

TRADE RULES FOR THE DIGITAL AGE*

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The rapid development of the Internet and other information communication technologies (ICTs) has led to the growing electronic cross-border delivery of services and digital products such as software.¹ While regional trade agreements increasingly innovate as regards the cross-border delivery of services and the incorporation of chapters on e-commerce, on the multilateral level the *General Agreement on Trade in Services* (GATS) has not evolved since the end of the Uruguay Round.

This paper reviews the progress in bilateral and multilateral trade agreements in securing liberal digital trade, i.e. electronic cross-border trade flows of data, services and digital products. The paper's purpose is to start thinking about what digital trade rules may be needed today and in fifteen years from now. It focuses on the role of the multilateral trading system as regards digital trade flows actually taking place over information networks.

The first and the second parts of this paper analyse developments with respect to electronically delivered products and services at the multilateral and bilateral trade levels. The third part raises the question of what digital trade rules are needed today and in 2015–2020.

* The views expressed in this paper are those of the author, and shall neither be attributed to the Organisation for Economic Co-Operation and Development (OECD) nor its member countries.

1 The term 'e-commerce' is used within the WTO as the 'production, distribution, marketing, sale, or delivery of goods and services by electronic means' (see General Council (GC), Work Programme on Electronic Commerce, WT/L/274 (30 September 1998)). With the term digital content the author refers to products which are digitally encoded and transmitted electronically over networks (e.g. movies, music, software, computer games).

1) Digital Trade and the WTO: Maintaining relevance in the information age

Ten years ago it was recognised that the Internet offers unseen possibilities for digital trade and that offline trade barriers should not be replicated online. Consequently, in 1998 WTO Members issued a declaration on global e-commerce.²

In the ten years following the rapid development of ICTs has led to the growth of the electronic cross-border delivery of services and digital products such as software. After *Mexico–Measures Affecting Telecommunications Services (Mexico–Telecoms)*³ and *United States–Measures Affecting the Cross-Border Supply of Gambling and Betting Services (US–Gambling)*,⁴ it is becoming clear that cross-border electronic service transmissions and the Internet are leading cases of GATS trade disputes.

Part 1.A provides an overview of the achievements within the WTO Work Programme on E-commerce while Part 1.B assesses digital trade-related progress in the Doha Development Agenda (DDA).

A. Rewind on the WTO Work Programme on E-Commerce: ‘much ado about nothing’ versus ‘much without doing anything’?

In May 1998, the WTO Members issued a declaration on global e-commerce that established a comprehensive WTO Work Programme on E-commerce to examine all trade-related issues connected with global e-commerce. This Declaration included a political statement calling upon

2 WTO, Ministerial Declaration on Global E-Commerce, WT/MIN(98)/DEC/2 (20 May 1998).

3 *Mexico – Telecoms*, Mexico – Measures Affecting Telecommunications Services, Panel Report, WT/DS204/R, adopted 2 April 2004.

4 *US–Gambling*, US—Measures Affecting the Cross-border Supply of Gambling and Betting Services, Panel Report, WT/DS285/R, adopted 10 November 2004, as modified by *US–Gambling*, US – Measures Affecting the Cross-Border Supply of Gambling and Betting Services, Appellate Body Report, AB-2005-1, WT/DS285/AB/R, adopted 7 April 2005.

Members to ‘continue their current practice of not imposing customs duties on electronic transmissions’ (the WTO Duty-free Moratorium on Electronic Transmissions).⁵ As part of the work programme, the Council for Trade in Services (CTS) raised core questions which have to be settled.

The first column of Table 1 presents nine of the most relevant CTS questions and supplements the list with one core issue relating to technical barriers to trade in e-commerce which comes from the work mandate of the Council for Trade in Goods (CTG). Table 1 also summarises the progress achieved on these questions in the WTO Work Programme on E-commerce and in related GATS dispute settlement. The last column serves as a prelude to the results of bilateral trade negotiations discussed in Part 2 of this paper.

Details about the GATS-related questions elaborated on in the above WTO Work Programme are beyond the scope of this paper.⁶ Suffice it to say that WTO negotiators have done a forward-looking job in ‘mapping the WTO e-commerce issues’. Nevertheless, the progress achieved in terms of converting thinking into actions has been a failure; i.e. even on simple issues such as confirming the applicability of WTO rules and commitments to electronically-traded services no results have been achieved. This is well-reflected in the Hong Kong Ministerial Declaration of December 2005 (para. 46), in which WTO Members adopted the following minimalist stance:

We take note that the examination of issues under the [Work Programme on E-Commerce] is not yet complete. We agree to reinvigorate that work [...]. [...] We declare that Members will maintain their current practice of not imposing customs duties on electronic transmissions until our next Session.

5 WT/MIN(98)/DEC/2 (above at fn. 5).

6 For a discussion of these GATS-related questions, see W. Drake and K. Nicolaidis, ‘Global Electronic Commerce and the GATS: The “Millennium Round” and Beyond’, in P. Sauvé and R.M. Stern (eds.), *GATS 2000: New Directions in Services Trade Liberalisation* (Washington D.C.: The Brookings Institution, 2000), 399–437.

Meanwhile, *US–Gambling*, the second GATS case, filled this void and has provided a set of answers to the unresolved questions of the Work Programme on E-Commerce, mainly confirming the applicability of GATS commitments to electronically-supplied services but leaving many other issues undecided (e.g. the trade treatment of digital products).⁷

Table 1

- **Agreement on a clear, permanent duty-free moratorium on electronic transmissions and their content:** Hitherto, it has not been possible to agree on such a moratorium in the WTO. At the Hong Kong Ministerial, WTO Members only prolonged the temporary duty-free moratorium on electronic transmissions which does not clearly apply to the content of the transmissions themselves.⁸
- **Applicability of general GATS rules and specific commitments to the electronic delivery of services:** To date, the situation prevails that no clear affirmation concerning the applicability of WTO rules to cross-border electronic services has been forthcoming from WTO Members. The greatest progress made in *US–Gambling* is the confirmation that WTO rules are indeed applicable to e-commerce and to electronically-supplied services. The Panel and the Appellate Body report apply the GATS framework to the electronic cross-border delivery of services without hesitation.
- **Classification of electronically-traded services as mode 1 or mode 2:** So far, WTO Members have found it difficult to determine whether the electronic cross-border delivery of

7 C.f. S. Wunsch-Vincent ‘The Internet, cross-border trade in services, and the GATS: Lessons from US–Gambling’, *World*

Trade Review 3 (2006), 1–37.

8 There is no clear understanding of what the moratorium covers when it refers to ‘electronic transmissions’. It is uncertain whether it bans the imposition of customs duties on the content of the transmissions itself, namely on digital products or electronically-delivered services.

a service is a service supplied through GATS mode 1 or mode 2.⁹ In *US–Gambling*, it is noteworthy that the statements of the concerned parties, Antigua and the US, as well as the rulings of the Panel and the Appellate Body’s imply that GATS mode 1 commitments are indeed applicable to cross-border delivery of electronic services.¹⁰ But neither the Panel nor the Appellate Body formally examined the difference between GATS mode 1 and mode 2.

- **Classification and scheduling of new services arising in the context of e-commerce:** Since the conclusion of the first GATS round in 1994, many new services that can be delivered across borders have appeared, which cannot be clearly captured by existing specific GATS commitments. In fact, the Central Product Classification (CPC) was updated twice to reflect the rapidly changing economic activities and technologies since the end of the Uruguay Round. Moreover, a complete draft of the third revision – i.e. the CPC 2007 – containing many updates as regards IT-related services is now ready for adoption. However, the ongoing services negotiations are still based on the W/120 and the provisional CPC of 1991.¹¹
- **Classification of digital products:** The lack of a decision on the correct classification of digital products has been the hottest ‘potato’ in the ongoing Work Programme, stalling progress on other matters.¹² WTO Members cannot agree on whether digital products traded electronically are goods governed by GATT, services governed by GATS or some unique category deserving its own set of trade rules. If GATS commitments are pertinent, it also remains to be decided which specific GATS commitments apply (those on audiovisual,

9 CTS, The Work Programme on Electronic Commerce, S/C/W/68 (16 Nov. 1998), paras. 6 ff.

10 *US–Gambling*, Panel Report (above at fn. 15), para. 3.29 and *US–Gambling*, Appellate Body Report (above at fn. 15), para. 215.

11 The GATS Services Sectoral Classification List (called W/120) can be found at www.wto.org/english/tratop_e/serv_e/mtn_gns_w_120_e.doc.

12 C.f. S. Wunsch-Vincent, *The WTO, the Internet and Digital Products: EC and US Perspectives* (Oxford: Hart Publishing, 2006).

telecommunication or computer services?). Interestingly, the trade liberalisation of digital products is, however, a cornerstone of preferential trade agreements.

- **Determining ‘likeness’ for application of MFN obligations and national treatment**

commitments: The CTS expressed the need for more work on the concepts of technological neutrality and the likeness of electronic versus non-electronically supplied services.¹³ Two variations on this problem and two interpretations of the technological neutrality concept were discussed:

- Intra-modal technological neutrality: In the context of GATS market access and national treatment obligations, the question was raised whether specific commitments for GATS mode 1 encompass the delivery of services through electronic means.¹⁴ In *US–Gambling* the Panel confirmed this view when it assessed that ‘a market access commitment [...] implies the right [...] to supply a service through all means of delivery [...] unless otherwise specified in a Member’s Schedule’¹⁵ and that ‘[a] prohibition on one, several or all of the means of delivery included in mode 1 thus constitutes a limitation on the total number of service operations [...] within the meaning of Article XVI:2(c)’.¹⁶
- Likeness between electronic and non-electronic services: In the context of GATS MFN (Article III) and national treatment obligations, the question is whether electronically-delivered services and those delivered by more traditional methods should be considered ‘like services’. In the WTO Work Programme on E-Commerce, some delegations argued that, on the basis of technological neutrality, services provided electronically and services provided non-electronically were

13 CTS, Work Programme on E-Commerce, Interim Report to the General Council, S/C/8 (31 March 1999).

14 General Council (GC), Work Programme on E-Commerce, Submission by the United States, WT/GC/16 (12 Feb. 1999).

15 *US–Gambling*, Panel Report (above at fn. 15), para. 6.285. See also paras. 6.355 and 7.2(b).

16 *US–Gambling*, Panel Report (above at fn. 15), paras. 6.355 and 7.2(b). *Cf.* to S/C/8 (31 March 1999) (above at fn. 27), p. 1.

like services. In an explanatory note without binding character, the WTO Secretariat also emphasised that ‘[...] likeness in the national treatment context [...] depends in principle on attributes of the product or supplier *per se* rather than on the means by which the product is delivered’.¹⁷ However, no consensus could be reached on this matter.

Likewise, in *US–Gambling* the question of when electronically-delivered services can be considered ‘unlike’ their non-electronic counterparts has yet to be answered.¹⁸ Moreover, the rulings did not directly address the thorniest question, i.e. how the likeness of domestic versus foreign service providers should be assessed.

- **Application of GATS Article VI regarding domestic regulations:** In the light of increasing cross-border trade in services, the ensuing juxtaposition of domestic regulations and standards and the rise of domestic regulations applicable to digital transactions will become an ever-important trade issue. During debates in the WTO Work Programme there was agreement that the GATS discipline on domestic regulation – i.e. the one to be elaborated under GATS Article VI – applies to e-commerce.

But Members disagreed on how to treat e-commerce under GATS Article VI. Some Members favoured an e-commerce-specific discipline that would distinguish the types of regulatory restriction which a Member could impose on digital trade-related activities in order to protect consumers, public morals, privacy and other values with a view to minimising unnecessary barriers to trade.¹⁹ Others thought that a general purpose GATS regulatory discipline would adequately address e-commerce considerations and that a safe harbour for digital trade regulations would only justify potentially unnecessary regulations.

¹⁷ See S/C/W/68 (above at fn. 22), para. 33 (concerning GATS Article XVII).

¹⁸ *US–Gambling*, Panel Report (above at fn. 15), paras. 6.25–6.18 and 6.425–6.426

¹⁹ Cf. CTS, Communication from the European Communities and their Member States, S/C/W/98 (23 February 1999).

Furthermore, it is important to reiterate that the GATS discipline on domestic regulation has not been concluded despite of more than ten years of negotiations.

- **Application of Article XIV regarding general exceptions for e-commerce:** Online content regulation as well as measures applied to the protection of privacy and public morals and the prevention of fraud were identified as regulations likely to be permissible under GATS Article XIV.²⁰ But it was also stressed that measures should be subject to a necessity test and should not constitute a means of arbitrary or unjustifiable discrimination nor a disguised restriction on trade in services.²¹ While some WTO Members and academics were concerned that the exemptions are not flexible enough,²² others argued that that Article XIV had to be interpreted narrowly and its scope should not be expanded to cover regulatory objectives other than those listed in the Article.²³

US–Gambling tackled this thorny issue and produced two noteworthy findings of great relevance to other digital trade flows. First, the Appellate Body ultimately found the US gambling laws in question to fall under the public morals exception of GATS Article XIV and to be compatible with its chapeau. It was thus shown that WTO Members can – despite full specific GATS commitments – rely on this provision when trying to achieve certain public policy objectives. Second, the Panel ruled that these measures aimed at consumers contain limitations which do not fall within the scope of GATS Articles XVI:2(a) and/or XVI:2(c) and that they are thus not inconsistent with the specific commitments made by the US under the GATS.²⁴ This ruling seems to imply that measures aimed at consumers do not come under the realm of specific GATS market access commitments.²⁵

20 Drake and Nicolaidis (above at fn. 19). See S/C/W/98 (at above fn. 34), para. 26 and S/L/74 (above at fn. 31).

21 S/C/8 (above at fn. 27), p. 9–10. CTS, Communication from Australia, S/C/W/108 (18 May 1999).

22 Drake and Nicolaidis (above at fn. 19).

23 S/L/74 (above at fn. 31).

24 *US–Gambling*, Panel Report (above at fn. 15), paras. 6.382–6.383, 6.397–6.398, 6.401–6.402, and 6.405–6.406.

25 The Appellate Body decided that it need not rule on the above findings of the Panel because it had ruled out consideration

B. Cross-border trade in services in the Doha Development Agenda: Getting the job done without talking digital trade?

In the run-up to the DDA, many GATS 2000 negotiation proposals had addressed the potential for the Internet to expand services trade.²⁶ Many WTO Members called for new or improved services commitments that would facilitate digital trade, mostly asking for more liberal GATS commitments in mode 1.

A few submissions in the area of financial services ventured outside the scope of specific GATS commitments broaching the topic of delineating responsibilities between home and host countries in supervising and regulating cross-border electronic banking services,²⁷ shedding light on regulatory trade barriers impeding cross-border electronic financial transactions (e.g. prudential rules and limitations on the transfer of financial information) and even e-commerce issues such as mobile commerce, data privacy, cyber threats and electronic payments.²⁸

Presaging Part 3 of this paper on possible digital trade rules, certain submissions in the areas of aviation, tourism and logistics have raised interesting new types of emerging barriers to digital trade, namely the lack of access to technology distribution channels and information networks. The access on a commercial basis to information networks, subject to transparent, reasonable and objective criteria and the elimination of anti-competitive practices and unfair competition was seen as a major concern.²⁹

of any of the state laws under GATS Article XVI. *US–Gambling*, Appellate Body Report (above at fn. 15), para. 373 (ii).

26 C.f. UN ICT Task Force, WTO, E-commerce and Information Technologies: From the Uruguay Round through the Doha Development Agenda (New York: United Nations Information and Communication Technology Task Force, 2005), <http://www.unicttaskforce.org/perl/documents.pl?id=1536>, pp. 65 ff.

27 Committee on Trade in Financial Services, Communication from Switzerland, E-banking in Switzerland, S/FIN/W/26 (30 April 2003).

28 Committee on Trade in Financial Services, S/FIN/M/40 (30 June 2003).

29 Cf. , for example, CTS, Communication by Hong Kong, China, Logistics and Related Services, S/CSS/W/68 (28 March 2001).

Since the start of the DDA, Members have started to exchange liberalisation requests and offers. The final GATS draft schedules would have been due on 31 October 2006.³⁰ The majority of the proposals address the issue of facilitating cross-border trade in services (summarised in Table 2). A group of countries led by India also suggested a model schedule for securing full market access commitments on a range of business process outsourcing services which addressed certain classification problems (e.g. ‘call centre services’ are not unambiguously covered by the existing GATS commitments).³¹

Table 2

The idea of preserving the ‘de facto level of openness’ on cross-border delivery of electronic and non-electronic services was the underlying philosophy of many related proposals. There have also been several calls for GATS negotiators to consider the elimination of discriminatory market access barriers across the board as a priority – rather than focusing on the traditional specific commitments under market access and national treatment.³²

The service section of the Hong Kong Ministerial declaration builds on the above suggestions and demands (i) GATS mode 1 commitments at existing levels of market access on a non-discriminatory basis across sectors of interest to Members; and (ii) the removal of existing requirements of commercial presence.³³ Besides, the Hong Kong Ministerial Declaration only suggests that commitments on GATS mode 2 should be made where commitments on mode 1 exist (which is usually already the case).³⁴

30 Hong Kong Ministerial Declaration, Sixth Session, WT/MIN(05)/DEC (22 December 2005), paras. 25–27 and Annex C.

31 Joint statement on the ‘Liberalization of Mode 1 under GATS Negotiations’ from Chile, India and Mexico contained in Job(04)/87.

32 Cf. the presentation at the WTO-Symposium on Cross-Border Supply of Services, www.wto.org/english/tratop_e/serv_e/sym_april05_e/mattoo_wunschvincentII_e.ppt and Mattoo (2005).

33 Hong Kong Ministerial Declaration (above at fn. 30), Annex C, para. 1(a).

34 Hong Kong Ministerial Declaration (above at fn. 30), Annex C, para. 1(b)(ii).

So far few of the revised GATS offers available in June 2006 had achieved the required mode 1 market access level (e.g. via the pursuit of model schedules or the pursuit of non-discrimination) or identical commitment levels between GATS modes 1 and 2. Despite more than eight years of existence of the WTO Work Programme on E-commerce and five years of the DDA, few of the horizontal questions regarding digital trade raised in section 1.A have been conclusively addressed in the ongoing negotiations.

2) Digital trade in preferential trade deals: what is hot and what is not?

The last five years have seen a proliferation of preferential trade agreements (PTAs). These PTAs increasingly innovate as regards the cross-border delivery of services, cooperation on ICTs and Chapters on E-commerce. The following subsections review and evaluate new trade rules and obligations which help secure free digital trade. While Table 2 contrasts the advances made in PTAs to the efforts at the multilateral level, Annex Tables 1 and 2 depict the state of the PTAs with respect to digital trade matters.

A. E-commerce Chapters: securing the applicability of trade rules and deepening digital trade commitments

What started with the incorporation of a non-binding E-commerce Chapter in the US–Jordan PTA in 2000, has led since the conclusion of the first legally binding US E-commerce Chapter in bilateral trade agreements in US–Singapore in 2003 to a flurry of bilateral PTAs that incorporate E-commerce Chapters, notably US PTAs with Australia, Central American Free Trade Agreement, Chile, Morocco, and Singapore. Interestingly, the trend has spread somewhat further with PTAs such as Singapore–Australia, Thailand–Australia, Thailand–New Zealand, New Zealand–Singapore, India–Singapore, Japan–Singapore, Korea–Singapore. Other PTAs (e.g. Maghreb Arab Union state, India–Thailand, Japan–Mexico, Japan–ASEAN, India–

ASEAN, China–ASEAN) and trade-related statements from APEC and cooperation agreements increasingly contain pledges and rules for ICT cooperation and digital trade.

Conclusion of E-commerce Chapters with a focus on digital products

The E-commerce Chapters bring about direct or indirect solutions with to many of the questions raised earlier as they formalise a definition of digital products, confirm the applicability of WTO trade rules to e-commerce, assure a clear zero-duty rate on the content of digital trade and provide for non-discrimination and MFN treatment for digital products (*cf.* last column of Table 1 and Annex Table 1). Without actually taking the politically-contentious classification decision, the E-commerce Chapters create a special trade discipline tailored to digital products.

- **Formulation of relevant digital trade definitions:** The bilateral E-commerce Chapters introduce the concept of ‘digital products’ and the concept of ‘electronic delivery or transmission (and electronic means)’. Remarkably, it is often explicitly stated that these definitions are without prejudice to the ongoing WTO classification discussions. Because the ‘digital product’-definition refers to offline and online-delivered digital products, the treaties aim at the technologically-neutral treatment of both delivery forms. Finally, the concept of ‘authentication’ is often defined.

Four steps have been taken that make reference to the multilateral level and that significantly advance the principles of free digital trade.

- **Recognition of the applicability of WTO rules to e-commerce:** Most E-commerce Chapters explicitly recognise the applicability of WTO rules to e-commerce.³⁵
- **Recognition of the applicability of trade rules to the electronic supply of services:** The E-commerce Chapters also affirm that the supply of a service using electronic means falls within the scope of the obligations of the relevant provisions

³⁵ E.g. US–Singapore FTA Article 14.1 and US–Australia FTA Article 16.1.

in the Cross-Border Trade in Services Chapter,³⁶ signifying that trade rules, obligations, non-conforming measures listed in Annexes I and II of PTAs and exceptions specified in the Services Chapters are fully applicable to digitally-delivered services; a problematic legal construct discussed later in detail.

- **Establishment of a clear and applicable duty-free moratorium:** Almost all E-commerce Chapters specify that the parties ‘shall not impose customs duties or other duties, fees, or charges on or in connection with the importation or exportation of *digital products* by electronic transmission’.³⁷ It is clear that the zero duty obligation applies to the content of the digital transmission, namely digital products. Due to the national treatment obligations included in the E-commerce Chapters, the duty-free status has to be accorded to digital products that ‘transit’ via a third party to parties of the PTA as well.³⁸ However, the moratorium does not seem to instate a duty-free moratorium for digitally-delivered services.

At first glance, the E-commerce Chapters also bring about non-discriminatory treatment of digital products, thus addressing the trickiest issue encountered at the WTO.

- **Non-discriminatory treatment obligation for digital products:** The E-commerce Chapters specify a national treatment obligation for digital products. Specifically, a party shall not accord less favourable treatment to certain digital products than it accords to other like products, on the basis that these are: ‘created, produced, published, stored, transmitted, contracted for, commissioned, or first made available on commercial terms’ outside its territory; or ‘whose author, performer, producer, developer, or distributor is a person of

36 E.g. US–Chile FTA Article 15.2 and US–Singapore FTA Article 14.2.

37 E.g. US–Singapore FTA Article 14.3, para. 1. The US–Chile FTA Article 15.3 notes that neither party may apply customs duties on digital products of the other party.

38 An exception applies in the US–CAFTA FTA Article 14.3. Fn. 1. Later FTAs between Australia–Singapore, Australia–Thailand and Thailand–New Zealand also specify that the moratorium only applies to ‘electronic transmissions between the two parties’.

another party or a non-party'.³⁹ These obligations also constrain both parties to accord the same treatment to 'like' physically- and digitally-delivered content products.

- **MFN treatment obligation for digital products:** The E-commerce Chapters use very similar wording to specify an MFN obligation for digital products.⁴⁰ Specifically, a party shall not accord less favourable treatment to a digital product 'created, produced, published, stored, transmitted, contracted for, commissioned, or first made available on commercial terms' in the territory of the other party than it accords to a like digital product 'created, produced, published', etc. in the territory of a non-party. In the same vein, a party shall not accord less favourable treatment to digital products whose 'author, performer, producer, developer, or distributor is a person of the other party' than it accords to like digital products whose 'author, performer, producer, developer, or distributor is a person of a non-party'. Interestingly, in many PTAs digital products must not be fully produced and exported via one of the contracting parties of the bilateral PTAs to benefit from these obligations that assure non-discrimination. The negotiating parties have partly given up on complex rules of origin, potentially setting a useful precedent for services trade negotiations as a whole.

Judging from these principles alone, the E-commerce Chapters provide sound principles of non-discrimination and MFN obligations.

Limitations of the E-commerce Chapters: carve-in/carve-out?

The E-commerce Chapters appear next to the chapter on trade in goods and the chapter on cross-border trade in services without addressing the question of the classification of digital products.

As mentioned before, the E-commerce Chapters contain exceptions which indicate that the '[c]hapter is subject to any other relevant provisions, exceptions, or nonconforming measures

39 E.g. US–Singapore FTA Article 14.3, para. 3 and US–Australia FTA Article 16.4, para. 1.

40 E.g. US–Singapore FTA Article 14.3, para. 4 and US–Australia FTA Article 16.4, para. 2.

set forth in other Chapters or Annexes of this Agreement'. This means that in overlapping cases, it is the trade in service-obligations and the related non-conforming measures that override the principles of national treatment and MFN specified by the E-commerce Chapters. Furthermore, some US-led and Asian PTAs with E-commerce Chapters specify that the parties are 'not prevented from adopting or maintaining measures in the audio-visual and broadcasting sectors' and that the Article on non-discrimination does not apply to measures affecting the electronic transmission of so-called linear, point to multipoint traditional broadcasting services.⁴¹ The US–Australia FTA goes as far as stating that its E-commerce Chapter shall not prevent a party from adopting new or maintaining existing measures in the audiovisual and broadcasting sectors.⁴²

Furthermore, in some cases, the value gained from having a special E-commerce Chapter is not obvious. In cases where no reservations are taken in pertinent sectors, many provisions of the E-commerce Chapter - e.g. its duty-free moratorium or its commitments for national treatment obligations for digital products – become superfluous. This holds true as the signatory parties are committed either to full market access, national treatment and MFN obligations through the Cross-Border Trade in Services Chapter or to duty-free treatment of ICT goods and non-discrimination through the Chapters on Market Access for Goods.

Finally, the Services Chapters contain elements that the E-commerce Chapters do not. For example, the former guarantee market access and they boast a solid framework of general obligations modelled after the GATS (e.g. on domestic regulation). All in all, the E-Commerce Chapters which mainly deal with digital products seem to be a second-best solution which must be viewed in the context of the lack of a classification decision as regards digital products.

B. Chapters to secure free cross-border (electronic) trade in services

The Cross-Border Trade in Services Chapters of the newly agreed PTAs also innovate.

41 See, for instance, the E-commerce Chapters of PTAs between US–Singapore and Korea–Singapore.

42 US–Australia FTA Article 16.4, para. 4.

- **Use of a negative list approach:** The PTAs use the most liberal form, namely the negative list approach, to schedule service trade commitments.⁴³ This top-down approach guarantees that narrow or outdated classification schemes and uncertainties relating to the mode of delivery do not unnecessarily limit the applicability of commitments to existing and future digitally-delivered services.
- **Dropping of local presence requirements:** The PTAs specify that ‘[n]either Party may require a service supplier of the other Party to establish or maintain a representative office or any form of enterprise, or to be resident, in its territory as a condition for the cross-border supply of a service’ (*cf.* barriers as in Table 2).
- **Dropping of MFN exemptions:** The PTAs specify that ‘[e]ach Party shall accord to service suppliers of the other Party treatment no less favourable than that it accords, in like circumstances, to service suppliers of a non-Party’.

On the surface, these provisions deepening the specific commitments seem very comprehensive. But again the devil is in the detail as attention must be paid to specified non-conforming measures.

A comprehensive overview of all limitations is not possible here. Suffice it to say that in the case of many PTAs, the number of limitations seems rather small and that due to the negative list approach many current and future services are covered by free trade obligations. Hence the impression arises that a GATS-plus level of liberalisation is achieved. However, only a sector-specific examination can reveal how relevant the specified non-conforming measures really are.⁴⁴

43 E.g. US–Singapore FTA Article 8.3 (national treatment), Article 8.4 (most-favoured nation treatment), Article 8.5 (market access) and Article 8.7 (non-conforming measures).

44 To pick out an extreme case, the US–Australia, the US–Morocco and most other US-led PTAs contain a limitation which specifies that all existing non-conforming measures of all US States are exempted from its specific free trade obligations.

In the area of rule-making, the bilateral PTAs also bring to the table a few new elements which are particularly relevant to cross-border delivery of electronic services.

- **Strengthened transparency requirements:** Obligations to publish regulations are supplemented by obligations to afford other Members access to the development of the regulations (e.g. advance notice, opportunity to comment prior to the date they come into effect). The service specific rules are strengthened by a fully-fledged transparency chapter applicable across all trade agreements.
- **Domestic regulation:** Whereas GATS Article VI:4 only instructs Members to develop such a discipline on domestic regulations, the PTAs specify that ‘[...] each Party shall endeavour to ensure [...] that such measures are: (a) based on objective and transparent criteria, such as competence and the ability to supply the service; (b) not more burdensome than necessary to ensure the quality of the service; and (c) in the case of licensing procedures, not in themselves a restriction on the supply of the service’.⁴⁵

C. E-commerce Chapters introducing cooperation pledges and ‘deep’ digital trade rules

Beyond the desire to secure the applicability of trade rules and obligations to digital trade, for roughly ten years there has also been a consistent aspiration to address regulations designed to govern the conduct of electronic supply which are outside the traditional scope of specific GATS commitments.

However, it is particularly the regulations at the US State level that often pose the most significant barriers to trade in professional, legal and financial services.

⁴⁵ E.g. US–Singapore FTA Article 8.8 2.

Non-binding Joint Understandings on E-commerce

Since 1997, trading nations have concluded a significant number of bilateral ‘Understandings’ or ‘Joint Statements on E-Commerce’. These have also been agreed upon on the regional level⁴⁶ and political declarations have been issued in APEC, ASEAN and eAsia-Europe forums.

These non-binding pledges call for liberal digital trade principles and have thus been seen in the context of related WTO discussions.⁴⁷ But they also deal with a number of digital trade rules which go beyond the usual market access issues while pursuing policy principles fostering access to ICTs, and achieving ground rules for the digital marketplace.

ICT cooperation pledges and ‘deep’ digital trade rules in preferential trade agreements

Pledges for cooperation in the area of ICTs and e-commerce which relate to the above Understandings have recently become very visible items throughout most new PTAs; not only in US-engendered bilateral agreements but also in EU bilateral trade agreements (e.g. EU–Chile), and in a wide range of Asian ones (e.g. India–Thailand, China–ASEAN, and other trade agreements).⁴⁸ Although they are more a declaration of intent than legally binding laws, the permutation of these digital trade elements into trade agreements is noteworthy.

These cooperation pledges range from short statements on the promotion of ICT and e-commerce to broader agreements. Whereas the simpler statements suggest cooperation on the market access and regulatory issues raised by e-commerce (as, e.g., in the EU–Chile PTA), the more comprehensive ones suggest cooperation on various aspects of the information society but in particular in the following areas: telecommunications policy, ICT research and standards,

46 ‘Statement to Implement APEC Policies on Trade and the Digital Economy’, X APEC Leaders Meeting Declaration, 27 October 2002, Los Cabos (Mexico), www.apec.org/apec/leaders__declarations/2002/statement_to_implement.html.

47 Cf. to GC, Fourth Dedicated Discussion on E-Commerce on 27 February 2003, WT/GC/W/492 (8 April 2003), para. 3.

48 See the following PTAs: Maghreb Arab Union, Japan–Mexico, Japan–ASEAN, India–ASEAN, New Zealand Singapore, etc.

interoperability issues, cyber-security, electronic signatures and payments, the balance between privacy protection and the free cross-border flow of information, intellectual property rights, consumer confidence, the increased dissemination and use of ICTs, encouraging the development of self-regulation, and exchanging e-government experiences.

Beyond the incorporation of language on ICT cooperation, the most novel phenomenon in new PTAs is the integration of deep e-commerce regulatory issues into trade agreements.⁴⁹ The point of departure for this development is the view that the potential for inadequate and incompatible national regulations can constrain the expansion of global e-commerce. Trading nations seem to feel a need to address deep digital trade issues in trade agreements; either due to a lack of alternative, international agreements or bodies for these e-commerce-specific rules or as PTAs are thought to spur developments on the national level or in other relevant international fora.

Table 5 gives an overview of ‘deep’ digital trade provisions integrated in new trade agreements: domestic regulation, transparency, consumer protection, data protection, authentication and digital signatures, and paperless trading (Annex Table 2 provides the details for specific PTAs).

Table 5

Here some initial observations on these provisions are offered; also in light of Part 3 of this paper:

- It is noteworthy that many of the subjects of these digital trade provisions (such as the protection of privacy, the protection of consumers, security issues) are usually conceived under the GATS Article XIV exception provisions which ‘tolerates’ derogations from GATS

⁴⁹ For a discussion of deep versus shallow e-commerce regulatory issues see C.L. Mann, S.E. Eckert, and S.C. Knight, *Global Electronic Commerce - A Policy Primer* (Washington D.C.: Institute for International Economics, 2000), S. Bach and G. Erber, ‘Electronic Commerce: A Need for Regulation?’, in K.G. Deutsch and B. Speyer (eds.), *The World Trade Organization Millennium Round* (London: Routledge, 2001), 125–137. C. Primo Braga, ‘E-commerce Regulation: New Game, New Rules?’, *The Quarterly Review of Economics and Finance* 45 (2005), 541–558 recently called for such deep digital trade rules.

rules and obligations in special circumstances.⁵⁰ Here, however, those digital trade provisions are not merely seen through the lens of an ‘exception approach’. Rather these digital trade policy objectives are displayed as necessary conditions for spurring international trade.

- While certain policy principles are encouraged, the e-commerce rules included in the PTAs do not mandate very detailed regulatory approaches which are to be adhered to by signatory parties. Often the digital trade provisions either (i) suggest broadly formulated policy directions which can be filled with meaning at the national level (e.g. the mandate to minimise the regulatory burden on e-commerce) or (ii) they cross-refer to existing standards outside the trade agreement (e.g. the reference to the UNCITRAL Model Law on Electronic Commerce). Often the standards leave a lot of room for national regulatory preferences while making the policy objective unambiguously clear and demanding (e.g. rules on consumer protection which require that ‘[...] to the extent possible and in a manner considered appropriate by each Party, provide protection for consumers using e-commerce that is at least equivalent to that provided for consumers of other forms of commerce’). Some elements such as the requirement to ‘minimise the regulatory burden on e-commerce’ can – despite looking very innocent – have quite important implications in dispute settlement or bilateral negotiations; especially in the absence of fully-fledged regulatory disciplines on domestic service regulation. Often the requirements also mandate further work: ‘The Parties recognize the importance of cooperation between their respective [...] consumer protection agencies on [...] cross-border e-commerce’.

50 In the context of the WTO Work Programme on E-Commerce, for instance, these policy priorities were usually treated in the context of discussions on GATS Article XIV while pointing out that the latter Article would allow Members to derogate from their specific GATS commitments if the principles of its chapeau are respected.

The absence of very meticulous regulations seems reasonable as the WTO has never been considered the appropriate body for such regulation. Rather, ‘policed decentralization’⁵¹ via regulatory disciplines which lie midway between harmonisation and regulatory heterogeneity is the cornerstone of the WTO’s influence on domestic regulation. Given that other bodies are often better at formulating detailed digital regulations, this form of policed decentralisation in the digital trade context is likely to make sense. However, external digital policy principles to which the WTO or its Dispute Settlement Body could refer in the case of trade litigation do not always exist. Hence the suggested policy areas must be considered closely and may demonstrate the need for more coordination on these information society regulations in other international organisations.

- While some digital trade principles are rather general, others are detailed and far-reaching. In particular the provisions on authentication which mandate certain technological and legal requirements, interoperability and non-discrimination, work on mutual recognition and international standards, are surprisingly powerful. Furthermore, certain broad provisions can sometimes be seen in the context of provisions in other parts of the agreement (for example in the case of the transparency and domestic regulatory disciplines which are evoked in detail in other parts of the bilateral treaties). In one case – the US–Australia PTA – the digital trade rules even refer to detailed additional obligations on cross-border consumer protection (including a reference to instruments developed by other international organisations such as the 2003 *OECD Guidelines for Protecting Consumers from Fraudulent and Deceptive Commercial Practices Across Borders*).⁵² This shows how special digital trade rules, horizontal trade obligations and external, non-trade instruments can function in conjunction with the external activities of other bodies.

51 A term coined by A. O. Sykes, ‘The (limited) Role of Regulatory Harmonisation in international Goods and Services Markets’, *Journal of International Economic Law* 2 (1999), 49–70.

52 US–Australia FTA, Chapter 14 on Competition-related Matters, Article 2.

- Some elements of the digital trade provisions, such as the transparency requirements, may be criticised for being redundant as other parts of the trade agreements sufficiently capture the need for transparency, consultation and publication; *cf.* Part 1.B of this paper which shows that the Cross-Border Trade in Services Chapters of the PTAs and a special Chapter on Transparency already mandate demanding transparency requirements which also apply to digital trade rules and the discussion in the WTO Work Programme on E-commerce that lean towards the interpretation that the GATS Article III on transparency is fully applicable and sufficient for digital trade. This is the beauty of having horizontal GATS rules which automatically apply to all GATS modes and new forms of delivery uniformly without the need to take extra steps. Similar areas of duplication could arise in the areas of market access and national treatment commitments, rules on domestic regulations, technical standards/interoperability, and topics which fall under the GATS Article XIV exceptions, i.e. most issues evoked in the form of ‘deep’ digital trade provisions.
- Avoiding duplication which could arise through the creation of unnecessary rules which single out digital trade seems particularly important, especially when it leads to disciplines which sit squarely between provisions on trade in goods and services without specifying which general rules and specific obligations apply (*cf.* the related criticism in Part 2.A). However, in some cases, special digital trade provisions will be necessary and useful to add political emphasis on certain policy issues. The identification of what is redundant and what is not will be key in determining which of these digital trade rules emanating from bilateral PTAs could become a building block for multilateral trade rules.
- It should be noted that only some of these digital trade provisions are subject to dispute settlement provisions. In fact, those bilateral trade agreements such as Singapore–Australia, Thailand–Australia and Thailand–New Zealand which go furthest in detailed digital trade regulations in areas such as domestic regulation, electronic authentication and online consumer protection specify that these digital trade rules are not subject to the dispute

settlement provisions.⁵³ These provisions for non-application of dispute settlement provisions reflects the hesitancy to submit such sensitive domestic regulations to a supra-national arbitration system, potentially leading to fines or trade disputes with implications for local laws and other trade flows. Nevertheless, these digital trade rules are an official part of the trade agreement and must thus be considered as binding international law.

- The E-commerce Chapters cover a broad range of topics pertinent to digital trade which are singled out as particularly relevant in fora such as the Understandings on E-Commerce. In addition, certain horizontal provisions such as those calling for a ‘light’ domestic regulatory framework for e-commerce affect all national digital trade regulations simultaneously. However, more areas come to mind that are currently not addressed in the digital trade provisions in PTAs (e.g. taxation, ICT network security, liability and Internet governance issues).

3) Digital trade rules for 2015–2020?

The last part of this paper deals with the question what digital trade rules may be needed now and in 10 or 15 years time. The latter is a difficult and exploratory exercise.

A. Short-term: building on what exists and putting the house in order

Looking back at the previous sections, it can be seen that the first priority is to ensure that existing GATS rules and obligations unambiguously apply to digital trade transactions.

Furthermore, the existing and new specific GATS commitments must ensure that digital trade flows are covered by far-reaching free service trade commitments before trade barriers of a new

53 E.g. Singapore–Australia FTA, Chapter 14, Article 10 specifies the non-applicability of dispute settlement provisions: ‘Chapter 16 (Dispute Settlement) shall not apply to Articles 4 (Domestic Regulatory Framework), 5 (Electronic Authentication and Electronic Signature), 6 (Online Consumer Protection) and 7 (Online Personal Data Protection) of this Chapter.’ See also Australia–Thailand FTA, Chapter 11, Article 1109.

sort arise. Finally, the conclusion of ongoing negotiations on GATS rules in the area of domestic regulations seems a particular priority.

Parts 1 and 2 of this paper have shown that – in spite of some progress being made – all three conditions are far from being achieved, especially when it comes to the multilateral level. The most glaring examples are digital products and new services which are not clearly captured by existing GATS commitments. Moreover, relevant specific GATS commitments removing barriers to cross-border trade in services as indicated, for example, in Table 2 have to be pursued in earnest. This will include efforts to capture broad and new categories of services by means of negative list approaches, model schedules, liberalising at the two-digit CPC level and scheduling new types of services while drawing on the CPC 2007.

Despite shortcomings, the existing GATS rules and full specific GATS commitments are powerful instruments which have been shown to work in the Internet context (as demonstrated in *US–Gambling*). Once comprehensive specific GATS commitments are made, open questions such as the status of the WTO duty-free moratorium on electronic transmissions, the delineation between GATS modes 1 and 2, the rise of new services and the classification of digital products will be fully or partly resolved.

Finally, it seems that not all open questions raised by the WTO Work Programme on E-commerce and this paper – such as the applicability and interactions of GATS Article VI or XIV or possibly even proper classification decisions for certain services or digital products – have to be solved at the negotiation table. The exact interpretation of some GATS trade rules and specific commitments may eventually come through dispute settlement cases.

Nonetheless, it would be in the interests of legal certainty and of pre-empting digital trade barriers to seek clarity wherever possible without relying on disputes. At the multilateral level, WTO Members should study the provisions of the already concluded PTAs closely to ensure that the basic applicability of GATS rules and obligations is improved via additional agreements or clarifications.

To conclude, the PTAs themselves may also need to be revisited in the light of shortcomings such as those indicated by Parts 2 A and C of this paper; especially if the PTAs continue to form the blueprint for further preferential or multilateral liberalisation of digital trade.

B. Medium- to long-term: formulating ‘deep’ digital trade rules and anticipating new digital trade barriers

It is true that in the current context of the faltering Doha negotiations which mostly struggle with topics such as agriculture, asking for more in the area of digital trade seems like ‘asking for the moon’ at a very inappropriate time. The process of formulating new ‘deep’ digital trade rules and of anticipating new digital trade barriers will be a medium- to long-term exercise. Here two analytical steps are proposed that may help in meeting this challenge.

Step 1: Assessing the usefulness and trade relevance of ‘deep’ digital trade provisions in the PTAs

As a first, medium-term step, WTO Members, potential signatories of future E-commerce Chapters as part of upcoming PTAs, and ICT experts may want to assess the usefulness and trade relevance of ‘deep’ provisions in existing PTAs while identifying lacunae.

One can expect that signatory parties to existing E-commerce Chapters have already undertaken the process of screening and selecting the ‘deep’ provisions which are most useful or which address the most pressing (and ideally most trade-relevant) matters. Moreover, the legal language provided in these bilateral exercises (see Table 5) provides a useful starting point for future agreements and related amendments or extensions.

This observation must be considered with the following in mind: there seem to be two types of ‘deep’ provision with two discrete but often overlapping goals: (i) rules bolstering certain policy objectives in the international context which should facilitate e-commerce transactions

and ensure the trust of consumers and users at large (including measures relating to consumer and data protection) and (ii) rules or provisions which aim at the elimination of new barriers to digital trade which pursue non-discrimination and market access in the traditional sense (e.g. non-discrimination for digital products).

Moreover, with respect to the former type of ‘deep’ regulations, the question of trade-relevance of certain ICT policy objectives and related ‘deep’ digital trade rules seems crucial as there are mounting arguments that the role of the WTO is to focus narrowly on trade. Clearly, securing data protection in the cross-border Internet context is a policy objective worth pursuing, particularly if it can be achieved without the WTO having to formulate detailed regulations by itself. Nevertheless, it is necessary to ask whether the WTO can and should be involved in formulating measures such as appropriate framework conditions or regulations with the sole intent of stimulating trade flows; i.e. also in the context of having no alternative body other than the WTO equipped to guarantee the binding nature of agreements and a comprehensive geographical coverage.

Looking at the existing ‘deep’ provisions in Table 5 and keeping the associated observations in Part 2.C of this paper in mind the following questions may prove useful:

1. Are particular digital trade provisions redundant as potentially they are already covered by a horizontal discipline (as may be the case for the *e*-transparency provisions)?
2. Does it make sense to create such digital trade rules in a stand-alone E-commerce Chapter with specific application to digital trade? Or would its integration into the GATS as a stand-alone digital trade discipline or even as part of an existing or newly created horizontal GATS discipline make more sense (as is potentially the case for rules on e-domestic regulations, e-consumer and online data protection, or special rules on authentication and digital signatures, whereas the broader question of technical trade barriers is at issue for many more technologies)? In formulating an answer to this question,

it must be kept in mind that regulations and necessary digital trade provisions often cross the ‘silo’-boundaries of traditional GATT versus GATS approaches and may have to sit somewhere between the core WTO agreements.

3. Are the existing trade rules sufficiently detailed and understandable to be meaningful and effective in a cross-cultural context with its various styles of regulatory approach to the information society?⁵⁴
4. Do enough WTO-external organisations and agreed international policy approaches exist concerning these principles to guarantee meaningfulness and to help trade partners and WTO or other courts to settle disputes? If not, should recognised international anchors such as the UNCITRAL Model Law on Electronic Commerce, ITU standards or OECD Recommendations/Guidelines be created in this area, with trade agreements potentially providing the momentum?
5. Finally: Should these digital trade rules be subject to the dispute settlement system of the WTO or PTAs? What are the merits and demerits? What is the political feasibility?

Step 2: Unlocking the true potential of digital trade: Anticipating existing and new digital trade barriers

As a second step with a longer-term ambit, new digital trade barriers have to be anticipated and preparations made to counter them with relevant innovations on the side of rule-making and specific GATS commitments.

Such a task will benefit from an approach inspired by deep technical, economic and legal knowledge of ICT market structures and digital transactions and that goes beyond the usual GATS parlance and the ‘offline’ world as we know it. In this quest, unlocking the true potential

⁵⁴ E.g. the provisions on the domestic regulatory framework which state that ‘[e]ach Party shall: (a) minimise the regulatory burden on e-commerce and (b) ensure that regulatory frameworks support industry-led development of e-commerce’.

of cross-border digital trade and preserving the contestability of electronic markets must be the guiding principle. The potential of digital trade is far from being met, as e-commerce continues to be a mainly national affair and e-business processes and ICT-based globalisation in the services sector are only just starting to take off. Undoubtedly, many (protectionist) efforts – within and between countries – are being or will be pursued by incumbents to shield traditional revenue flows from potential online delivery forms and new competitors.

Ten years ago, the idea was that the Internet was impossible to regulate and that national borders would succumb to this global medium. OECD governments agreed that a non-regulatory approach to e-commerce would be the best guiding principle. Today, in some respects geographical borders have successfully been superimposed on the global Internet infrastructure.⁵⁵ In many countries the hands-off approach has often given way to instating regulations applicable to the Internet. The increased ‘balkanization’ of e-commerce via domestic regulations threatens to disappoint the early hopes of a global trading environment free of any trade barriers.

In the following, some potential venues for existing or future digital barriers are suggested to stimulate the debate and help define a forward-looking research agenda on the matter. The following, indicative list is only a start and complements the issues presented in Part 2.C. The first three points in particular must be seen in the context of the increasing prevalence of ubiquitous networks in society which rely on multiple distribution platforms and interoperability.

- Lack of access to technology distribution channels and information networks sometimes as a result of anti-competitive practices and unfair competition: The example given in Part 1.B was that of computer reservation /global distribution systems.

55 J.R. Reidenberg ‘Technology and Internet Jurisdiction’, *Pennsylvania Law Review* 153 (2005), pp. 1951 ff and J. Goldsmith and T. Wu, *Who controls the Internet? – Illusions of a borderless world* (Oxford: Oxford University Press, 2006).

- Technical (sometimes national and proprietary) standards, interconnectivity, compatibility of protocols and hardware, and resulting interoperability problems.⁵⁶ The PTAs have started to address such issues via their provisions on authentication and digital signatures.
- Generally increased importance of pro-competitive telecom and network regulation and related trade principles.
- Competition-related matters: Securing the contestability of digital markets and promoting innovation taking into account new online market structures, the influence of 'infomediaries' such as search engines, software providers and aggregators, and the possible market dominance of a small number of companies. In this context, investigating the existing but largely unexplored GATS Article VIII on *Monopolies and Exclusive Service Suppliers*, GATS Article IX on *Business Practices* and the relevance of related provisions in the GATS telecom agreements may be useful.
- Issues relating to online content regulation including Internet filtering and blocking (e.g. the recent Yahoo and Google cases in China),⁵⁷ measures such as content or language quotas to preserve national identities, and online advertising restrictions.
- Territoriality of national law when transactions are global: The territorial and often heterogeneous nature of legal provisions affecting digital trade (e.g. consumer protection, or copyrights) are barriers to electronic trade.
- Internet Governance and new broadband policies: The plethora of new issues raised by the Pandora's box of 'Internet governance' and the pursuit of broadband policy goals (see e.g. the issues addressed at the World Summit of the Information Society⁵⁸ or at the OECD⁵⁹).

⁵⁶ C.f. Council for Trade in Goods, Work Programme on E-commerce, WT/GC/24 (12 April 1999).

⁵⁷ In this context, the CEO of Google has repeatedly mentioned that the Chinese limitations regarding free speech on the Internet should be seen as a trade policy and WTO settlement issue.

⁵⁸ World Summit of the Information Society, Tunis Agenda Outcome, 2005.

⁵⁹ E.g. OECD (2004), *Recommendation of the Council on Broadband Development*,

To conclude, although typical ‘beyond the border’ issues, most of the listed items will also be of concern at the purely national level and may not appear to be a WTO matter. This impression merits further debate. Nevertheless, the characteristic of the Internet as a borderless online medium with a concentrated set of industry players, ICT goods, software and services and with the juxtaposition of many domestic regulatory regimes due to the Internet and the inability to solve certain problems at the national level (e.g. lack of interoperability, spam, ICT network security) will have to be kept in mind when elaborating further.

The question remains as to whether these policy objectives are necessary to reap the benefits of digital trade and whether they really belong in trade agreements and especially in the WTO. Future research and a close eye on developments in digital trade and the rise of related trade barriers will provide answers to these queries.

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Table 1: Performance of the WTO versus preferential trade deals on digital trade issues as raised in the WTO Work Programme on E-commerce

Issues as suggested by WTO Work Programme on E-commerce	Dealt with by WTO Work Programme on E-commerce/ negotiations	Dealt with by Dispute Settlement	Overall WTO Results	Preferential Trade Agreements Results^a
1) Instauration and applicability of a clear, permanent duty-free moratorium on electronic transmissions and their content	No binding decision	Not subject to dispute	Pending	Dealt with
2) Applicability of general GATS obligations (e.g. MFN, transparency) to the electronic delivery of services	No binding decision	Not subject to dispute	Pending	Dealt with
3) Applicability of specific commitments to the electronic delivery of services	No binding decision	YES	Dealt with	Dealt with
4) Classification of electronically traded services as mode 1 or mode 2	No binding decision	Potentially: classify as Mode 1	Pending? / Dealt with?	Dealt with as negative list approach
5) Classification and scheduling of new services arising in the context of electronic commerce	No binding decision	Not subject to dispute	Pending	Dealt with when no limitations
6) Classification of digital products	No binding decision	Not subject to dispute	Pending	Classification issue is pending but E-commerce Chapters provide for non-discriminatory trade treatment for digital products
7) Determining 'likeness' for application of MFN obligations and national treatment commitments	No binding decision	NO, despite significant opportunity to rule on matter	Pending	Pending but less necessary in the negative list context

8) Application of GATS Art. VI regarding domestic regulations relevant to digital trade	YES, but only in principle	Confirmed that it applies to electronic transaction	Dealt with in theory. To be determined in practice.	Pending, especially in the light of more specific provisions on domestic regulation
9) Application of Art. GATS XIV regarding general exceptions for e-commerce	YES, but only in principle	Confirmed that it applies to electronic transaction	Dealt with in theory and practice.	Same as in WTO but sometimes supplemented by additional provisions
10) GATT Council: Standards and e-commerce (Agreement on Technical Barriers to Trade)	YES, on the principle of full applicability but no detailed discussion	Not subject to dispute	Dealt with in theory. To be elaborated further and determined in practice	Same or weaker than in WTO?

^a refers to PTAs discussed in Part 2.

Annex Table 1: Provisions of E-commerce Chapters in bilateral trade agreements^a

	US–Australia	US–Bahrain	US–CAFTA	US–Chile	US–Morocco	US–Oman	US–Peru	US–Singapore	Singapore–Australia	Thailand–Australia	Thailand–New Zealand	New Zealand–Singapore	India–Singapore	Republic of Korea–Singapore
Applicability of WTO rules to e-commerce	✓	✓	✓	No	✓	✓	✓	✓	✓	✓	✓		✓	✓
Applicability of trade rules to the digital service supply	✓	✓	✓	✓	✓	✓	✓	✓					✓	✓

Duty-free moratorium on digital products	✓	✓	✓	✓	✓	✓	✓	✓					✓	
Chapter on cross-border trade in services	✓	✓	✓	✓	✓	✓	✓	✓						✓
Negative list approach	✓	✓	✓	✓	✓	✓	✓	✓						
Non-discrimination for digital products	✓	✓	✓	✓	✓	✓	✓	✓						✓
Exceptions	YES	YES	YES	YES	YES			YES					YES	YES

CAFTA, Central American Free Trade Agreement.

^a The table is not exhaustive and does not review all trade agreements.

Table 2: Plurilateral requests and cross-border electronic service trade

Theme	Requested actions
Specific GATS commitments	<ul style="list-style-type: none"> • full commitments in mode 1 and 2 and removal of unbound entries in mode 1 in specified sectors (model schedule: professional, business, other business services, computer and related, research and development, tourism, part of education services + singling out sectors such as telecoms, transport, postal and courier, distribution, and financial services) • similar levels of commitments in GATS modes 1 and 2 whenever possible – clarification of the distinction between modes 1 and 2 • lift commercial presence/citizen/residency requirements (including such requirements for licensing or certification, requirements for local participation in the services production and discriminatory measures + quantitative limitations) • consideration of other restrictions such as horizontal limitations (especially subsidies) which would limit the cross-border delivery of services • use of plurilateral approaches, such as model schedules or checklists/understanding on scheduling at the 2-digit level • address MFN exemptions

Rules and qualification requirements	<ul style="list-style-type: none"> • improve the transparency of domestic regulations • how to avoid domestic regulations (including consumer protection, <i>e.g.</i> different national rules prohibiting certain forms of advertising) constituting an excessive trade barrier. • reciprocity conditions on professional qualifications • the lack of accreditation possibilities in areas such as online education services should be addressed
Advanced digital trade issues	<ul style="list-style-type: none"> • capture technological developments in the field of services, including through two-digit classification and specific model schedules of new activities • avoidance of trade barriers in the area of computer reservation systems access, elimination of anti-competitive practices and unfair competition in the area of technology distribution channels and information/reservation networks • Restrictions on the electronic transmission of certain materials (advertising, educational material and audiovisual content) and messages (advertising)

Sources: Plurilateral requests of WTO Members and CTS, Report by the Chairman to the Trade Negotiations Committee, TN/S/23 (28 November 2005).

Annex Table 2: Deep e-commerce regulatory issues in selected preferential trade agreements^a

	EU–Chile	EU–Algeria	US–Australia	US–Bahrain	US–CAFTA	US–Chile	US–Morocco	US–Peru	US–Singapore	Singapore–Australia	Thailand–Australia	Thailand–New Zealand	New Zealand–Singapore	India–Singapore	Japan–Singapore
Pledge for cooperation in the e-commerce and ICT area^b	✓	✓			✓	✓					✓	✓		✓	
Pledge to avoid unnecessary regulatory barriers to e-commerce	✓		✓	✓	✓	✓	✓	✓	✓	✓ including pledge to follow UNCITRAL Model law	✓ including pledge to follow UNCITRAL Model law	✓ including pledge to follow UNCITRAL Model law			
Transparency					✓			✓		✓				✓	
Consumer protection			✓					✓		✓	✓	✓			
Online personal data	✓	✓								✓	✓	✓			
Authentication, certification, electronic signatures			✓					✓		✓	✓				
Free flow of information and data	✓	✓													
Paperless trade administration and customs facilitation			✓					✓		✓	✓	✓	✓	✓	✓

CAFTA, Central American Free Trade Agreement.

^a The table is not exhaustive and does not review all trade agreements.

^b Such ICT Cooperation pledges are included in many more PTAs: India-Thailand, Maghreb Arab Union State, Japan-Mexico, Japan-Asan, India-Asean, etc.

Table 5: Deep e-commerce integration rules in preferential trade agreements

Theme	Rules
Domestic regulation	<p>1. Each Party shall maintain domestic legal frameworks governing electronic transactions based on the UNCITRAL Model Law on Electronic Commerce.</p> <p>2. Each Party shall: (a) minimise the regulatory burden on e-commerce; and (b) ensure that regulatory frameworks support industry-led development of e-commerce.</p>
Transparency	<p>Each Party shall publish or otherwise make publicly available its laws, regulations, and other measures of general application that pertain to e-commerce.</p>
Consumer protection	<p><i>Variation 1</i> The Parties recognise the importance of maintaining and adopting transparent and effective measures to protect consumers from fraudulent and deceptive commercial practices when they engage in e-commerce. The Parties recognise the importance of cooperation between their respective national consumer protection agencies on activities related to cross-border e-commerce.</p> <p><i>Variation 2</i> Each Party shall, to the extent possible and in a manner considered appropriate by each Party, provide protection for consumers using e-commerce that is at least equivalent to that provided for consumers of other forms of commerce under their respective laws, regulations and policies.</p>
Data protection	<p><i>Variation 1</i></p> <p>1. Notwithstanding the differences in existing systems for personal data protection in the territories of the Parties, each Party shall take such measures as it considers appropriate and necessary to protect the personal data of users of e-commerce.</p> <p>2. In the development of data protection standards, each Party shall, to the extent possible, take into account international standards and the criteria of relevant international organisations.</p> <p><i>Variation 2</i></p> <p>1. The Parties agree to cooperate on the protection of personal data in order to improve the level of protection and avoid obstacles to trade that requires transfers of personal data.</p> <p>2. Cooperation on personal data protection may include technical assistance in the form of exchange of information and experts and the establishment of joint programmes.</p>
Authentication and Digital Signatures	<p><i>Variation 1</i></p> <p>1. Neither Party may adopt or maintain legislation for electronic authentication that would (a) prohibit parties to an electronic transaction from mutually determining the appropriate authentication methods for that transaction; or (b) prevent parties from having the opportunity to prove in court that their electronic transaction complies with any legal requirements with respect to authentication.</p> <p>2. Each Party shall work towards the recognition at the central level of government of digital certificates issued by the other Party or under authorisation of that Party.</p> <p><i>Variation 2</i></p> <p>1. Each Party shall maintain domestic legislation for electronic authentication that: (a) permits parties to an electronic transaction to determine the appropriate authentication technologies and implementation models for their electronic transaction, without limiting the recognition of technologies and implementation models; and (b) permits parties to an electronic transaction to have the opportunity to prove in court that their electronic transaction complies with any legal requirements.</p> <p>2. The Parties shall work towards mutual recognition of electronic signatures through a cross-recognition framework at government level based on internationally accepted standards.</p> <p>3. The Parties shall encourage the interoperability of digital certificates in the business sector, including in financial services.</p>
Paperless trading	<p>1. Each Party shall endeavour to make all trade administration documents available to the public in electronic form.</p> <p>2. Each Party shall endeavour to accept trade administration documents submitted electronically as the legal equivalent of the paper version of such documents.</p>

