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Systemic Reflection on the *EC-IT Product* Case
Establishing an 'Understanding' on Maintaining the Product Coverage of the Current Information Technology Agreement in the Face of Technological Change

Tsai-Yu LIN*

The dividing character of the Information Technology Agreement (ITA), separating information technology (IT) products in the list from those yet to be included, by its nature, might make the ITA stumble on the converging technology trend. The European Communities and Its Members States – Tariff Treatment of Certain Information Technology Products *(hereinafter 'EC-IT Product') case has opened up Pandora's box: would original ITA products, after technological change, still be included in the ITA? In light of the terms of relevant concessions being interpreted, the Panel establishes that the ITA could be dynamic along with new technology in that the addition of new technology or features would not necessarily warrant the exclusion of the ITA products from the duty-free coverage. However, because of the limitation on the scope of coverage through terms and conditions or the use of HS interpretative rules, ITA products might be excluded as a result; this is not necessarily supportive in terms of the ITA. The author argues that the dispute settlement mechanism does not provide a satisfactory systemic solution for the ITA. In this regard, the author proposes that establishing an 'understanding' on the maintenance of product coverage of current ITA under technological change, which includes the use of 'like product' analysis and the development of an 'indicative good practices guidance', might serve as a pragmatic tool and the starting point for further discussions towards finding the 'simple, transparent, and expeditious solution' contemplated by the ITA Committee.*

1. INTRODUCTION: IT TRADE, CONVERGING TECHNOLOGY, AND DIVIDING ITA

Increased international information technology (IT) goods trade flows provide the most important physical infrastructure for current e-commerce and digital trade,[1] as well as favor

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[1] E-commerce relies on basic physical infrastructure to conduct operations, and hardware and software are necessary installments for the dissemination of information. The United States has listed digital trade as one of the important foreign trade policies and directions. See, generally, Sacha Wunsch-Vincent, *The WTO, The Internet and Trade in Digital Products, EC-US Perspectives* (Oxford and Portland, Oregon, 2006).

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the diffusion of and access to information and telecommunication technology.[2] Most work suggests that the thirteen-year operation of the World Trade Organization's (WTO's) Information Technology Agreement (ITA),[3] where several groups of technology and telecommunications products (e.g., computers, telecommunications, semiconductors, software, and other products related to IT)[4] are afforded with bound duty-free treatment, has substantially grown international IT goods trade flows,[5] leading to more efficient global production[6] and with it the likely reduced costs of IT products.[7] Yet the extensive effects of ITA are more far-reaching than this. On the one hand, reduced prices as such may further lead to great uptake, use of IT products, and diffusion of technology, creating greater efficiencies in other industries (e.g., bank, media, publishing), social sectors (e.g., education, health), households, and governments.[8] On the other hand, heightened competition brought about by such reduced costs potentially lead to greater innovation in IT products. In the last few years, the development of technological convergence of computing, telecommunications, communication, entertainment, and consumer electronics technologies,[9] in particular, has brought about new functionalities, innovations, and services. Many products become multifunctional, as different devices, each with a separate function, are merged into a single machine capable of performing simultaneously various functions. For instance, in addition to functioning as a telephone, smartphones can perform

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[2] Pascal Lamy, 'ITA Success Is Inspiration to Doha Negotiators', *WTO News* (28 Mar. 2007), <www.wto.org/english/news_e/sppl_e/sppl58_e.htm> (last visited 17 Oct. 2010).

[3] Formally, the Ministerial Declaration on Trade in Information Technology Products (WT/MIN (96)/15), concluded at the Singapore Ministerial Conference in December 1996. In April 1997, the conditions for the Information Technology Agreement (ITA) to enter into force were met, bringing the total trade of information technology (IT) products covered by the ITA to 90%. Currently, the ITA has seventy parties and represents about 97% of world trade in IT products, <www.wto.org/english/tratop_e/inftec_e/inftec_e.htm> (last visited 17 Oct. 2010).

[4] About 180 products are included as ITA products.

[5] Between the years 1996 and 2008, the share of ITA products trade was estimated to have annual growth of 10.1%, reaching from USD 1.2 trillion to USD 4.0 trillion, which exceeded that of manufactures trade with an annual increase of 7.1%. Michael Anderson & Jacob Mohs, 'The Information Technology Agreement: An Assessment of World Trade in Information Technology Products', *USITC Journal of International Commerce and Economics*, <www.usitc.gov/publications/332/journals/info_tech_agreement.pdf>, 7(last visited 17 Oct. 2010).

[6] For instance, China has become the major exporter for ITC products and the centre of a global supply chain. Between the years 1996 and 2000, China had an annual increase of 29% in exportation, which was triple in amount compared to other countries. Between the years 2000 and 2005, when the export for global ITC products was experiencing slow growth worldwide, China had an annual increase of 40% in exportation, which was seven times more than any other country in the world. See WT/DS375/1G/L/851, 16–17; Iana Dreyer & Brian Hindley, 'Trade in Information Technology Goods: Adapting the ITA to 21st Century Technological Change', ECIPE Working Paper No. 06/2008, 11, <www.ecipe.org/trade-in-information-technology-goods-adapting-the-itata-to-21st-century-technological-change> (last visited 17 Oct. 2010).

[7] Dreyer & Hindley, at 10–12.

[8] As WTO Director General Pascal noted, 'the elimination of tariffs for ITA products makes it possible to use the potential of these technologies for the benefit of millions of people in all corners of the world. Information intensive and IT-enabled industries and services – e-commerce, e-tourism, on-line travel or hotel reservations, financial, transport, and professional services – have developed through lower-cost communications networks as well as IT equipment made cheaper through economies of scale in the global economy. Furthermore, manufacturing processes, agricultural distribution networks, and even producers of primary products benefit by linking with customers in a timely, efficient, and less costly manner'. Lamy Statement, *supra* n. 2.

[9] The evolution of digitalization, computerization, and Internet protocol (IP) lead to technological convergence. Technological convergence leads to sectors such as telecommunications, IT, and media, originally operated separately, getting closer together. 'Triple play' offers a good example. Operators using one network and one technology (IP) provide access to television, voice telephony, and Internet services. Erika Lopez Ponton, 'The Impact of Technological Convergence on Antitrust Analysis in the Latin American Telecommunications Sector', OECD Competition Committee, DAF/COMP/LACF(2009)14, 5, <www.oecd.org/dataoecd/20/26/43588239.pdf> (last visited 10 Oct. 2010).

functions including personal data assistance (PDA), television (TV), music, camera, and global positioning satellite (GPS) since they combine voice telephony, data exchange via e-mail and Internet, and the basic database functions all in one product.[10] The Apple iPod, although originally designed to be a portable music player, now equally can function as a portable video player, photo album, and radio tuner. On this converging trend, the profile of the IT sector has been changing and the boundary of industries also has become blurred.[11]

Given the rapid advance of converging technologies, however, the challenge confronting the ITA is imminent. With the dividing character, the ITA provides for duty-free trade in a specific set of IT products but, crucially, not in all such goods. The coverage of products in the ITA is defined by a list, not by their IT characteristics. Some consumer electronics products such as TVs for multimedia applications and cameras for video fall outside the list and could therefore be subject to tariffs. Technological convergence, however, brings forth products that incorporate more functions, that is, products combined a function on the ITA list with functions that are not (e.g., computer printers – on the list – with copying and fax machines – many of which are not on the list), and enables products with a function that is on the ITA list to perform another function that is not (e.g., flat panel displays (FPDs) that can be applied either as computer monitors – on the list – or as TV screens – not on the list). In this way, the essential question to be asked is whether products identified in the original ITA would– after technological change – not be considered as an ITA product anymore. Another is whether the incorporation of some consumer electronics elements (non-ITA functions) or new technology into ITA products warrants their exclusion from the ambit of the ITA.

As a matter of practice, the EC applied import duties to some mixed products with ITA and non-ITA functions, for example, certain FPDs, certain set top boxes with communication functions (STBCs), and certain multifunctional digital machines (MFMs), as high as 14%, 13.9%, and 6%, respectively. This was challenged in the WTO litigation raised by the US, Japan, and Taiwan as the first ITA-specific dispute, that is, *European Communities and Its Members States – Tariff Treatment of Certain Information Technology Products* (hereinafter '*EC-IT Product*') case.[12] The WTO Panel ruled that the particular means the EC had used to distinguish non-ITA products on which a tariff is imposed from those that enter duty-free under the ITA were inappropriate.[13] While supporting technological

[10] Lopez Ponton, at 6.

[11] The current IT sector is closely related to the industries of telecommunications, consumer electronics, and media contents. For instance, computers now that can receive television programs, play videos, make a telephone call, and connect to broadcasting, equally functioning as a TV set, a video player, telephone, and radio.

[12] Panel Report, 'European Communities and Its Members States-Tariff Treatment of Certain Information Technology Products', WT/DS375/R, WT/DS376/R, WT/DS377/R, 16 Aug. 2010 (hereinafter 'Panel Report'). This is the first WTO dispute case that Taiwan has experienced at the stage of a panel. Third parties include Australia, Brazil, China, Costa Rica, Hong Kong, India, Korea, Philippines, Singapore, Thailand, Turkey, and Viet Nam.

[13] Legally, the three complainants claimed that the EC is obliged to grant duty-free treatment for products at issue under its Schedule of Concessions to the GATT 1994 pursuant to the commitments made under the ITA. For each product at issue, the Panel found that EC had acted in violation of Art. II:1 (a) and Art. II:1(b) of the GATT. Additionally, the United States and Taiwan raised procedural claims concerning the amendments to the Explanatory Notes to the

progress, however, the Panel retained some possibilities for ITA products to be no longer covered by the ITA subject to some limitations. Systemically, in the absence of clear criteria to ensure consistent practices, the tension among parties might persist as many of the IT products listed in the ITA are likely to undergo developments and improvements over time with technological progress.

Drawing from the *EC-IT Product* case, this paper seeks to explore how the current ITA's product coverage in the face of technological change would be addressed by the Panel[14] and the systemic implications thereof. In this paper, the author argues that how technological development would relate to the ITA concessions depends on the terms being interpreted by the Panel on a case-by-case basis; this does not provide a satisfactory systemic solution for the ITA. The author proposes that establishing an 'understanding' on the maintenance of product coverage of the current ITA as technology develops, which includes the use of 'like product' analysis and the development of 'indicative good practices guidance,' might serve as a pragmatic tool and the starting point for further discussions towards finding the 'simple, transparent, and expeditious solution' contemplated by the ITA Commission.[15]

This paper proceeds as follows: section 2 briefly surveys the Panel report of the *EC-IT Product* case to set the stage for the discussion in section 3 of the issues arising from the instant case, which have implications for the future operation of the ITA. Section 4 proposes the establishment of an 'understanding' as a systemic solution. Section 5 concludes.

2. WOuld the Inclusion of New Technology or Non-ITA Features Warrant the Exclusion of the ITA Products from Duty-Free Treatment? the Ec's Inappropriate Criteria in the *EC-IT Product* Case

In the *EC-IT Product* case, all products at issue, that is, LCD FPDs, set top boxes with communication functions, and MFMs, are characterized with mixed features, namely, some functions covered by the ITA as well as some functions, arguably, off the ITA list. At the core of this dispute, as argued by the parties, was whether or not the new technology or additional non-ITA functions added would make the IT product, identified in the original ITA, no longer covered by the ITA? The alternative is that these products might become

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Combined Nomenclature (CNEN) with respect to classification of STBCs, the Panel also held that the EC acted inconsistently with Arts X:1 and X:2 of the GATT.

[14] Importantly, it must note that this issue is fundamentally different from the issue of updating the product coverage and including 'additional' products in the ITA under para. 3 of the ITA Annex. The Panel in the *European Communities and Its Members States – Tariff Treatment of Certain Information Technology Products* (hereinafter '*EC-IT Product*') case pointed out that para. 3 of the ITA Annex was not envisaged as a way to deal with ambiguities arising from convergence and rapid development of products *currently* covered by the ITA. In light of the Panel, the phrase 'additional products' necessarily refers to the products that are *not* currently covered by Attachments, and the provision of para. 3 of the ITA Annex only pertains to products falling outside of the current ITA. By contrast, the issue of ITA products impacted by technological change focuses on 'current' products that are listed in Attachment A or Attachment B. Panel Report, *supra* n. 12, at paras 7.388–7.389.

[15] See s. 4.2 of this paper and *infra* n. 81.

entirely 'new' products thereby subject to tariffs. Given this, without getting into details of technical points and treaty interpretation of schedule of concessions,[16] the following part focuses on how the Panel assessed the EC's measures at issue (which were incorporated into the schedule of concession of parties)[17] in the context of technological change. Relevant discussion follows.

2.1. Flat panel displays

In general, FPDs are display devices capable of receiving signals from automatic data-processing (ADP) machines only or from both ADP machines and other sources. FPDs using LCD technology at issue, in particular, can be used for the purpose of either computer monitor or TV monitor.

In this case, the EC provides that LCD FPDs with 'certain characteristics' would be classified as dutiable as 'video monitors' or 'reception apparatus for television' subject to a 14% tariff,[18] instead of 'computer monitors' subject to a zero tariff. The EC excludes monitors with two characteristics from duty-free treatment, that is, (1) monitors capable of receiving signals from sources other than ADP machine and (2) monitors that are fitted with digital visual interface (DVI), High-Definition Multi-media Interface (HDMI), or other interfaces capable of similar function.[19] More specifically, according to the criteria, zero tariff is maintained for FPDs that are capable of accepting signal *only* from the processing unit of an ADP machine of heading 8471, as ITA products. FPDs that are capable of connecting to an ADP machine and are also capable of reproducing video images from other sources are excluded, as non-ITA products. In application, as a consequence, monitors that at the same time can operate not only with a computer but also with a video source (such as a DVD recorder, a camera or a video camera recorder, a satellite receiver, or a video game machine) or with TV receiver are not considered as ITA products. Also, FPDs that are capable of connecting to an ADP machine and have a DVI connector, whether or not they are capable of receiving signals from another source, are also denied the duty exemption extended to ITA products.

As to the legal claims, the complainants contented that the excluded monitors at issue should be extended a zero tariff as they are products covered by the duty-free concession both in the narrative description for FPDs ('Flat panel display devices [including LCD,

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[16] As a general rule, in determining the scope of the EC's commitment on products at issue, the Panel applied the customary rules of interpretation of public international law, as codified in Art. 31 of the Vienna Convention on the Law of Treaties (VCLT).They examined the ordinary meaning of the terms of the EC's commitment, in the context provided by the ITA, other aspects of the EC Schedule, other WTO members' schedules, and the object and purpose of the WTO Agreement and GATT 1994.

[17] Pursuant to provisions provided in para. 2 of the ITA, members shall bind and eliminate customs duties and other duties and charges of any kind, within the meaning of Art. II: 1(b) GATT, with respect to all products listed in Annex Attachment A and Attachment B in equal staged reductions over a period of four years from July 1997 to January 2000. In other words, each participant shall completely eliminate tariffs and incorporate zero tariff commitments regarding products covered by the Annex Attachments into its Schedule of Concession under the GATT at its own tariff line level or the Harmonized System (HS) six-digit level. See Annex first paragraph, second paragraph to the ITA.

[18] Many products are of the kind that would prima facie be classifiable as 'video monitors' under tariff item number 8528 21 and 8528 22 or, in some cases, 'reception apparatus for television' under tariff item number 8528 12 and 8528 13.

[19] Panel Report, *supra* n. 12, at para. 7.257.

Electro Luminescence, Plasma, Vacuum-Fluorescence and other technologies] for products falling within this agreement, and parts thereof') in the Annex to the EC Schedule and tariff item number 84716090 of the EC Schedule.[20]

With regard to the FPD narrative product description concession,[21] the Panel adopted a broad interpretation of the generic term for FPD devices, where FPDs incorporating a wide range of characteristics and technologies are covered. According to the Panel, the narrative description of FPDs pertains to 'certain apparatus or devices that have a flat display and are generally thinner than conventional CRT displays or monitors'. In addition, it does not establish particular limitations on technical characteristics, such as screen size, dimension, refresh rate, dot-pixel ratio, or other technical characteristics and on the type of connector or socket that a display might incorporate. Neither does the concession establish any exclusivity requirement such that a product may only connect with a computer in order to be qualified for duty-free treatment.[22] Moreover, the Panel explained that the word 'for' in the context of FPDs means 'designed for' and encompasses the capability to operate with products falling within the ITA, including ADP machines. This implies an ability to operate with an acceptable or functional level of operation.[23] Given this, the Panel determined that the products at issue, including FPDs able to accept and receive signals from ADP machines and other sources, as well as FPDs with DVI, fall within the scope of the FPDs concession, *provided that they are designed for use with an ADP machine*. As provided by the Panel, certain products that have a DVI or similar connector or that are able to display and receive signals from ADP and non-ADP sources would not be eligible in this concession to the extent that they did not provide an acceptable level of functionality or operability. On this point, it is noted that the mere capability to receive signals from computers is not enough to qualify as an ITA product under the concession. For instance, the resolution of certain products may not be high enough to properly display signals from a computer.[24]

In addition, how the Panel deals with the arguments of technological development, product evolution, and 'new products' in interpreting the concessions merits more attention. As argued by the EC, a monitor used today is fundamentally different from the ADP monitors defined in 1996. A 'new' product, which it terms 'multifunctional LCD monitors' where they can display both from an ADP machine and from other sources, must be subject to negotiations. However, in the view of the Panel, FPDs designed for use with

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[20] Formally, the EC's measures at issue challenged before the Panel are the following: Explanatory Notes to the Combined Nomenclature (CNEN) 2008/C 133/01; Commission Regulation (EC) No. 634/2005 and Commission Regulation (EC) No. 2171/2005; duty suspension through Council Regulation (EC) No. 493/2005; Community Customs Tariff, Council Regulation No. 2658/87 of 23 Jul. 1987, as amended.

[21] Notably, the ITA has made the dual use of the HS classification as well as product descriptions to delineate product coverage. Specifically, the ITA Annex Attachment A contains a positive list of products at the specific six-digit level of the HS nomenclature. In parallel, Annex Attachment B contains a positive list describing products covered by the ITA regardless of how countries classify such products under the HS headings. Arguably, given that various customs administrations may not classify the same product under the same HS headings, the ITA has resorted to product description, rather than simply basing the classification on the HS to resolve divergences. Joseph Tasker Jr, 'The Information Technology Agreement: Building Global Information Infrastructure While Avoiding Customs Classification Disputes', *Brooklyn Journal of International Law* 26 (2001): 922.

[22] Panel Report, *supra* n. 12, at para. 7.730.

[23] *Ibid.*, at para. 7.482.

[24] *Ibid.*, at para. 7.731.

ADP machines existed at the time of the negotiations and the notion of multifunctional monitors was not unknown to negotiators. The Panel mentioned that 'it does not consider the fact that DVI was developed after the conclusion of the ITA operates to exclude FPDs with DVIs from the scope of the concession'. 'Even if it were accepted that the European Communities' claim is factually accurate, however, it is of limited relevance to the question of whether the product is covered by the FPDs concession. This must be determined by interpreting the terms of the concession in accordance with the Vienna Convention.'[25]

As to the scope of concession under tariff item number 84716090 in the EC Schedule, it textually covers 'automatic data-processing machines and units thereof'; '– Input or output units, whether or not containing storage units in the same housing; – Other; – Other.' The Panel found that an 'input or output unit' under tariff item number 84716090[26] means 'a device that form [sic] part of an ADP machine, is "of a kind solely or principally used by an ADP system", and that perform at least one specified function involving accepting or delivering data in a form (codes or signals) that can be used by the ADP machine or ADP machine system'. Specifically, tariff item number 84716090 would broadly cover all 'input or output units' apart from those that are 'for use in civil aircraft', 'printers', or 'keyboards'.[27] Based on this finding, the Panel stated that it was 'not persuaded that flat panel displays which incorporate a DVI or similar connector, or which can receive and display signals from automatic data processing machines and other sources, necessarily fall outside the scope of 84716090 as defined above'. As provided by the Panel, there was no reason to automatically preclude the FPDs at issue from being 'input or output units'. Notably, the Panel emphasized that not all of the FPDs at issue will *necessarily* fall within this concession. This must be determined on a case-by-case basis, taking into account all the objective characteristics of a particular product.[28]

Additionally, it is noted that the EC also contended that the products at issue are 'new' products, were not present in 1996, and are excluded from duty-free coverage. In cases where products 'may be' classifiable in more than one heading, it considers that 3(c) of HS[29] General Rules for Interpretation (hereinafter '3(c) GIR')[30] would apply[31] and those display monitors would be justifiably subject to duties as TVs or as video monitors.[32] The Panel ruled that given the circumstances of this case, 'we are only required to determine whether some of the products at issue fall within the scope of the duty free heading 847160'. In spite of this, 'we do not preclude the possibility that some of the products at issue, depending on their particular objective characteristics, may fall within the

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[25] *Ibid.*, at paras 7.600–7.601.
[26] Notably, the relevant subheading is now 8528 51 under HS2007.
[27] Panel Report, at paras 7.691 and 7.770.
[28] *Ibid.*, at para. 7.734.
[29] The 'Harmonized Commodity Description and Coding System' (or the HS) was established under the 'International Convention on the Harmonized Commodity Description and Coding System'(hereinafter 'HS Convention') and entered into force on 1 Jan. 1988. Panel Report, at para. 7.31.
[30] The Annex to the HS Convention sets out six general rules for the interpretation and uniform application of the HS.
[31] Rule 3(c) of GIR 3(c) provides: 'When goods cannot be classified by reference to Rule 3 (a) or 3 (b), they shall be classified under the heading which occurs last in numerical order among those which equally merit consideration'.
[32] Panel Report, *supra* n. 12, at para. 7.716.

scope of other headings or subheadings, by virtue of the effect of the HS interpretative rules considered as context'. In terms of the effect of the measures at issue, the Panel considered that 'it is not possible to assume that all such products would fall within the scope of these dutiable headings'.[33]

In light of the above, in sum, in the case of FPDs, the EC's distinction in the ITA product and non-ITA product seems to focus on (1) whether an ITA product (FPDs) can operate at the same time with other ITA product (computer) and other non-ITA devices and (2) whether the ITA product (FPDs) can operate at the same time with other ITA product (computer) and have a new feature, such as a DVI connector. In other words, as long as the ITA product (FPDs) can be used with non-ITA devices or have a new technological feature, such IT products (FPDs), although originally covered by the ITA, would no longer be considered as ITA products. It seems to the EC that the involvement of non-ITA elements and new features in the context of technological development would preclude the ITA product from retaining its duty-free treatment as an ITA product.

The Panel has a different position. It does not consider that the duty-free commitments can only apply to products that were technologically feasible at the time of negotiations in 1996. By virtue of the interpretation of the terms of FPD narrative description concessions and tariff item number 84716090, the Panel determined that some display monitors that can also operate with non-ITA device and with the DVI connector may fall both within the scope of the FPD concession and the scope of tariff item number 84716090. However, importantly, the Panel also mentioned that some FPDs that can operate with a non-ITA device or with the DVI connector would not be guaranteed duty-free treatment as the ITA product subject to FPD narrative description concessions unless they can provide an acceptable level of functionality or operability with computers. Neither would these products necessarily fall within duty-free tariff item number 84716090 concession, which have to be determined on a case-by-case basis and in consideration of the objective characteristics of the product. With respect to this, the Panel does not preclude the possibility that products at issue might fall within other headings, which might be dutiable.

2.2. Set top boxes with a communication function

Generally, 'set top boxes which have a communication function' are devices that enable a TV set to receive and decode digital TV signals and to connect to the Internet. In this dispute, certain set top boxes are excluded from being regarded as ITA products that fall within duty-free category tariff item number 85287113, that is, (1) set top boxes incorporating integrated services digital network (ISDN), wireless local area network (WLAN), or Ethernet technology[34] and (2) set top boxes that contain a device performing a recording or reproducing function (including a hard disk or DVD drive).[35]

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[33] *Ibid.*, at para. 7.735.

[34] Technically, a 'set top box' incorporating ISDN, WLAN, or Ethernet technology may be classified under dutiable tariff item number 8528 71 19 or tariff item number 8528 71 90 depending on the presence or absence of a recording or reproducing function, subject to 14% duty.

[35] They are classified under tariff item number 85219000, which carriers a 13.9% duty.

The complainants alleged that all products at issue fall within the scope of the STBC narrative description in the EC Schedule, which covers 'set top boxes which have a communication function: a microprocessor based device incorporating a modem for gaining access to the Internet and having a function of interactive information exchange', regardless of which tariff line the products are classified under.[36]

The EC contended that the set top boxes at issue are not within the scope of the STBC narrative descriptions. According to the EC, ISDN-based devices as such do not communicate using a 'modem' as defined in the concession because they only perform digital-to-digital transmission and do not perform digital-to-analogue modulation and demodulation to connect to the Internet, which, in the EC's view, is the common understanding of the term at the time of the negotiation of the ITA.[37] Additionally, the EC argued that 'set top boxes with a recording function' make them become 'digital video recorders' or 'personal video recorders' that are entirely new than what is qualified under the concession.[38]

The Panel considered that the term 'set top box' has a broad meaning by dictionary definitions, which generally describes an apparatus or device that processes an incoming signal from an external signal source in a manner that can be presented on a display unit, such as a video monitor or TV set. This apparatus need not be designed to be placed on top of the display unit and may handle one or several functionalities.[39] Moreover, the Panel stated that the use of the terms 'which have a communication function' emphasizes the 'communication functionality' in defining the STBC narrative descriptions. 'Which have' does not necessarily imply an exclusive functionality, where the coverage is thus not limited to set top boxes with only a communication function. By the emphasis with 'a communication function,' 'gaining access to the Internet', and enabling 'interactive information exchange,' the Panel considered that the STBC narrative description focuses on the function of the product rather than on a technical description or specific technology.[40] In other words, this concession extends to a 'set top box' that fulfils all the following requirements: it is microprocessor based, incorporates a 'modem', and is capable of gaining access to the Internet and handling two-way interactivity or information exchange. In light of this, interpreting the term 'modem' should also not be in an overly narrow or technical sense, but emphasis should be placed on functionality. In particular, the Panel indicated that the ordinary usage of the term 'modem' has expanded with the advent of newer

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[36] Additionally, the United States argued that the EC had committed to provide duty-free treatment to set top boxes under tariff item number 8517 50 90, 8517 80 90, 8525 20 99, or 8528 12 91 in the EC Schedule. The Panel ruled that the United States has failed to meet its burden to establish a prima facie case of violation. Formally, the EC's measures at issue challenged before the Panel are as follows: Explanatory Notes to the Combined Nomenclature (CNEN) 2008C 112/03 concerning tariff item number code 8521.90.00, 8528.71.13, 8528.71.19, and 8528.71.90; Community Customs Tariff, Council Regulation No. 2658/87, as amended.

[37] Panel Report, *supra* n. 12, at para. 7.976.

[38] *Ibid.*, at paras 7.979 and 7.876.

[39] Several functions including receiving and decoding television broadcasts, whether from a satellite, cable, or Internet source; converting digital TV broadcasts to function on older analogue TV sets; enabling two-way interactive connectivity with digital cable television broadcasts or via the Internet; or even recording of digital video content. Panel Report, at paras 7.851–7.852 and 7.860.

[40] Panel Report, at paras 7.861, 7.982, 7.884–7.888, and 7.913.

technologies developed to transfer data over a communication line, not only to refer to telephone line-based modems.[41] In reaching the conclusion, the Panel stated that 'devices that incorporate, or have built in, technologies that enable them to access the Internet and provide interactive information exchange may fall within the scope of the concession'. Relying on such interpretations, the Panel found that devices based on ISDN, WLAN, and Ethernet technology, as they functionally connect set top boxes to a communication line, are the devices that incorporate, or have built in, technologies to access the Internet and provide interactive information exchange. Therefore, STBCs with ISDN, WLAN, and Ethernet technology fall within the scope of the concession.[42]

As to the certain set top boxes that incorporate a recording device or hard disk other than a communication function, the Panel recalled its aforementioned conclusion that the STBC narrative description is not limited to products that only have a communication function. On this point, it is noteworthy that the Panel also found that 'additional functionality may, at a certain point, result in a product not meeting the description of a "set top box which has a communication function" '. 'Such a determination as to whether a product is such a set top box must be made based on a case-by-case analysis of the objective characteristics of a particular product as it is presented at the border.'[43] Furthermore, the Panel also noted that 'the concession does not cover all multifunction products which may incorporate in them a set top box with a communication function ... if through the inclusion of additional features or incorporating it into another product, an apparatus may no longer be described as, in essence, a "set top box which ha[s] a communication function, it would not be covered by the concession" '.[44] Notably, in this regard, the EC designated arguments concerning the state of technology as relating to 'surrounding circumstances'. The Panel reiterated the position it has made in the case of FPDs that it did not consider it desirable or possible to consider the relevance of the state of technology existing at the time of the negotiations or technological development in the abstract and without reference to the terms of the concessions being interpreted.[45] Furthermore, it pointed out that it was not persuaded by evidence provided by the EC that only two types of set top boxes existed in 1996 so that the concession was only to cover the products used for viewing digital TV on analogue TVs and devices that enabled Internet access on TV.[46]

Given the above, in summary, the criterion of defining ITA products used by the EC with respect to the STBCs lies in whether the STBCs contain ISDN, WLAN, or Ethernet technology or a device performing a recording or reproducing function. It is the position of the EC that introducing new technology or adding the non-ITA function enables it to classify these IT products originally in the ITA to no longer be ITA products.

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[41] *Ibid.*, at para. 7.878.
[42] *Ibid.*, at paras 7.983–7.984.
[43] *Ibid.*, at para. 7.986.
[44] *Ibid.*, at para. 7.860.
[45] *Ibid.*, at para. 7.952.
[46] *Ibid.*, at paras 7.955–7.956.

As indicated, the Panel had a clearly different view. The Panel interpreted the term 'modern' in a broad sense, which includes newer technologies. It also gave an expansive interpretation of the concession that 'devices that incorporate, or have built in, technologies that enable them to access the Internet and provide interactive information exchange' may be covered. On this vein, set top boxes with ISDN, WLAN, and Ethernet technology are thus eligible to be classified as ITA products. In addition, the Panel also ruled that the inclusion of additional non-ITA function would not preclude STBCs from this coverage since the concession is not limited to products with only a communication function. Given this, STBCs incorporating a recording device or hard disk, non-ITA functions, are also regarded as ITA products in the context of STBCs concession. Notably, the Panel seemed to leave a hint that in the future, additional functionality may preclude the product from being classed as an ITA product by saying that 'additional functionality may, at a certain point, result in a product not meeting the description of a 'set top box which has a communication function'. '[I]f through the inclusion of additional features or incorporating it into another product, an apparatus may no longer be described as, in essence, a "set top box which ha[s] a communication function, it would not be covered by the concession".'

2.3. Multifunctional digital machines

The term MFMs used to mean machines that perform two or more of the functions of printing, scanning, copying, and facsimile transmission. They are capable of connecting to a computer or network or other 'input or output units' of computer and facsimile machines. As provided, 'units of automatic data-processing machines' are products on the Attachment A list under HS heading 8471, which covers input/output devices (e.g., printers and optical scanners), facsimile machines, and direct process and optical copiers. Nevertheless, certain copying machines (e.g., indirect electrostatic image reproduction devices) are excluded from the ITA.

In the case of MFMs, the EC considered some MFMs, those with a copying and facsimile function with a copying speed not exceeding twelve monochrome pages per minute,[47] as ITA products accorded with duty-free treatment. Apart from this, other MFMs are all classified as 'photocopying apparatus' within tariff item number 90091200, subject to a 6% duty,[48] as non-ITA products. In application, if MFMs perform a faxing function and their copying speed exceeds twelve pages per minute, they are subject to 6% duty. MFMs with copying and computer printing functions but without a fax function are subject to 6% duty if they use an electrostatic print engine regardless of copy speed.[49]

The complainants argued that ADP MFMs merit duty-free treatment because they are products included by the concession in the EC Schedule in duty-free subheading 847160

[47] From 26 to 28 Jan. 2005, the EC Customs Code Committee held its 360th meeting. The Committee agreed that if a multifunctional device has the capability of photocopying in black and white twelve or more pages per minute (A4 format), indicating that the product is classifiable as a photocopying apparatus. Panel Report, at para. 7.1218.

[48] Now CN2007 codes are 8443 31 10, 8443 31 91, and 8443 31 99.

[49] Panel Report, *supra* n. 12, at para. 7.1231.

covering '[a]utomatic data-processing machines and units – [i]nput or output units, whether or not containing storage units in the same housing'.[50] In response, the EC noted that the multiple functions of the ADP MFMs include *copying*. While the copying function is not secondary (e.g., it is either primary or equivalent), the MFNs at issue are prima facie classifiable for customs purposes as 'output units' under subheading 847160 or as 'photo-copying apparatus' under subheading 900912. As a result of proper application of the relevant rules of the HS, in particular, GIR 3(c),[51] the products should be classified in subheading 900912, where the EC is not obligated to provide duty-free treatment.[52]

The central point for the Panel is to determine whether the products at issue fall within the subheading 847160. The Panel pointed out that the term of an 'input or output unit' within subheading 847160 has broad nature. It covers a device that is part of an 'ADP machine' or part of an 'ADP machine system' that is connectable to the central processing unit either directly or through one or more other units and that performs at least one specified function that involves accepting or delivering data in a form (codes or signals) that can be used by the 'ADP machine' or 'ADP system'. On this point, it is noted that 'not all devices capable of connecting to an ADP by accepting or delivering data from or to an ADP necessarily qualify as an input or output unit of heading 8471.'[53] Furthermore, the Panel illustrated that the requirement set forth in Note 5(B) (a) to HS 1996 Chapter 84 that a 'unit' must be 'of a kind solely or principally used in an automatic data processing system' is an expression of the plain meaning of the term 'unit of an ADP machine'. In determining whether a product could satisfy such requirement, rather than simply look at the actual use, the analysis should be on the design and intended use of the products based on an examination of the objective characteristics, which can be done on a case-by-case, product-specific basis.[54] Furthermore, the Panel noted that via the application of Note 3 to section XVI, in certain circumstances, a multifunction machine could fall within the scope of heading 8471 if its principal function was one covered by the specific subheadings.[55]

As undisputed by the parties, ADP MFMs at issue are apparatuses that can perform not only ADP functions such as printing paper documents from an ADP machine but also non-ADP functions such as 'digital copying'. They also can connect to an ADP machine and accept or deliver data from the central processing unit. Then the issue argued by the parties is whether they are 'of a kind solely or principally used' with an ADP machine in Note 5(B) (a) of Chapter 84. The Panel noted that it is undisputed by parties that 'the way copying is achieved in a MFM is through the combined use of the print engine and the scanner'. Also, a 'single function' machine, which was solely a printer or solely a scanner, would be 'of a

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[50] *Ibid.*, at para. 7.1243. Formally, the EC's measures at issue challenged before the Panel are as follows: Commission Regulation (EC) No. 517/1999 and Commission Regulation (EC) No. 400/2006; Report of the Conclusions of the 360th Meeting of the Customs Code Committee; Community Customs Tariff, Council Regulation No. 2658/87 of 23 Jul. 1987, as amended.

[51] GIR 3(c), *supra* n. 31.

[52] Panel Report, *supra* n. 12, at paras 7.1139, 7.1371, and 7.1389.

[53] *Ibid.*, at paras 7.1311, 7.1391.

[54] *Ibid.*, at paras 7.1304, 7.1393.

[55] *Ibid.*, at para. 7.1308.

kind solely or principally used' with an ADP machine, subject to subheading 847160 concession.[56]

With respect to the several criteria, including the pages per minute copying capability set forth by the European Court of Justice in its *Kip Europe and Others and Hewlett Packard v. Administration des douanes – Direction générale des douanes et droits indirects* judgment,[57] as argued by the EC, the Panel observed that these criteria are not set out in the HS1996 Chapter Notes. Neither does the EC explain why pages per minute or the other criteria[58] were more relevant than those two factors: the function of the principal component or the value of the various components in the MFM. In this regard, the Panel noted that the only criterion for the EC to determine whether copying is primary or equivalent function would be 'the number of pages per minute the apparatus can copy'. The Panel did not believe that this criterion alone can serve to determine 'principal use' especially as copying speed is usually the same as printing speed in MFMs.[59] Given these, the Panel was not persuaded that an MFM that can copy more than twelve monochrome pages per minute is necessarily not 'of a kind solely or principally' used with an ADP system'. Likewise, the Panel was also not persuaded that all MFMs are input or output units, where the determination would have to be made on a case–by-case basis, taking into account the objective characteristics of each MFM.[60] In addition, the Panel referred to the guidance in Note 3 to section XVI for composite machines, noting that in certain circumstances, some ADP MFMs will fall within subheading 847160 if the principal function of that machine is printing, scanning, or another 'input' or 'output' function. The Panel ruled that while this determination needed to be made on a case-by- case basis, reading the concession in the context of the HS Chapter and Section Notes and the object and purpose of the concession will lead to the conclusion that certain ADP MFMs at issue fall within the terms of the concession in subheading 847160.[61]

Notably, with respect to the issue of whether the products at issue are also classifiable under subheading 900912, the Panel was of the view that the concession for electrostatic photocopying apparatus operating by 'indirect process' in subheading 900912 is only extended to the photocopying process used by 'analogue photocopiers'.[62] However, ADP MFMs make copies via a process of 'digital copying', involving the use of a 'scanner', which is a device or component that allows the conversion of information (such as text and images) into digital data.[63] It concluded that:

> because the ADP MFMs at issue are not photocopiers incorporating an optical system that operate by reproducing the original image onto the copy via an intermediate (indirect process), they cannot fall within the scope of the concession in subheading 900912 of the EC Schedule, regardless of the

[56] *Ibid.*, at paras 7.1392–7.1394.
[57] European Court of Justice 11 Dec. 2008 (*Kip Europe and Others and Hewlett Packard v. Administration des douanes – Direction générale des douanes et droits indirects*, C-362/07 and C-363/07).
[58] For instance, print and reproduction speeds, the existence of an automatic page feeder for originals to be photocopied, or the number of page feeder trays. Panel Report, at para. 7.1385.
[59] Panel Report, at para. 7.1395; fn. 1799.
[60] Panel Report, at para. 7.1395.
[61] *Ibid.*, at paras 7.1396–7.1397.
[62] *Ibid.*, at para. 7.1468.
[63] *Ibid.*, at paras 1476–1477.

primary, secondary, or equivalent nature of the copying function *vis-à-vis* these machines' other functions.[64]

Against the above, to sum up, although the MFMs at issue have several functions, that is, printing, scanning, copying, and faxing, which bundles the ITA and non-ITA components into a product, it seems to the EC that the criterion of 'copying speed' alone serves to determine an MFM as 'unit of an ADP machine' (the ITA product) or a photocopier (non-ITA product). For a new composite innovation, not possible at the time the ITA was drafted, the EC has relied on 'one' non-ITA function that is subject to tariffs to determine the status of such a product, without further consideration of other ITA functions that carry zero tariffs. Also, the EC was not concerned with whether the copying function of the printer incorporated in MFMs uses the same photocopying technology as a traditional photocopier. Given this, for the EC, MFMs with copying speed exceeding twelve pages per minute would be classified as photocopying apparatus and, as such, as non-ITA products.

The Panel interpreted the meanings of subheading 847160 and subheading 900912 individually. By holding that the ADP MFMs at issue could satisfy the requirement that a unit must be 'of a kind solely or principally used' with an ADP machine as described in Note 5(B) (a) of Chapter 84 or the classification of composite machines is to be based on the machine that performs the principal function (e.g., printing, scanning or another 'input' or 'output' function) under Note 3 to section XVI, the Panel considered that some ADP MFMs will therefore fall within subheading 847160, subject to a zero tariff, as ITA products. In this regard, the Panel pointed out that the analysis of whether a unit is 'of a kind solely or principally used' with an ADP machine should be on the design and intended use of the product based on an examination of the objective characteristics, on a case-by-case. It also denied that the criterion of the 'per minute copying capability' of the apparatus, not set forth in the HS Chapter Notes, could alone serve to determine 'principal use' of the MFMs. Neither does the Panel regard subheading 900912 as an applicable subheading for the ADP MFMs at issue because of different technologies used.

3. Systemic Implications of the *EC-IT Product* Case for the ITA Product Coverage

The *EC-IT Product* case manifests the crucial issue of tariff treatment of the mixed products, that is, original ITA products that have new technology and non-ITA features after technological change. The Panel, by virtue of the terms being interpreted in the concessions, embraces a broad interpretation of category definitions, making product coverage inclusive of technological development; at the same time, it also set some limitations for qualified products falling within the concessions. From the perspective of a systemic concern, at least for the products at issue, more products with added new technology

[64] *Ibid.*, at paras 7.1481 and 1488.

potentially might be able to receive duty-free treatment, which would contribute to the maintenance of the ITA to the IT reality in the future. However, on the other hand, the rules that the Panel set for making distinctions between ITA and non-ITA products in its interpretation of the concession have the potential to lead to future confusion and tension, which would further hinder technological development and free trade in IT goods. In this regard, the dispute settlement mechanism does not provide a satisfactory systemic solution. Relevant points follow.

3.1. ITA SUPPORT OF TECHNOLOGICAL DEVELOPMENT CONTRIBUTES TO MAINTAINING THE RELEVANCE OF THE ITA

Insofar as the products at issue in the *EC-IT Product* case are concerned, the Panel ruling is in favor of evolving technological development. Some ITA products with added new technology and non-ITA functions might continue to receive duty-free treatment as ITA products after technological change. Systemically accommodating contemporary or new technology into the text of concessions, drafted at the time of negotiation in 1996, has signaled that the ITA, as a trade agreement that applies to IT products that adapt through technological change, might maintain relevance as future technology progresses. Along this vein, conceivably, more new IT products would not be necessarily precluded from duty-free treatment just because they are new technology. Relevant technological implications for the ITA generated by this case can be observed from three perspectives as follows.

First, the meaning of IT products, as defined in the ITA, might be dynamically expanded and adapted to contemporary or future technological development. For instance, in the case of STBC concessions, the concept of 'modem' is understood in a broader sense, meaning that it will not necessarily be in the form of telephone line-based modems, which were the type of modems in use at the time of drafting. Instead, it would cover newer technologies developed to transfer data over a communication line.

Second, new technology would not necessarily constitute a hurdle for the IT product to remain within the ITA list. For instance, the FPD concession covers FPDs incorporating a wide range of technical characteristics and technologies. The inclusion of DVI, HDMI, and other devices, which are new technologies and have appeared after the conclusion of the ITA, would not necessarily preclude LCD displays containing this technology from being covered by the ITA. The same is true in the case of ISDN, WLAN, Ethernet, ADSL, or ISDN technology in the context of the STBC concession.

Third, the combination of non-ITA functions into the IT product would not necessarily exclude it from the ITA coverage. As shown, in the FPD concession, display monitors that can also be used with some non-ITA devices such as DVD recorders and TVs remain qualified as ITA products. Under the STBC concession, set top boxes performing a recording or reproducing function could also be covered as ITA products. ADP MFMs with the capacity of digital copying could also be classed as ITA products.

Given the above, the author considers that adapting the ITA to technological development is laudable and worthy of support. It would not only be in line with the object and

purpose of the ITA, which is to achieve maximum freedom of world trade in IT products and to encourage the continued technological development of the IT industry on a worldwide basis, but also make the ITA more relevant in real world of modern IT. If IT products that were listed in the original ITA are no longer covered by the ITA simply because they are fitted with more technologically sophisticated functions or new technological features after 1996, it would not only impede trade but also discourage the dissemination of new IT technologies. Paradoxically, the older, less sophisticated products that existed at the time the ITA was finalized would be subject to secure and predictable zero tariff trading conditions while the later developed version of IT products fitted with products on the forefront of technology at the current time would be seen as susceptible to unpredictable application of tariffs. As shown in the *EC-IT Product* case, for instance, imports of display monitors destined for the EC markets faced a jump in tariffs from zero in 2004 to 14%. In this regard, notably, according to US estimations, global trade in the three products at issue in the *EC-IT Products* case was worth USD 70 billion in 2007, where EC imports totaled USD 11 billion. Taiwan also estimated that the custom duty collected by the EC on Taiwan's LCD exports alone was as much as USD 650 million.[65] It is the advancement in technology that motivates a new product to enter the marketplace; however, it is also because of this new technology that the product's expansion is obstructed when it involves cross-border trade. In such a case, the duty-free benefits accorded by the ITA will be substantially undermined by taxing new technology.

In addition, if ITA product coverage is limited to products as they existed at the time the ITA was negotiated, the entire ITA system might be nullified. As more products with old technology are outmoded by market forces and replaced by newer technology products, more and more items covered by the ITA would become obsolete, the ITA would thus also be in danger of becoming obsolete. In such a case, the ITA would be less relevant to the trade in IT products prevalent on current markets and more distant from the real world of modern IT. With respect to the link with current markets, as described in the *EC-IT Product* case, as the EC only maintained a zero tariff for monitors used solely with computers, in effect, it has resulted in all LCD computer monitors existing on the current market subject to 14% duties, as DVI technology has become a common technology used in virtually all monitors.[66] Notably, the complainants once argued that the EC provided that LCD FPDs subject to the zero tariff generally have a diagonal measurement of the screen of 48.5 cm (19 inches) or less,[67] which are likely to be used as computer monitors. The EC imposed those larger LCD monitors (larger than 19 inches) with a 14% tariff and argued that they are likely to be used as TV monitors.[68] However, as a matter of fact, LCD monitors larger than 19 inches, such as 21, 22, 24, 26, 27, 30 inches, are also used as

[65] 'United States, Japan and Taiwan request WTO panel to settle ITA dispute with the EU', Business Alert – EU, industry news, issue 18, 2008, http://info.hktdc.com/alert/eu0818a.htm (last visited 10 Oct. 2010).

[66] WTO, 'Committee of Participants on the Expansion of Trade in Information Technology Products', G/IT/W/26, 12 Jan. 2007.

[67] However, the Panel did not consider that the guidance provided for 'diagonal measurement' in the EC regulations constitutes the criteria to exclude products at issue in this case.

[68] Dreyer & Hindley, *supra* n. 6, at 14–15.

computer monitors on the present markets. LCD monitors smaller than 19 inches, such as 15, 16, 17, are available for the purpose of TV monitors. In addition, more TV monitors of larger sizes are increasingly made with plasma technology, not LCD technology. As plasma technologies are more generally used in TV monitors, it seems that computer monitors with larger sizes would be the products mainly affected by the EC's imposition of customs duty.

Similarly, in the case of the Ethernet devices incorporated to the STBCs, if the Ethernet device is not considered to be a 'modem', then other network connections, DSL or cable modems or ISDN modems might also be dutiable. This result would create an adverse impact on the entire industry. In fact, almost all STBCs sold today are equipped with cable modems or network-based modems so as to gain access to the Internet or equipped with hard drives for storing information received through the function of interactive information exchange.[69] As a consequence, as technology continues to move forward, the gap between the IT markets and the ITA would be enlarged. In particular, as technological convergence is still rapidly evolving, more IT products with increased functions means the market is entering into the multifunctional era.

3.2. Inadequate exclusion criteria are detrimental to technological development and IT trade

In spite of the introduction of a new technological sense into product coverage, the *EC-IT Product* case, on the other hand, also casts another doubt worthy of observation. As pointed out above, in the case of FPDs, by indicating that products at issue would not qualify under the concession 'to the extent they did not provide an acceptable level of functionality or operability', the Panel seems to have delineated some scope for products to be eligible as ITA products, in terms of the FPDs. That is, the capability of the FPDs to operate with computers should be 'an ability to operate with an acceptable or functional level of operation'. In this regard, the Panel, in particular, pointed that 'the mere capability to receive signals from computers is not enough'; for instance, 'the resolution of certain products may not be high enough to properly display signals from a computer'. Paradoxically, inasmuch as the FPDs concession is concerned, the Panel first recognizes the broad scope of products in that 'there is no express limitation on technical characteristics'; however, it then set a limiter of 'an ability to operate with an acceptable or functional level of operation', a kind of 'technical characteristic' of the products, to preclude some FPDs from this coverage. Based on this, it is implied that as long as the FPDs would no longer be equipped with sufficient capacity for connecting to computers, they are likely to lose the duty-free treatment, as non-ITA products. If this is the case, one might further ask: would it imply that, in principle, parties are entitled to exclude some FPDs that were originally covered by the ITA? What is the exact meaning of 'an acceptable level of functionality or operability'? Presuming that the incapability of the FPDs to connect to

[69] WTO, *supra* n. 66.

computers is coming from the advancement of a new technology, will such products become non-ITA products, too? If the answer is in the affirmative, in consequence, would it impede the potential development of new technology? Furthermore, for the purpose of the ITA, can the difference of 'level of functionality or operability' really serve as sufficient grounds to void the classification of some FPDs as the ITA products? More practically, how should the various custom administrations of parties effectively enforce such criteria? In the case where FPDs with 'an acceptable level of functionality or operability' with computers and those having no such functionality or operability might fall within the same category of HS customs classification, is it feasible to expect that custom administrations would conduct an analysis on a case-by-case basis at the border?

STBCs also offer another example. In addition to recognizing that the terms of concession can be understood in a newer technology sense, as noted above, the Panel pointed out that 'additional functionality may, at a certain point, result in a product not meeting the description of a "set top box which has a communication function" '. '[T]he concession *does not cover all multifunction products* which may incorporate in them a set top box with a communication function.' Also, '*if through the inclusion of additional features or incorporating it into another product*, an apparatus may no longer be described as, in essence, a "set top box which has a communication function", it would not be covered by the concession' (emphasis added). In the view of the author, the Panel seems to have explicitly set a maximum coverage of STBCs, as ITA products. More specifically, the Panel, for the first time, admits that additional features or the manner in which the ITA product combines with another device may make an original ITA product into a non-ITA product. In terms of STBCs, as long as an apparatus may evolve so as to no longer be described as a 'set top box which has a communication function' as defined by the concession, it would become an entirely new product, the non-ITA product. In this way, similar to the case of FPDs, it seems to indicate that as technologies continue to move on to 'a certain point', the status of FPDs would be shifted into dutiable non-ITA products. It is the product's evolution that substantially transforms the FPDs into a non-ITA product. Would this imply that as more new innovations enter the markets, the number of dutiable 'non-ITA products' would increase? If the product incorporating the STBs becomes ineligible for duty-free treatment, would producers of TV sets or video monitors be given sufficient incentive to integrate the STBs into their products? If a TV monitor uses an external STB to maximize the producers' benefits given both products (ITA products) are subject to zero tariffs respectively, what would drive such integration? If the integration of TV monitors (or traditional TV set) and STBs is the result of technological advancement, which may benefit all of the consumers, why should this kind of multifunctional product not be given clear duty-free treatment? Furthermore, there also seems to be a need to clarify the meaning of the term 'incorporating'. For instance, the current practice among some TV set producers is to provide the set top box to their consumers with the TV set, and consumers are asked to affix the set top box with the TV set by locking screws on their own,[70] does this constitute

[70] Such as Panasonic, Toshiba.

'incorporating'? Additionally, if the producers of TV sets or video monitors do not develop such a new integrated product, chip design manufactures and chip integration firms might also be indirectly impacted. Finally, how the customs authorities can make a determination as to whether a product is a set top box not meeting the description based on a case-by-case analysis of the objective characteristics of a product as it is presented at the border remains questionable.

Another observation concerns the MFMs. As noted, the Panel indicated that not all MFMs are certain to be qualified as input or output units of computers falling within the scope of duty-free heading 8471, where a determination of whether a unit is one that is 'solely or principally used' with computers shall be made in terms of the objective characteristics of products on a case-by-case basis. In this regard, the Panel also referred to the guidance set out in Note 3 to section XVI for composite machines; some MFMs may fall within duty-free subheading 847160 if the 'principal function' of that machine is printing, scanning, or another 'input' or 'output' function. On this vein, arguably, the Panel seems not to preclude the possibility that 'principle function' can be used as criteria to determine the tariff treatment of multifunctional products, such as MFMs. In this way, if the copying function, a non-ITA function, would constitute a 'principal' function prevailing over other secondary ITA components, then such MFMs would not be ITA products anymore, even if it is the forefront technology developed to drive such an innovation. As a matter of practice, likewise, that customs administrations can comply with this rule to distinguish the principal, equivalent, or secondary function within a merged product seems doubtful. Moreover, it needs to be noted that the Panel also seems not to bar the possibility that the MFMs at issue, arguably and seemingly, could also be eligible to fall under another dutiable subheading, subheading 900912, as photocopying apparatus. It is also unclear what the parties should do when facing such competing headings, dutiable and non-dutiable. In addition to this, notably, in the case of FPDs, the Panel considered that it does not preclude the possibility that 'some of the products at issue, depending on their particular objective characteristics, may fall within the scope of other headings or subheadings, by virtue of the effect of the HS interpretative rules considered as context'. In this way, it seems to point to the conclusion that parties are entitled in accordance with 'HS interpretative rules' to determine whether FPDs are classifiable as non-ITA products subject to duties. To some extent, the Panel has expressed its support for the EC's arguments in this regard. Recall that in the cases of both MFMs and FPDs, the EC alleged that in a situation where a product may prima facie fall within more than one tariff heading, for customs purposes, the party is entitled to classify the products in accordance with HS rules. Notably, as applicable to the cases, the GIR 3(c) would require the custom authorities to classify products under 'the heading which comes last in numerical order', arguably, to justify FPDs as dutiable TV and MFMs as dutiable photocopying apparatus. In such a case, it seems to leave the 'HS interpretative rules' to be decisive in the determination of tariff treatment of IT products originally covered by the ITA. In the view of the author, the use of 'HS interpretative rules,' in particular that of 'the heading which comes last in numerical order,' to determine the eligibility of the IT product with new technology or multifunctional

functions would be an oversimplification, lacking legal or economic grounds. It should be noted that the 'HS interpretative rules' are applicable for 'the customs purpose' and are not necessarily suitable for 'the ITA purpose'. In particular, for those products covered within Attachment B, it is the narrative product descriptions that determine the scope of the products to be extended duty-free treatment, regardless of under which tariff line the products are classified. Additionally, if the customs authorities apply the HS rules as such at the border, the loss of trade and the impact on the industry will occur immediately.

Taken together, from these systemic concerns, two points follow.

First, the Panel, by making reference to the terms of the respective concessions, has in effect defined or pointed to some possible distinctions in ITA and non-ITA products in terms of specific concessions. It seems to the author that the Panel, to some degree, has reflected the character of the ITA structure established from the outset, that is, only certain products are covered by the ITA, not all IT products. In other words, although the Panel adapts the terms of concession to the evolving technological development, it seems not to forget to note the concerns that follow from the dividing line between the ITA and non-ITA products. By virtue of specific term of concession (the term 'used for' in FPDs), the level of additional functions (STBCs), and HS interpretative rules (MFMs), the Panel has revealed that not all IT products, originally identified in the ITA, would be given a guarantee as ITA products after technological change, and additional functions or new features developed, in certain circumstance, can change the duty-free status thereof. In this way, in addition to those 'genuinely' products yet to be included into the ITA coverage since 1996 (such as TV), it seems that some IT products originally covered by the ITA would 'graduate' or be excluded from the ITA coverage depending on the stage of evolution, entering into 'dutiable non-ITA product' categories, a new third category that cuts between the original commitments taken and those explicitly not taken from the outset pursuant to the ITA. In such a case, not all IT products with new technology and features appearing after 1996, commonly used by the industry or general consumers on the market, would certainly be qualified as 'new' products, subject to tariff, in the context of the ITA, because they would be covered by the scope of original ITA. Neither can all IT products with new technology and features appearing after 1996 necessarily be considered as ITA products, subject to a zero tariff, because they may be unqualified to fall within the scope of the ITA. Although such a confusing distinction might have some justification in the dividing nature of the ITA structure and be the application of a sensible interpretation of the concession, in the view of the author, it might further distance the ITA from the reality of evolving convergent technology and industries. In addition, as described above, the criteria for the distinctions between ITA and non-ITA products in the given concession are inappropriate, which would potentially discourage the development of new technology and the expansion of IT trade where new products might be dutiable.

Second, in determining whether a specific product could satisfy the above criteria, relevant customs authorities must conduct an examination of the 'objective characteristics' of products on a case-by-case basis to answer the following: what is the level of functionality or operability of each model of FPD with computers? Will additional functions or the

manner in which the STBCs are incorporated into TVs make it no longer classed as STBCs? What is the level of performance of each of the different functions of the multi-functional device? Which one serves the primary function with the dominant importance? As described above, it seems extremely impractical. As the ADP MFMs case has demonstrated, to distinguish the 'digital copying' from dutiable 'analogue photocopiers' might prove to be technically complex. Customs authorities generally do not have sufficient technical professionals and time to examine the level of each respective function's performance inherent in a mixed product at the border. Besides this, that the Panel did not provide any guidance concerning the application of such exclusion criteria may exacerbate the problems. Because of too much room for various customs authorities, there is great likelihood that more inconsistent practices and associated potential tensions or disputes would take place, as more new multifunctional products are introduced onto the market. Likewise, the problem created by the lack of guidance also can be found in all other ITA products.

3.3. The dispute settlement mechanism might not provide a sufficient systemic solution

One might not question what the role and value of the WTO dispute settlement mechanism serve in resolving disputes, including the tariff treatment of ITA products. However, by its nature, the dispute settlement mechanism can only deal with issues of specific products on a case-by-case basis so it can only provide a limited systemic solution. As shown in the *EC-IT Product* case, the task before the Panel was limited to what was required by the complainants. Therefore, whereas the Panel could make a decision as to whether 'some' products at issue shall not be automatically excluded from specific duty-free commitments, it cannot tell us in a detailed way which products are in or out of this commitment. Furthermore, to determine how technological development, product evolution, and new features of products should be dealt with, the Panel must make reference to the terms of the concessions that are being interpreted in light of the Vienna Convention on the Law of Treaties (VCLT).[71] In other words, to what extent the concerns raised by technological change would be addressed in relation to product coverage is contingent upon how the Panel interprets the specific terms of concession. In particular, the 'ordinary meaning' of the terms, which in light of Article 31 VCLT functions as the primary source of interpretation, would only lend itself to the understanding that it is meant to be binding. In the context of the ITA, the task of the interpretation might be proven to be more complex, technical, and challenging. The issues handled in this regard are not only with the tariff classification, the HS code, or HS interpretative rules, it would also relate to the ordinary (or technical) meaning[72] of the

[71] VCLT, *supra* n. 16.

[72] For instance, in order to define the terms of concessions, in addition to ordinary dictionary such as *New Shorter Oxford English Dictionary*, the Panel in the *EC-IT Product* case also referred to some technical dictionaries, including *Microsoft Computer Dictionary*, *McGraw-Hill Dictionary of Scientific and Technical Terms*, *Techweb On-line Dictionary*, and *Newton's Telecom Dictionary*.

concerned tariff line or narrative product descriptions, the subsequent practice of the parties, and the purpose of the Agreement and sometimes must trace back to the background document indicating the negotiating history and the level of technology at the time of negotiation. Taken together, as a consequence, for each of the products at issue, although the Panel has new technology in favor, it also set different qualifications to receive the duty-free treatment, limited to the scope of coverage through terms and conditions and inadequate use of HS interpretative rules. Along this vein, as the Panel has held, establishing the relevance of technological development with the concession must make reference to the terms of concessions. This may lead to a process of interpretation and in respect of new technology would not be open-ended. In this way, not all products at issue are ensured to qualify as ITA products after technological change. In practice, neither can the conditions set be effectively enforced to prevent inconsistent customs practices and possible tensions. Notably, the aim of the dispute settlement is to secure a positive resolution to a dispute.[73] Although to the extent that relevant provisions or agreements have been adjudicated through WTO rulings, legally speaking, parties' conflicts, to a certain degree, might be prevented or reduced, this never provides a guarantee.

Looking beyond IT products involved in the *EC-IT Product* case, before any new cases are brought to the WTO, it seems that no one could have full confidence that a specific new product with a multifunctional device would necessarily continue to remain within the ITA coverage. As technological change of IT products takes place quickly and products with additional functions can be found in many instances, if parties do believe that they are entitled to impose tariffs on some new products, which in their eyes are yet to be included in the ITA, it is likely that the *EC-IT Product* dispute will be the first of a series of disputes. As a related point, some concerns have also been raised concerning the EC's tariff treatment provided for another two commonly used IT products, that is, multifunctional mobile phones and digital still image video cameras (digital cameras). In the case of multifunctional mobile phones, in addition to the mobile telephony function, they normally also contain other features such as packet switching for access to the Internet, sending and receiving positioning signals, navigating, routing, maps, instant messaging, VOIP (voice over Internet Protocol), PDA, gaming, receiving radio or TV signals, capturing, recording, and reproducing sound and images.[74] Although mobile phones are contained by the ITA, certain EC Member States have previously proposed that some 'sophisticated' phones such as those fitted with GPS and TV reception functions should be taken out from being classified as mobile phones under duty-free tariff item number 85171200 into a dutiable customs heading. If accepted, this would entail mobile phones with increased functionality, such as GPS receivers and mobile TV, to be applied with 14% duty.[75] The EC finally did not follow-up and decided that mobile phones with increased functionality can receive zero tariff under tariff item number 8517 12 00, provided that 'the principal function of the

[73] Article 3.7 DSU.
[74] See The EC Explanatory Note for tariff item number 8517 12 00.
[75] See http://eccustoms.blogspot.com/2009_07_01_archive.html (last visited 10 Oct. 2010).

apparatus ... is considered to be that of mobile phone communication over a cellular network'.[76]

Additionally, the ITA also covers digital cameras, but it does not cover video camera recorders. Currently, digital cameras are capable of shooting high-quality video that allows the user to record and view a limited amount of video for personal use. Pursuant to the EC regulations, the main criterion to distinguish between a digital camera and a video camera recorder seems to lie in the length of the video recording capability. For instance, for cameras having a maximum resolution of 640 × 480 pixels, classification will depend on 'the amount of minutes for video recording'. If such camera uses the 1 GB memory of the card and can record approximately forty-two minutes of video at thirty frames per second, then it is classified as digital camera under tariff item number 85258030 with zero tariff. By contrast, if it uses the 2 GB memory of the card and can record two hours of video at thirty frames per second, it is subject to tariff item number 85258091 with 4.9% duty as video camera recorder.[77] Arguably, in terms of technology progress, focusing on specific specifications and criteria of 'the amount of minutes for video recording' might need more sound grounds. As estimated, total exports of digital cameras were as much as USD 31.1 billion in 2005. Inappropriate custom duties as a result of the application of unjustified criteria may further impact those exporting countries, including Japan, China, the European Communities, United States, Indonesia, Malaysia, Singapore, Thailand, South Korea, Chile, Brazil, Guatemala, and Costa Rica.[78] Notably and practically, Thailand and Indonesia imposed 4.9% and 15% duties, respectively, on digital cameras. Japan expressed a concern through the ITA Committee. As a result of negotiations, Thailand agreed to reclassify digital cameras 'with added video functions' as digital still image video cameras and apply zero tariff. Indonesia also agreed to progressively lower its tariffs on the product to zero tariff.[79]

Given this, in the absence of a systemic approach to address the blurred boundary between the ITA and non-ITA products and the associated tariff treatment issue under technological change, if more parties are protectionist and impose duties on the IT products because of the added new technology or functions, a risk of nullifying the ITA might increase. However, from the systemic perspective, the dispute settlement mechanism could only provide limited help or even exacerbate the problems in certain circumstances. Another related point is that the author also does not believe that the inclusion of some important consumer electronic products, yet to be included, such as TV or video monitor, into the ITA list would offer an entire solution. Apart from political difficulties, even if those products were included, they would be likely to face the same problem faced by the current ITA products, that is, after technological change, whether the technology or

[76] Commission Regulation (EC) No. 717/2009 of 4 Aug. 2009 concerning the classification of certain goods in the Combined Nomenclature.

[77] Commission Regulation (EC) No. 1231/2007 of 19 Oct. 2007 concerning the classification of certain goods in the Combined Nomenclature.

[78] WTO, *supra* n. 66.

[79] WTO, 'Committee of Participants on the Expansion of Trade in Information Technology Products', G/IT/M/42 (15 Apr. 2005), G/IT/M/44 (17 Feb. 2006).

features added would preclude them from the list. In this regard, the same question raised in the *EC-IT Product* case will reoccur to the Panel.

4. Establishing an 'Understanding' on Maintaining the Product Coverage of the Current ITA in the Face of Technological Change

4.1. Seeking a new systemic approach

As reflected in the *EC-IT Product* case, the root of problems in relation to how the ITA product coverage in the face of technological change should be dealt with originates from the dividing ITA nature from an outset, where some products are yet to be included into the ITA, such as TV, video recorder, and photocopy apparatus. However, new convergent technology has obviously blurred the boundaries between these two categories of IT products, that is, the ITA product listed and non-ITA product off the list. In spite of this, the ITA provides little guidance as to what is truly an additional product or what is covered by current commitments.

Recourse to the dispute settlement mechanism to clarify and interpret the commitments on the basis of specific products, as shown in this instant case, is yet to provide sensible solutions on the systemic level. Nevertheless, some reflections on this case are of great value not only for the products included in this case but also for all IT products listed in the existing coverage. That is, to fulfil the purpose of the ITA, which is to achieve maximum freedom of IT trade, and to encourage the continued technological development of the IT industry, all ITA products should not be arbitrarily excluded from the current list because of the addition of new technology or non-ITA features and duty-free treatment on these ITA products should be guaranteed to the fullest extent possible. In light of this, it entails a commitment of parties to establish a more pragmatic approach to narrow down the divergent practices and potential tensions with each other.

The author considers that to define the exact scope of the ceiling in accordance with concessions for specific products, as the Panel did in the instant case, does not offer much for the purpose of averting contentions. As stated, mere use of single standard, such as product specification, the level of additional functions, or the use of HS interpretative rules would only exacerbate the problems. However, on the other hand, it also gives a signal that the distinctions between ITA and non-ITA products would be a reflection on the dichotomy of the existing ITA structure, where parties are entitled to impose a tariff on non-ITA products.

On the basis of above considerations, without changing, or say it is impossible to change,[80] the current dividing ITA structures, the author considers that addressing the issue

[80] The exemption of some IT products reflected in the definition of ITA product coverage was led by the United States and the EC. The EC maintained its firm stance in protecting its domestic products, so that relatively high import duties applied to consumer electronics products. Actually, the consumer electronics exclusion means that more than 10% of global IT products remain outside the scope of the ITA. The dichotomy of the ITA is closely tied with the industry interests. It further can be found in the case of the setback in the ITA II negotiation, where parties' divergence over the inclusion of specific consumer electronics items has proven to be wide and deep. In considering the technical difficulty

concerning product coverage in terms of new technology needs to be dealt with in a more practical way. The author proposes a new idea, although of preliminary and abstract nature, that the ITA Committee, as agreed by parties, may consider establishing a kind of 'understanding' to help maintain existing product coverage under technological change, as a common rule. In the following part, relevant points are elaborated.

4.2. A proposal for an 'understanding' on maintaining product coverage of the current ITA under technological change

To address the concerns of the parties about the tariff treatment of existing ITA products impacted by technological change, the ITA Committee was asked to hold further discussions with a view to find a 'simple, transparent, and expeditious solution'.[81] According to the author, in view of fulfilling the object and purpose of the ITA, that is, to achieve maximum IT trade and to ensure the continuing technological development, at the time of rapid technological change, parties shall assume the responsibility to exert the most possible efforts to maintain the existing ITA product coverage and avert it from being undermined by unilateral inappropriate actions in the absence of clear rules. In this regard, the author considers that the recourse to the form of an 'understanding', establishing some important principles and offering guidance for parties in the determination of whether an IT product combined with new technology and features can be categorized as an ITA product, might merit discussion, which will be compatible with the 'simple, transparent, and expeditious solution' contemplated by the ITA Committee.

Legally, if such an 'understanding' can constitute an 'agreement relating to the ITA' between the parties or their 'acceptance' as an instrument related to the ITA, it might be characterized as relevant 'context' in the light of Article 31(2) VCLT for the interpretation of the ITA. From this perspective, in addition to serving as the pragmatic guidance, this 'understanding' might further be used as an interpretative tool in the interpretation of parties' ITA concessions, to ensure that zero tariff treatment of current ITA products can be retained even after technological changes and to achieve the purpose of the ITA.

To elaborate the substance, the author proposes that the 'understanding' should focus on how to ensure that IT products can remain within the current ITA coverage to the fullest extent possible even as the technology they use evolves, as well as how to practically decrease the occurrence of inappropriate measures and potential tensions. To this end, according to the author, the use of 'like product' analysis and the introduction of 'indicative good practices guidance' could serve as a pragmatic tool and the starting point for further discussions. Further points are as follows.

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and politically sensitive nature, it seems less likely, almost impossible, for parties to change the pattern of the distinction between the ITA and non-ITA products in terms of 'lists'. Barbara A. Fliess & Pierre Sauve, *Of Chip, Flopy Disks and Great Timing: Assessing the Information Technology Agreement* (Tokyo Club Foundation for Global Studies, 1997), 27, <www.nomurafoundation.or.jp/data/19971011_Barbara_Fliess_-_Pierre_Sauve.pdf> (last visited 17 Oct. 2010).

[81] WTO, 'Committee of Participants on the Expansion of Trade in Information Technology Products', G/IT/M/48.

4.2.1. *Using 'Like Product' Analysis to Ensure ITA Products Retain Coverage as Technology Changes*

The point at which a new functionality or features added to a product makes an ITA product no longer an ITA product is a hard issue of contention. The author is of the opinion that in dealing with such an issue, we might reconsider it from the perspective that ITA products with additional new functionality or features, to a large extent, might be similar to those products originally listed in Attachments A and B, even after technological change. Taking the mobile phone as an example, the difference between mobile phones with increased functionality and those originally covered by the ITA might lie in the additional multifunctions brought about by new technology. Therefore, because new types of mobile phones still function as mobile phones with the function of vocal communication over a cellular network, without experiencing a substantial transformation disqualifying it as a mobile phone, in the view of the author, they should remain designated under the duty-free mobile concession. In this regard, crucially and notably, the coverage of products in the ITA is defined by a 'product' list. In particular, products in the Attachment B are set forth in the narrative description, regardless of which tariff line the products are classified under by the parties. Following this, any products belonging to the same specific product headings described in the ITA concessions, logically, should be the products with same or similar objective characteristics. Based on this, the author suggests that if the ITA products with increased functionality would still be of the same or similar class or kind as those products contained in the original ITA concessions, they should be seen as products that can continue to receive the duty-free treatment. On this point, the author believes that the analysis of 'like product'[82] established by the WTO jurisprudence in trade in goods should be helpful in identifying the range of IT products that fall within the ITA concession as technological change occurs.

Traditionally, the basic approach on the determination of 'like product' under GATT is an examination on a case-by-case basis, in light of four factors: (1) the properties, nature, and quality of the products; (2) the end uses of the products; (3) consumers' tastes and habits; and (4) the tariff classification of the products.[83] This approach is largely market based, and the factors are not exclusive. In light of this, through the overall assessment of the four criteria, whether the new technologies or features may result in the products having different 'physical characteristics' as 'unlike' the product identified in the original ITA would be taken into account. In other words, in the application of the 'like product' analysis, parties may need to examine the following: would the difference in technologies or features be 'important' enough to disqualify the multifunctional product as a like product

[82] See Arts 1 and 3 of the GATT. Textually, 'like product' is defined in Art. 2.6 of the Anti-dumping Agreement in general. It is stated that 'throughout the Anti-dumping Agreement, the like product is a product which is identical, i.e., alike in all respects to the product under consideration, or in the absence of such a product, another product which, although not alike in all respects, has characteristics closely resembling those of the product under consideration'.

[83] See *Japan – Taxes on Alcoholic Beverages* (WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R, 4 Oct. 1996); *European Communities – Measures Affecting Asbestos and Asbestos-Containing Products* (WT/DS135/R, 18 Sep. 2000; WT/DS135/AB/R, 12 Mar. 2001).

to those that fall under the ITA? Do factors such as the general physical characteristics of the product; the channels, class, or kind of trade in which the product moves; the environment of the sale (i.e., accompanying accessories and the manner in which the product is advertised and displayed); the use in the same manner as the product defined by the ITA; the economic practicality of so using the product; and the recognition in the trade of this use result in the new product becoming 'unlike' to original ITA product?[84]

In this sense, for instance, in the case of LCD monitors fitted with a DVI connector, parties may consider whether the addition of a DVI connector results in the LCD monitors being physically dissimilar to LCD monitors covered in the ITA, whether the use of such monitors is designed for and actually closely linked with the ITA product (computer), whether the main functionality is based on the original ITA product, and whether a DVI connector serves as the dominant technology on the market enabling consumers to distinguish it from LCD monitors. Also, in the case of the set top box with a hard disk drive, one may consider whether the inclusion of a recording function would in effect 'substantially transform' the set top box into another different product, that is, a video recorder, while they still have a main communication function to connect to the Internet.

In sum, the author proposes that to the extent that an ITA product as it is exposed to technological changes, on the basis of the overall assessment of relevant factors, would be considered as 'like product' to an original product in the ITA, it should continue to fall within the same ITA coverage. By virtue of this approach, although the products after the latest technology change may not secure a full guarantee for a zero tariff treatment (at some point they may become non-ITA products), at least, in most stances, new products would be retained in the ITA coverage as long as the new features or technology added does not create the 'unlikeness' to those originally listed products. This approach would also function as the tool to reflect the dichotomy of the existing ITA structure.

4.2.2. *Developing an 'Indicative Good Practices Guidance' to Avert Inappropriate Practices*

In order to reduce the possible arbitrary or inappropriate measures applied by the parties, the author proposes that it might be worthy to develop 'indicative good practices guidance' to exemplify good practices, that is, turning some good practice into common practices for parties. In terms of identifying some good practices based on the experiences of parties (including negative or positive aspects of measures), all parties and customs authorities could therefore understand and be guided as to which practices are recommended as supportive of the object and purpose of the ITA and which are not recommended. In this way, parties should fully take 'good practices' into account in the determination of ITA products after technological change, which might safeguard the existing ITA coverage and facilitate the avoidance of unnecessary tensions. Notably, the recourse

[84] See *The United States v. The Carborundum Company*, Customs Appeal No. 75-26 (17 Jun. 1976).

to the 'good practices' is not uncommon in international economic and trade law field. At the WTO, similar approach can be found in the TBT Agreement on 'Code of Good Practice for the Preparation, Adoption and Application of Standards'. Other examples include the 'APEC Guide for Good Regulatory Practice, OECD Good Practice Guidance on Internal Controls, Ethics, and Compliance, and the EU Government Procurement Code of Good Practice'.

In the following, as the first step for further discussion, the author proposes some principles indicating good practices guidance, as reflected in the EC practices in the *EC-IT Product* case, which the author believes have much reference value:

(1) Parties shall to the fullest extent possible ensure the maintenance of ITA product coverage under technological change in light of the object and purpose of the ITA.

(2) An ITA product shall not be classified as dutiable simply because it becomes more sophisticated or incorporates new technologies or additional functions that did not exist at the time the ITA was finalized, that is, 1996.

(3) The inclusion of one function that is subject to tariffs shall not be applied as the only basis for the exclusion of an ITA product from the duty-free coverage.

(4) Products that are designed for use with an ADP machine in principle should be the ITA products. Factors of digital interface or computer connectivity should be given important consideration in assessing the products.

(5) The principal function should be used as a basis for the determination of the essential characteristics of an ITA product that combines ITA and non-ITA functions into a single product. Where such principal function would be unidentifiable, the ITA function should be considered as the principal function.

(6) Technical specifications of an ITA product, such as size, dimension, refresh rate, speed, length, resolution, or other specifications, should not be applied as a basis for the exclusion of the ITA product, except as otherwise provided in the specific ITA concession.

(7) Where the new technologies or features added are at the forefront of technology or commonly used on the market, such an ITA product in principle should be maintained as an ITA product.

(8) Before excluding an ITA product, the likeness of such ITA product to the original ITA product shall be examined on a case-by-case basis. In any event, the tariff classification of relevant HS rules shall not be applied as the only basis for such exclusion.

(9) As far as practicable, parties shall provide an explanation why an exclusion of an ITA product is appropriate to the ITA committee where any party may raise any point relating thereto.

5. Concluding Remarks

The challenge ahead for the ITA with converging technologies is quite an important issue. As more functionality for multiple applications is developing, in the future, it is expected that all computing devices might function to communicate and all communication devices also can serve to compute.[85] However, the dividing character of the ITA, separating IT products in the list from those yet to be included,[86] by its nature, might make the ITA stumble on the converging technology trend.

The *EC-IT Product* case has opened Pandora's box: would original ITA products, after technological change, still be included in the ITA? In light of the terms of relevant concessions being interpreted, the Panel establishes that the ITA could be dynamic along with new technology that the addition of new technology or features would not necessarily warrant the exclusion of the ITA products from the duty-free coverage. However, the ITA's adaptation to new technology is not open-ended. Because of limitation on the scope of coverage through terms and conditions or the use of HS interpretative rules, ITA products might be excluded as a result; this is not necessarily supportive in terms of the ITA. Given this, establishing the interlink between technological change and the ITA concessions depends on the terms being interpreted by the Panel on a product-by-product basis cannot ensure a sufficient solution for the ITA.

This paper proposes to establish an 'understanding' on the maintenance of product coverage of the current ITA in face of technological change, which includes the use of 'like product' analysis and the development of an 'indicative good practices guidance', which might serve as a pragmatic tool and the starting point for further discussions towards finding the 'simple, transparent, and expeditious solution', conceived by the ITA Committee. In spite this, turning back to the political reality, how many parties would agree on the need for discussion on this issue[87] or truly intend to 'begin' to seek a more suitable systemic solution through 'negotiation' remains to be seen. Practically, at least for some parties, retaining the possibility to move on the blurring boundaries between the ITA and non-ITA distinctions in terms of new technology might offer comfortable room to impose tariffs on IT products, arguably yet to be included in the ITA, to serve domestic industries' interests.

As new features are being developed and technologies are evolving at an accelerating pace, one might ask: before the ink on the Panel report is dry, would the products included

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[85] Ray Foy, 'The Challenges ahead for the ITA with Converging Technologies and IC Manufacturing Techniques', presented at Information Technology: Symposium (18–19 Oct. 2004), <www.wto.org/english/tratop_e/inftec_e/symp_oct04_e/symp_oct04_e.htm#b> (last visited 17 Oct. 2010).

[86] It is noted that Japan submitted a proposal under the Doha Round Non-Agriculture Market Access negotiations that digital electric appliances, products that used analog signals but are currently using digital signals, should be further included into the ITA product coverage. In this regard, products may include refrigerators having Internet communication function, freezers having Internet communication function, and microwaves having Internet communication function. See TN/MA/W/15/Add. 2.

[87] Notably, ITA Committee has established 'Non-Tariff Measures Work Programme' to address non-tariff measures in relation to products covered by current ITA list. See WTO, 'Committee of Participants on the Expansion of Trade in Information Technology Products', G/IT/19 (13 Nov. 2000).

in the *EC-IT Product* case become obsolete? If it is the case, would the ITA just let the ink dry and see another new product appearing in a fresh lawsuit? If the ITA is frustrated because technology changes so fast, the ITA may just prove to be a victim of its own success for the past decade. Another possibility is that before the Panel is involved, will we think about something positive for the IT trade, technological advancement, and a booming digital society, which the ITA is mandated to bring about and thereby benefit all people in the world?

Submission Guidelines

The following is a brief guide concerning the provision of articles which may be of assistance to authors.

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3. Tables should be self-explanatory and their content should not be repeated in the text. Do not tabulate unnecessarily. Keep column headings as brief as possible and avoid descriptive matter in narrow columns.
4. A brief biographical note, including both the current affiliation as well as the email address of the author(s), should be provided in the first footnote of the manuscript.
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