for critical infrastructure." What is deemed "critical infrastructure" is left undefined in the treaty. Furthermore, the provision makes clear that it does not affect the terms and conditions of commercially negotiated contracts, requirements to modify software to comply with laws and regulations not inconsistent with the agreement, and requirements related to patents.¹²⁶

¹²³ Trans-Pacific Partnership, art. 14.13.

¹²⁴ Australia–Singapore FTA, art. 15.

¹²⁵ Japan–Mongolia EPA, art. 9.10.

¹²⁶ Trans-Pacific Partnership, art. 14.17.

The revised Australia–Singapore FTA again has language identical to the TPP.¹²⁷ The provision in the Japan–Mongolia EPA is based on a similar principle but does not elaborate on clarifications of what falls outside of its scope beyond software for critical infrastructure.¹²⁸ Note, once more, that the benefits of this discipline extend only to the RTA partner.

9. Cooperation and Dispute Settlement of E-Commerce Chapters

9.1. Cooperation

A provision specifically dedicated to areas of cooperation between RTA partners can be found in nearly two-thirds of RTAs with a standalone e-commerce chapter. Placing an emphasis on regulatory dialogue is a key attribute of several RTAs, including, most notably, several of those negotiated to date by the EU and EFTA countries. The EU agreements commonly call out important policy areas in which cooperation is relevant, in contrast to the more general cooperation provisions found in many agreements.

Already mentioned in the sections described are several instances where parties have agreed to cooperate either bilaterally or through international fora. Two additional areas are worthy of attention.

First, several RTAs in the Asia-Pacific region include a provision that affirms the importance of working together to facilitate the use of e-commerce by micro, small, and medium-sized enterprises. Several Canadian RTAs with Latin American countries include this provision, such as the Canada–Colombia FTA, the

Canada–Honduras FTA, and the Canada–Peru FTA.¹²⁹ Other examples of FTAs with a similar provision include the Australia–Japan EPA, the Panama–Singapore FTA, Korea–Peru FTA, and Japan–Mongolia Economic Partnership Agreement.¹³⁰ For those that find inclusion of such a provision appealing, it may be worth following up with the respective governments to investigate the specific cooperative activities that have followed from this provision.

Second, several RTAs also emphasise the importance of governments collaborating with the private sector to develop initiatives to govern cross-border electronic transactions. The language is often framed around working together to encourage the private sector to adopt codes of conduct, model contracts, guidelines, and enforcement mechanisms. Again, these are most frequently found in RTAs in the Asia-Pacific region. In a few instances, the language is drafted more broadly to include non-governmental organisations rather than simply the private sector.¹³¹

To the extent that capacity building efforts are embedded within e-commerce chapters, most often, it is indirect. Most RTAs simply mention the importance of ensuring that the relevant regulatory authorities exchange information and share experiences with each other. Through such exchanges, the capabilities of various officials are enhanced.

In a small number of RTAs, however, there is a provision directly addressing the delivery of technical assistance and capacity building from an advanced economy to its RTA partner. For example, the EU–CARIFORUM Economic Partnership Agreement commits the parties to providing support for technical assistance, training, and capacity building

¹²⁷ Australia–Singapore FTA, art. 19.

¹²⁸ Japan–Mongolia EPA, art. 9.11.

¹²⁹ Australia–Japan EPA, art. 13.10; Canada–Colombia FTA, art. 1507; Canada–Honduras FTA, art. 16.5; Canada–Peru FTA, art. 1508.

¹³⁰ Panama–Singapore FTA, art. 13.4; Japan–Mongolia EPA, art. 9.12.3.

¹³¹ See, e.g. Australia–Japan EPA, art. 13.10.

for a number of designated areas. Among these are improving the ability of service suppliers of CARIFORUM states to gather information to comply with EU regulations and standards, improving the export capacity of service suppliers of CARIFORUM states particularly with respect to tourism and cultural services, and developing and implementing regulatory regimes for specific service sectors at the CARIFORUM regional level and in CARIFORUM countries.¹³²

9.2. Dispute Settlement

At least eight of the RTAs make clear that certain, if not all, of the provisions of the e-commerce chapter are not subject to dispute settlement provisions of the RTA. Trade agreements that declare RTA dispute settlement to be non-applicable for the entire chapter include the Australia–China FTA, ASEAN–Australia–New Zealand FTA, China–Korea FTA, Hong Kong–New Zealand EPA, and the Agreement between New Zealand and Taiwan on Economic Cooperation.¹³³ Other agreements carve out certain portions, but not the entire chapter, from dispute settlement. For example, in Thailand’s FTAs with Australia and New Zealand, everything other than the commitment on customs duties is not subject to dispute settlement.¹³⁴

In the TPP, Malaysia and Vietnam are given a transition period in which existing measures concerning non-discriminatory treatment of digital products and cross-border transfer of information by electronic means are not subject to dispute

settlement.¹³⁵ A similar transition period is also provided to Vietnam for existing data localisation measures.¹³⁶

Note that in several RTAs, the commitments made in the chapter may be relatively soft commitments, relatively limited in scope, or relatively uncontroversial. This may obviate the need to include an explicit carve-out from dispute settlement via the RTAs.

10. Intellectual Property Provisions

Although this study focuses primarily on the provisions impacting digital trade found in standalone e-commerce chapters of RTAs, a spate of provisions in the IPR chapter of RTAs also impact digital trade. Among the areas worth noting are the following.

- **WIPO internet treaties:** WIPO forged two international treaties in 1996 to update and supplement existing international law on protection of copyright and related rights in cyberspace. As more creative content moves online and is consumed across borders through downloads on the internet, ensuring that such works remain protected and their owners are compensated for any use and enjoyment of the works takes on increasing importance. The WIPO Copyright Treaty and the WIPO Performances and Phonogram Treaty, which are collectively known as the WIPO internet treaties, confirm that existing rights persist in the digital environment and require countries to provide a legal framework that ensures adequate protection when the works are disseminated through new technologies. The treaties also require countries to provide adequate legal protection against and effective remedies for the circumvention of

¹³² Economic Partnership Agreement Between the CARIFORUM States and the European Community, art. 121.

¹³³ Australia–China FTA, art. 12.11; ASEAN–Australia–New Zealand FTA, chap. 10, art. 10; China–Korea FTA, art. 13.9; Hong Kong–New Zealand EPA, chap. 10, art. 5; Agreement Between New Zealand and the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu on Economic Cooperation, chap. 9, art. 6.

¹³⁴ Australia–Thailand FTA, art. 1109; New Zealand–Thailand EPA, art. 10.8.

¹³⁵ Trans-Pacific Partnership, art. 14.18.

¹³⁶ Trans-Pacific Partnership, art. 14.18.

technological protection measures (TPMs) (such as encryption) used by rightsholders to safeguard against hacking or other unauthorised use. In addition, the treaties also require countries to prohibit the deliberate alteration or deletion of electronic rights management information (RMI) that accompanies a protected work. Several RTAs require the parties to ratify and/or accede to the WIPO internet treaties.¹³⁷ They may also simply affirm the parties' existing commitments to these treaties.

- **Domain names:** RTAs may also impose requirements on countries for their management of the country-code top-level domain (ccTLD) domain names, such as requiring that they adopt a procedure for the settlement of disputes over domain names in line with international principles established by the Internet Corporation for Assigned Names and Numbers.¹³⁸ Furthermore, the RTA may provide that remedies be made available by a country in its ccTLD management system for instances when an individual is found to have registered or held a domain name in bad faith with intention to profit.¹³⁹
- **Technological protection measures:** Several recent RTAs contain detailed provisions on the protection of TPMs that go beyond what is required in the WIPO internet treaties.¹⁴⁰ This could include mandating that particular enforcement mechanisms and legal remedies be made available against those that seek to circumvent TPMs. Again, this seeks to safeguard online works that authors, performers, and other rightsholders have made available for electronic distribution from hacking and illegal downloads.
- **Rights management information:** Similarly, recent RTAs might also contain detailed provisions on the protection of RMIs that go beyond what is required in the WIPO internet treaties.¹⁴¹ This could include mandating certain enforcement mechanisms and remedies against those that knowingly remove or alter RMI or knowingly distribute digital products that have had their RMI altered, such as ensuring that offenders can be punished through the criminal system.
- **Intermediary liability:** Several RTAs also contain detailed provisions concerning what must be required of internet service providers (ISPs) in terms of their cooperation in addressing IPR infringement in exchange for limitations on ISP liability.¹⁴² This may involve, for example, requiring adoption of a "notice and take down" system by the ISP once it has been informed of the infringing product. Given the key role that ISPs play in serving as a channel or platform for certain types of digital products, the proliferation of such rules can play an important role in spurring digital trade in certain sectors. The EU, in particular, has included detailed provisions outlining differing requirements for different types of internet service providers, including those that are involved as a "mere conduit," caching, and hosting of content. Note that the location of the provisions addressing intermediary liability can vary depending on the RTA. In certain RTAs, they are found within the section on e-commerce/services rather than in the IPR chapter.¹⁴³

¹³⁷ See, e.g. US-Colombia TPA, art. 16.2; Trans-Pacific Partnership, art. 18.7.

¹³⁸ See, e.g. Trans-Pacific Partnership, art 18.28.

¹³⁹ Trans-Pacific Partnership, art 18.28.

¹⁴⁰ See, e.g. Trans-Pacific Partnership, art 18.68; EU-Korea FTA, art. 10.12.

¹⁴¹ See, e.g. Trans-Pacific Partnership, art 18.69; EU-Korea FTA, art. 10.12-10.13.

¹⁴² See, e.g. Trans-Pacific Partnership, art. 16.11.29.

¹⁴³ See, e.g. EU-Georgia Association Agreement, arts 129-133.

11. Looking Ahead: Prospects for Greater Convergence through Multilateralism

While a sizeable number of WTO members have agreed to some provisions related to digital trade in one or more of their RTAs, significant challenges exist in terms of extending these provisions into any form of a future WTO multilateral agreement. Several important points emerge from the analysis of the digital trade-related provisions of existing RTAs.

First, the area where there is likely to be greatest acceptance among WTO members for the WTO to address digital trade is that of customs duties and market access. This topic, of course, already falls within the scope of the existing WTO's Work Programme on Electronic Commerce. However, once we look to expand the scope beyond the question of customs duties, it is unclear that any form of meaningful consensus exists among WTO members.

Second, several of the most elaborate and extensive provisions governing various digital trade-related issues arise out of RTAs negotiated by WTO members in the Asia-Pacific region. This includes the TPP countries as well as others such as South Korea and Colombia. However, it remains unclear to what extent other WTO members view these models as possible best practices and models that can serve as building blocks for future multilateral rules.

In particular, the approaches to date taken by two major digital trading powers—the EU and China—differ from that of the TPP and other Asia-Pacific countries. The EU's approach to digital trade in bilateral RTAs traditionally has placed a greater emphasis on regulatory dialogue and not addressed as wide a scope of issues as those advanced by Australia, Japan, Singapore, South Korea, or the US. While the EU–Japan FTA could serve as a potential mechanism for greater convergence, whether this

will actually be the case remains to be seen. China has participated in relatively few RTAs with extensive digital trade provisions. However, the China–Korea FTA which entered into force in 2015 does signal China's willingness to consider a broader spate of commitments on digital trade. Ongoing RCEP negotiations offer another possible mechanism for greater convergence as well.

Third, it is clear that there is not yet broad-based support within the WTO membership for a comprehensive multilateral agreement to address issues concerning digital trade. Some WTO members, such as India and most of the CARIFORUM countries, have engaged in only a single RTA with very limited provisions related to digital trade. As noted, no country in sub-Saharan Africa to date has agreed to an RTA with a standalone e-commerce chapter. Only two African countries (Kenya and Nigeria) have joined the Friends of E-Commerce for Development.

Therefore, if any formal or informal efforts to tackle digital trade arise out of MC11 (or a future WTO Ministerial meeting), it will likely focus on negotiating a plurilateral agreement to which WTO members can, but are not obliged to, opt in. This raises the question of whether there are certain digital trade preferences that a party would wish to extend on a non-MFN basis only to other signatories of a plurilateral agreement. This examination of RTAs has identified a select number of areas where preferences are extended on a non-MFN basis; in many instances, they extend across the board. It is worth further considering how exactly a plurilateral agreement would operate for particular issues, including which would allow for non-application to WTO members that are not part of the plurilateral arrangement.

Fourth, there will likely be significant differences among WTO members as to the scope of any future plurilateral digital trade agreement. One possibility is for the discussions to expand to encompass issues related to digital trade facilitation. This is especially promising, given that trade facilitation already falls within the negotiating scope but that many of the issues most critical to digital trade are not covered

under the existing TFA. However, on some digital trade facilitation issues, such as paperless trading, there is not yet a clear consensus as to what forms of binding commitments would prove most useful in a trade agreement. Furthermore, some WTO members may demand that other issues, such as provisions aimed at consumer and personal data protection, be included within the scope. Still others may be unwilling to consider facilitation issues alone unless certain emergent issues, such as data flows, are also included as part of the mandate. This is likely to involve trade-offs between WTO members across issue areas. Existing RTAs simply highlight the disparities in WTO members' existing views as to what constitutes the applicable scope.

Fifth, the practices of existing RTAs highlight tensions inherent in trade agreements that will simply extend to the digital realm. One is the question of whether the role of the rules-based system is simply to foster interoperability between different legal frameworks managed at the national level versus seeking greater harmonisation and convergence on a common framework across states. Some elements of both approaches can be seen in existing RTAs, with a greater emphasis on the former rather than the latter. Nevertheless, businesses and other players may find the latter to be preferable in terms of managing complexity and lowering costs. If that is the case, then a related question is the extent to which development and management of these frameworks should be left to industry-led standard-setting organisations, international organisations, or relevant bodies. Again, such questions are not new. They have been addressed extensively in other WTO agreements such as the GATS, TBT, and SPS agreements, but will need to be considered once more for the digital context.

Finally, it is clear that legal concepts and text from other WTO agreements can serve as inspiration for how to resolve the tensions between ensuring that governments have sufficient sovereign flexibility and policy space to regulate activities within their jurisdiction versus preventing such measures from becoming quasi-protectionist measures. This examination of existing RTAs has highlighted how

RTA negotiators have drawn from legal concepts tied to the exceptions language found in the GATT, GATS, and other WTO agreements such as "legitimate policy objective" or a "disguised restriction on trade" to manage these tensions. Nevertheless, given that several digital trade regulations relate to sensitive issues concerning national security, law enforcement, privacy, and cultural/moral issues, careful consideration needs to be given as to how such sensitivities are addressed. In particular, negotiators should focus on the degree to which they are willing to skirt their differences and leave interpretation of these concepts to future WTO adjudicators to elucidate through case law versus needing to spell out these concepts in detail so as to prevent the exception from swallowing the rule.

While the need for WTO members to update multilateral trade agreements to take account of developments in digital trade may be clearly obvious, these issues highlight why it will likely prove difficult to do so on a practical level. Consequently, RTAs are likely to remain the laboratories through which updated digital trade rules evolve for the foreseeable future. Any convergence through the WTO multilateral system is likely to be limited and may still be years away.

Jointly implemented by the International Centre for Trade and Sustainable Development (ICTSD) and the Inter-American Development Bank (IDB), the RTA Exchange works in the interest of the sharing of ideas, experiences to date and best practices to harvest innovation from RTAs and leverage lessons learned towards progress at the multilateral level. Conceived in the context of the E15 Initiative, the RTA Exchange creates a space where stakeholders can access the collective international knowledge on RTAs and engage in dialogue on RTA-related policy issues.

