

**WTO, E-commerce, and
Information Technologies**

**From the Uruguay Round through
the Doha Development Agenda**

A Report for the UN ICT Task Force

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About

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The Markle Foundation: Emerging information and communication technologies possess enormous potential to improve people's lives. The Markle Foundation works to realize this potential and to accelerate the use of these technologies to address critical public needs in the areas of health care and national security.

The United Nations ICT Task Force: The United Nations Information and Communication Technologies (UN ICT) Task Force was formally launched on 20 November 2001 by Secretary General Kofi Annan, with the mandate of promoting awareness, inclusive policies and innovative technological and business models, while also building public-private-civil society partnerships that would contribute to the realization of development goals through the application of ICT. The unique key to the Task Force is its truly global platform for placing ICT at the service of all the world's citizens. While not being an operational, implementing or funding agency, the Task Force serves as a catalyst with a facilitating and advisory role designed to promote synergy and better coordination, partnerships and initiatives, and a focal point for establishing strategic direction, policy coherence and advocacy for the common goal of a global ICT-based development agenda. To avoid duplicating other efforts, the Task Force has been collaborating closely with other global initiatives. To fully implement its objectives the Task Force has created Working Groups to address specific themes within the ICT—for—Development agenda and Regional Nodes to tackle the needs of different areas of

^{*} This paper - including the selection of topics, the treatment of issues, and the expression of opinion - reflects the independent views of the author and the editor and should not be attributed to their employers / the institutions they work for.

the world. The Working Groups' five themes include ICT Policy and Governance, National and Regional e-Strategies, Human Resource Development and Capacity Building, Low Cost Connectivity Access, and Business Enterprise and Entrepreneurship. By establishing regional nodes, the Task Force aims to provide region-specific support while enhancing synergies among existing regional efforts, to avoid duplicating efforts. They have expanded to include Africa, Latin America and the Caribbean, Asia, the Arab States, Europe and Central Asia.

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List of Acronyms

<i>Acronym</i>	<i>Definition</i>
CTD	Committee on Trade and Development
EC	European Communities
EMC	Electromagnetic Compatibility
EMI	Electromagnetic Interference
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
IT or ICT	Information and Communications Technology
ITA	Information Technology Agreement
ITC	International Trade Center
ITU	International Telecommunications Union
LDC	Least-Developed Country
MFN	Most Favored Nation
NAMA	Non-agricultural Market Access Negotiations
NGMA	Negotiating Group on Market Access
NTB	Non-Tariff Barrier
NTM	Non-Tariff Measure
OECD	Organization of Economic Co-Operation and Development
S&D	Special and Differential (as in, treatment or provisions)
SME	Small-and-Medium-Sized Enterprise
TNC	Trade Negotiations Committee
TRIPS	Trade Related Aspects of Intellectual Property Rights
UNCTAD	United Nations Council on Trade and Development
WCO	World Customs Organization
WIPO	World Intellectual Property Organization
WTO	World Trade Organization

WTO, E-commerce, and Information Technologies: From the Uruguay Round through the Doha Development Agenda

Foreword

This paper is an overview of one of the most important processes today determining the governance of information technology (IT): the growing role of the World Trade Organization (WTO), based in Geneva. Although its role is often overlooked, the WTO has in recent years emerged as a key player in IT governance, primarily through the application of the rules-based trading system to e-commerce. This role can be traced at least back to 1995, and has continued through the most recent (and difficult) Doha round of negotiations.

The Markle Foundation has been working on issues of Internet governance, with special emphasis on developing nations, for some time now. Recently, it has had the privilege of serving as a Member of the United Nations Information and Communication Technology Task Force and as chairman of its Working Group I, which focuses on IT governance and policy. The purpose in commissioning this paper is to offer a detailed and comprehensive picture of how WTO relates to one of the most crucial (yet often least understood) areas of IT governance. This task is important for several reasons.

First, the narrative presented here is important because the WTO's role is often overlooked, lost in the sea of bodies and institutions that are more explicitly involved in IT governance (e.g., ICANN). As this paper shows, however, the WTO is in fact deeply involved in IT governance and policy. To be sure, the WTO does not "regulate" e-commerce *per se*: it does not tell users what sites they can surf on the Internet; it does not tell ISPs how they must protect the privacy of their customers; and it does not tell governments that they have to regulate prices for Internet services. But the application of the WTO's rules-based trading system to the goods, services, and intellectual property that facilitate e-commerce, or that are traded via e-commerce, has a clear impact on the policies adopted by WTO Members to promote the development of the physical, human, and legal infrastructure for e-commerce. In this sense, the WTO can be understood as indirectly regulating IT by establishing a broad policy framework for its member states.

Second, the detailed narrative in this paper is also important because, even for those who already know of the WTO's involvement, its precise role is often unclear. This lack of clarity makes it difficult for interested parties—and in particular developing nations and civil society groups—to participate as informed actors in the ongoing debate over IT governance.

It is therefore essential that all stakeholders (and developing countries in particular) have a better understanding of the issues at stake. Those issues include physical, institutional and financial barriers to participation in global e-commerce; the special and differential provisions applied to developing countries through the Doha negotiations; and the work done by the Committee on Trade and Development (CTD), which plays an important role in bringing together the many

players involved in IT governance (including UNCTAD, the ITU and WIPO). This paper does a valuable service—not just to developing countries, but also to all countries that have a stake in the global trading system—by explaining and clarifying such issues.

When studying the WTO, it is easy to get lost in the details, and in the back-and-forth momentum of agreements and disagreements that take place within committees. However, the approach taken by this paper helps lift the veil on the WTO's often highly technical work. By grouping IT goods and services into five baskets, the author highlights the specific issue at stake for IT governance. The paper thus allows us to move beyond the nitty gritty of committee work and into the broader topic of IT governance. It allows us to focus on what matters even while presenting a detailed picture of the background.

We know now, following the failure of the Cancun talks and the subsequent hope instilled by the framework agreement in July 2004, that we are at a critical moment in the WTO's work. Decisions made today will impact IT governance (and, more generally, the global economy) for generations to come. I believe that it is essential for these decisions to include as wide a variety of actors and sectors as possible: only such an inclusive approach can ensure the legitimacy (and, ultimately, survival) of the multilateral trading system.

But in order for a greater variety of actors to be truly included, they need to be informed. Only information and knowledge will give all stakeholders a voice at the table of IT governance. This paper can therefore be seen as a contribution to ensuring a wider discussion on an area of the WTO's work that is of particular relevance to our future. My hope is that it will stimulate further understanding of the WTO's role in Internet governance—and, in doing so, lead to a more efficient, and ultimately equitable, system of governance for existing and emerging technologies that will underpin and drive much of the global economy.

Zoë Baird

President, Markle Foundation

WTO, E-commerce, and Information Technologies: From the Uruguay Round through the Doha Development Agenda

Executive Summary

Although much of the early Internet hype has faded, e-commerce continues to grow and spread around the world. In recent years, the potential and importance of e-commerce to the economies and industries of the developing world has become particularly evident. Yet as e-commerce develops into a global phenomenon, the need for rules and principles facilitating e-commerce has become increasingly evident, too.

The search for these rules and principles is taking place in a number of different places, including the World Trade Organization (WTO). The WTO is the exclusive forum for negotiating and enforcing global rules governing cross-border trade in goods and services. The WTO does not aim to directly “regulate” e-commerce. But the application of its rules-based trading system to goods, services, and intellectual property facilitate and determine the physical, human, and legal infrastructure for e-commerce to a large extent.

Many conversations and debates have already taken place in the WTO about e-commerce and trade in information and communications technologies (IT). Many issues remain outstanding, particularly those regarding the involvement and interests of developing nations. As with trade rules in general, the search for a global set of principles to manage e-commerce has proven difficult, and often contentious. The needs and demands of developing and developed nations are often at odds. In many cases, the difficulties and disagreements can be attributed to the difficulty of the issues involved.

The purpose of this paper is in large part to take stock and explain most of the IT- and e-commerce-related WTO issues. It provides a historical overview of the WTO’s role with regard to e-commerce and IT trade between 1995 and 2003. It provides contextual background of and a detailed insight into the complex set of existing rules, categories and debates. Its aim is to inform the representatives of developing nations, civil society, and others who want or need to understand more about the WTO’s role in Information Technology governance and policy.

Three key questions are addressed throughout the paper:

- (a) How has the WTO approached e-commerce so far, and what results have been achieved?
- (b) How can e-commerce be deconstructed into “baskets” of IT goods and services to clarify the issues at stake?

(c) How are the interests of developing nations included and addressed in the WTO's current approach to e-commerce?

Three Forums of Debate

To some extent, the evolution of e-commerce rules and policies within the WTO is a fragmented process, taking place in different Councils and Committees using different perspectives. The paper identifies within broad parameters three ways that rules for e-commerce trade are being negotiated and formulated:

(1) **The WTO Work Programme on Electronic Commerce:** Established in 1998, the Work Programme is largely an exploratory process through which WTO members examine questions about the application of WTO agreements to e-commerce. Although the discussions have covered a wide range of issues, they have stalled on two key issues: (1) whether digital products (e.g., music or e-books) should be classified as goods or services; and (2) whether the existing moratorium on customs duties on electronic transmissions should be extended.

(2) **Information Technology Agreement (ITA):** Another way in which the WTO is addressing e-commerce trade is through the ITA, open to WTO Members and non-members, through which the participants commit to eliminate tariffs on a defined list of IT products. Currently, the ITA covers ninety-five percent of trade in IT products, such as computers, software, and IT equipment (it does not, however, cover electronic services). Nonetheless, two-thirds of WTO members are not ITA participants, and virtually all of these are developing countries, which harbor several reservations about the agreement. One of the key tasks confronting the WTO—among others outlined in the paper—is thus to widen the scope of ITA membership to accommodate developing-country considerations.

(3) **Doha Development Agenda:** The Doha Declaration, issued in 2001, committed to addressing the problems facing developing countries. It provides another opportunity for the consideration of e-commerce issues within the WTO. Although the Doha negotiations are not specifically designed to cover e-commerce, trade in electronic goods and services could nonetheless be included in negotiations on market access for non-agricultural products and services covered by the GATS. Thus, Doha offers an opportunity for a new vehicle to overcome some of the obstacles confronting the Work Programme.

A Basket Approach

To order the discussion of issues, this paper introduces “baskets” corresponding to different categories of IT goods and services, each of which represents a different facet of trade in e-commerce. This innovative basket approach helps clarify the issues at stake, and is intended to make the paper more accessible to non-WTO experts. The four “baskets,” which are analyzed in detail throughout the paper, include:

Basket I – IT Goods: Information technology goods include semiconductors and computers and other high tech goods that are part of the *physical* infrastructure needed to access the Internet/intranets and to conduct e-commerce. Many of these goods are covered under the ITA.

Basket II – Internet Infrastructure Services: There are several services that are part of the *virtual* infrastructure needed to access the Internet/intranets and to conduct e-commerce. These include basic telecommunications services, value-added telecommunications services, and computer and related services.

Basket III – Electronically Traded Services: Many services can be traded electronically, including audiovisual services, business services, financial services, travel and tourism services, and various professional services. Although the WTO already addresses trade in services, a number of new—and challenging—issues arise with respect to electronic services.

Basket IV – Digital Products: These are “content” products like software, books, music, movies, and games that can be traded in a physical form on a carrier medium like video tape or CDs, but are now traded electronically via the Internet. The increasing ubiquity of such products poses several challenges to existing trade agreements. In particular, the WTO has had to confront substantial disagreement over whether such products should be classified as goods or services (a decision which has substantial consequences for tariffs, among other issues).

Developing Nations

As should be clear from the above discussion, the importance and difficulties pertaining to trade in e-commerce are by no means limited to developing nations. Indeed, it would be fair to say that developing countries’ concerns have constituted only a fraction of the WTO’s work in this area. Yet developing nations do have substantial—and often specific—concerns regarding trade in electronic goods and services. This paper addresses many of these concerns, and suggests some possible remedies. Some issues of specific relevance to developing countries include:

Barriers: Several barriers exist to participation by developing countries in global e-commerce. These include physical infrastructure barriers, human and legal capacity barriers, and other non-tariff barriers. The paper discusses these barriers briefly, and suggests that it is crucial that any e-commerce framework developed under the auspices of the WTO take account of them.

S&D Provisions: The Doha Ministerial Declaration identifies three types of special and differential treatment that should be accorded to developing and least-developed countries in the Doha negotiations. These include provisions related to full tariff reductions for developing-country products, allowances for less than full reciprocity in certain cases, and general capacity building measures. The paper discusses the relevance of these S&D provisions to the emerging framework for trade in e-commerce.

CTD’s work: The Committee on Trade and Development (CTD) plays a pivotal role in defining the developmental potential of e-commerce. In doing so, CTD has highlighted the need for a comprehensive approach towards e-commerce within the WTO. CTD also provides for important convening and consensus building capabilities among the various regional and international bodies that are relevant to e-commerce and development such as the United Nations Commission on Trade and Development (UNCTAD), the International Trade Center (ITC), the International Telecommunications Unions (ITU), and the World Intellectual Property Organization (WIPO). This paper explains the CTD’s work on e-commerce.

The paper suggests five ways to address the barriers and concerns of developing country Members:

First, WTO Members need to ensure that those barriers that fall clearly within the WTO's responsibility are addressed through the Doha negotiations. This would include barriers to the development of physical, legal, and human infrastructure within developing countries that can be addressed through the WTO, but also those barriers in developed countries that impede exports from developing countries.

Second, international and regional organizations such as the ITC, UNCTAD, the Organization of Economic Development (OECD), the World Bank and other regional development banks, and bilateral donor agencies should continue their efforts to increase and coordinate the technical assistance they provide to developing countries to assess their economic/trade opportunities in e-commerce and to participate in the negotiations.

Third, the WTO should continue its work to provide a forum for its Members to exchange ideas about e-commerce policy and governance.

Fourth, WTO Members should continue their efforts to define specific applications of S&D treatment provisions to promote e-commerce and IT trade for developing countries.

And, fifth, the current attempts by WTO Members to analyze and recommend measures to increase flows of technology to developing countries should consider special opportunities for the inclusion of e-commerce- and IT-relevant themes.

Concluding Remarks

The analysis of the WTO's work on e-commerce and IT issues is complex. The issues are difficult, WTO Members have different priorities and positions, and multiple WTO Councils and Committees share jurisdiction over the issues. This study aims to clarify some of these issues by dividing IT goods and services into four baskets, explaining the WTO's work as it relates to each basket, and highlighting the specific interests of developing nations with respect to each basket. Despite being a snapshot of an evolving field of international rule and policy making, we hope the paper contributes to improved insight and informed participation by all stakeholders.

WTO, E-commerce, and Information Technologies: From the Uruguay Round through the Doha Development Agenda

PART ONE

I. Introduction

1. Although much of the hype about e-commerce has faded, from the governance perspective, e-commerce¹ is still a relatively new phenomenon, particularly when viewed through the lens of international trade. Consequently, there is a need to foster a global trade framework for e-commerce and information and communications technologies (IT or ICT) that is predictable, robust, and adaptable to future technological developments and changes in the marketplace. The World Trade Organization (WTO) has taken several steps to define how the multilateral, rules-based trading system should be applied in the online world, but its work is really just beginning.

2. In 1995, WTO Members implemented the Uruguay Round agreements which liberalized trade in value-added telecommunications and computer and related services and guaranteed non-discriminatory access to telecommunications networks. In 1996, WTO Members completed negotiations on the Reference Paper for Basic Telecommunications Services. In 1997, WTO Members completed negotiations on the Information Technology Agreement (ITA) to eliminate tariffs on a number of information technology products. In 1998, WTO Members agreed to continue their practice of not imposing customs duties on electronic transmissions and established a work programme to examine comprehensively all trade-related issues relating to e-commerce. And in 2001, WTO Members launched the Doha Development Agenda, which includes negotiations that may help to define further how the rules-based trading system is applied to e-commerce and IT.

3. This paper reviews the history of the WTO's work on e-commerce and IT and provides a current look reaching to January 2004 at how WTO Members may further apply the rules-based trading system to e-commerce/IT through the Doha Development Agenda. Its purpose is to provide non-WTO experts who are interested in the trade dimensions of e-commerce/IT and

¹ The term "e-commerce" is used here the same way that it is used within the WTO to refer to the production, distribution, marketing, sale, or delivery of goods and services by electronic means. General Council, *Work Programme on Electronic Commerce: Adopted by General Council on 25 September 1998*, WT/L/274 (30 Sept. 1998) [*General Council Work Programme on Electronic Commerce*] at para. 1.3. Note, all WTO documents referenced in this paper can be found on the WTO's website by searching for the document number in the "Documents Online Search Facility" at www.wto.org/english/into_e/search_e.htm.

developing countries' participation in global IT governance with a reference tool that will explain both the scope and importance of the WTO's work on e-commerce/IT.

4. The analysis of the WTO's work on e-commerce and IT issues is complex. To assist the reader, this paper introduces the concept of "baskets" as a way to organize the many e-commerce issues.

- **Basket I – IT Goods:** This basket refers to the high-tech goods—including semiconductors and computers—that are part of the physical infrastructure needed to access the Internet/intranets and to conduct e-commerce. Market access for these goods is affected by a number of WTO agreements, including the Information Technology Agreement (ITA).
- **Basket II – Internet Infrastructure Services:** This basket refers to the several services that are part of the virtual infrastructure needed to access the Internet/intranets and to conduct e-commerce. These include basic telecommunications services, value-added telecommunications services, and computer and related services.² Trade in these services are governed by the WTO's General Agreement on Trade in Services (GATS).
- **Basket III – Electronically Traded Services:** Many services can be traded electronically, including audiovisual services, business services, financial services, travel and tourism services, and various professional services (e.g., architecture). Trade in these services is governed by the GATS.
- **Basket IV – Digital Products:** These are "content" products like software, books, music, movies, and games that can be traded in a physical form on a carrier medium like video tape or CDs, but are now traded electronically via the Internet. WTO Members are addressing whether these products should be treated as goods or services.

5. This paper is subdivided into four parts to ensure that the readers have sufficient background to understand the issues arising under each of the baskets.

- **Part One:** The first part includes this Introduction (Section I), a history of the WTO's work programme on e-commerce and a description of the scope of the Doha negotiations (Section II), and an explanation of the mechanisms that the WTO may use to focus on the development aspects of e-commerce (Section III).

² This paper uses the "Internet Infrastructure Services" basket as a way to bundle together a select group of services (basic telecommunications services, value added telecommunications services, and computer and related services) that raise a similar set of issues with respect to both the trade-related and development-related aspects of e-commerce. These services could be classified in other baskets: basic and value-added telecommunications services are traded electronically and could be included in Basket III; computer and related services are traded electronically as content or software and could be included in either Basket III or IV. By classifying these services in Basket II, however, the authors hope to sharpen the analysis of specific issues that arise with respect to these services in a rapidly converging technological landscape.

- Part Two: The second part of this paper (Section IV) explores the history of the Information Technology Agreement and its coverage of IT Goods (Basket I), issues arising under the agreement (i.e., enlargement, expansion, non-tariff measures, and classification), and how the WTO Work Programme on E-commerce and Doha negotiations may address these issues.
- Part Three: In the third part of the paper, Section V provides a primer on the General Agreement on Trade in Services and explains the history of the negotiations to bring services under the WTO's jurisdiction. Section VI covers Internet infrastructure services (Basket II) and Section VII covers electronically traded services (Basket III), including business processing services that are creating a "new" services-based (versus manufacturing-based) development model.
- Part Four: The fourth part (Section VIII) explores the very significant question of how to classify digitized products (Basket IV) (i.e., as goods or services), the ramifications of classification, protection of intellectual property (IP) in the online world, and how the WTO work programme and Doha negotiations may address these issues.

6. For each basket the paper provides information on: the negotiating history of relevant WTO agreements; how e-commerce issues related to that basket have been addressed in the WTO's Work Programme on E-commerce and may be addressed in the Doha negotiations; and specific developing country concerns and interests.

II. The WTO's Work on E-commerce and IT Trade

7. There are three ways that the WTO is addressing e-commerce and IT trade:

- through the Work Programme on Electronic Commerce, which began in 1998;
- through negotiations under the Doha Development Agenda, which began in 2002; and
- through the Information Technology Agreement (ITA), which entered into force in 1998.

8. The work programme is largely an exploratory process through which WTO Members examine questions about the application of WTO agreements to e-commerce. The Doha negotiations provide a vehicle for making new commitments and drafting new obligations to facilitate e-commerce and IT trade. The ITA is a "plurilateral"³ agreement through which the participants commit to eliminate tariffs on a defined list of IT products.

9. The purpose of this section of the paper is to:

³ A "plurilateral" agreement is signed by less than all WTO Members, but the benefits of the agreement are extended to all WTO Members.

- familiarize the reader with the history and scope of the WTO’s Work Programme on Electronic Commerce (*see* Section II.A below); and
- introduce the reader to the Doha Development Agenda and how it may address issues relevant to e-commerce and IT trade (*see* Section II.B below).

The history, scope, and significance of the ITA will be addressed in Section IV.

A. History of the WTO Work Programme on Electronic Commerce

1. Phase I: Geneva Ministerial Conference - Seattle Ministerial Conference

10. In May 1998 at the Geneva Ministerial Conference, the WTO Members issued a declaration on global electronic commerce:

- establishing a “comprehensive work programme to examine all trade-related issues relating to global electronic commerce, taking into account the economic, financial, and development needs of developing countries;” and
- requiring a report on the progress of the work at the next Ministerial Conference in 1999.⁴

11. The E-commerce Declaration includes a political statement calling upon members to “continue their current practice of not imposing customs duties on electronic transmissions.”⁵ The declaration also instructed that “[w]hen reporting to our third session, the General Council will review this declaration, the extension of which will be decided by consensus, taking into account the progress of the work programme.”⁶

12. The WTO Secretariat then prepared a background note discussing how WTO agreements relate to electronic commerce.⁷ The General Council subsequently established the framework for the work programme, committed to “play a central role” in the process, and added the work programme to its agenda as a standing item.⁸ The General Council defined “electronic commerce” as “the production, distribution, marketing, sale or delivery of goods and services by electronic means.”⁹ It asked four “subsidiary bodies”¹⁰—the Council for Trade in Goods

⁴ WTO, *The Geneva Ministerial Declaration on Global Electronic Commerce*, WT/MIN(98)/DEC/2 (20 May 1998) [*The E-commerce Declaration*].

⁵ *Id.*

⁶ *Id.*

⁷ General Council, *WTO Agreements and Electronic Commerce*, WT/GC/W/90 (14 July 1998).

⁸ General Council, *Work Programme on Electronic Commerce*, WT/L/274 (30 Sept. 1998).

⁹ *Id.*

¹⁰ A “subsidiary body” refers to any of the WTO councils or committees that reports to the WTO General Council.

(GATT Council), Council for Trade in Services (GATS Council), Council for Trade Related Aspects of Intellectual Property (TRIPS Council), and the Committee on Trade and Development (CTD)—to explore the relationship between existing WTO agreements and e-commerce, and identified the following illustrative list of issues that each body should examine.¹¹ (See Table 1 below for a description of the subsidiary bodies' work programme responsibilities).

Table 1:
E-commerce Work Programme Responsibilities

<i>Relevant Council</i>	<i>Areas of Responsibility for WTO E-commerce Work Programme</i>
GATT Council	Aspects of e-commerce relevant to the GATT and other WTO agreements affecting trade in goods (e.g., Agreement on Technical Barriers to Trade, Agreement on Antidumping, Agreement on Rules of Origin), including: Market access, customs valuation, import license procedures, customs duties, technical standards, rules of origin, and classification.
GATS Council	The treatment of e-commerce in the GATS legal framework, including: Scope (including modes of supply), MFN, transparency, increasing participation of developing countries, domestic regulation, competition, protection of privacy and public morals and prevention of fraud, market access and national treatment commitments on electronic supply of services, access to and use of public telecommunications transport networks and services, customs duties, and classification.
TRIPS Council	Intellectual property issues arising in connection with electronic commerce, including: Protection and enforcement of copyright and trademarks, and new technologies and the access to technology.
CTD	The development implications of e-commerce, including: Effects of e-commerce on trade and economic prospects of developing countries (especially their small- and medium-sized enterprises (SMEs); challenges/solutions to enhancing participation of developing countries as exporters of electronically delivered products, including the role of improved access to infrastructure, transfer of technology, and the movement of natural persons; use of IT to integrate developing countries into the multilateral trading system; impact of e-commerce on traditional means of distributing physical goods; and financial implications of e-commerce.

Source: General Council, *Work Programme on Electronic Commerce*, WT/L/274 (30 Sept. 1998) and Hauser & Wunsch (2002) at p. 62.

13. The WTO Secretariat for each of the four subsidiary bodies prepared background papers on the issues to be considered.¹² WTO Members also submitted papers.¹³ The four subsidiary bodies met numerous times to discuss the issues and reported to the General Council on the

¹¹ General Council, *Work Programme on Electronic Commerce*, WT/L/274 (30 Sept. 1998).

¹² GATT Council, *Background Note by the Secretariat, Work Programme on Electronic Commerce*, G/C/W/128 (5 Nov. 1998); GATS Council, Note by Secretariat, *Work Programme on Electronic Commerce*, S/C/W/68 (16 Nov. 1998); CTD, Note by the Secretariat, *Development Implications of Electronic Commerce*, WT/COMTD/W/51 (23 Nov. 1998); TRIPS Council, Background Note by the Secretariat, *The Work Programme on Electronic Commerce*, IP/C/W/128 (10 Feb. 1999).

¹³ Contributions from developing countries include: CTD, Communication from the Delegation of Egypt, *Electronic Commerce in Goods and Services*, WT/COMTD/W/38 (3 Mar. 1998); TRIPS Council, Communication from India, *Work Programme on Electronic Commerce*, IP/C/W/147 (13 July 1999).

progress of their work in July 1999.¹⁴ The General Council considered these reports in October 1999, forwarded the reports to the Seattle Ministerial Conference,¹⁵ and agreed to return to the matter of e-commerce as early as possible in the year 2000.¹⁶

14. The General Council was unable to make its own report or recommendations to the Seattle Ministerial Conference because the Members could not agree on three issues: (1) classifying “digital products as goods or services; (2) extending the moratorium on imposing customs duties on electronic transmissions; and (3) the “institutional arrangements”¹⁷ for continuing the work programme.¹⁸

- Classifying “digital products” as goods or services.

15. Digital products are computer programs, text, video, images, sound recordings, and other products that are digitally encoded and that—before the rise of the Internet—were traditionally traded as part of a physical carrier medium such as a compact disc, book, or tape. These products were classified as goods, and for tariff purposes, their valuation was based on the value of the carrier medium.

16. Some WTO Members think these products should continue to be classified as goods when traded electronically. Others think they should be classified as services. This is an important issue because the classification of digital products determines which set of WTO obligations and commitments governs trade in these products—GATT or GATS — and thus determines the kinds of trade barriers and limitations they can be subjected to. (*See* Section VIII below for a complete discussion of the “classification issue”).

- Extending the moratorium on imposing customs duties on electronic transmissions.

¹⁴ GATS Council, Interim Report to the General Council, *Work Programme on Electronic Commerce*, S/C/8 (31 Mar. 1999); General Council, Communication from the Chairman of the CTD, *Interim Review of Progress in the Implementation of the Work Programme on Electronic Commerce*, WT/GC/23 (9 Apr. 1999); General Council, Communication from the GATT Council Chairman, *Interim Review of Progress in the Implementations of the Work Programme on Electronic Commerce*, WT/GC/24 (12 Apr. 1999); CTD, Communication by the Chairperson, *Contribution by the Committee on Trade and Development to the WTO Work Programme on Electronic Commerce*, WT/COMTD/19 (15 July 1999) [*CTD E-commerce Report*]; GATT Council, Information Provided to the General Council, *Work Programme on Electronic Commerce*, G/C/W/158 (26 July 1999) [*GATT Council E-commerce Report*]; GATS Council, Progress Report to the General Council, *Work Programme on Electronic Commerce*, S/L/74 (27 July 1999) [*GATS Council E-commerce Report*]; and TRIPS Council, Progress Report to the General Council, *Work Programme on Electronic Commerce*, IP/C/18 (30 July 1999) [*TRIPS Council E-commerce Report*].

¹⁵ General Council, Communication from the Chairman of the Council for Trade in Goods, *Draft Annual Report*, WT/GC/W/345 (26 Oct. 1999) at para. 13.

¹⁶ General Council, *Minutes of Meeting: Held 3 & 8 May 2000*, WT/GC/M/55 (16 June 2000) at para. 222.

¹⁷ The term “institutional arrangements” refers to the question of whether the work programme should continue under the four subsidiary bodies or some other horizontal body such as the General Council.

¹⁸ *See generally*, General Council, *Minutes of Meeting: Held 15 June 1999*, WT/GC/M/40/Add.3 (5 July 1999) at section 3; General Council, *Minutes of Meeting: Held 15 June 1999*, WT/GC/M/45 (2 Aug. 1999) at section 5; and General Council, *Minutes of Meeting Held: 6 Oct. 1999*, WT/GC/M/48 (27 Oct. 1999) at section 5.

17. Some developing country Members opposed an extension of the moratorium because they were wary of the potential loss of tariff revenues¹⁹ as well as the absence of a similar discipline on taxes, on which developed countries are more likely to rely for revenue. Other Members questioned the scope of the moratorium²⁰ or did not want an agreement extending the moratorium to pre-judge other aspects of the work programme, including the question of how digital products should be classified (i.e., as goods or services). And some countries simply may have been withholding agreement as negotiating leverage to achieve other objectives (e.g., liberalization of agricultural trade). (See Section VIII below for the “moratorium issue”).

- Continuing the work programme under the four subsidiary bodies or under the General Council or some other “horizontal” group.

18. Some Members favored institutional arrangements that would place the work programme exclusively under the General Council or some other horizontal group to reduce the number of meetings taking place on e-commerce and to facilitate the consideration of “cross-sectoral” issues,²¹ such as the classification of digital products.

19. In preparation for the November 1999 Ministerial Conference in Seattle, a number of delegations, including developing countries, submitted recommendations for language on e-commerce to be included in the Seattle Ministerial Declaration.²² The overall failure of the Seattle Ministerial Conference precluded any specific action on e-commerce and called into question the status of the work programme as well as the moratorium on imposing customs duties on electronic transmissions. Thus, Phase I of the work programme ended with no concrete accomplishments and uncertainty about future work.

2. Phase II: Seattle Ministerial Conference - Doha Ministerial Conference

¹⁹ See UNCTAD (2002a) and Mattoo and Schuknecht (2001) on the potential tariff loss that developing countries might face.

²⁰ The meaning of the language in the E-commerce Declaration not to impose “customs duties on electronic transmissions” is not clear. Members agree that goods ordered online but delivered offline are not covered by the declaration. But there is disagreement on how the declaration applies to digital products like software or music that were treated as goods subject to tariffs when traded on a physical carrier medium such as a CD. See General Council, Communication from the Chairman of the GATS Council, *Interim Review of Progress in the Implementation of the Work Programme on Electronic Commerce*, WT/GC/24 (12 Apr. 1999) at para. 4.2.

²¹ “Cross-sectoral” or “horizontal” issues are those that cut across the jurisdiction of an individual WTO Council.

²² General Council, Communication from Australia, *Work Programme on Electronic Commerce: Objectives for Treatment of Electronic Commerce*, WT/GC/25 (5 July 1999); General Council, Communication from Indonesia and Singapore, *Preparations for the 1999 Ministerial Conference: Work Programme on Electronic Commerce*, WT/GC/W/247 (9 July 1999); General Council, Communication from Japan, *Preparations for the 1999 Ministerial Conference: Electronic Commerce*, WT/GC/W/253 (9 July 1999); General Council, Communication from the European Communities and their Member States, *Preparations for the 1999 Ministerial Conference: WTO Work Programme on Electronic Commerce*, WT/GC/W/306 (9 Aug. 1999); General Council, Communication from Canada, *Preparations for the 1999 Ministerial Conference: Electronic Commerce*, WT/GC/W/339 (23 Sept. 1999); General Council, Communication from Australia, *Preparations for the 1999 Ministerial Conference: Electronic Commerce Draft Text for Ministerial Declaration*, WT/GC/W/367 (12 Oct. 1999); General Council, Communication from Venezuela, *Proposal on Electronic Commerce*, WT/GC/W/376 (19 Oct. 1999); General Council, Communication from Cuba, *Preparations for the 1999 Ministerial Conference: WTO Work Programme on Electronic Commerce*, WT/GC/W/380 (27 Oct. 1999).

20. In July 2000, the General Council agreed to: (1) reinvigorate the WTO's work on e-commerce; (2) ask the GATT, GATS, and TRIPS Councils and the CTD to resume their work, identify cross-cutting sectoral issues, and report back to the General Council in December 2000; and (3) consider how best to organize the Council's work, including the creation of an "ad hoc task force" to assist in consideration of subsidiary body reports and cross-sectoral issues.²³ Each of the bodies reported back to the General Council as invited, generally reaffirming their support for the WTO's continued work on e-commerce and their July 1999 reports to the General Council.²⁴

21. At the December 2000 General Council meeting, the Chairman, Ambassador Kare Byrn of Norway, commented that Members appeared to agree that:

First, . . . [a]ll the subsidiary bodies concluded that further clarification and educative work was needed. Second, the work to date demonstrated that electronic commerce fell within the scope of existing WTO agreements. While e-commerce was a fairly new development, it did not appear in need of new WTO rules. There were some areas that had been identified as needing additional clarification as to how current rules should be applied in particular circumstances, but these were limited. Third, Members had all become aware . . . of the tremendous potential of e-commerce and the Internet to contribute to infrastructure capacity building and market access, particularly for developing countries.²⁵

22. However, because there was no agreement among Members on the process for continuing the work programme, i.e., in the subsidiary bodies or in a horizontal group, the work programme stagnated. Accordingly, the Chairman expressed his hope that the Members would select a procedure for organizing the General Council's work on electronic commerce "in order to prepare for the next Ministerial Conference."²⁶

23. In May 2001, the General Council Chairman, Ambassador Stuart Harbinson of Hong Kong, announced a plan to reinvigorate the work programme by:

²³ General Council, *Minutes of Meeting: Held on 17 & 19 July 2000*, WT/GC/M/57 (14 Sept. 2000) at section 11.

²⁴ CTD, Report by the Chairman, *Work Programme on Electronic Commerce: Contribution by the CTD*, WT/COMTD/26 (13 Nov. 2000); GATT Council, *Chairman's Factual Progress Report to the General Council on the Work Programme on Electronic Commerce*, G/L/421 (24 Nov. 2000); TRIPS Council, *Progress Report by the Chairman to the General Council, Work Programme on Electronic Commerce*, IP/C/20 (4 Dec. 2000); GATS Council, Oral Report by the Chairman of the Council for Trade in Services to the General Council, *WTO Programme on Electronic Commerce*, S/C/13 (6 Dec. 2000).

²⁵ General Council, *Minutes of Meeting: Held 7, 8, 11 & 15 Dec. 2000*, WT/GC/M/61 (7 Feb. 2001) at para. 106. Note that a number of developing country Members questioned the extent to which e-commerce falls within the scope of the WTO rules, including: Brazil (para. 113); India (para. 122); Malaysia (para. 127); Sri Lanka (para. 129); Nigeria (para. 134). Other developing country Members, however, concurred that e-commerce fell within WTO rules and/or on the need to avoid restrictive measures on e-commerce: Colombia (para. 108); Cuba (para. 114); Costa Rica (para. 116); Hungary (para. 120); Hong-Kong China (para. 127); Albania (para. 124); Korea (para. 130); Slovak Republic (para. 132); Pakistan (para. 137); Lesotho (para. 143); Turkey (para. 152).

²⁶ *Id.* See also General Council, *Minutes of Meeting: Held 8 & 9 Feb. 2001*, WT/GC/M/63 (2 Mar. 2001) at section 5.

- asking the four subsidiary bodies to deepen their work in specific areas relevant to their respective areas of competence and to report back to the General Council;
- considering cross-cutting issues in the General Council;
- holding dedicated discussions of the General Council on e-commerce to give Members adequate time to address cross-cutting issues; and
- considering how e-commerce would be addressed at the Fourth Ministerial Conference as part of the Ministerial preparations.²⁷

24. The Chairman's plan was inspired by a contribution from MERCOSUR (Argentina, Brazil, Paraguay, and Uruguay) identifying sectoral versus cross-sectoral or horizontal issues.²⁸ The plan was implemented over the summer of 2001 and its first three points were validated by the Doha Ministerial Declaration, which addressed electronic commerce as follows:

We take note of the work which has been done in the General Council and other relevant bodies since the Ministerial Declaration of 20 May 1998 and agree to continue the Work Programme on Electronic Commerce. The work to date demonstrates that electronic commerce creates new challenges and opportunities for trade for Members at all stages of development, and we recognize the importance of creating and maintaining an environment which is favorable to the future development of electronic commerce. We instruct the General Council to consider the most appropriate institutional arrangements for handling the work programme, and to report on further progress to the Fifth Session of the Ministerial Conference. We declare that Members will maintain their current practice of not imposing customs duties on electronic transmissions until the Fifth Session.²⁹

25. Thus, Phase II of the work programme ended with a concrete decision to extend the work programme and the moratorium.

3. Phase III: Doha Ministerial Conference - Cancun Ministerial Conference

26. Responding to the Doha Ministerial Declaration instructions regarding institutional arrangements for the work programme, Ambassador Harbinson in December 2001 proposed a second dedicated discussion on cross-cutting issues, continued oversight over the four subsidiary

²⁷ General Council, *Minutes of Meeting: Held 8 & 9 May 2001*, WT/GC/M/65 (18 June 2001) at para. 128.

²⁸ General Council, Communication from MERCOSUR, *Electronic Commerce: Horizontal and Sectoral Issues Which Require Further Analysis*, WT/GC/W/434 (7 May 2001).

²⁹ WTO, *Doha Ministerial Declaration*, WT/MIN(01)/DEC/1 (14 Nov. 2001) at para. 34 [*Doha Declaration*].

bodies' work on e-commerce, and further consultations with delegations.³⁰ The subsequent Chairman of the General Council, Ambassador Sergio Marchi of Canada, reported in October 2002 that the results of these consultations confirmed that through the Fifth Ministerial Conference, in Cancun September 2003, the institutional arrangements for the work programme would be as follows:

- the General Council would play a central role in the process, keeping the work programme under continuous review and considering any trade-related issues of a cross-cutting nature;
- further dedicated discussions on cross-cutting issues would be held in October 2002, December 2002, February 2003, and May-June 2003; and
- the four subsidiary bodies would examine and report to the General Council on aspects of electronic commerce relevant to their respective areas of competence.³¹

27. Throughout 2001-2003, the General Council has maintained the Work Programme on Electronic Commerce as a standing item on its agenda. Discussions at these meetings have focused on further consideration of the institutional arrangements regarding the General Council's work on e-commerce as well as reviewing the work being done in the subsidiary bodies and in the Dedicated Discussions.³²

28. There have been five Dedicated Discussions on cross-sectoral e-commerce issues. For the first discussion, the WTO Secretariat prepared a list of cross-sectoral issues that had been previously identified by the subsidiary bodies as a guide for deciding which issues should be addressed. (See Table 2 below for a description of the cross-sectoral issues).

³⁰ General Council, *Minutes of Meeting: Held 19-20 Dec. 2001*, WT/GC/M/72 (6 Feb. 2002) at section 4.

³¹ General Council, *Minutes of Meeting: Held 15 Oct. 2002*, WT/GC/M/76 (5 Nov. 2002) at section 6.

³² General Council, *Minutes of Meeting: Held 18 & 19 July 2001*, WT/GC/M/66 (10 Aug. 2001); General Council, *Minutes of Meeting: Held 10 Oct. 2001*, WT/GC/M/69 (26 Oct. 2001); General Council, *Minutes of Meeting: Held 19 & 20 Dec. 2001*, WT/GC/M/72 (6 Feb. 2002); General Council, *Minutes of Meeting: Held 13 & 14 May 2002*, WT/GC/M/74 (1 July 2002); General Council, *Minutes of Meeting: Held 8 & 31 July 2002*, WT/GC/M/75 (27 Sept. 2002); General Council, *Minutes of Meeting: Held 15 Oct. 2002*, WT/GC/M/76 (5 Nov. 2002); General Council, *Minutes of Meeting: Held 10 – 12 and 20 Dec. 2002*, WT/GC/M/77 (13 Feb. 2003); General Council, *Minutes of Meeting: Held 10 Feb. 2003*, WT/GC/M/78 (7 Mar. 2003).

Table 2:
Cross-Sectoral Issues

Cross-Sectoral Issues

Classification of content of certain electronic transmissions: Definition of “e-commerce;” concept of technological neutrality; issue of likeness.

Development related issues: Participation of developing countries in e-commerce; access to infrastructure and technology; transfer of technology; capacity-building; technical assistance; access to developed and developing countries’ markets for developing countries’ producers and suppliers; promoting use of information technology; ensuring that e-commerce benefits developed and developing countries; movement of natural persons.

Fiscal implications of e-commerce/Imposition of customs duties on electronic commerce.

Relationship and possible substitution effect between e-commerce and traditional forms of commerce.

Competition: Constraints on development of e-commerce due to the concentration of market power; competition and domestic regulations; competition and intellectual property rights; jurisdiction and applicable laws/other legal issues.

Other.

Source: General Council, Summary by the Secretariat of the Issues Raised, *Dedicated Discussion on Electronic Commerce Under the Auspices of the General Council on 15 June 2001*, WT/GC/W/436 (6 July 2001) [*First Dedicated Discussion Summary*].

29. The agenda for the first discussion, held in June 2001, listed the following topics: classification of content of certain electronic transmissions; development-related issues; fiscal implications of e-commerce, and jurisdiction.³³ Many Members concluded that the classification issue needed to be resolved quickly, and virtually all members seemed to agree that classification, development, and the imposition of customs duties were the three most important cross-sectoral issues.³⁴

30. The agenda for the second Dedicated Discussion in May 2002 was the same as the first discussion, but the majority of the discussion focused on the classification issue.³⁵ The third and fourth Dedicated Discussions, held in October 2002 and February 2003, focused on the classification issue and the fiscal implications of e-commerce.³⁶ The fifth Dedicated Discussion, held on 16 May and 11 July 2003, addressed three issues: classification of the context of certain

³³ *First Dedicated Discussion Summary*, WT/GC/W/436, at pp. 1-4.

³⁴ *Minutes of the 18 & 19 July 2001 General Council Meeting*, WT/GC/M/66 at section 10.

³⁵ *Minutes of the 13 - 14 May 2001 General Council Meeting*, WT/GC/M/74 at section 13.

³⁶ General Council, Summary by the Secretariat of the Issues Raised, *Second Dedicated Discussion on Electronic Commerce under the Auspices of the General Council on 6 May 2002*, WT/GC/W/475 (20 June 2002) General Council, Summary by the Secretariat of the Issues Raised, *Third Dedicated Discussion of Electronic Commerce Under the Auspices of the General Council on 25 October 2002*, WT/GC/W/486 (4 Dec. 2002); General Council, Summary by the Secretariat of the Issues Raised, *Fourth Dedicated Discussion on Electronic Commerce Under the Auspices of the General Council on 27 February 2003*, WT/GC/W/492 (8 Apr. 2003).

electronic transmissions; general objectives to be applied to the consideration of e-commerce; and the report to be submitted to the next meeting of the General Council.³⁷

31. In the fifth Dedicated Discussion, the classification discussion centered on a submission filed by the European Communities (EC) explaining why digital products should be classified as services covered by the GATS.³⁸ The discussion on general objectives was prompted by a submission filed by the United States proposing that the Members agree to five objectives at the Cancun Ministerial:

- adhering to a liberal and open trade environment through the application of existing WTO agreements to e-commerce;
- committing to greater market access and national treatment for the products and services that can be traded via e-commerce;
- minimizing domestic regulations that affect e-commerce;
- making permanent on an Most Favored Nation (MFN) basis the moratorium on imposing customs duties on electronic transmissions; and
- providing technical assistance and capacity building to make e-commerce accessible to developing countries.³⁹

32. With respect to the other cross-sectoral issues, the development-related issues were addressed primarily in the CTD. Substitution, competition, and jurisdiction received almost no consideration during the course of the work programme.

33. During the 2001-2003 period, the Committee on Trade and Development was the only body to engage substantively on the work programme. In December 2001, the CTD approved the following approach to its work on e-commerce:

- establish e-commerce as a standing item on CTD agendas;
- respond to requests from the General Council;
- hold approximately one seminar per year on development-specific aspects of e-commerce, such as revenue implications of e-commerce for developing countries, developing country competitiveness in e-commerce, the physical infrastructure needs for e-commerce, and human infrastructure needs;

³⁷ General Council, Summary by the Secretariat of Issues Raised, *Fifth Dedicated Discussion on Electronic Commerce Under the Auspices of the General Council on 16 May and 11 July 2003*, WT/GC/W/509 (31 July 2003).

³⁸ General Council, Submission from the European Communities, *Classification Issues and the Work Programme on Electronic Commerce*, WT/GC/W/497 (9 May 2003).

³⁹ General Council, Submission from the United States, *Work Programme on Electronic Commerce*, WT/GC/W/493 (16 Apr. 2003) and WT/GC/W/493/Rev.1 (8 July 2003).

- showcase country experiences and success stories; and
- provide a forum for delegations to receive information on activities related to e-commerce and development in other multilateral agencies.⁴⁰

34. The CTD held two seminars,⁴¹ showcased Panama's and Costa Rica's experiences with e-commerce,⁴² and provided the opportunity for United Nations Council on Trade and Development (UNCTAD) to discuss its *E-commerce and Development Report 2001*.⁴³ The WTO Secretariat produced a background note this year which summarizes the CTD's work on e-commerce since 1998.⁴⁴ (See Section III.A below for a further explanation of the CTD's work on e-commerce.)

4. Phase IV: Cancun Ministerial Conference

35. In preparation for the Cancun Ministerial in September 2003:

- The GATT Council advised the General Council that it had not undertaken any discussion on the work programme because it had gone as far as it could go on technical goods matters given the "unresolved horizontal issues" that remained under discussion in the General Council, including, most importantly the classification issue.⁴⁵
- The GATS Council advised the General Council that there were no requests to include e-commerce on its agenda after the issue had last been considered at its October 2001 meeting.⁴⁶

⁴⁰ CTD, *Note on the Meeting of 26 Nov. 2001*, WT/COMTD/M/36 (14 Jan. 2002); CTD, *Work Programme on Electronic Commerce in the CTD*, WT/COMTD/35 (19 Dec. 2001).

⁴¹ CTD, Report by the Chairman, *Seminar on "Government Facilitation of E-commerce for Development,"* Attachment, Note of the Meeting of 8 October 2001, WT/COMTD/M/35 (31 Oct. 2001); CTD, Report by the Chairperson, *Seminar on "Revenue Implications of E-commerce, WTO, Geneva, Monday, 22 April 2002,"* Annex II, Note of the Meeting on 25 April 2002, WT/COMTD/M/40 (26 June 2002).

⁴² Presentation by C. E. Thayer, *National Experience of Panama in the Field of Electronic Commerce*, Annex, Note of the Meeting of 26 Nov. 2001, WT/COMTD/M/36 (14 Jan. 2002); Presentation by Costa Rica, *Costa Rica's Experience in Electronic Commerce*, Annex 1, Note on the Meeting of 14 Feb. 2002, WT/COMTD/M/38 (10 July 2002).

⁴³ CTD, Thirty-Sixth Session, *Note of the Meeting of 26 Nov. 2001*, WT/COMTD/M/36 (14 January, 2002).

⁴⁴ CTD, Background Note by the Secretariat, *Work on Electronic Commerce in the CTD*, WT/COMTD/W/100 (5 Mar. 2003).

⁴⁵ GATT Council, Report to the General Council on the Work Programme on Electronic Commerce, G/L/635 (9 July 2003).

⁴⁶ GATS Council, Note by the Chairman, *Work Programme on Electronic Commerce*, S/C/18 (9 July 2003).

- The TRIPS Council reported to the General Council that two Members had made submissions, the Secretariat had updated the background note that it first drafted in 1998, and the Council had included e-commerce on the agenda for every meeting, although discussions of the topic were minimal.⁴⁷
- The CTD reported on its work since the Doha Ministerial.⁴⁸

36. The General Council, in turn, prepared a draft report on its Dedicated Discussions, concluding with the observation that “the General Council should consider whether to recommend continuing the examination of all trade-related issues relating to electronic commerce under the ongoing Work Programme on Electronic Commerce with the current institutional arrangements, having the General Council report on further progress at the next Ministerial session, and maintaining Members’ current practice of not imposing customs duties on electronic transmissions until the next Ministerial Session.”⁴⁹

37. There were four questions regarding the work programme that could have been resolved at the Cancun Ministerial Conference in September 2003:

- continuation of the work programme;
- continuation of the moratorium on the imposition of customs duties on electronic transmissions;
- the classification of digital products; and
- affirmation of general objectives.

38. A draft of the Cancun Ministerial Declaration was circulated in July 2003 and addressed the first two questions as follows.

E-commerce

22. We take note of the reports from the General Council and the subsidiary bodies on the work programme, with the current institutional arrangements. We instruct the General Council to report on further programs to our next session.

⁴⁷ TRIPS Council, Report to the General Council, *Work Programme on Electronic Commerce*, IP/C/29 (2 July 2003). See Communication from Cuba, *Unrestricted Global Electronic Commerce*, IP/C/W/264 (16 May 2001); Communication from Switzerland, *Work Programme on Electronic Commerce*, IP/C/286 (22 June 2001); Background Note by the Secretariat, *Work Programme on Electronic Commerce: Addendum*, IP/C/W/128/Add.1 (15 May 2003).

⁴⁸ CTD, *Work on Electronic Commerce in the CTD since the Doha Ministerial Conference*, WT/COMTD/47 (21 July 2003).

⁴⁹ General Council, Dedicated Discussions Under the Auspices of the General Council on Cross-cutting Issues related to Electronic Commerce, *Work Programme on Electronic Commerce: Draft Report to the 24-25 July Meeting of the General Council*, WT/GC/W/505 (21 July 2003) at para. 7.

We declare that Members will maintain their current practice of not imposing customs duties on electronic transmissions until that session.⁵⁰

39. The WTO Members, however, failed to make any substantive decisions at the Cancun Ministerial and consequently did not address the work programme or the moratorium.⁵¹ The third and fourth questions were not really ripe given disagreements in the General Council about the classification of digital products and the need for and content of general objectives for e-commerce.

40. The WTO Work Programme on E-commerce should continue even without a formal decision to that effect. The Doha Ministerial Declaration had instructed the General Council to continue the work programme and to report back on further progress to the Fifth Session of the Ministerial Conference, which was accomplished in Cancun. In contrast, the Doha Declaration had instructed Members to “maintain their current practice of not imposing customs duties on electronic transmissions until the Fifth Session.” Before Cancun, it seemed likely that WTO Members would agree to a further temporary extension of the moratorium on electronic transmission. But the absence of a formal decision creates the same uncertainty about the moratorium as existed following the failed Seattle Ministerial.

5. Work Programme Participation and Accomplishments

41. Although the WTO’s work on e-commerce was initiated with a submission by a developing country, Egypt,⁵² the WTO Work Programme on electronic commerce has been driven primarily by communications from a few developed countries (Australia, EC, Japan, United States) who have well-developed IT sectors and have fully integrated e-commerce into their economies. A handful of developing countries, including Argentina, Cuba, Egypt, India,

⁵⁰ “General Council Chair Set to Float Draft Cancun Declaration,” *Inside US Trade* (11 July 2003) (attaching Draft Cancun Ministerial Declaration of 18 July 2003).

⁵¹ The Ministerial Declaration says very little other than: “3. All participants have worked hard and constructively to make progress as required under the Doha mandates. . . . However, more work needs to be done in some key areas to enable us to proceed towards the conclusion of the negotiations in fulfillment of the commitments we took at Doha. 4. We therefore instruct our officials to continue working on outstanding issues with a renewed sense of urgency and purpose. . . . We ask the Chairman of the General Council . . . to coordinate this work and to convene a meeting of the General Council at Senior Officials level no later than 15 December 2003 to take the action necessary . . . to enable us to move towards a successful and timely conclusion of the negotiations. . . . 6. Notwithstanding this setback, we reaffirm all our Doha Declarations and Decisions and recommit ourselves to working to implement them fully and faithfully.” Ministerial Conference – Fifth Session, Ministerial Statement Adopted on 14 September 2003, WT/MIN(03)/20 (23 Sept. 2003) at paras. 3, 4, and 6 [*Cancun Ministerial Declaration*].

⁵² CTD, Communication from the Delegation of Egypt, *Electronic Commerce in Goods and Services*, WT/COMTD/W/38 (3 Mar. 1998). The paper proposed a work plan on e-commerce for the CTD: to deepen understanding of e-commerce and focus on using e-commerce to integrate developing countries into the multilateral trading system; to examine the role of the WTO in bridging the information gap between developed and developing countries; to examine how e-commerce would affect the global supply and demand of goods and services, market structure, labor markets and competition; and to share experiences on issues related to e-commerce.”

and Venezuela, did make written submissions to the work programme but, on average, the participation of developing countries as measured in terms of written submissions was moderate and of least-developed countries was virtually non-existent.⁵³ Many developing and least developed countries, however, did participate actively in General Council and other subsidiary body meetings.

42. What has the work programme achieved? Through the work programme, Members have embarked on a wide-ranging and informative discussion of the applicability of the WTO Agreement to e-commerce. In this regard, the work programme was successful in its original mission to identify open questions and explore needed actions.

43. The General Council and subsidiary bodies became bogged down on the issue of classifying digital products and the related procedural questions about how to structure the work programme.⁵⁴ Unfortunately, this deadlock—well-reflected in the reports on the first and second phases of the work programme to the General Council—prevented members from doing anything more than scratching the surface of many other important and difficult topics. Given the prevailing uncertainty as to whether the GATT or the GATS is the applicable legal framework, the negotiators cannot make progress on many other issues of relevance to digital products (e.g., technological neutrality, likeness, rules of origin, valuation, and likeness for purpose in the context of national treatment or MFN).

44. Nonetheless, the analytical results of the work programme can be summarized as follows. There seems to be a general consensus, with a few exceptions, that e-commerce falls within the scope of existing WTO agreements and that no new trade rules should be created for e-commerce when existing rules and obligations can address the issues at stake.⁵⁵ Each subsidiary body has made a valuable contribution to the work programme by identifying additional principles on which a number of Members agree and by identifying important questions regarding the application of WTO agreements to e-commerce. (See Table 3 below).

⁵³ Aitic (1999) at pp. 5-6.

⁵⁴ See e.g., General Council, Communication from MERCOSUR (Argentina, Brazil, Paraguay and Uruguay), *Electronic Commerce Horizontal and Sectoral Issues Which Require Further Analysis*, WT/GC/W/434 (7 May 2001) at para. 5. (noting that “the possible creation of an additional horizontal body to address horizontal issues has led to virtual paralysis of the Work Programme, even at the level of the subsidiary bodies.”)

⁵⁵ Note that some contributions to the work programme and other literature have questioned whether the WTO should create a framework of general principles for electronic commerce, e.g. a “reference paper” for E-commerce. See General Council, Communications from the Chairman, *Interim Review of Progress in the Implementation of the Work Programme on Electronic Commerce*, WT/GC/24 (12 Apr. 1999) at para. 10.2. See also Drake & Nicolaidis (2000) at p. 406. An e-commerce reference paper could address cross-sectoral issues like the classification of digital products; include general objectives like non-discrimination, better market access and national treatment commitments for relevant goods and services; and provide a regulatory discipline for e-commerce that ensures, for example, transparency, non-discrimination, and least-trade restrictiveness.

Table 3:
Work Programme Accomplishments

<i>Council</i>	<i>Principles/Open Questions</i>
GATT Council ⁵⁶	<p>Principle(s): The majority of Members agreed that most issues delegated to the GATT Council for discussion could be meaningfully addressed only after a determination had been made regarding the classification of electronic transmissions as goods, services, or something else. Delegations agreed that goods sold or marketed electronically but delivered physically across borders were subject to customs duties. Some Members thought the ITA was an important contribution for promoting e-commerce by providing less expensive access to e-commerce related products.</p> <p>Open Questions: How to classify electronic transmissions? How to address non-tariff measures (e.g., technical standards) that can act as barriers to e-commerce/IT trade?</p>
GATS Council ⁵⁷	<p>Principle(s): It was the general view that: the electronic delivery of services falls within the scope of the GATS since the agreement applies to all services regardless of the means by which they are delivered; all general GATS provisions, including the MFN obligation, are applicable to the supply of services through electronic means; electronic delivery had given rise to very few new services; the participation of developing countries should be enhanced through liberalization of market access in areas of export interest to them and through better access to technology, including encryption technology; and the Annex on Telecommunications guarantees access to and use of public telecommunications networks for Internet access providers.</p> <p>Open Questions: How to classify electronic transmissions? How to distinguish between modes of supply for services that can be delivered electronically (e.g., the sending of architectural plans via the Internet)—under Mode 1 (cross-border) or Mode 2 (consumption abroad)? Whether services that are delivered electronically are “like” services delivered by other means with respect to MFN and national treatment obligations? Whether Internet networks are “public telecommunications networks” within the meaning of the Annex on Telecommunications; how customs duties could apply to services and electronic transmissions? Should the disciplines on basic telecommunications services contained in the Reference Paper on Basic Telecommunications Services be applied to Internet services?</p>
TRIPS Council ⁵⁸	<p>Principle(s): It was noted that the creation of a secure and predictable legal environment for intellectual property rights would foster the development of electronic commerce.</p> <p>Open Questions: Whether the established international framework for intellectual property law could address the challenges presented by electronic commerce? How to enforce intellectual property rights in an environment of <i>global</i> electronic networks given that enforcement actions traditionally are undertaken on a territorial basis.</p>
CTD ⁵⁹	<p>Principle(s): Members noted that IT in general and e-commerce in particular could enhance the participation of developing countries in the multilateral trading system, but steps need to be taken to build their capacity to effectively use the opportunities presented by IT.</p> <p>Open Questions: What are the effects of e-commerce on modes of supply that are particularly important to developing countries such as commercial presence and the movement of natural persons? What impact is electronic commerce likely to have on customs revenue in developing countries? What steps should be taken to improve physical and human resource development?</p>

Note: See Parts Three and Four below for an in-depth discussion of these open questions.

⁵⁶ *GATT Council E-commerce Report, G/C/W/158.*

⁵⁷ *GATS Council E-commerce Report, S/L/74.*

⁵⁸ *TRIPS Council E-commerce Report, IP/C/18.*

⁵⁹ *CDT E-commerce Report, WT/COMTD/19.*

45. With respect to cross-sectoral issues that are being handled in the General Council via Dedicated Discussions, no general principles appear to have been established, but the following two issues have dominated the debate:

- Extending the moratorium on applying customs duties to electronic transmissions: Should the temporary 1998 duty-free moratorium on electronic transactions that has been extended by the Doha Ministerial Declaration be made legally binding and permanent? Does the moratorium apply only to customs duties that are levied on goods or also on services? Should the moratorium also apply to taxes?
- Classifying “digital products” (e.g., software, books, music, videos, movies): Should digital products that were considered goods when attached to a physical media carrier (CD, VHS, etc.) be classified as goods (GATT-treatment) or services (GATS-treatment) when delivered electronically?

46. At this point, it appears that WTO Members cannot achieve much further progress on resolving these outstanding issues through the work programme. The opportunity does exist, however, to address both issues in the Doha negotiations. (*See* Section VIII below).

B. Doha Development Agenda

47. In November 2001, WTO members agreed at the Fourth Ministerial Conference in Doha to launch the Doha Development Agenda, which includes a new round of global trade negotiations.⁶⁰ These negotiations are to be concluded not later than 1 January 2005.

48. At first glance, it appears that e-commerce does not have a role in the Doha negotiations. Throughout the Doha Declaration, the Ministers “agree to negotiate” on specific topics.⁶¹ In contrast, on the topic of e-commerce, the Ministers:

- “instruct the General Council to consider the most appropriate institutional arrangements for handling the work programme, and to report on further progress to the Fifth Session of the Ministerial Conference,” i.e., September 2003 in Cancun; and
- “declare that Members will maintain their current practice of not imposing customs duties on electronic transmissions until the Fifth Session.”⁶²

49. The absence of an agreement to negotiate on e-commerce means that there will not be a negotiating group on e-commerce⁶³ and that WTO members will not be negotiating an “E-commerce Agreement” pursuant to the Doha Declaration. It does not mean, however, that e-commerce issues will not be addressed in the negotiations. To the contrary, e-commerce issues will arise in context of negotiations on market access for non-agricultural products, negotiations on services, and possibly in a review of the TRIPS Agreement. (See Table 4 below).

50. Specifically, the mandate for negotiations on market access for non-agricultural products and the mandate on services can be used to advance trade liberalization for IT products that are covered by the GATT Agreement and services that are covered by the GATS Agreement. Members also could address some of the IP issues that arise with respect to digital products if Members include these issues in the periodic review of “new developments” under the TRIPS

⁶⁰ See *Doha Declaration*.

⁶¹ *Id.* at para. 16 (“We agree to negotiations which shall aim . . . to reduce or as appropriate eliminate tariffs . . .”); para. 28 (“We agree to negotiations aimed at clarifying and improving disciplines under [*The Antidumping Agreement and the Subsidies and Countervailing Duty Agreement* . . .”]; para. 30 (“We agree to negotiations on improvement and clarifications of the *Dispute Settlement Understanding*.”); para. 31 (“With a view to enhancing the mutual supportiveness of trade and environment, we agree to negotiations, without prejudging their outcome. . .”).

⁶² *Id.* at para. 34.

⁶³ The Doha negotiations are supervised by the Trade Negotiations Committee (TNC) that is under the authority of the General Council. *Doha Declaration* at para. 46. The TNC in turn established separate negotiating groups for market access for non-agricultural products, WTO rules, agriculture, services, geographical indications, dispute settlement, and implementation issues. TNC, Statement by the Chairman of the General Council, *Trade Negotiations Committee*, TN/C/1 (4 Feb. 2002) at Agenda Item 2. See also, WTO, *How the Negotiations are Organized*, at www.wto.org/english/tratop_e/dda_e/work_organ_e.htm (visited 1 Aug. 2003). There is no negotiating group for e-commerce or IT trade.

Agreement, mandated by Article 71.1,⁶⁴ noted in the Doha Declaration. Without a negotiating group focused on e-commerce specifically:

- issues affecting e-commerce and trade in IT products will be dispersed across different agreements and among different negotiating groups;
- some of the issues that Members identified over the course of the work programme may not be addressed in the Doha negotiations; and
- it will be harder for developing countries to monitor the negotiations from the perspective of their impact on e-commerce and trade in IT products.

51. Negotiating difficulties also may arise because the work programme was not able to establish answers to some of the very important threshold issues, (e.g., whether digital products should be classified as goods or services). And, it does not yet appear—almost midway through the proscribed period for the Doha negotiations—that Members are interested in moving beyond negotiations on commitments (i.e., to reduce tariffs on goods and provide market access/national treatment for services) to negotiations on new obligations for e-commerce or on understandings explaining how existing obligations apply to e-commerce. (i.e., rules that supplement the commitments to open markets).

Table 4:
Applying the Doha Mandate for E-commerce and IT Negotiations

<i>Baskets</i>	<i>Corresponding Mandate for Negotiations in the Doha Declaration</i>
Basket I: IT Goods	Para. 16 Market Access for Non-agricultural Products: Ministers agreed to “negotiations which shall . . . reduce, or as appropriate eliminate tariffs . . . as well as non-tariff barriers” on all non-agricultural products (e.g., IT products).
Baskets II-III: Internet Infrastructure Services Electronically Traded Services	Para. 15 Services: Ministers agreed to “continuing the negotiations” on trade in services which were initiated in January 2000 and for which a large number of proposals on a wide range of sectors and horizontal issues have been submitted. The Ministers reaffirmed the “Guidelines and Procedures for the Negotiations” (i.e., modalities) previously adopted by the GATS Council and instructed participants to “submit their initial requests for specific commitments by June 30, 2002 and initial offers by March 31, 2003.” Ministers also called for the development of a GATS regulatory discipline.
Basket IV: Digital Products	Para. 16 Market Access for Non-Agricultural Products: same as Basket I; Para. 15 Services: same as Basket II; Para. 19 Trade-related Aspects of Intellectual Property Rights: Ministers instructed the TRIPS Council to examine “other relevant new developments raised by Members pursuant to Article 71.1” re review and modification of the TRIPS Agreement.

Source: *Doha Declaration* at paras. 15, 16, and 19.

⁶⁴ Article 71 Review and Amendment of the TRIPS Agreement provides as follows: “The Council for TRIPS shall review the implementation of this Agreement after the transitional period referred to in paragraph 2 of Article 65 [regarding a four-year delay in implementation for developing countries]. The Council shall, having regard to the experience gained in its implementation, review it two years after that date, and at identical intervals thereafter. The Council may also undertake reviews in light of any relevant new developments which might warrant modification or amendment of the Agreement.” *See Doha Declaration* at para. 19.

III. Developing Country Interests in E-commerce and IT Trade

52. The objective of the WTO Work Programme on Electronic Commerce is not solely to explore how WTO rules apply to e-commerce. In fact, most of the time that the Committee on Trade and Development has spent on the work programme has been focused not on trade rules, but rather on how e-commerce can be harnessed for trade development.

53. The purpose of this section is to review the factors that the CTD has examined under the work programme as being important to harnessing e-commerce for development and how these factors may be addressed further in the work programme, in the Doha negotiations, or elsewhere.

A. Overview of the CTD's Work on E-commerce

54. The Ministerial Declaration establishing the WTO's Work Programme on Electronic Commerce directs the General Council, in establishing the program, "to take into account the economic, financial and development needs of developing countries."⁶⁵ The General Council in turn directed the CTD "to examine and report on the development implications of e-commerce," including the following five issues:

(a) the effects of e-commerce on trade and the economic prospects of developing countries, notably small- and medium-sized enterprises;

(b) the challenges to and ways of enhancing the participation of developing countries in e-commerce, in particular as exporters of electronically delivered products; the role of improved access to infrastructure and transfer of technology, and of movement of persons;

(c) the use of IT in the integration of developing countries in the multilateral trading system;

(d) implications for developing countries of the possible impact of electronic commerce on the traditional means of distribution of physical goods; and

(e) financial implications of e-commerce for developing countries.⁶⁶

55. It is evident from this list that the issues being considered by the CTD under the work programme are much broader than standard trade liberalization questions concerning market access and non-discrimination.

⁶⁵ *E-commerce Declaration*.

⁶⁶ *General Council Work Programme on Electronic Commerce*, WT/L/274 at para. 5.1. The General Council also directed the GATS Council to examine electronic commerce as a means of "increasing participation of developing countries" in the global trading system, but the GATS Council has not seriously pursued this topic. *Id.* at para. 2.1.

56. To address these questions, the CTD had as a starting point a paper submitted by Egypt in March 1998, prior to the establishment of the work programme.⁶⁷ The WTO Secretariat prepared a background note on a wide range of topics, reflecting the parameters that the General Council had established for the CTD's work.⁶⁸ In addition, the CTD hosted three seminars in February 1999, June 2001, and April 2002 regarding e-commerce and development-related issues:

- Feb. 1999 – “Seminar on E-commerce.” The two themes of this seminar were “Potential for E-commerce for Business in Developing Countries,” and “Infrastructure and Regulation Issues at the Government Level.”⁶⁹
- June 2001 – “Seminar on Government Facilitation for Development.” This seminar addressed the role of government in: creating a regulatory and legal framework for e-commerce, encouraging domestic production and research, foreign direct investment, and dissemination of IT; developing the human infrastructure to address technical, legal, policy, and regulatory issues related to e-commerce; and coordinating government efforts and policies to address the many issues affecting e-readiness.⁷⁰
- April 2002 – “Seminar on the Revenue Implications of E-commerce.” This seminar provided an update on trends in e-commerce, background on some of the challenges that e-commerce poses for various tax and tariff regimes (e.g., income taxes, consumption taxes, and import duties) such as jurisdiction, characterization of income, transfer pricing, and analysis of the impact of e-commerce on developing country tax/tariff revenues.⁷¹

57. And, e-commerce is a standing item on the CTD agenda offering delegations and other international organizations the opportunity to share their experiences and expertise regarding e-

⁶⁷ CTD, Communication from the Delegation of Egypt, *Electronic Commerce in Goods and Services*, WT/COMTD/W/38 (3 Mar. 1998). The paper proposed a work plan on e-commerce for the CTD: “to deepen understanding of e-commerce and focus on using e-commerce to integrate developing countries into the multilateral trading system; to examine the role of the WTO in bridging the information gap between developed and developing countries; to examine how e-commerce would affect the global supply and demand of goods and services, market structure, labor markets and competition; and to share experiences on issues related to e-commerce.” Para. 8.

⁶⁸ CTD, Note by the Secretariat, *Development Implications of Electronic Commerce*, WT/COMTD/W/51 (23 Nov. 1998).

⁶⁹ CTD, Summary Report, *Seminar on Electronic Commerce and Development*, 19 Feb. 1999, WT/COMTD/18 (23 Mar. 1999). Issues raised in the seminar included: minimal and self-regulation of the Internet; possible revenue losses for developing countries; the importance of infrastructure problems; the effect of e-commerce on the movement of natural persons; and e-commerce opportunities for developing countries (e.g., elimination of middlemen, reduced transaction costs, and better outreach to markets in developed countries).

⁷⁰ CTD, *Note on the Meeting of 8 Oct. 2001*, WT/COMTD/M/35 (31 Oct. 2001) Attachment, Report by the Chairman, *Seminar on “Government Facilitation of E-commerce for Development.”* Questions addressed in the seminar include: Which domestic legal framework is the most appropriate to reap the benefits of e-commerce? What action can be taken at the government level to encourage domestic production and research, foreign direct investment, and the dissemination of modern IT? What human skills are necessary to benefit from e-commerce? How are those who could make use of e-commerce informed? What role should the government play? How does a government coordinate internally for a country to benefit from e-commerce?

⁷¹ CTD, *Note on the Meeting of 25 Apr. 2002*, WT/COMTD/M/40 (26 June 2002) Annex II, report by the Chairperson, Seminar on “Revenue Implications of E-commerce.”

commerce. Given that different aspects of e-commerce are addressed by a number of multilateral and plurilateral organizations, representatives from the United Nations Commission on Trade and Development (UNCTAD), the International Trade Center (ITC), the International Telecommunications Unions (ITU), and the World Intellectual Property Organization (WIPO) have participated in the CTD's work.⁷²

58. What conclusions can be reached from the CTD's work on e-commerce? There was consensus that e-commerce harbored great potential as a tool for economic growth and development. There was an understanding that the benefits of e-commerce to developing countries include: reducing the physical distance between buyers and sellers, reducing the need to maintain establishments abroad and for middlemen, and increasing efficiency in public procurement. There was concern that the benefits of e-commerce would not flow automatically to developing countries, and that steps must be taken to narrow the digital divide. Delegations recognized that developing countries, either as importers or as exporters, can benefit from the increased trade potential generated by e-commerce and IT, but that e-commerce is not a panacea for all trade problems.

59. Based on the many discussions about e-commerce in the CTD, there was consensus that pursuing trade liberalization under the WTO is not sufficient to guarantee developing countries' participation in global digital trade.⁷³ Given the many complexities of harnessing e-commerce and IT trade for the benefit of developing countries, a comprehensive approach is needed whereby multiple strategies are deployed to address the barriers impeding the use of e-commerce for development.

⁷² CTD, Report by Chairman, *Work Programme on Electronic Commerce: Contribution by the Committee on Trade and Development*, WT/COMTD/26 (13 Nov. 2000).

⁷³ CTD, Communication from the Chairperson, *Contribution by the Committee on Trade and Development to the WTO Work Programme on Electronic Commerce*, WT/COMTD/19 (15 July 1999).

B. Barriers to E-commerce for Developing Countries

1. Physical Infrastructure

60. One of the barriers most frequently raised and discussed in the work programme was affordable access for developing country users to the physical infrastructure for e-commerce (including computers and other types of hardware, software, telecommunications services, and Internet access services). Some of the solutions that were proposed for this bottleneck include:

(a) Trade liberalization through the Doha negotiations by:

- lowering or eliminating tariffs and non-tariff barriers on IT hardware and software,
- granting market access, national treatment, and regulatory commitments for basic telecommunications services, and
- granting market access and national treatment commitments for value-added telecommunications services and computers and related services.

(b) Taking other steps to attract the foreign investment needed to develop the physical infrastructure for e-commerce.

(c) Pursuing technical and development assistance programs independent of the WTO. Such programs could fall within in the purview of bilateral official development assistance or other development programs administered by international and regional organizations.⁷⁴

61. For example, one delegation proposed that developed-country WTO Members complement developing-country commitments to liberalize their e-commerce infrastructure by providing development assistance that fosters the growth of infrastructure, access to information technology, and technical know-how relevant for electronic commerce.⁷⁵ Another idea (presented outside the WTO Work Programme on E-commerce) is to link assistance provided for IT by international financial institutions like the World Bank or regional development banks to trade liberalization commitments made in WTO negotiations.⁷⁶

⁷⁴ *Id.*

⁷⁵ CTD, Submission by the United States, *Work Programme on Electronic Commerce*, WT/COMTD/17 (12 Feb. 1999) at section 1.

⁷⁶ Mashayekhi and Tuerk (2002) and Hauser & Wunsch-Vincent (2001) at p. 28.

2. Human and Legal Infrastructure

62. In addition to improving access to the physical infrastructure for e-commerce, participants in the work programme identified human and legal “infrastructure” as barriers impeding the use of e-commerce for development. The list of barriers discussed includes:

- language barriers for non-English speaking countries, inadequate education, and restrictions on movement of natural persons;
- inadequate regulatory frameworks regarding access to networks, interoperability, data and privacy protection, jurisdiction, taxation, IP protection, and electronic signatures;⁷⁷
- the absence of policies promoting e-commerce, such as policies to foster e-government, consumer protection, the use of IT by SMEs, and local electronic content.

63. Participants in the CTD discussions viewed the following as essential to the ability of developing countries to harness e-commerce: access to the human and legal infrastructure for electronic commerce, a comprehensive regulatory and policy framework, and the development of national e-commerce strategies. The work programme can advance the work on some of these issues by providing a venue to showcase individual countries' experiences and best practices, exchange views on national e-commerce strategies and regulatory frameworks, and consult with experts from business, international and regional organizations, as well as governments. In addition, the Doha Development Agenda provides the opportunity to address trade barriers such as restrictions on the movement of natural persons through the services negotiations. (*See Part Three below*).

3. Other Barriers

64. Other bottlenecks that participants in the CTD discussions frequently raised include:

- loss of tariff and tax revenues;⁷⁸
- standards and qualification requirements;⁷⁹

⁷⁷ For work from UNCTAD on barriers to e-commerce in developing countries see UNCTAD, *Legal Dimensions of Electronic Commerce*, TD/B/COM.3/EM.8/2 (4 May 1999) and UNCTAD, *Report of the Expert Meeting on Capacity-Building in the Area of Electronic Commerce: Legal and Regulatory Dimensions*, TD/B/COM.3/28 (11 Aug. 1999).

⁷⁸ See e.g., CTD, Note by the Secretariat, *Development Implications of Electronic Commerce*, WT/COMTD/W/51 (23 Nov. 1998) at paras. 43-44; CTD, *Note on the Meeting of 25 April 2002*, WT/COMTD/M/40 (26 June 2002) Annex II, *Seminar on “Revenue Implications of E-commerce,”* WTO, Geneva, Monday, 22 April 2002.

⁷⁹ See e.g., CTD, *Note on the Meeting of 1 July 2002*, WT/COMTD/M/41 (26 Sept. 2002) at para. 126 (reporting the Delegation of Pakistan’s statement that standards related to various aspects of e-commerce should be formulated with effective participation of developing countries).

- access to banking systems for electronic transactions;⁸⁰ and
- inadequate technology transfer from developed to developing countries, including as a result of export restrictions on encryption and other sensitive software.⁸¹

65. Some analytical work on the impact of e-commerce on developing country tariff and tax revenues has been completed and this is certainly an issue on which the work programme could spend more time.⁸² Standards issues affecting trade in IT products may be addressed through the Doha negotiations on market access for non-agricultural products. (*See* Section IV.B below). Access to banking services also may be addressed in the Doha negotiations on services. (*See* Section V.C below). Technology transfer is being addressed through the Working Group on Technology Transfer, established in the Doha Declaration. (*See* Section III.C below).

4. Expanding Export Opportunities for Developing Countries

66. A comprehensive approach to facilitating the use of e-commerce for development should seek to strengthen the export capacity and opportunities of developing countries through:

- trade-specific technical assistance to help developing countries identify and implement their digital trade potential;⁸³
- improved market access for IT goods and electronically-traded services with export potential;⁸⁴
- improved market access for the movement of natural persons from developed to developing country markets in high tech sectors.⁸⁵

67. With respect to technical assistance, UNCTAD, ITC, and the World Bank as well as bilateral donor agencies have programs available for this purpose. The work programme can

⁸⁰ *Id.* at para. 126 (reporting the Delegation of Pakistan’s statement that developing countries need assistance to establish banking systems for all types of e-commerce transactions).

⁸¹ *Id.* at CTD, *Note on Meeting of 22 and 23 May 2001*, WT/COMTD/M/34 at para. 117 (reporting the Delegation of Venezuela’s statement.) *See also Note on the Meeting of 1 July 2002*, WT/COMTD/M/41 (26 Sept. 2002) at para. 126 (reporting the Delegation of Pakistan’s statement that “one of the major barriers to the interests of developing countries was the non-availability of encryption technology”); CTD, Communication from the Chairperson, *Contribution by the Committee on Trade and Development to the WTO Work Programme on Electronic Commerce*, WT/COMTD/19 (15 July 1999) at para. 15.

⁸² Mattoo & Schuknecht (2001) and UNCTAD (2000) (on tariff revenue loss).

⁸³ Contribution by the CTD to the WTO Work Programme on Electronic Commerce, WT/COMTD/19 at paras. 18-19.

⁸⁴ *See* Mashayekhi and Tuerk (2002).

⁸⁵ *See* CTD, Note by the Secretariat, *Development Implications for Electronic Commerce*, WT/COMTD/W/51 (23 Nov. 1998) at para. 39 (regarding the effects of electronic commerce on movement of natural persons).

continue to be a valuable forum for highlighting and explaining these programs and the pending Doha negotiations creates a real incentive to use these programs for a concrete purpose. For example, developing countries are likely to need assistance researching and developing their negotiating positions for the Doha negotiations.⁸⁶ As explained below, the Doha negotiations have the potential to improve developing countries' access to export markets as both the Doha Declaration and the existing WTO agreements have numerous "special and differential treatment" provisions for that purpose. (See Section III.C below).

C. Special and Differential Treatment for Developing Countries

68. As its name reveals, the Doha Development Agenda promises to put the interests of developing and least-developed countries (LDCs) first. The Doha Declaration sets forth a number of mechanisms "to ensure that developing countries, and especially the least-developed among them, secure a share in the growth of world trade commensurate with the needs of their economic development."⁸⁷ These mechanisms include "special and differential treatment provisions to enhance market access and balance trade rules, as well as targeted, sustainably financed technical assistance and capacity-building programmes."⁸⁸ (See Table 5 below for a list of the various pro-development mechanisms that are included in the Doha Development agenda).

69. The mechanisms regarding special and differential treatment and technology transfer are particularly relevant to e-commerce and IT trade.

⁸⁶ Even industrialized countries have difficulty collecting and analyzing information needed to create a negotiating position on the various issues falling under the "e-commerce" umbrella. Developing countries rarely have functioning institutions that are needed to create fully informed trade negotiating positions, (e.g., industry associations, government statistical agencies, government-industry advisory committees). Furthermore, they frequently lack the resources to represent those positions in Geneva, (e.g., missions in Geneva, negotiators to attend meetings, good communications between Geneva negotiators and experts in capital). See Arkell (2003b) pp. 14 f.

⁸⁷ *Doha Declaration* at para. 2.

⁸⁸ *Id.*

Table 5:
Doha Development Agenda

<i>Topic</i>	<i>Mechanism</i>
Implementation of Existing Commitments	Para. 12: Members agree to negotiations on outstanding implementation issues.
Small Economies	Para. 35: Members agree to a “work programme, under the auspices of the General Council, to examine issues relating to trade of small economies.”
Trade, Debt and Finance	Para. 36: Members agree to an “examination in a Working Group under the auspices of the General Council, of the relationship between trade, debt and finance.”
Trade and Transfer of Technology	Para. 37: Members agree to “an examination, in a Working Group under the auspices of the General Council, of the relationship between trade and transfer of technology, and of any possible recommendations on steps that might be taken within the mandate of the WTO to increase flows of technology to developing countries.”
Technical Cooperation and Capacity Building	Paras. 38–41: Members confirm that “technical cooperation and capacity building are core elements of the development dimension of the multilateral trading system,” endorse the “New Strategy for WTO Technical Cooperation for Capacity Building, Growth and Integration,” and seek ways to coordinate delivery of technical assistance with bilateral donors and international and regional intergovernmental institutions, as well as to provide secure predictable funding for technical assistance. <i>See also</i> paras. 16, 21, 24, 26, 27, 33, 38–40, 42, and 43 regarding technical cooperation and capacity building for market access, investment, competition, government procurement, trade facilitation, etc.
Least-Developed Countries	Paras. 42–43: Members recognize that “the integration of the LDCs into the multilateral trading system requires meaningful market access, support for the diversification of their production and export base, and trade-related technical assistance and capacity building.” They “commit themselves to the objective of duty-free, quota-free market access for products originating from LDCs, and to further coordination of “additional measures for progressive improvements in market access for LDCs.” They also urge “development partners to significantly increase contributions to the Integrated Framework for Trade Related Assistance to LDCs and WTO extra budgetary trust funds for LDCs.”
Special and Differential Treatment	Para. 44: Members reaffirm “that provisions for special and differential treatment are an integral part of the WTO Agreements” and agree that “all special and differential treatment provisions shall be reviewed with a view to strengthening them and making them more precise, effective and operational.” To achieve this, Members “endorsed the work programme set out in the Decision on Implementation-related Issues and Concerns.” ⁸⁹ Para. 50: Members agree that “the negotiations and other aspects of the work programme should take fully into account the principle of special and differential treatment for developing and least-developed countries” <i>See also</i> paras. 13, 15, 16, 19, <i>et al</i> for S&D provisions specific to agriculture, services, market access for non-agricultural products, trade-related investment measures, etc.

Source: *Doha Declaration*.

⁸⁹ WTO, Doha Ministerial Conference, Decision, *Implementation-Related Issues and Concerns*, WT/MIN(01)/W/10 (14 Nov. 2001) [*Doha Decision on Implementation*].

1. Background on S&D Treatment

70. The concept of “special and differential” treatment is a fundamental building block of the multilateral trading system. According to a group of developing country members, S&D provisions were:

. . . conceived in acknowledgement of the fact that developing countries are at a [sic] very different stages of economic, financial and technological developments and therefore have entirely different capacities as compared to developed countries in taking on multilateral commitments and obligations. It had, therefore, been accepted that special advantages and flexibilities must be provided to developing countries so that they are able to adopt appropriate national policies to support their trade regime.⁹⁰

71. The Doha Declaration reaffirms that S&D provisions are integral to the WTO agreements and calls for a review of these provisions with a “view to strengthening them and making them more precise, effective, and operational.”⁹¹ A separate ministerial decision calls upon the CTD to undertake an S&D work programme and to report back to the General Council “with clear recommendations” by July 2002.⁹² Pursuant to this decision, the Committee engaged in an aggressive review of the various S&D provisions, assisted by several notes prepared by the WTO Secretariat and numerous submissions filed by Members.⁹³ The Secretariat catalogued all of the mandatory and non-mandatory S&D provisions appearing in the WTO Agreements into six categories: (1) provisions aimed at increasing the trade opportunities of developing country members; (2) provisions under which WTO Members should safeguard the interests of developing country Members; (3) flexibility of commitments, actions, and use of policy instruments; (4) transitional time periods; (5) technical assistance; and (6) provisions relating to developing country Members.⁹⁴ (See Section III.C.2 below for examples of S&D provisions relevant to e-commerce and IT trade.)

72. In July 2002, the CTD Chairman, Ambassador Ransford Smith of Jamaica, reported that, notwithstanding the Committee’s very diligent work, the Members could not agree on clear recommendations in a number of areas and requested that the General Council instruct the CTD

⁹⁰ General Council, Communication from Cuba, Dominican Republic, Honduras et al., *Proposal for a Framework Agreement on Special and Differential Treatment, Preparations for the Fourth Session of the Ministerial Conference*, WT/GC/W/442 (19 Sept. 2001) at para. 1.

⁹¹ *Doha Declaration* at para. 44.

⁹² *Doha Decision on Implementation*, WT/MIN/(01)/10 at para. 12.

⁹³ See CTD, Note by the Secretariat, *Implementation of Special and Differential Treatment Provisions in WTO Agreements and Decisions*, WT/COMTD/W/77/Rev.1/Add.1 (21 Dec. 2001) and WT/COMTD/W/77/Rev.1/Add.2 (21 Dec. 2001); WT/COMTD/W77/Rev.1/Add.1/Corr.1 (4 Feb. 2002) and WT/COMTD/W77/Rev.1/Add.3 (4 Feb. 2002); and CTD, Note by the Secretariat, *Information on the Utilization of Special and Differential Treatment Provisions*, WT/COMTD/W/77/Rev.1/Add.4 (7 Feb. 2002).

⁹⁴ CTD, Note by the Secretariat, *Implementation of Special and Differential Treatment Provisions in WTO Agreements and Decisions*, WT/COMTD/W/77/Rev.1/Add.1/Corr.1 (4 Feb. 2002) at p. 1.

to continue its review.⁹⁵ The Committee continued its review and the Chairman reported to the General Council again in February 2003⁹⁶ that there continued to be significant disagreement within the Committee on many issues⁹⁷ and requested that the General Council direct the CTD to suspend further work.⁹⁸ The General Council took note of, but did not adopt, the report.⁹⁹ The CTD's S&D Work Programme is therefore in limbo. The draft Cancun Ministerial Declaration called upon the CTD to continue its work on special and differential treatment,¹⁰⁰ but this language was not included in the final declaration.

2. S&D Provisions in WTO Agreements and the Doha Declaration

73. The WTO Agreements boast approximately 150 S&D provisions. There also are numerous S&D provisions included in the Doha Declaration to guide the negotiators. (See Table 6 below for a list of some of the most important S&D provisions that are relevant to development aspects of e-commerce- and IT trade are provided).

74. These S&D provisions certainly provide a legal basis for using the Doha negotiations to facilitate the use of e-commerce for development. WTO Members, however, are struggling to identify ways to make this happen.

⁹⁵ CTD–Special Session, *Report to the General Council*, TN/CTD/3 (26 July 2002) at paras. 14-19.

⁹⁶ CTD–Special Session, *Report to the General Council*, TN/CTD/7 (10 Feb. 2003).

⁹⁷ One notable area of disagreement was whether to define “developing countries.” Some Members thought a definition was necessary to “make special and differential treatment more precise, effective and operational and to confer legal predictability and certainty regarding beneficiaries.” *Id.* at para. 12. According to the WTO website, “There are no WTO definitions of “developed” and “developing” countries. Members announce for themselves whether they are “developed” or “developing” countries. However, other members can challenge the decision of a member to make use of provisions available to developing countries.” See www.wto.org/English/tratop_e/devel_e/d1who.e.htm (visited 6 Aug. 2003).

⁹⁸ *Report to the General Council*, TN/CTD/7 at para. 22.

⁹⁹ General Council, *Minutes of Meeting: Held 10 Feb. 2003*, WT/GC/M/78 (7 Mar. 2003) at para. 110.

¹⁰⁰ The relevant paragraph of the draft declaration provided as follows: “S&D Treatment: 11. We take note of the progress that has been made in addressing issues of special and differential treatment in pursuance of the mandate given at Doha, and adopt the decisions set out in document. . . . We instruct the General Council to continue to monitor closely work on the proposals referred to negotiating groups and other WTO bodies. We further instruct the Committee on Trade and Development in Special Session to pursue, within the parameters of the Doha mandate, outstanding work, including *inter alia* on the cross-cutting issues, the monitoring mechanism, and the incorporation of special and differential treatment into the architecture of WTO rules, as referred to in TN/CTD/7, and report to the General Council. The General Council shall report on progress on all these issues to our next Session.” “General Council Chair Set to Float Draft Cancun Declaration,” *Inside US Trade* (11 July 2003) (attaching Draft Cancun Ministerial Declaration of 18 July 2003).

Table 6:
S&D Provisions Relevant to E-commerce in the WTO Agreements and the Doha Declaration

<i>Baskets</i>	<i>Corresponding S&D Provisions</i>
Basket I: IT Goods	<p>GATT Enabling Clause:¹⁰¹ “Notwithstanding the [MFN] provisions of Article I of the General Agreement, contracting parties may accord differential and more favourable treatment to developing countries, without according such treatment to other contracting parties,” e.g. Generalized Systems of Preferences.</p> <p>GATT Article XXVIII(3) <i>bis</i>: “Negotiations shall be conducted on a basis which affords adequate opportunities to take into account . . . : (b) the needs of less-developed countries for a more flexible use of tariff protection to assist their economic development and the special needs of those countries to maintain tariffs for revenue purposes. . . .”</p> <p>GATT Article XXXVI (8): “The developed contracting parties do not expect reciprocity for commitments made by them in trade negotiations to reduce or remove tariffs and other barriers to trade of less-developed contracting parties.</p> <p>Doha Declaration - Market Access for Non-Agricultural Products (para. 16): “We agree to negotiations which shall aim to reduce or as appropriate eliminate tariffs . . . as well as non-tariff barriers, in particular on products of export interest to developing countries. . . . The negotiations shall take fully into account the special needs and interests of developing and least developed country participants, including through less than full reciprocity of commitments. . . . [T]he modalities to be agreed will include appropriate studies and capacity-building measures to assist least-developed countries to participate effectively in the negotiations.”</p>
Baskets II-III: Internet Infrastructure Services Electronically Traded Services	<p>GATS Art. IV:1: “The increasing participation of developing country Members in world trade shall be facilitated through negotiated specific commitments [i.e., market access and national treatment], by different Members . . . relating to: (a) the strengthening of their domestic services capacity and its efficiency and competitiveness <i>inter alia</i> through access to technology on a commercial basis; (b) the improvement of their access to distribution channels and information networks; and (c) the liberalization of market access in sectors and modes of supply of export interest to them.”</p> <p>GATS Art. IV:2: Developed country Members . . . shall establish contact points . . . to facilitate the access of developing county Members’ service suppliers to information, related to their respective markets, concerning: (a) commercial and technical aspects of the supply of services; (b) registration, recognition, and obtaining of professional qualifications; and (c) the availability of services technology.”</p> <p>GATS Art. IV: 3: “. . . Particular account shall be taken of the serious difficulty of the least-developed countries in accepting negotiated specific commitments in view of their special economic situation and their development, trade, and financial needs.”</p> <p>GATS Art. XIX (1)-(2): Members shall enter into successive rounds of negotiations, beginning not later than five years from the entry into force of the WTO Agreement and periodically thereafter with a view to achieving a progressively higher level of liberalization. . . . The process of liberalization shall take place with due respect for national policy objectives and the level of development of individual Members. . . . There shall be appropriate flexibility for individual developing country Members for opening fewer sectors, liberalizing fewer types of transactions, progressively extending market access in line with their development situation, and when making access to their markets available to foreign service suppliers, attaching to such access conditions aimed at achieving the objectives referred to in Article IV.”</p> <p>Annex on Telecommunications (para. 5(g)): “. . . [A] developing country Member may,</p>

¹⁰¹ Decision of 28 November 1979, Decision on Differential and More Favourable Treatment, *Reciprocity and Fuller Participation of Developing Countries*, L/4903 (12 Apr. 1979).

consistent with its level of development, place reasonable conditions on access to and use of public telecommunications transport networks and services necessary to strengthen its domestic telecommunications infrastructure and service capacity and to increase its participation in international trade in telecommunications services. Such conditions must be specified in the Member's schedule."

Annex on Telecommunications (para 6(d)): "Members shall give special consideration to opportunities for the least-developed countries to encourage foreign suppliers of telecommunications services to assist in the transfer of technology, training and other activities that support the development of their telecommunications infrastructure and expansion of their telecommunications services trade."

Doha Declaration - Services (para. 15): "The negotiations shall aim to increase the participation of developing countries in trade in services. . . . We reaffirm the Guidelines and Procedures for the Negotiations adopted by the Council for Trade in Services on 28 March 2001. . . ."

GATS Council Guidelines and Procedures for Negotiations (para. 12):¹⁰² "There shall be appropriate flexibility for individual developing country Members for opening fewer sectors, liberalizing fewer types of transactions, progressively extending market access in line with their development situation and, when making access the their markets available to foreign service suppliers, attaching to such access conditions aimed at achieving the objectives referred to in Article IV."

Basket IV:
Digital Products

TRIPS Art. 65(2)-(3): Developing country Members are "entitled to delay for a period of five years from the date of entry into force of the WTO Agreement the date of application of the TRIPS Agreement."

TRIPS Art. 66(1): "In view of the special needs and requirements of least-developed country Members, their economic, financial, and administrative constraints, and their need for flexibility to create a viable technological base, such Members should not be required to apply the provisions of this Agreement . . . for a period of 10 years from the date of application. . . . The Council for TRIPS shall, upon duly motivated request by a least-developed country Member, accord extensions of this period."

TRIPS Art. 66(2): "Developed country Members shall provide incentives to enterprises in their territories for the purpose of promoting and encouraging transfer to least-developed country Members in order to enable them to create a sound a viable technological base."

Doha Declaration - TRIPS (para. 19): "In undertaking . . . [its work programme to review the implementation of the TRIPS Agreement under, *inter alia*, Article 71.1 regarding new developments,] the TRIPS Council shall . . . take fully into account the development dimension."

D. Conclusion

75. As the above discussion illustrates, many of the barriers and proposed solutions for harnessing e-commerce for development appear to exceed the current parameters of the rules-based trading system, the WTO's jurisdiction, and the political will of developed country Members to satisfy developing country Member concerns. WTO Members have yet to define where the line should be drawn between trade-related e-commerce and development issues that could and should be addressed by the WTO and vice versa. In the interim, how should WTO Members proceed to address these barriers?

¹⁰² GATS Council, *Guidelines and Procedures for the Negotiations on Trade in Services*, S/L/93 (29 Mar. 2001).

76. First, WTO Members need to ensure that those barriers that fall clearly within the WTO's responsibility are addressed through the Doha negotiations. This would include barriers to the development of physical, legal, and human infrastructure within developing countries, but also those barriers in developed countries that impede exports from developing countries. Second, international and regional organizations such as the ITC, UNCTAD, the Organization of Economic Development (OECD), the World Bank and other regional development banks, and bilateral donor agencies should continue their efforts to increase and coordinate the technical assistance they provide to developing countries to assess their economic/trade opportunities in e-commerce and to participate in the negotiations. Third, the WTO should continue its work on e-commerce to provide as much education and exchange of ideas as possible on various aspects of e-commerce policy and governance. Fourth, WTO Members should continue their efforts to define specific applications of S&D treatment provisions to promote e-commerce and IT trade for developing countries.

PART TWO

IV. Information Technology Goods—Basket I

77. Computers, software, telecommunications equipment and other information technology products provide the physical infrastructure for e-commerce. The creation of a trade framework for IT products—the physical infrastructure of e-commerce—is an important goal of the WTO Work Programme on Electronic Commerce.¹⁰³ Some developing countries are manufacturers of these products (or components for these products) and seek to export them to other markets or to protect them from imports. Other developing countries lack indigenous manufacturing capability and therefore need to import these goods. In either case, developing countries have an interest in how the WTO applies the rules based trading system to information technology products.

78. Many of the WTO agreements relating to trade in goods apply to these products. The purpose of this section is to explain the Information Technology Agreement (ITA)—the only WTO agreement focused exclusively on IT products—and the work that is being done under this agreement and in the Doha negotiations to further liberalize trade in IT products.

Whereas the ITA has taken a very sector- and product-specific approach to liberalizing IT trade, the Doha market access negotiations seek to liberalize trade for all non-agricultural trade. Time will tell whether it is easier—or more difficult—to further liberalize IT trade through more focused plurilateral negotiations or through comprehensive multilateral negotiations.

79. No matter which of these options is chosen, the conceptual starting point for the negotiations is the current ITA and its shortcomings.

¹⁰³ GATT Council, Background Note by the Secretariat, *Work Programme on Electronic Commerce*, G/C/W/128 (5 Nov. 1998) at para. 3.1 (explaining the relationship between IT products and e-commerce: “Electronic commerce cannot be conducted without access to the essential infrastructure components. The necessary hardware and software must be in place to allow information to flow. The [*Information Technology Agreement*] seeks to eliminate, by certain deadlines, tariffs on a large range of information technology products essential to the infrastructure for electronic commerce.”)

A. Information Technology Agreement

1. History of the ITA

80. During the WTO's December 1996 Singapore Ministerial Conference, fourteen signatories representing twenty-nine WTO Members or States and separate customs territories in the process of acceding to the WTO signed the "Ministerial Declaration on Trade in Information Technology" to expand world trade in information technology products.¹⁰⁴ This Information Technology Agreement provided a mechanism for WTO Members to amend their existing tariff schedules under the GATT by "binding"¹⁰⁵ customs duties on selected IT products and then eliminating those duties and "all other duties and charges of any kind" (ODCs) in equal staged reductions over a period of four years, beginning in July 1997 and ending in January 2000.¹⁰⁶ The objective of the ITA is to expand world trade in IT products recognizing their "key role. . . in the development of information industries and in the dynamic expansion of the world economy."¹⁰⁷

81. The products covered by the ITA are listed in Attachments A and B of the agreement and include: semiconductors, semiconductor manufacturing and testing equipment, computers,¹⁰⁸ flat panel displays, computer network equipment, computer software,¹⁰⁹ telecommunication products,¹¹⁰ and scientific instruments. ITA members committed to "zero out" customs duties and ODCs on all of the products listed in the ITA attachments by 2000. Developing countries, however, have requested and received extended staging for some products, but in no case beyond 2005.¹¹¹

¹⁰⁴ WTO, Singapore Ministerial Conference, *Ministerial Declaration on Trade in Information Technology Products*, WT/MIN(96)/16 (12 Dec. 1996) [ITA]. The signatories were: Australia, Japan, Canada, Korea, separate customs territory of Taiwan, Penghu, Kinmen and Matsu, Norway, the European Communities (and all fifteen member states), Singapore, Hong Kong, Switzerland (including Liechtenstein), Iceland, Turkey, Indonesia, and the United States.

¹⁰⁵ A "bound" tariff is one that cannot be increased without notification and compensation to trading partners. See Republic of Philippines, Tariff Commission, *Tariff Bindings – WTO*, <www.tariffcommission.gov.ph/tariffbinding.html> (visited 24 July 2003) (explaining how "tariff bindings" work at the WTO).

¹⁰⁶ ITA at para. 2 and Annex para. 2.

¹⁰⁷ ITA at chapeau.

¹⁰⁸ E.g., processing units, keyboards, printers, monitors, scanners, and hard disk drives

¹⁰⁹ Under the Harmonized System nomenclature, software is classified by the carrier media which contains the software, such as diskettes, magnetic tapes, or CDs.

¹¹⁰ E.g., telephone sets, radio-broadcasting and television transmission and reception apparatus, pagers, videophones, fax machines, switching apparatus, and modems.

¹¹¹ WTO, *ITA Introduction*, www.wto.org/english/tratop_e/inftec_e/itaintro_e.htm (visited 23 July 2003) [*WTO ITA Introduction*]. See ITA at para. 2 (recognizing that "extended staging of reductions . . . may be necessary in limited circumstances"). India, for example, joined the ITA on March 25, 1997, bound all of the 217 tariff lines covered by the ITA and committed to reduce to zero tariffs on ninety-five lines in 2003, four lines in 2003, two lines in 2004,

82. The ITA is a plurilateral agreement that is undertaken on an MFN basis. This means that only signatories to the agreement (versus all WTO Members) must eliminate their tariffs on the covered IT products, but they must do so for all ITA participants *plus* all other WTO Members, whether or not they have signed the ITA.

83. Because the ITA must be implemented on an MFN basis, there is a potential “free-rider” problem: WTO Members who do not join the ITA can enjoy the benefits of zero tariffs on their exports of ITA products to ITA participants without offering reciprocal benefits. For this reason, the original ITA participants specified that the agreement would enter into force only if participants representing 90 percent of world trade in the covered ITA products accepted the agreement. This target was achieved in April 1997 when twenty-five signatories representing forty WTO Members and States or separate customs territories in the process of acceding to the WTO notified their acceptance of the agreement.¹¹²

84. Today, there are fifty-three WTO Members and States or separate customs territories that are participants to the ITA. (*See* Table 7 below for a list of ITA Participants).

85. The ITA specifies that participants shall meet periodically under the auspices of the Council on Trade in Goods:

- “to review the product coverage specified in the Attachments, with a view to agreeing, by consensus, whether . . . the Attachments should be modified to incorporate additional products;” and
- “to consult on non-tariff barriers to trade in information technology products.”¹¹³

86. To accomplish its work, the participants established the Committee of Participants on the Expansion of Trade in Information Technology Product (ITA Committee).¹¹⁴ Committee members include representatives of all agreement participants and other WTO Members and observers may be invited to attend the committee meetings. The Committee held its first meeting in September 1997 and has met formally approximately five times per year thereafter.¹¹⁵ The Committee reports to the GATT Council. The Committee has spent the bulk of its time on four issues:

- enlarging the participants in the ITA;
- expanding the list of products covered by the ITA;

and 116 lines in 2005. *See* Government of India, *Brief Note on Status Regarding Information Technology Agreement*, < commerce.nic.in/wtoit_2.htm > (visited 24 July 2003).

¹¹² In addition to the December 1996 ITA signatories, the following countries completed their acceptances of the agreement in April 1997: Czech Republic, Costa Rica, Estonia, India, Israel, Macau China, Malaysia, New Zealand, Romania, Slovak Republic, and Thailand. *See* *WTO ITA Introduction* at p. 1.

¹¹³ *ITA* at Annex para 3.

¹¹⁴ GATT Council, *Implementation of the Ministerial Declaration on Trade in Information Technology Products*, G/L/160 (2 Apr. 1997) at paras. 3-4.

¹¹⁵ *Id.* at para. 6; *WTO ITA Introduction* at pp. 2-3.

- addressing non-tariff trade barriers (burdensome customs and testing procedures) that impede trade in IT products; and
- resolving classification divergences about IT products.¹¹⁶

Table 7:
ITA Participants

<i>List of ITA participants (53)</i>			
Albania	Estonia*	Kyrgyz Republic	Panama
Australia	European Communities ¹¹⁷	Latvia*	Philippines
Bahrain	Georgia	Lithuania*	Poland*
Bulgaria	Hong Kong, China	Macao, China	Romania
Canada	Hungary*	Malaysia	Singapore
China	Iceland	Malta*	Slovak Republic*
Costa Rica	India	Mauritius	Slovenia*
Croatia	Indonesia	Moldova	Switzerland ¹¹⁸
Cyprus*	Israel	Morocco	Chinese Taipei
Czech Republic*	Japan	New Zealand	Thailand
Egypt	Jordan	Norway	Turkey
El Salvador	Korea	Oman	United States

Source: WTO List of ITA Participants, Internet:
www.wto.org/english/tratop_e/inftec_e/itapart_e.htm (15 May 2004).

87. Developing countries will only be able to voice their interests with respect to these issues if they are ITA participants.

2. Enlarging ITA Participation

¹¹⁶ See GATT Council–ITA Committee, *Report* (1999), *Report* (2000), *Report* (2001) and *Report* (2002) of the *Committee of Participants on the Expansion of Trade in Information Technology Products*, G/L/332 (14 Oct. 1999), G/L/420 (4 Dec. 2000), G/L/484 (2 Oct. 2001) and G/L/577 (22 Oct. 2002); *WTO ITA Introduction* at p. 3. The Committee also has addressed questions regarding individual participant’s accession to the agreement and implementation of commitments. *Id.* Implementation questions will not be addressed in this paper. See e.g., GATT Council–ITA Committee, *Minutes of the Meeting of 15 Feb. 2002*, G/IT/M/30 (4 June 2002) at section 4 (noting the discussion about China’s accession to the agreement in light of concerns about the need for end-use certificates in order for certain products to qualify for duty-free treatment).

¹¹⁷ The schedule of the European Communities includes commitments for the EU 15 Member States. The ten newest members are all ITA Participants and marked with an asterisk (*) on this chart.

¹¹⁸ On behalf of the customs union of Switzerland and Liechtenstein.

88. Since April 1997 when the ITA entered into force, the percentage of trade in IT products covered by the agreement has expanded from approximately 90 percent to 95 percent. Even though only sixty out of 146 WTO Members are participants in the ITA today, the percentage of covered trade is high because trade in IT products is concentrated in a small set of countries.¹¹⁹

89. ITA participation is continually expanding through the WTO accession process. All countries acceding to the WTO since the entry into force of the ITA in 1997 are participants in the ITA, with the exception of Armenia and FYR Macedonia, which acceded this year.¹²⁰ Twenty-seven accessions are pending at this time—including at least two that could be very important members of the ITA: Russia and Vietnam.¹²¹

90. Notwithstanding the high percentage of trade in IT products already covered by the ITA and the number of newly acceding countries that are joining the agreement, some ITA participants are eager to see non-participating WTO Members join.¹²² Two-thirds of WTO Members—virtually all of which are developing countries—are not ITA participants. And, only three Latin American Members are ITA participants: Costa Rica, El Salvador, and Panama. Brazil—an important producer of and market for IT products—is not a participant and applies high customs duties to IT products. Neither are Argentina or Mexico.

91. Developing countries raise three concerns about joining the ITA. First, due to a low volume of trade in IT products, some developing countries do not perceive any quantifiable advantage of lower duties on imports and exports of these products. This perception is reinforced by the fact that 95 percent of world trade in the covered IT products takes place beyond their borders. Second, developing countries are concerned about the negative revenue implications of ITA participation, i.e., foregone tariff revenue on imported IT products. This concern would be exacerbated by an expansion in ITA product coverage—particularly to consumer electronic products. Third, if they are producing IT products, developing countries may want to use tariffs to protect their emerging IT industries from more mature exporters in other countries. Because the ITA is implemented on an MFN basis, non-participants' IT exports will benefit from duty-free concessions made by other ITA participants.

92. Three points are made in response to encourage developing countries to participate in the ITA. First, tariffs create artificial trade barriers that increase the price of IT products on the import market. Access to and use of affordable technologies and potential participation in e-commerce is thereby impaired and the risk of a global digital divide is increased. IT products are a general purpose technology which have important beneficial effects on all industrial and

¹¹⁹ Hauser & Wunsch-Vincent (2001) at pp. 14-15.

¹²⁰ See WTO, Accessions Gateway, *List of Completed Accessions* < www.wto.org/english/thewto_e/acc_e/acc_e.htm > (visited 7 Aug. 2003). Cf. List of ITA Participants in Table 7 above.

¹²¹ WTO, Accessions Gateway, *List of Accessions in Progress*. < www.wto.org/english/thewto_e/acc_e/acc_e.htm > (visited 7 Aug. 2003).

¹²² See "U.S. E-commerce Industry Plots Strategy for WTO Talks," *Inside U.S. Trade* (24 May 2002). The U.S. Trade Promotion Act of 2002 asks U.S. negotiators to seek to expand participation in and the product coverage of the ITA. See Trade Act of 2002, Division B: Bipartisan Trade Promotion Authority, Section 2101(b)(2) and Section 2102(b)(7)(B).

service sectors. Hence, technological backwardness in this field has far-reaching negative consequences.

93. Second, the phenomenon of production fragmentation that is prevalent in global IT industries is built on the frequent and cheap exchange of intermediary and final products between headquarters and foreign affiliates in developing countries.¹²³ Through production fragmentation and foreign investment, developing countries can profit from production of intermediary IT products or the assembly of final products.¹²⁴ High tariffs on IT products may discourage foreign investment for outsourcing in a developing country.

94. And third, tariffs on IT products in developing countries can discourage South-South trade where neither country is a member of the ITA and hence no one-way MFN benefit is possible.

3. Expanding ITA Coverage

95. As previously noted, the ITA directs participants to meet periodically to review the attachments listing the covered products with an eye towards expanding ITA product coverage.¹²⁵ This product review is important for three reasons.

- First, the ITA does not cover certain IT products that some participants wanted to include at the time of the negotiations.
- Second, the ITA does not cover some consumer electronic products, such as TVs for multimedia applications, or cameras and speakers for video/teleconferencing, or other appliances which are being used increasingly in computing and Internet applications.¹²⁶
- Third, and most importantly, the methodology for scheduling commitments in the ITA attachments does not accommodate the natural—and rapid—evolution of IT products.

96. The products covered by the ITA are scheduled at the very specific six-digit level of the Harmonized System for tariff classification, rather than at the broader four-digit level which would accommodate technological evolution of IT products. If new products like stacked

¹²³ OECD (2004), chapters 1, 2 and 3.

¹²⁴ Based on research from the Institute for International Economics (IIE). See Mann (2003). See TNC–NGMA, Communication from Japan, *Market Access for Non-Agricultural Products*, TN/MA/W/15/Add.2 (4 Mar. 2003) at Annex 2 (estimating that exports of consumer electric products from developing countries accounted for over 40 percent of the actual consumer electric products trade worldwide).

¹²⁵ ITA at Annex para. 3.

¹²⁶ See e.g., GATT Council – ITA Committee, Submission by Singapore, *Proposed Additions to Product Coverage*, G/IT/SPEC/9 (12 Jan. 1998) at p. 2.

semiconductor chips and electronic whiteboards fall outside of the scope of the ITA, the benefits of the ITA's duty-free treatment accrue only to older, less efficient technologies.

97. In 1997-98, the ITA Committee attempted to extend the product coverage of the agreement during the "ITA II" negotiations. The Committee established the following schedule for the negotiations:

- October – December 1997: participants submit lists of IT products to add to the ITA;¹²⁷
- January – March 1998: participants consult on the lists;
- No later than 30 June 1998: participants decide whether to extend ITA coverage by amending the list of products in Attachments A and B; and
- January 1, 1999: participants implement tariff reductions on the newly added products.

98. The participants, however, were unable to reach agreement on whether to include certain consumer electronic and security-related products in the ITA and suspended the ITA II talks in July 1998.¹²⁸ Although consultations among delegations on product coverage continue,¹²⁹ an expanded ITA list does not appear to be on the horizon¹³⁰ and a number of IT products that are essential for the functioning of the Internet and e-commerce are not covered by the ITA.

99. The ITA II negotiations were so contentious that some participants and the IT industry do not place much hope in expanding ITA coverage. At this point, the most likely mechanism for expanding duty-free trade in IT products may be the Doha negotiations versus further work through the ITA Committee. (*See* Section IV.B below).

4. Eliminating Non-Tariff Measures

¹²⁷ Fourteen countries submitted proposed product additions to the ITA: Canada, Switzerland, EC, Hong Kong, Israel, Taiwan, Japan, Australia, Singapore, Turkey, Philippines, Norway, US, and Malaysia. *See* GATT Council–ITA Committee, Note by the Secretariat, *Proposed Additions to Product Coverage: Compilation of Participants' Submissions*, G/IT/SPEC/15 (24 Feb. 1998).

¹²⁸ WTO, Press Release, *ITA II Talks Suspended*, No. 110 (17 July 1998)

www.wto.org/english/news_e/pres98_e/pr110_e.htm (visited 11 Aug. 2003); "ITA Talks Suspended As New Disputes Prevent Final Deal," *Inside US Trade* (24 July 1998) (explaining that India opposed inclusion of certain radar equipment sought by Norway, that the U.S. opposed inclusion of certain photocopiers, fiber optic equipment, and computer monitors sought by the EC, and a number of participants opposed Malaysia's demands to include consumer electronic products such as color picture tubes and DVDs.)

¹²⁹ GATT Council–ITA Committee, *Minutes of the Meeting of 14 Oct. 2002*, G/IT/M/33 (11 Dec. 2002) at para. 6.1 (reporting that "the issue of product coverage continued to be a matter under consultation," and "encourag[ing] delegations to continue their efforts").

¹³⁰ In fact, industry sources claim that ITA II is in "a coma."

100. The ITA requires participants to consult on non-tariff measures (NTMs) to trade in IT products¹³¹ and much of the ITA participants' attention has been focused on an NTM work programme since its inception in 2000.

101. What types of NTMs affect IT products? In the global economy, IT manufacturers seek to lower their costs, reduce the time needed to develop, produce, and certify products, and maximize their product sourcing flexibility by mass producing standardized products for the global marketplace versus modifying or tailoring products for individual markets. These efficiencies can be passed along to both commercial and government users as well as consumers in the form of lower prices. Examples of NTMs include: non-portability of conformity assessment data; unique testing and certification requirements; differing national regulations implementing global standards; and administratively difficult and non-transparent customs regulations, country of origin, and import licensing requirements. NTMs can increase product costs, inhibit trade, and slow down global consumer access to the latest technology.¹³²

102. Whereas these non-tariff measures are not *per se* inconsistent with WTO commitments, they may undermine the ITA's objective of improving market access for IT products through duty-free treatment. Given that the lifecycle for some IT products is extremely short,¹³³ any delays caused by NTMs can be significant trade barriers.

103. Studies show that between 1989 and 1998 the number of non-tariff trade barriers in the trade of IT products dramatically increased and undermined the ITA's objective.¹³⁴ Concerns about the impact of NTMs on duty-free trade in IT products are not limited to developed countries. A study by the International Trade Center (ITC) demonstrates concern in both developed and developing countries about the impact of standards-related NTMs.¹³⁵ Similarly, a recent OECD study noted that the arguments against NTMs in the IT sector are made mostly by developed countries, but that due to their high share of IT products in exports, some developing countries also have a great interest in avoiding NTMs.¹³⁶ Other research analyzes the positive relationship between access to IT equipment at low cost and economic growth.¹³⁷

104. The ITA Committee began its work on NTMs in 1998 by soliciting responses to a survey¹³⁸ inquiring about participants' technical regulations and conformity assessment procedures for IT

¹³¹ ITA at Annex para. 3.

¹³² GATT Council-ITA Committee, Communication from the United States, *Non-Tariff Measures Work Program*, G/IT/SPEC/Q3/6 (16 Oct. 2002); GATT Council-ITA Committee, Canadian National Experience Paper, *Import Licensing for Information Technology Products*, G/IT/9 (7 Apr. 2000).

¹³³ The United States estimates only six to sixteen months for some IT products. See GATT Council-ITA Committee, Communication from the United States, *Submission for the Non-Tariff Measures Work Program*, G/IT/SPEC/Q2/12 (1 May 2002) at p. 1.

¹³⁴ See GATT Council-ITA Committee, Compilation of the Submissions by the Secretariat, *The Non-Tariff Measures Work Programme*, G/IT/SPEC/Q2/11/Rev.1 (14 Apr. 2003) [*WTO Secretariat NTM Compilation*] (including bibliography of papers or studies about NTMs).

¹³⁵ ITC (1999).

¹³⁶ OECD (2002b) at p. 9.

¹³⁷ See Bhatnagar (1999).

¹³⁸ GATT Council-ITA Committee, *Survey*, G/IT/4 (19 Feb. 1998).

products. Twenty-four participants responded to the survey.¹³⁹ In November 2000, the ITA Committee launched a one-year Work Programme on Non-Tariff Measures (NTM Work Programme) with three phases:

- Phase I, to be completed by March 2001, was the stocktaking phase during which the Committee would compile an inventory of NTMs based on participants' submissions.
- Phase II was the assessment phase during which the Committee would analyze the economic and developmental costs of NTMs on trade in ITA products as well as the benefits that would accrue to participants by addressing these barriers.
- Phase III, to be completed in November 2001, was the planning stage during which the Committee would consider the outcomes of Phases I and II and propose a way forward.¹⁴⁰

105. The stocktaking phase proceeded successfully with a number of participants making submissions identifying NTMs that impede trade in IT products. Despite the heterogeneity of submissions, the Secretariat produced a very useful inventory of NTMs. (*See* Table 8 below for the Secretariat's summary of NTMs).¹⁴¹

106. A handful of developing countries filed submissions in Phase I of the NTM Work Programme and actively participated in meetings, including: India, Mauritius, Hong Kong, and Chinese Taipei. India, for example, complained about the lack acceptance of Indian standards, lack of accreditation of Indian centers that certify conformity, and the restricted visa regimes affecting exports of software professionals.¹⁴² With respect to the establishment of standards, the Indian delegation argued that national agencies affiliated to international bodies must be appointed in all developing countries. Lack of such affiliated agencies acts as a barrier to exports and to development of exportable products in developing countries.¹⁴³

107. In Phase II of the NTM Work Programme, the assessment phase, only four participants have filed comments: Australia, Canada, the European Communities, and the United States.¹⁴⁴

¹³⁹ Developing countries responding to the survey included: Costa Rica, Estonia, Malaysia, Romania, Thailand and Turkey. GATT Council – ITA Committee, *Overview of Survey Responses*, G/IT/SPEC/Q1/25 (22 Mar. 1999).

¹⁴⁰ *See* WTO, Press Release, *ITA Committee Approves Work Programme on Non-Tariff Measures*, No. 198 (17 Nov. 2000).

¹⁴¹ GATT Council–ITA Committee, Note from the Secretariat, *Compilation of the Submissions for the Non-Tariff Measures Work Programme*, G/IT/Q2/11 (14 Jan. 2002) and G/IT/Q2/11/Rev.1 (14 Apr. 2002). The countries making submissions included: Canada, Australia, European Community, Mauritius, Hong Kong, China, Japan, Chinese Taipei, New Zealand, India, and United States.

¹⁴² GATT Council–ITA Committee, Communication from India, *Submission for the Non-Tariff Measures Work Programme*, G/IT/SPEC/Q2/10 (28 Nov. 2001).

¹⁴³ *Id.*

¹⁴⁴ *See* GATT Council–ITA Committee, Communication from Australia, *The Non-Tariff Measures Work Programme*, G/IT/SPEC/Q3/1 (17 Oct. 2001); GATT Council–ITA Committee, Communication from Canada, *The Non-Tariff Measures Work Programme*, G/IT/SPEC/Q3/2 (30 Jan. 2002); GATT Council–ITA Committee, Communication from the European Communities, *Phase II of the ITA Non-Tariff Measures Work Programme*, G/IT/SPEC/Q3/3 (2 Aug. 2002); GATT Council–ITA Committee, Communication from Canada, *EMC/EMI Pilot*

None of the comments—nor any of the submissions in Phase I of the work programme—has attempted to provide a serious economic analysis of the adverse impact of NTMs on trade in IT products or on development.¹⁴⁵ Nonetheless, the work programme has significantly advanced the participants' understanding of NTMs and their impact on trade in IT products. Phase III has not yet occurred, and no pathway has been proposed for transitioning from a largely educational exercise to one in which participants commit to reduce NTMs on IT products.

108. As with the enlargement of ITA participation and the expansion of the ITA product coverage, the Doha negotiations may offer a concrete opportunity to carry forward the ITA work on NTMs. (See Section IV.B below). In the interim, the Committee is pursuing a pilot program on electromagnetic compatibility (EMC) and electromagnetic interference (EMI) that could provide a model for how the Committee moves beyond Phases I and II. Many of the Phase I submissions identified technical requirements and assessment procedures governing EMC/EMI as NTMs impeding trade in IT products.¹⁴⁶ Canada proposed a pilot project regarding these measures.¹⁴⁷ The Secretariat prepared another survey on EMC/EMI¹⁴⁸ and received twenty-four responses.¹⁴⁹ The Committee is now planning a workshop to address EMC/EMI requirements for IT products.¹⁵⁰

Project Workshop, G/IT/SPEC/Q3/4 (30 Sept. 2002); GATT Council–ITA Committee, Communication from the United States, *Non-Tariff Measures Work Program*, G/IT/SPEC/Q3/6 (16 Oct. 2002). These four participants also have called for the completion of Phases I and II and the beginning of Phase III during which the Committee could decide how to treat non-tariff measures impeding trade in IT products. GATT Council-ITA Committee, *Minutes of the Meeting of 5 July 2002* and the *Resumed Meeting of 14 Oct. 2002*, G/IT/M/32 (22 Oct. 2002) at paras. 2.3, 2.4, 2.5, and 2.6.

¹⁴⁵ Some participants agree that the costs of NTMs is likely to be high, but quantitative estimates for the economic or development impacts of removing NTMs are hard to develop. *WTO Secretariat NTM Compilation*, G/IT/SPEC/Q2/11/Rev.1 at 9. See e.g., GATT Council–ITA Committee, Communication from the European Communities, *Phase II of the ITA Non-Tariff Measures Work Programme*, G/IT/SPEC/Q3/3 (2 Aug. 2002) at para. 3.1.

¹⁴⁶ *WTO Secretariat NTM Compilation*, G/IT/SPEC/Q2/11/Rev.1 at pp. 2-3 (summarizing participants' complaints about conformity assessment procedures).

¹⁴⁷ GATT Council–ITA Committee, Proposal from Canada, *The Non-Tariff Measures Work Programme*, G/IT/SPEC/Q3/2 (30 Jan. 2002).

¹⁴⁸ GATT Council–ITA Committee, *Survey on EMC/EMI*, G/IT/22 (22 Mar. 2002).

¹⁴⁹ GATT Council–ITA Committee, Note by the Secretariat, *Overview of Survey Responses*, G/IT/SPEC/Q4/19/Rev.2 (8 July 2003). Developing country respondents included: Bulgaria, El Salvador, India, Jordan, Lithuania, Mauritius, Philippines, Romania, Thailand, and Turkey.

¹⁵⁰ See GATT Council–ITA Committee, Communication from Canada, *EMC/EMI Pilot Project Workshop*, G/IT/SPEC/Q3/4 (30 Sept. 2002).

Table 8:
NTMs on IT Products

Secretariat Summary of NTMs

1. CONFORMITY ASSESSMENT + TESTING/CERTIFICATION¹⁵¹

Lack of acceptance of conformity assessment reports between countries; non-use or deviations from international standards for conformity assessments; unreasonable demands for testing; duplication or multiple testing; lack of recognition of industry standards.

2. STANDARDS/REGULATORY ENVIRONMENT

Duplicative testing; divergent/excessive national standards; non-use of international standards; multiplicity of bodies and deficient coordination among regulatory bodies; voluntary, but *de-facto*, requirements.

3. CUSTOMS PROCEDURES/CERTIFICATE OF ORIGIN

Cumbersome, non-transparent and overly bureaucratic procedures related to obtaining customs clearance; unnecessary certificates of origin on duty-free goods, as well as compliance documents, certificates of quality, legalization documents, and pre-shipment inspections.

4. IMPORT LICENSING

Classification issues, excessive number of administrative bodies, lack of transparency, and processing/approval times.

5. RULES OF ORIGIN

Stringent rules of origin in preferential trade agreements.

6. TRANSPARENCY AND AVAILABILITY OF INFORMATION

Regulations not readily available and not in standardized format.

7. GOVERNMENT PROCUREMENT

Lack of transparency, local content, and buy national requirements.

8. RESTRICTIONS ON IT PROFESSIONALS

Restricted visa regimes, inadequate visa durations, single-entry only visas.

Source: *WTO Secretariat NTM Compilation, G/IT/SPEC/Q2/11/Rev.1.*

¹⁵¹ Many importing countries require exporters to complete “conformity assessment procedures” before their products may be sold in the import market. For example, according to the submission made by Hong Kong, China in Phase I of the NTM Work Program: “[A]n economy may require a Certificate of Conformity for every shipment of regulated products imported. The process of application for the Certificates of Conformity is unduly long and costly. The applicant has to obtain an application form from the representative office of the economy in Hong Kong. The completed form has to be notarized by a notary public, certified by a local chamber of commerce and then sent to the relevant authority in the economy concerned well in advance (at least two months) before shipment for verification and approval. Upon approval, the certificate will be returned to the applicant, who must attach a copy with each shipment of the products concerned to that economy.” GATT Council – ITA Committee, Communication from Hong Kong, China, *Submission for the Non-Tariff Measures Work Programme*, G/IT/SPEC/Q2/6 (4 Apr. 2001) at para. 1(a).

5. Resolving Classification Divergences

109. The ITA requires participants to consider any divergences among them on classifying ITA products with the objective of “achieving, where appropriate, a common classification of these products within existing HS Nomenclature.”¹⁵² This work is necessary because the products listed in Attachment B of the ITA are *not* classified under the same HS headings by ITA participants.

110. The WTO Secretariat completed a study of the classification of ITA products in October 1997 indicating there were wide divergences in the classification of the same products in different customs territories, hence affecting whether ITA products would receive duty-free treatment. The Secretariat then compiled a list of classifications for the products listed in Attachment B of the ITA to catalogue the various divergences and to provide a basis for participants to agree on a uniform classification.¹⁵³

111. The Committee has regularly considered the issue of classification divergences, held meetings of custom experts,¹⁵⁴ and occasionally requested assistance from the World Customs Organization (WCO) in specifying the correct classification of specific products.¹⁵⁵ As a result, it has made some progress in harmonizing classification of the IT products included in Attachment B.¹⁵⁶ The ITA Committee must now endorse the proposed classifications, which would then require customs authorities of ITA Participants including developing countries to conform their classification practices.

¹⁵² ITA at Annex para. 5.

¹⁵³ GATT Council–ITA Committee, Note by the Secretariat, *Overview of Divergences of Classification of Attachment B Items*, G/IT/2/Add.1/Rev.1 (29 July 1999).

¹⁵⁴ GATT Council–ITA Committee, *Informal Meeting of Customs Experts from ITA Participants to Discuss Classification Divergences 6-8 May 2002*, G/IT/14/Rev.1/Add.1 (15 Apr. 2003). The participants included: Canada, Chinese Taipei, European Communities, Korea, Norway, Switzerland, Thailand, and the United States.

¹⁵⁵ See GATT Council–ITA Committee, Reply Received from the WCO Regarding Classification Issues, G/IT/20 (14 Jan. 2002).

¹⁵⁶ GATT Council–ITA Committee, Note by the Secretariat, *Classification Divergences*, G/IT/W/6/Rev.2 (11 July 2003).

B. Doha Negotiations

112. As noted above, the Doha negotiations have the potential to address three major barriers to trade in IT products: enlargement of ITA membership, expansion of ITA product coverage, and elimination of NTMs.

113. The Doha negotiations on goods—including the IT products covered by the ITA—are taking place under the auspices of the Negotiating Group on Market Access for Non-Agricultural Goods (NGMA).

114. The scope of the market access negotiations is defined in the Doha Ministerial Declaration as follows:

We agree to negotiations which shall aim, by the modalities agreed, to reduce or as appropriate disregard tariffs, including the reduction or elimination of tariff peaks, high tariffs, and tariff escalation, as well as non-tariff barriers, in particular on products of export interest to developing countries. Product coverage shall be comprehensive and without a priori exclusions. The negotiations shall take fully into account the special needs and interests of developing and least-developed country participants, including through less than full reciprocity in reduction commitments, in accordance with the relevant provisions of Article XXVIII bis of GATT 1994 and the provisions cited in paragraph 50 below. To this end, the modalities to be agreed will include appropriate studies and capacity-building measures to assist least-developed countries to participate effectively in the negotiations.¹⁵⁷

115. Three aspects of this negotiating mandate are particularly relevant to this paper: modalities, elimination of tariffs and non-tariff barriers, and special consideration and accommodation of developing and least-developed countries.

1. Modalities

116. Before the market access negotiations can begin in earnest, the participants must agree on the “modalities,” i.e., the parameters for binding, lowering, and eliminating tariffs that will be applied in the negotiations.

¹⁵⁷ *Doha Declaration* at para. 16.

117. The schedule for the market access negotiations called for the participants to submit modalities proposals no later than 31 December 2002 and to reach agreement on modalities by 31 May 2003.¹⁵⁸ The Secretariat compiled an overview of the twenty-five proposals submitted.¹⁵⁹ The modalities addressed in these submissions include: product coverage, formulas for reducing tariffs, elimination of low/nuisance tariffs, base rates for applying tariff reductions (i.e., applied versus bound rates), staging, and elimination of non *ad valorem* duties.¹⁶⁰

118. In May, the Chairman released a proposal for the negotiating modalities. The Negotiating Group on Market Access has not yet reached consensus on this document nor was any agreement or modalities reached at the Cancun Ministerial. On 29-31 March 2004, the Negotiating Group on Market Access met again for the first time after Cancun.¹⁶¹ Although the delegates set a new deadline for reaching an agreement on a negotiating framework, i.e., the end of July 2004,¹⁶² observers believe that progress on key agricultural issues was a precondition for the NAMA talks to advance.¹⁶³

2. Eliminating Tariff Barriers

119. Most of the Members in their modalities proposals agreed that *a priori* no sectors should be excluded from tariff reductions, however, differences remain over many other issues, including, for example:

- the scope of negotiations (e.g., all non-agricultural products treated in the same way or special sectoral approaches);
- the formula used to reduce tariffs; and
- the design of special and differential treatment provisions for developing countries.

¹⁵⁸ TNC-NGMA, Adopted by the Negotiating Group on 19 July 2002, *Programme of Meetings for the Negotiations on Market Access for Non-Agricultural Products*, TN/MA/3 (22 July, 2002) at para. 2.

¹⁵⁹ TNC-NGMA, *Overview of Proposals Submitted: Tariffs*, TN/MA/6 (5 Feb. 2003) and TN/MA/6/Rev.1 (1 Apr. 2003) [*Secretariat Tariff Overview*].

¹⁶⁰ *Id.*

¹⁶¹ TN/MA/13 (19 Apr. 2004), para 1.

¹⁶² *Ibid.*, paras. 2(b) and 9.

¹⁶³ “Industrial Market Access Hinges On Agricultural Outcome,” *Bridges Weekly* (31 Mar. 2004); “WTO Members End Disappointing Talks On Access to Non-Agricultural Markets,” *BNA WTO Reporter* (1 Apr. 2004); and “NAMA Talks Address Non-Tariff Barriers,” *Bridges Weekly* (19 May 2004).

120. The most ambitious proposal suggested was to reduce/eliminate tariffs using a “zero-for-zero”¹⁶⁴ approach applicable to *all* sectors.¹⁶⁵ This approach would lead to the complete elimination of duties by 2015. Other proposals advocated a zero-for-zero approach for *particular* sectors.¹⁶⁶ Only two WTO Members’ submissions singled out the IT sector.

- A U.S. submission proposes that tariffs covered by the ITA should be eliminated as soon as possible but no later than 2010¹⁶⁷ and that all other tariffs should be eliminated by 2015. This mix of sector-specific and horizontal tariff-cutting effectively would enlarge the participation of the ITA to all WTO members and would expand the coverage to all IT products by 2015.
- Japanese submissions seek the participation of all WTO Members in the ITA and an expansion of the ITA product coverage to include “consumer electrical products” and optical fibres.¹⁶⁸ The Japanese submissions further suggest a zero-for-zero approach for consumer electrical products and “electrical machinery parts” necessary to manufacture them, citing the failed efforts to add these products in the ITA II negotiations.¹⁶⁹ Japan proposes a five-year phase-in with reductions taken in equal installments, and longer periods of time being granted to developing countries that implement deeper than average cuts in comparison to other developing countries.¹⁷⁰

121. The fact that there are only two IT-specific submissions so far in the market access negotiations does not mean that the market access negotiations will not be used to reduce IT tariffs. The opposite is true: the market access negotiations may provide a mechanism for “multilateralizing” duty-free IT trade.

¹⁶⁴ A “zero-for-zero” approach to tariff reductions describes the situation where a critical mass of countries agree to reduce rates to zero in a sector. This approach was used in the ITA as well as in the Uruguay Round for agricultural equipment, beer, certain chemicals, construction equipment, distilled spirits (brown), furniture, medical equipment, paper, pharmaceuticals, steel and toys. Ministry of Agriculture for the Russian Federation, www.aris.ru/WIN_E/TACIS/TACIS_2001/AGRI_FOOT/25.html (visited 5 Aug. 2003).

¹⁶⁵ TNC-NGMA, Communication from the United States, *Market Access Negotiations for Non-Agricultural Products*, TN/MA/W/18 (5 Dec. 2002) [*U.S. Proposal*].

¹⁶⁶ See e.g., TNC-NGMA, Communication by Japan, *Market Access for Non-Agricultural Products*, TN/MA/W/15, (5 Nov. 2002) [*Japanese Proposal I*]; and TNC-NGMA, Communication from Japan, *Market Access for Non-Agricultural Products: Japan’s Submission on “Zero-for-Zero and Harmonization*, TN/MA/W/15/Add.2 (4 Mar. 2003) [*Japanese Proposal II*].

¹⁶⁷ *U.S. Proposal*, TN/MA/W/18 at para. 8.

¹⁶⁸ *Japanese Proposal I*, TN/MA/W/15 at para. 3(a), and *Japanese Proposal II*, TN/MA/W/15/Add. 2 at Annex 1 para 1. According to Japanese Proposal II, the ITA should be expanded to cover “digital electric appliances,” i.e., electrical appliances that “once used analogue signals” but now use “digital signals, which enables users to, for example, transmit information at high-speed and with a large capacity, use such appliances from a remote place, and store huge amounts of data for a far longer period of time by using less resources.” TN/MA/W/15/Add.2 at Annex 1 section 1. These products include refrigerators, freezers, washing machines, and microwave ovens with Internet communication features as well as home theater systems and audio equipment incorporating an MP3 players. *Id.* at chart.

¹⁶⁹ See *Japanese Proposal I*, TN/MA/W/15 at Annex 2 section 3(b) and *Japanese Proposal II*, TN/MA/W/15/Add.2 at Annex 2 section 2 (explaining that the ITA II negotiations considered inclusion of these products). The list of items proposed for a zero-to-zero approach include: electronic books and dictionaries, memory cards, set top boxes, camcorders, and smart cards.

¹⁷⁰ *Japanese Proposal I*, TN/MA/W/15 at para. 6.

122. The Chairman’s May 2003 Draft Modalities for the market access negotiations proposed that the participants:

- apply a formula across-the-board to all tariffs on non-agricultural products;¹⁷¹
- require zero-for-zero tariff elimination in three equal stages for selected sectors of particular interest to developing and least developed developed country participants, including “Electronics and Electrical goods;”¹⁷² and
- permit “supplementary modalities” to achieve additional tariff reductions and elimination through zero-for-zero sector elimination, although no additional sectors were specifically named.¹⁷³

123. If the participants accept the Chairman’s proposal to eliminate and bind all tariffs on electronics and electrical goods, they will then need to define the products covered within this sector. This can be a significant challenge, as illustrated by the failed ITA II negotiations. These zero-for-zero negotiations also may address whether commitments should be scheduled at the four-digit level v. six-digit level to provide automatic ITA Coverage for new IT products.¹⁷⁴

124. Depending on the coverage and any special and differential treatment accorded developing countries, the Doha market access negotiations could accomplish the enlargement in participation and expansion of product coverage that some ITA participants are seeking under the agreement. Although the Draft Modalities do not mention IT products specifically, there is room for negotiating tariff eliminations on IT products under either of the Chairman’s proposals on products of particular export interest to developing and least developed countries or supplementary modalities. Even if ambitious zero-for-zero proposals to eliminate IT tariffs fail, a horizontal formula to lower tariffs will be applied to IT products. If however—as in the case of the Chairman’s draft modalities - formulas are chosen that reduce higher average tariffs proportionally less than lower ones, this special approach may not significantly lower or eliminate tariffs in developing countries with high IT tariffs.

¹⁷¹ *Draft Modalities*, TN/MA/W/35 at section 1. The proposed formula would reduce higher than average tariffs proportionally less than lower ones, thereby decreasing the impact of the tariff reductions on developing countries with high tariffs. It also would harmonize tariffs into a more narrow range by reducing tariff peaks.

¹⁷² *Id.* at section 2 (proposing the following sectors: “Electronics & Electrical goods; Fish & Fish products; Footwear; Leather goods; Motor Vehicle parts & components; Stones, Gems, & Precious Metals; and Textiles & Clothing”). The draft also notes that Members will need to determine the product coverage applicable to these sectors.

¹⁷³ *Id.* at section 5.

¹⁷⁴ Since product innovation outpaces negotiations, U.S. industry has argued that adding more IT products at the six-digit level of specificity is impractical. One U.S. IT association has advocated that IT products be scheduled in three broad HS categories with specific exceptions listed at the six- or eight-digit level with a timetable for phasing out the applicable tariffs. See “U.S. E-commerce Industry Plots Strategy for WTO Talks,” *Inside U.S. Trade* (May 24, 2002).

3. Eliminating Non-Tariff Barriers

125. As noted above, the mandate of the market access negotiations includes “the reduction or elimination . . . of non-tariff barriers.”¹⁷⁵ To that end, participants in the NGMA notified “non-tariff barriers which their economic operators were encountering when exporting to various markets”¹⁷⁶ and made submissions proposing modalities for non-tariff barriers.¹⁷⁷ The Secretariat compiled an overview of the eighteen NTB modalities submissions in April 2003.¹⁷⁸ According to the Secretariat:

126. Fifteen submissions provided general information on how to proceed with the NTB negotiations without necessarily suggesting a specific negotiating modality or scope. These general observations are quite varied. Some of the early submissions on NTBs suggest that a listing or inventory be drawn up first before proceeding with an assessment of ultimately how to address them. Others refer to the negotiating mandate, emphasizing the importance of reducing or eliminating NTBs without suggesting how to go about addressing them. A few observations point to the legitimate policy objectives that many measures are meant to fulfill. The remaining submissions are quite varied.¹⁷⁹

127. It has proven particularly difficult to decide how the negotiations should move forward on NTBs. The first inventories of NTBs illustrate the complexity and vastness of the topic.¹⁸⁰ One very important point raised in the submissions and reflected in the Secretariat’s overview is that there are different types of NTBs and this will affect whether and in which negotiating group they can be addressed by the Doha negotiations.¹⁸¹ Some NTBs fall within the mandate of the NGMA and could be addressed within the market access negotiations, others fall within the mandate of other negotiating groups, and some fall outside the scope of the Doha negotiations altogether because they are either not covered by a WTO Agreement or not related to a WTO Agreement which is the subject of a negotiating mandate.¹⁸²

128. Against this backdrop, the Chairman’s Draft Modalities made several proposals with respect to non-tariff barriers:

¹⁷⁵ *Doha Declaration* at para. 16.

¹⁷⁶ TNC-NGMA, *Report by the Chairman to the Trade Negotiations Committee*, TN/MA/4 (26 Sept. 2002) at para. 4.

¹⁷⁷ TNC-NGMA, *Report by the Chairman, Ambassador Girard, to the Trade Negotiations Committee*, TN/MA/8 (27 Feb. 2003) at para. 3.

¹⁷⁸ TNC-NGMA, *Note by the Secretariat, Overview of Proposals Submitted: Non-Tariff Barriers*, TN/MA/9 (7 Apr. 2003) [*Secretariat NTB Overview*].

¹⁷⁹ *Id.* at p. 2.

¹⁸⁰ *Secretariat NTB Overview*, TN/MA/9 (listing the following variety of NTBs: quotas, import licensing, rules of origin, customs valuation, sanitary and phyto-sanitary (SPS) measures; technical barriers to trade (TBT), including regulations, standards, testing and certification procedures and labeling, tariff classification, border-related measures including customs procedures, fees and administration).

¹⁸¹ *Id.* at p. 2.

¹⁸² *Id.*

- maintain overall responsibility for addressing NTBs in the Doha negotiations;
- identify and evaluate various types of NTBs;
- address selected NTBs within the NGMA’s mandate; and
- refer other NTBs to the appropriate bodies for their consideration.¹⁸³

129. Assuming that these modalities for NTBs are accepted, the market access negotiations will provide a vehicle for addressing at least some of the NTBs that were identified in the ITA Committee’s work programme on non-tariff measures. Some suggestions for lowering NTBs include: improving notification of NTBs, a request and offer approach for binding and eliminating specific NTBs, and horizontal approach that would discipline broader categories of NTBs.¹⁸⁴ It will be a real challenge, however, to move the negotiators beyond a listing and categorizing of non-tariff barriers.

4. S&D Provisions

130. The Doha Ministerial Declaration specifies three types of special and differential treatment that should be accorded to developed and least- developed countries in the market access negotiations:

- the negotiations should reduce or eliminate tariffs and non-tariff barriers “in particular on products of export interest to developing countries;”
- “the negotiations shall take fully into account the special needs and interests of developing and least-developed country participants, including through less than full reciprocity in reduction commitments;”
- the modalities for the negotiations “will include appropriate studies and capacity-building measures to assist least-developed countries to participate effectively in the negotiations.”¹⁸⁵

131. Within the Negotiating Group on Market Access, developing and least developed countries have been quite active in making submissions regarding these special and differential provisions. The list of developing countries and regional blocs making submissions includes: India, Mexico, Chile, China, Mauritius, Bangladesh (on behalf of LDCs), Mercosur (Argentina, Brazil, Paraguay and Uruguay), Thailand, Ghana, Kenya, Nigeria, Tanzania, Uganda, Zambia, and Zimbabwe, Bolivia, Albania, Croatia, Georgia, Moldova, Barbados, Jamaica, Trinidad & Tobago, Egypt, Indonesia, Kenya, Malaysia, Latvia, Morocco, Fiji, and New Guinea.¹⁸⁶ (*See*

¹⁸³ *Draft Modalities*, TN/MA/W/35 at para. 13.

¹⁸⁴ TNC-NGMA, Communication from the European Communities, *Market Access for Non-Agricultural Products: Non-Tariff Barriers*, TN/MA/W/11/Add.3 (1 Apr. 2003) at paras. 16-18.

¹⁸⁵ *Doha Declaration* at para. 16.

¹⁸⁶ *See* TNC-NGMA, *Market Access for Non-Agricultural Products*, TN/MA/W/1-39 (24 June 2002–15 July 2003).

Table 9 below for the Secretariat's summary of all the submissions regarding modalities for tariff reductions).

132. The NGMA Chairman's Draft Modalities for the market access negotiations would accord special and differential treatment to developing and least developed countries in the following respects:

- All developing countries would be given longer implementation periods for tariff reductions;
- All developing countries would be permitted to leave unbound tariffs for 5 percent of tariff lines;
- Least developed countries would not be required to make any tariff reduction commitments, but would be expected to substantially increase their level of binding commitments;
- Developed countries would be encouraged to grant autonomous duty-free and quota-free market access to non-agricultural products originating from LDCs; and
- Participants would eliminate and bind all tariffs of particular interest to developing and least developed countries in the following proposed sectors: "Electronics & Electrical goods; Fish and Fish products; Footwear; Leather goods; Motor Vehicle parts and components; Stones, Gems & Precious Metals; and Textiles & Clothing."¹⁸⁷

133. In addition to these S&D provisions, the Chairman proposed a tariff reduction formula that would reduce higher than average tariffs proportionally less than lower ones, an accommodation for developing countries that wish to preserve tariffs to protect domestic industries or tariff revenues.¹⁸⁸ The Chairman's draft did not address the erosion of non-MFN tariff preferences that occurs when preferential tariffs are zeroed out on an MFN basis.¹⁸⁹ This is an important issue to many developing countries and is likely to be addressed in subsequent drafts.

¹⁸⁷ *Draft Modalities*, TN/MA/W/35 at sections 2-3.

¹⁸⁸ *Id.* at section 1.

¹⁸⁹ TNC-NGMA, *Report of the Chairman, Ambassador Girard, to the Trade Negotiations Committee*, TN/MA/11 (6 June 2003) at para. 4.

Table 9:
Tariff Reduction Modalities¹⁹⁰

<i>Issues</i>	<i>Proposals</i>
Product Coverage	Developing country Members should be permitted to leave unbound highly sensitive tariff lines and be given flexibility in reducing sensitive tariff lines.
Elimination of Tariffs/Staging of Reductions	Developing country Members should not be required to lower tariffs by the same percentage as developed country Members and they should be given a longer period of time than developed countries to reduce tariffs. LDCs should be exempt from tariff reductions.
Core Modality	Different formulas should be used for cutting developing versus developed country Member tariffs.
Elimination of Low/Nuisance Duties Tariff Peaks	Developing country Members should be permitted to maintain low tariffs. WTO Members should eliminate tariff peaks for products of export interest to developing countries.
Bindings	Developing country Members should be given flexibility not to bind certain tariff lines and to bind others above the applied rate.

Source: *Secretariat Tariff Overview*, TN/MA/6/Rev.1.

134. The NGMA participants have not agreed to these draft modalities and the question of how special and differential treatment may be incorporated into the market access negotiations is still outstanding.

C. Conclusion

135. WTO Members missed a good opportunity at the Cancun Ministerial to move forward the market access negotiations by agreeing to modalities. Nonetheless, the field of play for reducing tariffs and non-tariff barriers on IT goods has moved from the ITA Committee to the Doha market access negotiations. Of the four issues that the ITA Committee has focused on—participation, scope, NTMs, and classification—only participation and scope are likely to be addressed in the Doha negotiations. When modalities are finally agreed upon, they will no doubt include some special and differential provisions for developing country Members. These modalities not only may permit developing country Members to leave unbound or not reduce some tariffs on certain goods, but also may require Members to apply zero duties to selected IT goods that are of export interest to developing countries. It is definitely too soon to tell what these lists of goods will be.

¹⁹⁰ The proposals included in the table do not represent consensus positions among developing countries.

PART THREE

V. Services

136. The purpose of Part Three of this paper is to:

- explain the issues that arise in the application of the WTO's rules governing trade in services to two aspects of e-commerce;
 - 1) internet infrastructure services; and
 - 2) electronically traded services, particularly business process outsourcing services;
- identify the different positions that WTO Members take on these issues; and
- address the significance of these issues to developing countries.

137. To achieve this purpose, Part Three begins with an introduction to the General Agreement on Trade in Services (GATS) and explains its structure, the general obligations that WTO Members undertake to liberalize trade in all service sectors, as well as the specific commitments that WTO Members undertake to further liberalize trade in specific services sectors. (*See* Section V.A). It then describes the pending services negotiations that began in 2000 and are scheduled to end in 2005. (*See* Section V.B). Part Three also describes the outstanding questions about the application of the GATS to e-commerce that were identified in the WTO Work Programme on E-commerce and how the ongoing services negotiations may address some of these questions (*See* Section V.C).

138. Subsequently, this part focuses on the application of the GATS to Internet infrastructure services (also referred to as "Basket II" in this paper) and to electronically traded services (also referred to as "Basket III" in this paper). (*See* Sections VI and VII). The baskets distinguish between those services that provide access to the Internet/intranets to conduct electronic commerce and those services that are themselves traded electronically via these networks. This distinction is made because the two baskets raise somewhat different issues for developing countries.

139. The premise underlying pending negotiations on Basket II is that by opening their telecom markets and computer services markets to competition and foreign investment, developing countries can increase teledensity/connectivity and lower access costs to the Internet.¹⁹¹ Embedded in this general premise are a number of specific issues that are being raised in the negotiations. Basket II explains these negotiating issues.

¹⁹¹ *See* General Council, *WTO Agreement and Electronic Commerce*, WT/GC/W/90 (14 July 1998) at para. 7 (explaining that: "Electronic commerce requires access to the Internet network. In recent years what is essentially a

140. The premise underlying the negotiations on Basket III is that new technology is making services increasingly tradable across borders without requiring establishment of a commercial presence.¹⁹² The technological feasibility of producing, assembling, and distributing services electronically from any where in the world provides a services-based development model to supplement the traditional manufacturing-based development model. Certainly, there are many barriers that impede developing countries' deployment of a services-based development model, including lack of physical, human, and legal infrastructure and barriers in export markets. (See Section III.B above). The key issue addressed under Basket III is what commitments can WTO Members make to open their markets to electronically traded services, emphasizing business process outsourcing services (BPOs) (e.g., back-office and IT services).

A. Introduction to GATS

1. Scope of the Agreement

141. During the Uruguay Round, GATT Members negotiated the first ever set of multilateral, legally-enforceable rules covering international trade in services. These rules are set forth in the General Agreement on Trade in Service. The GATS applies to “measures by Members affecting trade in services” where:

- “Measure” means “any measure by a Member, whether in the form of a law, regulation, rule, procedure, decision, administrative action, or any other form.”¹⁹³
- “By Members” includes measures taken by central, regional or local governments and authorities or non-governmental bodies exercising powers delegated by a government or authority.¹⁹⁴
- “Affecting” means with regard to the purchase, payment or use of a service.¹⁹⁵

new service has arisen – the commercial provision of Internet access – which must be distinguished from the supply of other services through the medium of the Internet. Companies provide access in turn for a fee, which in competitive markets is quite low. For this purpose they need access to telecommunications networks, usually by way of leased circuits. In many countries where the provision of telecommunications services is still a public monopoly, the monopoly provider is likely to be the only supplier of [I]nternet access. In countries which have liberalized their telecommunications regime, competing [I]nternet access providers (IAPS) may offer access to the Web, with a different array of supporting services.”)

¹⁹² *Id.* at para. 1 (explaining that: “International trade in services is conducted to a very large extent through electronic means. Indeed, the revolution in computer technology caused many services, previously regarded as essentially non-tradable, to be recognized as eminently tradable and as potentially important contributors to international trade and development.”)

¹⁹³ GATS Art. XXXVIII(a).

¹⁹⁴ GATS Art. I:3(a).

¹⁹⁵ GATS Art. XXVIII(c).

- “Services” includes “any service in any sector except services supplied in the exercise of governmental authority.”¹⁹⁶ (See Table 10 below for the list of the services sectors and sub-sectors that WTO Members use to classify the many services that are covered by the agreement). To organize the many services that are covered by the GATS, the Secretariat during the Uruguay Round negotiations created the “Services Sectoral Classification List” (also known as “W120” in reference to the document number assigned to the list).¹⁹⁷ This list incorporates the United Nations’ Central Product Classification numbering system and groups services into twelve sectors with numerous subsectors.
- “Trade in Services” refers to the four “modes” by which services can be supplied between and among Members. (See Table 11 below for a description of the four modes of supply). The four modes of supply are defined according to “the origin of the service supplier and consumer, and the degree and type of territorial presence which they have at the moment the service is delivered.”¹⁹⁸

142. The agreement establishes binding rules covering the treatment of foreign services and service suppliers and government regulation of trade in services. The GATS includes two kinds of rules. The first are called “general obligations” (e.g., MFN and transparency) and apply to all service sectors. The second are “specific commitments” (e.g., market access and national treatment) on selected services sectors made by Members through negotiations. At the conclusion of negotiations, the specific commitments are recorded in the national schedules for each WTO Member and the schedules are attached to and form an integral part of the GATS.¹⁹⁹ Thus, the extent to which a member has liberalized trade in services can only be established by referring to the both the GATS and the Member’s schedule of commitments.

¹⁹⁶ GATS Art. I:3(b) (A “service supplied in the exercise of governmental authority” means “any service which is supplied neither on a commercial basis nor in competition with one or more service suppliers.”)

¹⁹⁷ Uruguay Round Multilateral Trade Negotiations, Group of Negotiations on Services, Note by the Secretariat, *Services Sectoral Classification List*, MTN.GNS/W/120 (10 July 1991).

¹⁹⁸ *GATS Scheduling Guidelines*, S/CSC/W/30 at 8.

¹⁹⁹ *Id.* at 3.

Table 10:
Service Sectors/Sub-sectors

<i>Sector</i>	<i>Sub-sector</i>
Business Services	Professional Services; Computer and Related Services; Research and Development Services; Real Estate Services; Rental/Leasing Services without Operators; Other Business Services
Communication Services	Postal Services; Courier Services; Telecommunications Services; Audiovisual Services; Other
Construction and Related Engineering Services	General construction work for buildings; General construction work for civil engineering; Installation and assembly work; Building completion and finishing work; Other
Distribution Services	Commission agents' services; Wholesale trade services; Retailing services; Franchising; Other
Educational Services	Primary education services; Secondary education services; Higher education services; Adult education; Other education services
Environmental Services	Sewage services; Refuse disposal services; Sanitation and similar services; Other
Financial Services	All insurance and insurance-related services; Banking and other financial services; Other
Health Related and Social Services	Hospital services; Other Human Health Services' Social Services; Other
Tourism and Travel Related Services	Hotels and restaurants (incl. catering); Travel agencies and tour operators services; Tourist guides services; Other
Recreational, Cultural and Sporting Services	Entertainment services; News agency services; Libraries, archives, museums and other cultural services; Sporting and other recreational services; Other
Transport Services	Maritime Transport Services; Internal Waterways Services Transport; Air Transport Services; Space Transport; Rail Transport Services; Road Transport Services; Pipeline Transport; Services auxiliary to all modes of transport; Other Transport Services
Other Services Not Included Elsewhere	

Source: Uruguay Round Multilateral Trade Negotiations, Group of Negotiations on Services, Note by the Secretariat, *Services Sectoral Classification List*, MTN.GNS/W/120 (10 July 1991), attached to GATS Council-Committee on Specific Commitments, Note by the Secretariat, *Draft Revision of the Guidelines for Scheduling Specific Commitments*, S/CSC/W/30 (23 Mar. 2001) at pp. 34-40 [*GATS Scheduling Guidelines*], adopted by GATS Council, *Decision of 23 March 2001 on the Guidelines for the Scheduling of Specific Commitments Under the GATS*, S/L/91 (29 Mar. 2001).

Table 11:
Modes of Supply

<i>Mode</i>	<i>Supplier Presence</i>	<i>Consumer Presence</i>	<i>Example</i>
Mode 1 Cross-border Supply	Service supplier <u>not present</u> within the territory of the Member making the commitment to liberalize trade in a specific service.	Service delivered to the consumer <u>within</u> the territory of the Member making the commitment, from the territory of another Member.	An Indian software developer with a physical presence in India works for a client based in Australia.
Mode 2 Consumption Abroad	Same as mode 1.	Service delivered to the consumer <u>outside</u> the territory of the Member making the commitment, in the territory of another Member.	An Indian software firm sends its employees to a software programming course to the U.S.
Mode 3 Commercial Presence	Service supplier <u>present</u> within the territory of the Member making the commitment to liberalize trade in a specific service.	Service delivered to a consumer <u>within</u> the territory of the Member making the commitment, through the commercial presence of the supplier.	An Indian software company opens a branch/affiliated company in Europe to cater the European market.
Mode 4 Presence of Natural Persons	Same as mode 3.	Service delivered to the consumer <u>within</u> the territory of the Member making the commitment, with supplier present as a natural person.	An Indian software developer travels to Brazil to offer his consulting services on the spot.

Source: GATS Art. I: 2; *GATS Scheduling Guidelines, S/CSC/W/30* at p. 9.

2. Structure of the Agreement

143. The GATS has four pillars: the framework agreement, annexes, schedules of specific commitments, and schedules of exemptions.

144. The GATS “framework agreement” sets out general obligations and disciplines governing trade in services. The Agreement includes twenty-nine articles divided into six parts: Part I explaining the scope of the agreement and definitions; Part II containing general obligations and disciplines; Part III governing specific commitments; Part IV establishing the conditions and timetables for achieving progressively higher levels of liberalization for trade in services; Part V setting forth various institutional provisions, including those relating to dispute settlement and the Council for Trade in Services; and Part VI providing “Final Provisions,” including additional definitions.

145. The GATS Annexes establish supplemental rules and obligations for: specific sectors (i.e., air transport services, financial services, maritime transport services, and telecommunications); specific modes of distribution (i.e., movement of natural persons supplying

services under the Agreement); and specific exemptions to the general most-favored-nation obligation.

146. Members negotiate country-specific schedules to make specific commitments to liberalize trade for selected service sectors beyond the obligations and disciplines set forth in Part II of the GATS framework agreement. A schedule includes the following information: a clear description of the sector or sub-sector that a Member is offering to liberalize; limitations on the extent to which the Member is offering to provide market access and national treatment to the liberalized service; undertakings regarding any additional commitments; and time-frame for implementation of the commitments.²⁰⁰ (See Table 12 below for a sample schedule of specific commitments).

147. Members also use country-specific schedules to list exemptions from their MFN obligations.

3. General Obligations and Disciplines

148. GATS Part II contains seventeen general obligations and disciplines that WTO Members must adhere to with respect to trade in services.²⁰¹ Most of these provisions apply to all commercially provided service sectors, irrespective of whether WTO Members have entered into specific commitments on selected service sectors.²⁰²

149. Two of the most important general obligations are the most-favoured-nation (MFN) obligation and the transparency obligation. The MFN obligation (frequently referred to as the “MFN clause”) (GATS Art. II) requires a WTO Member to give services and service suppliers of any WTO Member treatment “no less favourable” than it accords to like services and service suppliers of any other Member. Members are permitted to schedule exceptions to this general obligation under limited circumstances for limited periods of time.²⁰³ The transparency obligation (GATS Art. III) requires Members to publish measures affecting trade in services, to inform the GATS Council of any new, or changes to existing, measures significantly affecting

²⁰⁰ See GATS Art. XX.

²⁰¹ The seventeen general obligations and disciplines are: most-favored-nation treatment; transparency; disclosure of confidential information; increasing participation for developing countries; economic integration; labour markets integration agreements; domestic regulation; recognition; monopolies and exclusive service suppliers; business practices; emergency safeguard measures; payments and transfers; restrictions to safeguard the balance of payments; government procurement; general exceptions; security exceptions; and subsidies.

²⁰² The following GATS Articles in Part I, however, apply only to sectors for which a Member has made a specific commitment: GATS Art. VI:1, 3, and 5 regarding domestic regulation, Art. VIII:2 regarding monopolies and exclusive services suppliers, Art. X:2 regarding emergency safeguard measures, Art. XI:1 regarding payments and transfers, and Art. XII regarding restrictions to safeguard the balance of payments.

²⁰³ GATS Art. II:2 and Annex on Article II Exemptions.

trade in services, and to establish contact points to respond to Member requests for information about such measures.²⁰⁴

150. GATS Article IV contains the general obligation to increase participation of developing countries in world trade through “negotiated specific commitments . . . relating to:”

- “the strengthening of their domestic services capacity and its efficiency and competitiveness, *inter alia* through access to technology on a commercial basis;
- the improvement of their access to distribution channels and information networks; and
- the liberalization of market access in sectors and modes of supply of export interest to them.”²⁰⁵

151. Developed country Members also are required to establish contact points to facilitate access by developing country Members’ suppliers to information concerning the “commercial and technical aspects of the supply of services; registration, recognition and obtaining of professional qualifications; and the availability of services technology.”²⁰⁶ Article IV further provides that least-developed country Members should be given “special priority” and recognition of the difficulty they have accepting specific commitments.²⁰⁷ Developing countries are dissatisfied with the extent to which WTO Members have implemented Article IV and are searching for ways in the Doha negotiations to implement this general obligation. (*See* Section III.C above).

152. Several of the principles and obligations contained in Part II apply only to services sectors where a Member has made specific commitments. The following sector-specific provisions are especially relevant to e-commerce: the requirement of reasonable, objective and impartial administration of domestic regulations (Art. VI:1, 3, and 5),²⁰⁸ behavioural constraints

²⁰⁴ GATS Art. III:1, 3, and 4.

²⁰⁵ GATS Art. IV:1.

²⁰⁶ GATS Art. IV:2.

²⁰⁷ GATS Art. IV:3.

²⁰⁸ GATS Art. VI Domestic Regulations: “1. In sectors where specific commitments are undertaken, each Member shall ensure that all measures of general application affecting trade in services are administered in a reasonable, objective and impartial manner. . . . 3. Where authorization is required for the supply of a service on which a specific commitment has been made, the competent authorities of a Member shall, within a reasonable period of time after the submission of an application considered complete under domestic laws and regulations, inform the applicant of the decisions concerning the application. . . . 5(a). In sectors in which a Member has undertaken specific commitments . . . the Member shall not apply licensing and qualification requirements and technical standards that nullify or impair such specific commitments. . . .”

for monopolistic suppliers (Art. VIII:2),²⁰⁹ and the prohibition of constraints on payments related to service transactions (Art. XI:1).²¹⁰

153. Several of the articles included in Part II call for further work, including negotiations in some instances, on “unfinished business” from the Uruguay Round: disciplines to ensure that technical standards and licensing requirements to not constitute “unnecessary barriers to trade in services (Art. VI:4); emergency safeguards (Art. X:1); government procurement (Art.XIII:2), and subsidies (Art. XV:1). These negotiations have been ongoing since the completion of the Uruguay Round, but have made little progress. (See Section V.B.1 below for further discussion of the WTO’s work on “unfinished business”).

4. Specific Commitments

154. GATS Part III addresses the three types of specific commitments that Members may make to liberalize trade in services beyond that which is otherwise provided for under Part II of the GATS framework agreement: market access (Art. XVI), national treatment (Art. XVII), and additional commitments (Art. XVIII).

155. A market access commitment secures access to one Member’s market for services and service suppliers of other Members.²¹¹ A national treatment commitment prevents a Member from discriminating in favour of its own services and service suppliers and against foreign suppliers of those services (Art. XVII).²¹² Additional commitments can be whatever a Member

²⁰⁹ GATS Art. VIII Monopolies and Exclusive Service Suppliers: “2. Where a Member’s monopoly supplier competes . . . in the supply of a service outside the scope of its monopoly rights and which is subject to that Member’s specific commitments, the Member shall ensure that such a supplier does not abuse its monopoly position to act in its territory in a manner inconsistent with such commitments.”

²¹⁰ GATS Art. XI Payments and Transfers: “1. Except under the circumstances envisaged in Article XII [regarding emergency safeguard measures], a member shall not apply restrictions on international transfers and payments for current transactions relating to its specific commitments.”

²¹¹ GATS Art. XVI Market Access: “1 . . .[E]ach Member shall accord services and services suppliers of any other Member treatment no less favourable than that provided for under the terms, limitations and conditions agreed and specified in its Schedule. . . . 2. In sectors where market-access commitments are undertaken, the measures which a Member shall not maintain or adopt . . . are defined as: (a) limitations on the number of service suppliers . . . ; (b) limitations on the total value of service transactions or assets . . . ; (c) limitations on the total number of service operations . . . ; (d) limitations on the total number of natural persons that may be employed in a particular service sector or that a service supplier may employ . . . ; (e) measures which restrict or require specific types of legal entity or joint venture through which a service supplier may supply a service; and (f) limitations on the participation of foreign capital. . . .”

²¹² GATS Art. XVII National Treatment: “1. In the sectors inscribed in its schedule, and subject to any conditions and qualifications set out therein, each Member shall accord to services and service suppliers of any other Member, in respect of all measures affecting the supply of services, treatment no less favourable than it accords to its own like service and service suppliers. 2. A Member may meet the requirement of paragraph 1 by according to services and service suppliers of any other member, either formally identical treatment or formally different treatment to that it accords to its own like services and service suppliers. 3. Formally identical or formally different treatment shall be

chooses to bind,²¹³ the foremost example of which are the additional regulatory commitments Members undertook with respect to basic telecommunications services. These additional telecommunications commitments are collectively referred to as the “Reference Paper.” (See Section VI.A below for a discussion of the Reference Paper).

156. In contrast to the general obligations contained in Part II of the GATS framework agreement, a Member does not have an obligation to provide market access, national treatment, or additional commitments to foreign services and service suppliers unless the Member includes such an obligation in its services schedule. Members negotiate country-specific GATS schedules to undertake specific commitments along three dimensions: sector, mode of delivery, and type of commitment. (See Table 12 below for a sample schedule of specific commitments).

157. Schedules record the legally enforceable commitments for each Member. In column one of the schedule, Members define the service sectors and subsectors for which they are making specific commitments. In column two, Members specify by mode of delivery whether they are committing to guarantee market access for the scheduled service to services and service suppliers of other Members and what limitations may apply to that commitment. In column three, Members specify, again by mode of delivery, whether they are committing to guarantee national treatment for the scheduled service to services and services suppliers of other Members and what limitations may apply. And in column four, Members specify any additional commitments with respect to measures affecting trade in specific services that are not subject to scheduling under Article XVI (market access) or XVII (national treatment).

158. If a Member intends to maintain a measure that is contrary to Article XVI or XVII, the Member must enter a limitation describing the measure and inconsistency in the appropriate column, i.e., column two for a measure that is inconsistent with the Member’s market access obligations and column three for a measure that is inconsistent with the Member’s national treatment obligations.²¹⁴ To avoid repetition, Members may schedule “horizontal commitments” at the beginning of their schedules for measures that constitute limitations affecting a number of different services sectors, (e.g., a tax measure that is contrary to national treatment and affects the cross-border supply of all services).²¹⁵

considered to be less favourable if it modifies the conditions of competition in favour of services of service suppliers of the Member compared to like services or service suppliers of any other Member.”

²¹³ GATS Art. XVIII Additional Commitments: “Members may negotiate commitments with respect to measures affecting trade in services not subject to scheduling under Article XVI [market access] or XVII [national treatment], including those regarding qualifications, standards or licensing matters. Such commitments shall be inscribed in a Member’s Schedule.”

²¹⁴ GATS Article XVI: 2 requires the following exhaustive list of market access limitations that must be scheduled: a) the number of service suppliers; b) the value of service transactions or assets; c) the total number of service operations or on the quantity of service output; d) the total number of natural persons that may be employed; e) the specific types of legal entity or joint venture; and f) participation of foreign capital. In contrast, GATS Article XVII does not include an exhaustive list of measures that would constitute limitations on national treatment. Article XVII does specify, however, that formally identical treatment of domestic and foreign suppliers is not required, and that formally identical treatment can result in *de facto* discrimination just as formally different treatment can result in *de jure* discrimination. GATS Art. XVII:2-3.

²¹⁵ GATS *Scheduling Guidelines* at paras. 36-38.

Table 12:
Sample GATS Schedule for Computer Services

<i>Sector</i>	<i>Limitations on Market Access</i>	<i>Limitations on National Treatment</i>	<i>Additional Commitments</i>
Computer services	(1) Unbound for financial software services. Establishment is required for the provision of computer advisory services.	(1) None	
	(2) None	(2) None	
	(3) Foreign participation in the capital of IT service firms is limited to 49 percent.	(3) Condition of nationality to qualify for R&D subsidies	
	(4) Unbound except as indicated in the horizontal section	(4) Unbound except as indicated in the horizontal section	

Remark: The numbers in parentheses in columns two and three refer to the mode of delivery, (e.g., “(1)” is mode 1, cross-border mode of supply).

159. The word “none” appearing in column two or three indicates that the Member is imposing no limitations on market access or national treatment, as the case may be, for the corresponding mode of supply. The word “unbound” indicates that the Member is not committing to provide market access or national treatment, as the case may be, for that mode of supply.²¹⁶

160. For “bound” sectors, Members may not maintain measures that are inconsistent with Articles XVI or XVII and for which no limitation is inscribed in the Member’s schedule. For “unbound” sectors, Members are free to maintain measures that are inconsistent with Articles XVI and XVII provided that the measures otherwise conform to the general obligations and disciplines set forth in Part II of the GATS framework agreement.²¹⁷

161. This methodology for scheduling services commitments, pictured in Table 12 above, is referred to as a “bottom up” or “positive list” approach because WTO Members must actively list sectors for them to be subject to market access or national treatment commitments.

²¹⁶ *Id.* at para. 41-45

²¹⁷ *Id.* at 46.

B. Services Negotiations

162. The services component of the Doha negotiations are in a more advanced stage than other aspects of the negotiations.²¹⁸ Whereas before the Cancun Ministerial Members were still trying to agree on negotiating modalities for goods and agriculture, they already had done so for services and began to submit requests and offers for specific commitments to further service trade liberalization. In the aftermath of the Cancun Ministerial, the service negotiations appear to be the only Doha Development Agenda negotiations that have not formally stopped.²¹⁹

163. This is mainly due to: (1) the GATS Council's ongoing work on the "unfinished business" from the Uruguay Round, which created a "built-in" agenda for subsequent services negotiations that does not fully rely on the agenda set by the Doha Development Agenda to move forward; and (2) the relative lack of entrenched political controversy about the services negotiations in comparison to agriculture, intellectual property protection for certain pharmaceuticals, and the so-called "Singapore agenda" (investment, competition, transparency, trade facilitation).

1. Unfinished Business/Built-In Agenda

164. Following the entry into force of the WTO Agreements, including the GATS, in 1995, the GATS Council began pursuing the so-called "built-in agenda" on selected topics that were considered "unfinished business" during the Uruguay Round:

- GATS Article VI:4 directs the GATS Council to develop any necessary disciplines to ensure that domestic regulations "relating to qualification requirements and procedures, technical standards and licensing requirements do not constitute unnecessary barriers to trade." This work is being undertaken by the GATS Council Working Party on Domestic Regulation.²²⁰
- GATS Article X:1 calls for "multilateral negotiations on the question of emergency safeguard measures based on the principal of non-discrimination," the results of which shall enter into effect not later than 1998. GATS Article XIII:2 calls for "multilateral negotiations on government procurement" by 1997. GATS Article XV:1 directs Members to "enter into negotiations with a view to developing the necessary multilateral

²¹⁸ See GATS Council-Special Session, *Report by the Chairman to the Trade Negotiations Committee*, TN/S/10 (11 July 2003). For a recent briefing on the ongoing service negotiations, see ICTSD (2003b).

²¹⁹ GATS Council, Report (2003) of the Council for Trade in Services to the General Council, S/C/19 (5 Dec. 2003).

²²⁰ See www.wto.org/english/tratop_e/serv_e/s_coun_e.htm (visited 30 Aug. 2003) for further information on the Working Party on Domestic Regulations.

disciplines to avoid . . . [the] trade distortive effects” of subsidies on trade in services. This work is proceeding slowly within the Working Party on GATS Rules.²²¹

- GATS Annex on Article II Exemptions directs the GATS Council to “review all [MFN] exemptions granted for a period of more than five years” no later than 2000. This work is taking place under the Council for Trade in Services.

165. In 2000, the GATS Council began a new round of negotiations in accordance with GATS Article XIX:1, which calls for “successive rounds of negotiations, beginning not later than five years from the entry into force of the WTO Agreement and periodically thereafter, with a view to achieving a progressively higher level of liberalization.”²²² To assist the Council in establishing the guidelines and procedures for the negotiations, Article XIX:3 directs the Council to “carry out an assessment of trade in services in overall terms and on a sectoral basis with reference to the objectives of [the GATS] Agreement,” including the objective of Article IV to increase the participation of developing country Members in world services trade.

166. Members reached agreement on guidelines and procedures for the negotiations in March 2001.²²³ At the Doha Ministerial Conference in November 2001, WTO Members reaffirmed these guidelines, instructed Members to submit their initial requests for specific commitments by 30 June 2002 and initial offers by 31 March 2002, and established 1 January 2005 as the deadline for completion of the negotiations.²²⁴

2. Negotiations Guidelines and Procedures

167. In the Services Negotiations Guidelines, Members agreed, *inter alia*, that:

(a) Negotiations Body:

- The negotiations shall be conducted in Special Sessions of the GATS Council, which will report on a regular basis to the General Council.²²⁵

(b) Negotiations Scope:

- For negotiations on specific commitments, there shall be no *a priori* exclusion of any service sector or mode of supply in the negotiations.²²⁶

²²¹ See www.wto.org/english/tratop_e/serv_e/s_coun_e.htm (visited 30 Aug. 2003) for further information on the Working Party on GATS Rules.

²²² These negotiations are sometimes referred to as the “GATS 2000 Negotiations.”

²²³ GATS Council-Special Session, *Guidelines and Procedures for the Negotiations on Trade in Services: Adopted by the Special Session of the Council for Trade in Services on 28 March 2001, S/L/93* (29 Mar. 2001) [*Services Negotiations Guidelines*].

²²⁴ *Doha Declaration* at paras. 5 and 15.

²²⁵ *Services Negotiations Guidelines* at para. 8.

²²⁶ *Id.* at para. 5.

- In addition to conducting negotiations on specific commitments, Members shall engage in negotiations on the continuation of MFN exemptions, complete negotiations on safeguards by 15 March 2002,²²⁷ and complete negotiations regarding domestic regulation, government procurement, and subsidies prior to the conclusion of the negotiations on specific commitments (i.e., 1 January 2005).²²⁸

(c) Negotiations Modalities:

- The negotiations shall “take place within and shall respect the existing structure and principles of the GATS, including the right to specify which sectors in which commitments will be undertaken and the four modes of supply;”
- The starting point for the negotiation of specific commitments shall be the current schedules; and
- The main method of negotiation shall be the request-offer approach.²²⁹

168. Developing country Members were active and influential in drafting the Services Negotiation Guidelines as evidenced by the inclusion of several provisions that were important to them.²³⁰

- Developing country Members will be given appropriate flexibility to open fewer sectors, liberalize fewer types of transactions, and attach conditions to specific commitments;
- Members will be given credit for autonomous liberalization undertaken since the Uruguay Round negotiations;
- The GATS Council will continue to carry out the assessment of trade in services required by Article XIX:3 with due regard for increasing the participation of developing countries

²²⁷ The Working Party on GATS Rules later extended the deadline for negotiations until 15 March 2004. GATS Council-Special Session, *Statement of the Chairman of the Special Session of the Council for Trade in Services to the Trade Negotiations Committee: 22 March 2002*, TN/S/1 (11 Apr. 2002) at para. 5.

²²⁸ *Id.* at paras. 6-7.

²²⁹ *Services Negotiations Guidelines* at paras. 4, 10-11. These points signify that the “positive list” approach will be maintained in the current GATS negotiations and that “cluster” or “formula-based” approaches will not be a primary method of negotiation.

²³⁰ *Services Negotiations Guidelines* at paras. 2-3 (referencing GATS Art. IV and XIX). See e.g., GATS Council-Special Session, Communication from Bolivia, Barbados, Colombia, Cuba, *et al.*, *Implementation of the Paragraph 15 of the Guidelines and Procedures for the Services Negotiations (S/L/93)*, TN/S/W/7 (28 Oct. 2002); GATS Council-Special Session, Communication from Argentina, Brazil, Cuba, *et al.*, *Elements for Negotiating Guidelines and Procedures*, S/CSS/W/13 (24 Nov. 2000); GATS Council-Special Session, Communication from MERCOSUR Members, *Elements of the Proposed First Phase of the Services Negotiations Mandated Under GATS Article XIX*, S/CSS/W/2 (14 Apr. 2000).

in world services trade as provided by GATS Article IV and will provide technical assistance to developing countries to carry out national/regional assessments; and

- The GATS Council will evaluate the negotiations to determine their success in achieving the objectives of GATS Article IV.²³¹

3. Status of the Services Negotiations

169. Following the Doha Ministerial Conference and continuing through the Cancun Ministerial Conference, the GATS Council met at eleven formal meetings.²³² At these meetings, Members reviewed a number of matters relevant to the negotiations. (See Table 13 below for a list of issues). Until the end of 2003, the Chairman of the Special Sessions of the Council for Trade in Services submitted nine reports to the Trade Negotiations Committee,²³³ which before Cancun mostly summarized the services negotiations in preparation for the Fifth Ministerial Conference.

170. According to the WTO, approximately fifty Members have submitted 110 proposals regarding the services negotiations, with less than fifty of these being submitted by developing country Members.²³⁴ The subject matter of these submissions may be subdivided into four broad categories: (1) negotiations guidelines (see Section V.B.2 above); (2) assessment of trade in services; (3) horizontal/multi-sectoral proposals; and (4) sectoral proposals (e.g., audiovisual and related services, business services, computer and related services, distribution services, financial services, movement of natural persons, and telecommunications services).²³⁵

²³¹ *Services Negotiations Guidelines* at paras. 12-15.

²³² Reports of the meetings are contained in CTS-Special Session, *Note by the Secretariat, Report of the Meeting*, S/CSS/M13 (26 Feb. 2002); TN/S/M/1 (5 June 2002); TN/S/M/2 (10 July 2002); TN/S/M/3 (17 Sept. 2002); TN/S/M/4 (11 Feb. 2003); TN/S/M/5 (21 Feb. 2003); TN/S/M/6 (25 Apr. 2003); TN/S/M/7 (30 June 2003); TN/S/M/8 (29 Sept. 2003); S/C/M/67 (17 Sept. 2003) and S/C/M/68 (28 Nov. 2003).

²³³ CTS-Special Session, *Report by the Chairman to the Trade Negotiations Committee*, Special Session of the Council on Trade in Services, TN/S/1 (11 Apr. 2002), TN/S/2 (11 June 2002), TN/S/4 (25 Nov. 2002), TN/S/6 (10 Mar. 2003), TN/S/7 (13 Mar. 2003), TN/S/9 (4 June 2003), TN/S/10 (11 July 2003), TN/S/11 (11 July 2003), and TN/S/14 (6 Nov. 2003).

²³⁴ See GATS Council-Special Session, *Report by the Chairman to the Trade Negotiations Committee*, TN/S/10 (11 July 2003) at para. 3; and www.wto.org/english/news_e/pres02_e/pr300_e.htm (visited 10 July 2003).

²³⁵ See WTO, *Services Proposals: Proposals for the New Negotiations*, www.wto.org/english/tratop_e/serv_e/s_propnewnegs_e.htm (visited 30 Aug. 2003).

Table 13:
Status of Services Negotiations

<i>Issue</i>	<i>Status</i>
Assessment of trade in services	145 submissions have been filed and this will continue to be an ongoing activity in the GATS Council-Special Session. ²³⁶
Negotiating proposals	110 proposals submitted/approximately 50 from developing country Members. ²³⁷
Requests/Offers	Initial offers: 50 offers received/ around 25 from developing country Members. ²³⁸
Modalities for treatment of autonomous liberalization	Agreement reached March 2003. ²³⁹
Modalities for special treatment of LDCs	Agreement reached September 2003. ²⁴⁰
Integrating Developing Countries	As of May 2003, the GATS Council-Special Session will consider in each meeting the extent to which Paragraph 15 of the Services Negotiating Guidelines/GATS Article IV are being implemented. ²⁴¹

171. Predictably, developed and developing country Members reflect different perspectives in their submissions on the assessment of trade in services regarding the benefits accruing to developing countries from liberalization of trade in services.²⁴² In horizontal/multi-sectoral proposals,²⁴³ developing country Members focused on the need to give credit for autonomous liberalization in the current negotiations, the effective implementation of GATS Article IV, and

²³⁶ GATS Council-Special Session, *Report by the Chairman to the Trade Negotiating Committee*, TN/S/10 (11 July 2003) at para. 6.

²³⁷ *Id.* at para. 3.

²³⁸ *Id.* at para. 4. According to the Chairman, “The quality of some offers leaves much to be desired.” GATS Council-Special Session, *Report by the Chairman to the Trade Negotiations Committee*, TN/S/11 (11 July 2003) at para. 3.

²³⁹ GATS Council-Special Session, *Modalities for the Treatment of Autonomous Liberalization: Adopted by the Special Session of the Council for Trade In Services on 6 March 2003*, TN/S/6 (10 Mar. 2003); GATS Council-Special Session, Statement by the Chairman, *Modalities for the Treatment of Autonomous Liberalization*, TN/S/8 (17 Mar. 2003).

²⁴⁰ WTO, Press Release, *GATS Negotiations: WTO Members Agree on Ways to Boost LDC Participation in Services Negotiations*, No. 351 (3 Sept. 2003).

²⁴¹ Paragraph 15 of the *Services Negotiations Guidelines* provides as follows: “To ensure the effective implementation of [GATS] Articles IV and XIX:2, the Council for Trade in Services in Special Session, when reviewing progress in negotiations, shall consider the extent to which Article IV is being implemented and suggest ways and means of promoting the goals established therein. In implementing Article IV consideration shall also be given to the needs of small services suppliers of developing countries. It shall also conduct an evaluation, before the completion of the negotiations, of the results attained in terms of the objectives of Article IV.” GATS Article IV contains the general obligation to increase participation of developing countries in world services trade.

²⁴² See e.g., GATS Council-Special Session, Communication from the United States, *An Assessment of Services Trade and Liberalization in the United States and Developing Economies*, TN/S/W/12 (31 Mar. 2003); GATS Council-Special Session, Communication from Cuba, Dominican Republic, Kenya, et al., *Assessment of Trade in Services*, TN/S/4/Corr.1 (11 Sept. 2002).

²⁴³ The horizontal (versus sector specific) negotiating issues include: GATS Article IV Increasing Participation of Developing Countries; Article VII Recognition of Standards; small- and medium-sized service suppliers; MFN exemptions; transparency and other aspects of domestic regulation; and classification. GATS Council-Special Session, Note by the Secretariat, *Report of the Meeting Held on 3-6 December 2001*, S/CSS/M/13 (26 Feb. 2002).

mode 4 liberalization,²⁴⁴ while developed country Members focused on transparency and MFN exemptions.²⁴⁵

172. In sectoral submissions, developed country Members seek further liberalization of virtually all services sectors²⁴⁶ (especially communication services as well as distribution services, financial services, environmental services, telecommunications services, and tourism services) particularly through mode 1 (cross border supply of services) and mode 3 (commercial presence). Developed country WTO Members expect developing countries to “catch-up” by making new commitments for market access and national treatment, removing limitations on existing commitments, making commitments for financial services pursuant to the Understanding on Commitments in Financial Services,²⁴⁷ and making the additional commitments for basic telecommunications included in the Reference Paper.²⁴⁸ They also seek regulatory disciplines and transparency obligations,²⁴⁹ and raise classification issues,²⁵⁰ including scheduling of “new” previously unscheduled services.²⁵¹

²⁴⁴ See e.g., GATS Council-Special Session, Communication from Kenya, *Negotiating Proposal, S/CSS/W/109* (26 Sept. 2001); GATS Council-Special Session, Communications from India, *Proposed Liberalisation of Movement of Professionals under GATS, S/CSS/W/12* (24 Nov. 2000) and *Negotiating Proposal on Computers and Related Services, S/CSS/W/141/Corr.1* (11 Apr. 2002); GATS Council-Special Session, Communication from Argentina, Bolivia, Chile, et al., *Mode 4 Under GATS Negotiations, TN/S/W/14*, (3 July 2003); GATS Council-Special Session, Communication from Colombia, *Proposal for the Negotiations on the Provision of Services through Movement of Natural Persons, S/CSS/W/97* (9 July 2001); GATS Council-Special Session, Communication from India, *Proposed Liberalisation of Movement of Professionals under General Agreement on Trade in Services (GATS), S/CSS/W/12* (24. Nov. 2000). See also Arkell (2003b) at pp. 17 ff. There are also some mode 4 proposals by industrialized WTO Members. These, however, focus primarily on highly skilled and intra-corporate transferees. See e.g., GATS Council-Special Session, Communication from European Communities and their Member States, *GATS 2000: Temporary Movement of Service Suppliers, S/CSS/W/45* (14 Mar. 2001) and GATS Council-Special Session, Communication from Canada, *Initial Negotiating Proposal on Temporary Movement of Natural Persons Supplying Services under the GATS (Mode 4), S/CSS/W/48* (14 Mar. 2001).

²⁴⁵ GATS Council-Special Session, *Statement of the Chairman of the Special Session of the Council for Trade in Services to the Trade Negotiations Committee: 22 March 2002, TN/S/1* (11 Apr. 2002) at pp. 3, 6.

²⁴⁶ *Id.* at pp. 3-6 (noting submissions in the following sectors: business services, communication services, construction services, distribution services, education services, energy services, environmental services, financial services, recreational services, tourism services, and transport services). No submissions appear to have been made regarding health services.

²⁴⁷ See www.wto.org/english/tratop_e/serv_e/21-fin_e.htm for more information on the Understanding on Commitments in Financial Services. The Understanding essentially provides an alternative approach to GATS Part III for making specific commitments to liberalize trade in financial services.

²⁴⁸ Examination of the current initial GATS offers shows that developed country members are not prepared to fully liberalize: financial services beyond the Understanding on Financial Services: publicly provided or recently privatized postal, health and education services; audiovisual services; maritime transport services; mode 4, or professional services.

²⁴⁹ See e.g., GATS Council-Special Session, Communication from Switzerland, *GATS 2000: Distribution Services, S/CSS/W/77* (4 May 2001).

²⁵⁰ GATS Council-Special Session, Note by the Secretariat, *Minutes of the Meeting Held on 5, 8 and 12 October 2001, S/CSS/M/12* 28 November 2001; GATS Council-Special Session, Note by the Secretariat, *Minutes of the Meeting Held on 3-6 December 2001, S/CSS/M/13* (26 Feb. 2002).

²⁵¹ *Minutes of the Meeting Held on 3-6 December 2001, S/CSS/M/13* (noting the discussion on emerging services, such as data warehousing, and on new electronically delivered services).

173. In comparison, developing country Members concentrated their sector-specific submissions on tourism services, various transport services, telecommunications services, computer services, as well as mode 4, construction services, distribution services, and even financial services.²⁵² Developing countries made virtually no submissions on professional services, which is somewhat striking given the increasing outsourcing of services such as accounting, auditing, bookkeeping, data entry and other back office services.²⁵³ (See Section VII below for a further discussion of this growing outsourcing trend). Some of the developing countries that have been active in making sector specific submissions include: Brazil, Chile, Colombia, Costa Rica, Cuba, El Salvador Honduras India, Kenya, Nicaragua, the Dominican Republic, MERCOSUR, Mexico, Panama and Venezuela.

4. Initial Request-Offer Process

174. By June 2003, Members had filed more than fifty initial requests.²⁵⁴ By June 2004 approximately forty initial offers were made in response,²⁵⁵ with developing country Members submitting around twenty-five of those offers. As a sign for the fact that the service negotiations have - as opposed to other trade issues - not come to a complete halt, a few initial GATS offers have been coming in even after the Cancun Ministerial (e.g., from India).²⁵⁶

The requests and offers reflect the priorities of WTO Members explained in the preceding section. (See Section V.B.3 above).

²⁵² For example, developing country Members filed six submissions on tourism making it the sector most frequently addressed by developing countries. GATS Council-Special Session, Communication from Cuba, *Negotiating Proposal on Tourism and Travel-Related Services*, TN/S/W/1 (14 May 2002); GATS Council-Special Session, Communication from Costa Rica, *Tourism Services*, S/CSS/W/128 (30 Nov. 2001); GATS Council-Special Session, Communication from MERCOSUR, *Tourism Services*, S/CSS/W/125 (29 Nov. 2001); GATS Council-Special Session, Communication from Colombia, *Tourism and Travel-Related Services*, S/CSS/W/122 (27 Nov. 2001); GATS Council-Special Session, Communication from Bolivia, Dominican Republic, Ecuador, *et al.*, *Draft Annex on Tourism*, S/CSS/W/107 (26 Oct. 2001); GATS Council-Special Session, Communication from the Dominican Republic, El Salvador, Honduras, *et al.*, *The Cluster of Tourism Industries*, S/CSS/W/19 (5 Dec. 2000).

²⁵³ *But see*, GATS Council-Special Session, Communication from Colombia, *Professional Services*, S/CSS/W/98 (9 July 2001).

²⁵⁴ The word "initial" is indicative of the negotiating process being a succession of requests and offers. Neither initial requests nor the offers have any final legal meaning at this stage.

²⁵⁵ The following Members have circulated offers before 1 June 2004: Argentina, Australia, Bahrain, Bolivia, Bulgaria, Canada, Chile, China, Chinese Taipei, Colombia, Czech Republic, European Communities and its Member States, Fiji Islands, Guatemala, Hong Kong (China), Iceland, India, Israel, Japan, Korea, Liechtenstein, Macao (China), Mexico, New Zealand, Norway, Panama, Paraguay, Peru, Poland, Senegal, Singapore, Slovenia, St. Kitts & Nevis, St. Christopher and Nevis, Slovak Republic, Slovenia, Sri Lanka, Switzerland, Thailand, Turkey, United States and Uruguay. See CTS-Special Session, Report by the Chairman to the Trade Negotiations Committee, TN/S/10 (11 July 2003). For an up-to-date list of WTO Members that have presented offers, see Internet: www.wto.org/english/tratop_e/serv_e/s_negs_e.htm, and the website of the European Services Forum, Internet: www.esf.be/f_e_negotiations.htm (both 10 Jan. 2004).

²⁵⁶ "Services Week Shows Dynamism Despite Stalled Talks", in: *Bridges Weekly* (11 Dec. 2003).

175. The purpose of an “initial request” is for the requesting Member to seek from another Member: (1) specific commitments on market access or national treatment for sectors not included in a schedule; (2) removal or reduction of existing limitations or replacement of an “unbound” entry with a binding; (3) additional commitments (e.g., Reference Paper on Basic Telecommunications); and (4) removal of MFN exemptions.²⁵⁷ Requests are circulated bilaterally and do not follow a specific format. Initial offers respond to the four different types of initial requests, and are usually circulated multilaterally in the form of a schedule.²⁵⁸

176. The word "initial" is indicative of the negotiating process being a succession of requests and offers. Neither initial requests nor the offers have any final legal meaning at this stage. According to the WTO Secretariat:

Offers in effect are a signal of the real start of the advanced stage of bilateral negotiations. That is when negotiators will come to Geneva and have each time a long schedule of bilaterals with other delegations and the whole place becomes like a "beehive." Delegations will spend less time in Council Meetings and more time negotiating with each other. The process really enters a new phase with the submission of those offers.

The submission of offers could also trigger submission of further requests and then the process continues and becomes a succession of requests and offers. As an off-shoot from that process, in bilateral negotiations certain substantive issues might arise and require further multilateral discussion, including certain regulatory issues raised in requests and offers relating to additional commitments (Article XVIII).²⁵⁹

177. In reporting on the status of the request-offer process to the Trade Negotiations Committee, the Chairman of the GATS Council-Special Session in July 2003 urged Members who have not yet submitted their initial offers to endeavour to do so as soon as possible.²⁶⁰ The Chairman noted that the quality of the offers fell short of the negotiating goals of achieving progressively higher levels of liberalization of trade in services with no *a priori* exclusion of any sector and giving special attention to the sectors and modes of supply of greatest export interest to developing countries.²⁶¹

178. Subsequently, the Chairman of the Trade Negotiations Committee reported to the General Council that there is not yet a critical mass of services offers on the table and that the quality of the offers is not sufficiently high as they appear largely to reflect a consolidation of the status

²⁵⁷ WTO Seminar on the GATS, Summary of Presentation by the Secretariat, *Technical Aspects of Requests and Offers* (20 Feb. 2002) www.wto.org/english/tratop_e/serv_e/requests_offers_approach_e.doc (visited 1 Sept. 2003).

²⁵⁸ *Id.*

²⁵⁹ *Id.*

²⁶⁰ GATS Council-Special Session, *Report by the Chairman to the Trade Negotiations Committee*, TN/S/10 (11 July 2003).

²⁶¹ *Id.*

quo and do not satisfy the mode 4 interests of developing countries.²⁶² He also reported that “On the rule-making side of the services negotiations (domestic regulation emergency safeguard measures, government procurement and subsidies), the lack of progress has caused serious concern.”²⁶³ The TNC Chairman suggested that the Ministers in Cancun establish “landmark dates” by which the Members would submit improved offers and finally revised offers to conclude the negotiations by the scheduled date of 1 January 2005.²⁶⁴

179. The draft declaration for the Cancun Ministerial adopted the TNC Chairman’s suggestions and called upon Members to submit initial offers as soon as possible and provided the opportunity for the Ministers to set dates for the submission of improved and revised offers. The draft declaration also called for the conclusion of the negotiations on rulemaking “in accordance with their respective mandates and deadlines” and for a review of progress in these negotiations by 31 March 2004. The Cancun Ministerial, however, did not produce a substantial declaration. As a consequence, the number and level of commitments and the development of GATS rules continue to be disappointing to WTO Members²⁶⁵ and to the service industry.²⁶⁶ The industry’s disappointment concerning the multilateral service negotiations has already translated to some of the latter advocating bilateral FTAs as “additional” or main trade policy tools.²⁶⁷

However, the rule-making bodies of the GATS are pursuing their work - albeit at slow speed - independently from the Doha Development Agenda.²⁶⁸

²⁶² Trade Negotiations Committee, *Report by the Chairman of the Trade Negotiations Committee to the General Council*, TN/C/3 (23 July 2003) at para. 24.

²⁶³ *Id.* at para. 25. There has not been much progress on the “rulemaking” aspects of the GATS built-in agenda (i.e., government procurement, subsidies, domestic regulation, emergency safeguard measures) either before or after the 2001 launching of the Doha negotiations. See WTO (2002b) at pp. 74-78 and WTO (2003) at p. 85. Nonetheless, developed country Members are seeking balanced progress between negotiations on market access – something that is important to developed country Members—and negotiations on safeguards – something that is important to a number of developing country Members. See GATS Council-Special Session, Note by the Secretariat, *Report of the Meeting Held on 3-6 March 2003*, TN/S/M/6 (25 Apr. 2003) at para. 178.

²⁶⁴ *Id.*

²⁶⁵ CTS-Special Session, Report of the Meeting Held on 4 and 10 July and 3 Sept. 2003, - *Note by the Secretariat*, TN/S/M/8 (29 Sept. 2003), at para. 220; and USTR (2004) at p. 5.

²⁶⁶ “Global Industry Groups: Liberalisation of Services Must Move Forward,” Joint position Paper, the service industry associations of the EU, Australia, Hong Kong, Japan and the US – (22 Mar. 2004), www.esf.be (visited 12 Apr. 2004).

²⁶⁷ “ESF New Priorities for the DDA,” declaration of the European Service Forum (5 Nov. 2003), www.esf.be/pdfs/new_priorities.pdf (visited 1 Mar. 2004).

²⁶⁸ GATS Council, Report of the Working Party on Domestic Regulation to the Council for Trade in Services (2003), S/WPDR/6 (12 Mar. 2003) and GATS Council, Report of the Working Party on GATS Rules to the Council for Trade in Services (2003), S/WPGR/13 (12 Mar. 2003).

5. Developing Country Participation in the Services Negotiations

180. As indicated above, developing country Members have tabled only fifteen, or one-half, of the initial offers. The low percentage of developing country submissions in comparison to the high percentage of WTO members that are developing countries can be attributed to a number of factors.

181. There is the obvious problem of insufficient resources that adversely impacts both the expertise needed to develop submissions and the ability to file submissions within the specified timeframes.²⁶⁹ The number of developing country offers also may be low because: developed country Members do not make requests to LDCs out of fear of public criticism or limited commercial interest; and developing countries do not make requests to one another, possibly “out of deference to group solidarity . . . even though their services exporters face problems in South/South trade just as elsewhere.”²⁷⁰

182. But there are additional reasons that reflect the ambitions of developing country Members under the Doha Development Agenda. As a tactical matter applicable to the entire range of Doha negotiations, developing countries may proceed slowly in the services negotiations as long as there is little progress in agriculture or other topics of high priority to them.

183. Within the context of the services negotiations, developing countries want developed countries to be more forthcoming with liberalization of mode 4 (movement of natural persons)²⁷¹ and services of export interest to developing countries²⁷² before responding with offers.²⁷³ Some developing countries have indicated that they will only liberalize services if they get more mode 4 concessions from their trading partners.²⁷⁴ Currently, offers to further liberalize mode 4 are limited to categories of personnel related to commercial presence, while developing countries are interested in commitments de-linked from commercial presence.²⁷⁵ Furthermore, developing countries would like to see more progress in the negotiations on emergency safeguards before proceeding with further services liberalization.

184. Developing countries also have expressed discontent with the lack of progress on three negotiating guidelines that were included to implement GATS S&D provisions and to protect and advance developing country interests in the services negotiations: (1) the assessment of

²⁶⁹ GATS Council-Special Session, *Report by the Chairman to the Trade Negotiations Committee*, TN/S/11 (11 July 2003) at para. 3, and Arkell (2003b) at p. 9.

²⁷⁰ Arkell (2003b) at p. 9.

²⁷¹ “Worker Access Emerges as Hurdle in Services,” *Inside U.S. Trade* (16 May 2003).

²⁷² GATS Council-Special Session, *Report by the Chairman to the Trade Negotiations Committee*, TN/S/9 (4 June 2003).

²⁷³ The Chairman’s report to the Trade Negotiations Committee in July 2003 hinted that offers from developed country Members failed to address sectors of interest to developing countries. GATS Council-Special Session, *Report by the Chairman to the Trade Negotiations Committee*, TN/S/11 (11 July 2003) at para. 3

²⁷⁴ “Developing Countries Warn Increased Mode 4 Offers Are Needed,” *Inside U.S. Trade* (11 July 2003).

²⁷⁵ GATS Council-Special Session, Communication from Argentina, Bolivia, Chile, *et al.*, *Mode 4 Under GATS Negotiations*, TN/S/W/14 (3 July, 2003).

trade in services;²⁷⁶ (2) implementation of paragraph 15 of the Services Negotiations Guidelines regarding increasing participation of developing countries in world services trade pursuant to GATS Article IV;²⁷⁷ and (3) modalities for special and differential treatment in the negotiations of less developed country Members. Note, however, immediately prior to the Cancun Ministerial, the Special Session of the GATS Council did adopt the LDC S&D modalities.²⁷⁸ Although an important step from the LDC perspective, it remains to be seen whether this agreement can really boost LDC participation.

185. Finally, developing country Members also have complained about developed country Members who addressed specific concerns about regulations and classification in the bilateral request-offer process, a process referred to as the “bilateralisation of horizontal issues” which—developing countries claim - places under-resourced Members at a disadvantage.²⁷⁹

²⁷⁶ The assessment of trade in services began in 1998. It has produced roughly 145 submissions but has not satisfied developing country Members. *See e.g.*, GATS Council-Special Session, Communication from Cuba, Dominican Republic, Kenya, et al., *Assessment of Trade in Services*, TN/S/W/3 (10 June 2002); Communication from Cuba, Senegal, Tanzania, et al., *Assessment of Trade in Services*, S/CSS/W/132 (6 Dec. 2001); Communication from Cuba, Dominican Republic, Haïti, et al., *Assessment of Trade in Services*, S/CSS/W/114 (9 Oct. 2001); Communication from Argentina, *Assessment of Trade in Services: Participation of Developing Countries*, S/CSS/W/44 (9 Mar. 2001). *See also* South Centre (2003) for background information on the assessment on trade in services.

²⁷⁷ *See e.g.*, GATS Council-Special Session, Communication from Bolivia, Barbados, Colombia, et al., *Proposed Liberalisation of Movement of Professionals Under GATS*, TN/S/W/7 (28 Oct. 2002); Communication from Cuba, Pakistan, Senegal, et al., *Economic Needs Test*, S/CSS/W/131 (6 Dec. 2001).

²⁷⁸ WTO, Press Release, *GATS Negotiations: WTO Members Agree on Ways to Boost LDC Participation in Services Negotiations*, No. 351 (3 Sept. 2003). *See also* GATS Council-Special Session, Communication from the LDC Group, *Draft Modalities for the Special Treatment for LDC Members in the Negotiations on Trade in Services*, TN/S/W/13 (7 May 2003).

²⁷⁹ ICTSD (2003b).

6. E-commerce in the Services Negotiations

186. The Uruguay Round negotiations were groundbreaking because they successfully integrated services into the multilateral trading system. At that time, however, the Internet and e-commerce were not major factors in services trade. The Doha negotiations offer the opportunity for Members to use the GATS to expand e-commerce by:

- Going beyond the *status quo* and making more mode 1 and mode 2 commitments. The commitments made during the Uruguay Round tended to freeze the *status quo* rather than rollback limitations on services trade.²⁸⁰ Given the phenomenal growth of the Internet and e-commerce since the entry into force of the GATS in 1995, many services are now easily traded electronically, thus creating an even greater interest among Members in further liberalizing services on both a cross-border and consumption abroad basis.²⁸¹ (See Section VII below).
- Making more mode 4 commitments. In the Uruguay Round, almost all WTO Members entered horizontal limitations under mode 4 that permit only temporary movement of (senior) management personnel and specialists linked to commercial presence. Given the explosion in demand for technicians qualified to perform IT-related services and the growing supply of such persons in developing countries in the last five-to-ten years, the Doha negotiations provide the opportunity to use mode 4 commitments to create a more fluid, global market place for high tech workers.²⁸²
- Further liberalizing trade in Internet infrastructure services. During the Uruguay Round negotiations and subsequent negotiations on basic telecommunications services, Members were just beginning to understand the linkages between telecommunications/computer services and the Internet/e-commerce. There is full recognition of this linkage today, and consequently new incentives for further liberalization of Internet infrastructure services.
- Ensuring coverage of “new” services. Given the “bottom up” or “positive list” approach to scheduling services commitments that was adopted in the Uruguay Round, it is not clear where IT services that were developed after the conclusion of the Uruguay Round are covered in existing schedules. The Doha negotiations provide the opportunity to decide how and where these new services are covered by specific commitments.

²⁸⁰ See Hoekman (1996) at p. 88 and 103; Senti (2001) at p. 257, para. 1288; Feketekuty (1998) at p. 2; and Hoekman & Kostecki (2001) at p. 257 (noting that: “Virtually all commitments made in the Uruguay Round were of a standstill nature, that is, a promise not to become more restrictive than already was the case for scheduled sectors.”) A great deal of the effort during the Uruguay Round went into rule-making. WTO (2001) at p. 108-109.

²⁸¹ See Council for Trade in Services, Background Note by the Secretariat, *Structure of Commitments for Modes 1, 2 and 3*, S/C/W/99 (3 Mar. 1999); Karsenty (2000); Mattoo & Schuknecht (2001); OECD (2000a); and Hauser & Wunsch-Vincent (2002) at p. 119-121.

²⁸² See General Council, Communication by Indonesia and Singapore, *Work Programme on E-commerce*, WT/GC/W/247 (9 July 1999).

187. Many submissions in the services negotiations have directly or indirectly addressed the potential for e-commerce to expand services trade. In fact, a majority of the sector-specific proposals reference e-commerce or the electronic supply of services across borders (i.e., without establishing a presence in the foreign country).²⁸³ (See Table 14 below for examples).

188. In these and other sector-specific submissions, WTO Members primarily note that the development of e-commerce and the Internet has spurred growth, efficiency, and productivity in specific services sectors. They also indicate that in some cases, IT has made existing services tradable across borders (e.g., advertising) and created new services (e.g., some computer services). Almost all of these submissions conclude that e-commerce and the use of IT harbor great potential to increase services trade. Some submissions also indicate goods trade is positively influenced by electronically traded services.²⁸⁴

189. Accordingly, many WTO Members have requested new or improved services commitments that would facilitate e-commerce and some have requested the elimination of specific services-related barriers. (See Table 15 below for examples of services-related barriers to e-commerce). In some submissions, WTO Members also address whether “new” services fit within the existing services classifications system or whether new services classifications should be created and commitments made thereunder. (See Sections VI and VII for a further discussion of the classification of new services).

190. In one submission, the United States proposes liberalization of a “cluster” of Internet-enabling services to accelerate the development of the globally networked economy.²⁸⁵ Specifically, the U.S. calls for market access and national treatment for basic and value-added telecommunication services as well as complementary services (distribution, express delivery, computer, advertising, and certain financial services). Similarly, in the WTO Work Programme on E-commerce, the European Communities proposed the liberalization of a package of e-commerce infrastructure services (telecom, computer, some distribution, advertising, some banking services: payment and money transmission, trading for own account or for account of customers).²⁸⁶

²⁸³ Services can be supplied electronically across borders without establishing either a commercial presence (mode 4) or the movement of natural persons (mode 3), via mode 1 (cross-border) or mode 2 (consumption abroad).

²⁸⁴ See e.g., GATS Council-Special Session, Communication from Colombia, *Distribution Services S/CSS/W/120* (27 Nov. 2001).

²⁸⁵ GATS Council-Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: the WTO's Role in Accelerating the Development of a Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000).

²⁸⁶ Council for Trade in Services, Communication from the , *Electronic Commerce Work Programme*, S/C/W/183 (30 Nov. 2000).

Table 14:
Examples of Services Negotiations Submissions Discussing E-commerce

<i>Sector</i>	<i>Submission</i>
Business Services	Canada, <i>Initial Negotiating Proposal on Business Services (Other than Professional Services and Computer and Related Services)</i> , S/CSS/W/55 (14 Mar. 2001), European Communities and Their Member States, <i>GATS 2000: Business Services</i> , S/CSS/W/34 (22 Dec. 2000).
Professional Services (i.e., accounting)	Australia, <i>Negotiating Proposal for Accountancy Services</i> , S/CSS/W/62 (28 Mar. 2001).
Computer and Related Services	Canada, <i>Initial Negotiating Proposal on Computer and Related Services</i> , S/CSS/W/56 (14 Mar. 2001).
Other Business Services (i.e., advertising, energy distribution)	United States, <i>Advertising and Related Services</i> , S/CSS/W/100 (10 July 2001). Venezuela, <i>Negotiating Proposal on Energy Services</i> , S/CSS/W/69 (29 Mar. 2001).
Postal Services	MERCOSUR and Bolivia, <i>Postal Services</i> , S/CSS/W/108 (26 Sept. 2001).
Telecommunications Services	Chile, <i>The Negotiations on Trade in Services</i> , S/CSS/W/88 (14 May 2001), Korea, <i>Negotiating Proposal for Telecommunication Services</i> , S/CSS/W/83 (11 May 2001), European Communities and Their Member States, <i>GATS 2000: Telecommunications</i> , S/CSS/W/35 (22 Dec. 2000).
Audiovisual Services	Japan, <i>The Negotiations on Trade in Services</i> , S/CSS/W/42 (22 Dec. 2000); the United States, <i>Audiovisual and Related Services</i> , S/CSS/W/21 (18 Dec. 2000), Switzerland, <i>GATS 2000: Audiovisual Services</i> , S/CSS/W/74 (4 May 2001).
Distribution Services	Switzerland, <i>GATS 2000: Distribution Services</i> , S/CSS/W/77 (4 May 2001), Colombia, <i>Distribution Services</i> S/CSS/W/120 (27 Nov. 2001).
Logistics and Related Services	Hong Kong, China, <i>Logistics and Related Services</i> , S/CSS/W/68 (28 Mar. 2001).
Education Services	United States, <i>Higher (Tertiary) Education, Adult Education, and Training</i> , S/CSS/W/23 (18 Dec. 2000), Australia, <i>Negotiating Proposal for Education Services</i> , S/CSS/W/110 (1 Oct. 2001), Japan, <i>Negotiating Proposal on Education Services</i> , S/CSS/W/137 (15 Mar. 2002).
Financial Services	Switzerland, <i>GATS 2000: Financial Services</i> , S/CSS/W/71 (4 May 2001), Canada, <i>Initial Negotiating Proposal on Financial Services</i> , S/CSS/W/50 (14 Mar. 2001). <i>See also</i> , Note by the Secretariat, <i>Report of the Meeting Held on 14-17 May 2001</i> , S/CSS/M/9 (22 June 2001), Note by the Secretariat, <i>Report of the Meeting Held on 5, 8 and 12 October 2001</i> , S/CSS/M/12 (28 Nov. 2001).
Maritime Services	Background Note by the Secretariat, <i>Maritime Transport Services</i> , S/CSS/W/106 (4 Oct. 2001) (addressing electronic trade in a special session on maritime transport services).

191. The European Communities and Australia also have made substantial contributions that refer to the treatment and commitments of Internet access services. (See Section VI below for further discussion of these contributions). Examples of other submissions taking a focused approach to e-commerce include those from Canada and Australia to facilitate the participation of small and medium-sized enterprises in electronic services trade, especially in developing countries.²⁸⁷

²⁸⁷ GATS Council-Special Session, Communication from Canada, *Initial Negotiating Proposal on Distribution Services*, S/CSS/W/57 (14 Mar. 2001), GATS Council-Special Session, Communication from Australia, *Negotiating*

**Table 15:
Examples of Services-related Barriers to E-commerce**

<i>Services Sector</i>	<i>Barriers to E-commerce</i>
Business Services	Citizenship/residency requirements; Domestic procurement requirements.
Professional Services	Citizenship/residency requirements for licensing or certification; Professional qualification requirements that necessitate education in the importing country; Reciprocity conditions on the recognition of qualification requirements.
Advertising Services	Residency requirements for employees of advertising firms; Requirements for local participation in the production of advertising transmitted through an electronic medium.
Audiovisual Services	Quantitative limitations; Deviations from the principle of national treatment.
Education services	Erection of new barriers as response to growing use of the internet for delivering education services (i.e., restrictions on electronic transmission of course materials); Restrictions on the use/import of educational materials.

192. Several submissions address e-commerce in the context of financial services,²⁸⁸ a reflection of the magnitude of electronic cross-border financial trade flows and the related, ongoing work in the Committee on Trade in Financial Services.²⁸⁹ Switzerland, for example, proposed greater harmonization or merging of commitments under modes 1 and mode 2 because IT is increasingly blurring the distinction between the two and causing legal uncertainty.²⁹⁰ Switzerland also has broached the topic of delineating responsibilities between home and host countries in supervising and regulating cross-border electronic banking services.²⁹¹ Several submissions also shed light on regulatory trade barriers impeding cross-border electronic financial transactions (e.g., prudential and supervisory rules; scheduled limitations or absence of commitments on the transfer of financial information, financial data processing, and other auxiliary services; and restrictions on the cross-border provision of certain insurance services,

Proposal for Telecommunication Services, S/CSS/W/17 (5 Dec. 2000), GATS Council-Special Session, Note by the Secretariat, Report of the Meeting Held on 14-17 May 2001, S/CSS/M/9 (22 June 2001).

²⁸⁸ GATS Council-Special Session, Communication from the European Communities and Their member States, *GATS 2000: Financial Services, S/CSS/W/39 (22 Dec. 2000), GATS Council-Special Session, Communication from Switzerland, GATS 2000: Financial Services, S/CSS/W/71 (4 May 2001).*

²⁸⁹ GATS Council-Special Session, Note by the Secretariat, *Report of the Meeting Held on 14-17 May 2001, S/CSS/M/9 (22 June 2001), GATS Council-Committee on Trade in Financial Services, Communication from Switzerland, E-banking in Switzerland, S/FIN/W/26 (30 Apr. 2003); GATS Council-Committee on Trade in Financial Services, Communication from Hong Kong, China, Market Trends and Regulatory Issues Relating to Electronic Banking and On-line Trading in the Securities and Futures Market of Hong Kong, China, S/FIN/W/25/Add.1 (19 June 2003).*

²⁹⁰ GATS Council-Special Session, Communication from Switzerland, *GATS 2000: Financial Services, S/CSS/W/71 (4 May 2001).*

²⁹¹ GATS Council-Committee on Trade in Financial Services, Communication from Switzerland, *E-banking in Switzerland, S/FIN/W/26 (30 April 2003)* (presenting Switzerland's practice of: (1) not requiring licenses for foreign providers who could only be reached in Switzerland via the Internet and who did not have a physical presence in the country; and (2) allowing foreign-based banks to advertise on the Internet or in the Swiss media, even when such advertising was deliberately targeted at Swiss clients).

etc.). The Committee on Trade in Financial Services, which reports to the GATS Council, has discussed other e-commerce issues including mobile commerce (m-commerce), data privacy, cyber threats, and electronic payments.²⁹²

193. Hong Kong filed an interesting submission on logistics and related services that addresses complex electronic trade questions.²⁹³ According to the submission, “Logistics, in general, is understood as the procedure to optimize all activities to ensure the delivery of products through a transport chain from one end to the other.”²⁹⁴ Currently, there is no single commitment that Members may make for logistical services, and the submission seeks to create a list of services that constitute logistical services in preparation for seeking commitments from Members on those services. Many of the services identified in the submission could be acquired and/or delivered electronically: freight transportation services; cargo-handling services; storage and warehousing services; customs clearance services; transport agency services; container station and depot services; inventory management services; order processing services; production planning services; and production control services.²⁹⁵

194. Apart from this handful of examples, the GATS negotiations have not yet ventured into the many complex e-commerce issues that were raised in the GATS Council under the WTO’s Work Programme on E-commerce. As the next section of this paper illustrates, most of the questions remain unanswered and are likely to surface at the negotiation table.

²⁹² GATS Council-Committee on Trade in Financial Services, Note by the Secretariat, *Report of the Meeting Held on 2 December 2002*, S/FIN/M/38 (11 Feb. 2003), GATS Council-Committee on Trade in Financial Services, Note by the Secretariat, *Report of the Meeting Held on 16 May 2003*, S/FIN/M/40 (30 June 2003).

²⁹³ GATS Council-Special Session, Communication from Hong Kong, China, *Logistics and Related Services*, S/CSS/W/68 (28 March 2001).

²⁹⁴ *Id.* at para. 4.

²⁹⁵ *Id.* at para. 6.

C. Addressing Questions from the WTO Work Programme on E-commerce in the Services Negotiations

195. As discussed in Section II.A.5 above, the Council for Trade in Services developed a list of issues for the GATS Council to examine regarding the application of the GATS to e-commerce under the WTO Work Programme on E-commerce.²⁹⁶ (See Table 16 below for a list of questions regarding the applicability of the GATS to e-commerce). Although these and other questions have been discussed by the GATS Council in the Work Programme, most have not been answered.²⁹⁷ The ongoing services negotiations provide a forum for answering some of these questions even though the Doha Declaration does not formally mandate negotiations on e-commerce.

Table 16:
Questions Concerning the Application of the GATS to E-commerce

Questions	<ol style="list-style-type: none">1. Applicability of specific commitments to the electronic delivery of services.2. Classification of electronically traded services as mode 1 or mode 2.3. Determining “likeness” for application of MFN obligations and national treatment commitments.4. Increasing participation of developing countries in electronic commerce/world services trade.5. Application of Article VI regarding domestic regulations and Article XIV regarding general exceptions for electronic commerce.6. Applicability of the duty-free moratorium on electronic transmissions to trade in services.7. Classification and scheduling of new services arising in the context of electronic commerce.8. Applicability of the Annex on Telecommunications and the Reference Paper on Basic Telecommunications to electronic commerce.9. Classification of digital products.
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Source: *GATS Council E-commerce Report, S/L/74*.

1. Applicability of Specific Commitments to Electronically Delivered Services

196. Under the WTO Work Programme on E-commerce, the GATS Council reported to the General Council that:

It was the general view that the electronic delivery of services falls within the scope of the GATS, since the Agreement applies to all services regardless of the

²⁹⁶ See Table 1: Work Programme Responsibilities; and *General Council Work Programme on Electronic Commerce, WT/L/274*.

²⁹⁷ See *Interim Report to the General Council, S/C/8*; and *Progress Report to the General Council, S/L/74* (27 July 1999). For a discussion of these GATS-related questions, see Tinawi & Berkey (1999), Panagariya (2000), Drake & Nicolaidis (2000), Hauser & Wunsch-Vincent (2001), and Wunsch-Vincent (2002).

means by which they are delivered, and that electronic delivery can take place in any of the four modes of supply. Measures affecting the electronic delivery of services are measures affecting trade in services in the sense of Article I of the GATS and are therefore covered by GATS obligations. . . . *Some delegations expressed a view that these issues were complex and needed further examination.*²⁹⁸

197. Those members seeking further examination question whether the GATS obligations and commitments, dating back to 1994, applied to services transmitted by a technology, the Internet, that was not yet envisioned at the time of the negotiations.²⁹⁹

198. Consequently, the United States has asked for a positive reaffirmation that electronic transactions are covered by existing GATS commitments.³⁰⁰ While this kind of affirmation did not occur at the Cancun Ministerial, the services negotiations provide the opportunity to resolve any sector-specific issues regarding the applicability of specific commitments to electronically delivered services.

2. Classification of Electronically Delivered Services as Mode 1 or Mode 2

199. Under the Work Programme, the GATS Council concluded services could be supplied electronically under any of the four modes of supply. Members, however, had difficulty distinguishing between mode 1 or mode 2, i.e., determining whether a service supplier was providing a service on a cross-border basis to a consumer located within the country making the specific commitment or on a consumption abroad basis to a consumer located outside of the country making the specific commitment.³⁰¹

²⁹⁸ *GATS Council E-commerce Report, S/L/74* at para. 4 (emphasis added).

²⁹⁹ See e.g., GATS Council-Committee on Trade in Financial Services, Note by the Secretariat, *Report of the Meeting Held on 9 May 2001, S/FIN/M/31* (1 June 2001) (statement by the representative of India that the bottom-up or positive list approach to scheduling specific commitments under the GATS required new commitments for services delivered through new technologies); General Council, Communication from Indonesia and Singapore, *Preparations for the 199 Ministerial Conference: Work Programme on Electronic Commerce, WT/GC/W/247* (9 July 1999) (noting that because “e-commerce is a relatively new technological innovation, most countries would not have factored it in when they scheduled their GATS commitments during the Uruguay Round. There may therefore be a need to evaluate the relationship between e-commerce and existing GATS commitments as electronic delivery could take place under any of the modes”); “U.S. E-commerce Industry Plots Strategy For WTO Talks,” *Inside U.S. Trade* (24 May 2002) (reporting that some WTO Members contend that the Internet was not envisaged during the last round and that existing commitments do not necessarily apply to this new transaction form).

³⁰⁰ Council for Trade in Services, Communication from the United States, *Clarification of the Relationship between Existing Services Commitments and the Internet, S/C/W/130* (14 Oct. 1999); and “U.S. looks for WTO Guidelines on E-commerce by Cancun Ministerial,” *Inside U.S. Trade* (20 Sept. 2002).

³⁰¹ *GATS Council E-commerce Report, S/L/74* at para. 5. This is a question the Committee on Financial Services has struggled with for several years. GATS Council-Committee on Trade in Financial Services, Note by the Secretariat, *Technical Issues Concerning Financial Services Schedules, S/FIN/W/9* (29 July 1996).

200. Members have put forward arguments supporting both classifications. The Government of Japan, for example, submitted that telephone and fax transactions have always been classified under mode 1 and that other forms of electronic trade should be similarly classified.³⁰² The United States sought the most liberal classification and thus questioned whether a mode 2 classification would be preferable given that there are more mode 2 specific commitments with fewer limitations than mode 1.³⁰³ To support this position, the U.S. argued that the consumer actually "visits" the website of an Internet service provider in another country.³⁰⁴ Countries, such as Switzerland, that are interested in cross-border financial services also supported this line of reasoning.³⁰⁵

201. The answer to this classification issue is important because it will determine the level of liberalization afforded electronically traded services. The "quality" of existing specific commitments differs widely depending on the transaction mode: a member may have left one mode unbound while imposing no or minor limitations on another mode. As concessions under mode 2 are generally deeper than concessions under mode 1, the decision thus has a very tangible effect on the overall level of market access accorded to electronically traded services.³⁰⁶

202. Classification under modes 1 or 2 also may have other far-reaching legal consequences. Frequently, the question is asked which national legal system is applicable to the electronic delivery of services: the country where the supplier is located or the country where the consumer is located.³⁰⁷ Some experts assert that the GATS classification can impact this question:³⁰⁸ under mode 1 the national legal system of the consumer's locality would prevail because the supplier is engaging in business in that locality; and under mode 2 the national legal system of the supplier's locality would prevail.³⁰⁹ Others state that GATS does not address matters of jurisdiction.³¹⁰ In the General Council's second Dedicated Discussion on E-commerce, some Members expressed their interest in maintaining jurisdiction on the discussion agenda. No substantive discussions, however, have occurred.³¹¹

³⁰² Council for Trade in Services, Communication from Japan, *Work Programme on Electronic Commerce*, S/C/W/104 (25 Mar. 1999).

³⁰³ CTD, Submission by the United States, *Work Programme on Electronic Commerce*, WT/COMTD/17 (12 Feb. 1999) at section 4.

³⁰⁴ *Id.*

³⁰⁵ GATS Council-Committee on Trade in Financial Services, Communication from Switzerland, *E-banking in Switzerland*, S/FIN/W/26 (30 Apr. 2003), GATS Council-Special Session, Communication from Switzerland, *GATS 2000: Financial Services*, S/CSS/W/71 (4 May 2001).

³⁰⁶ Tinawi & Berkey (1999) at pp. 7-8.

³⁰⁷ See FTC (2000) (providing an overview of the debate regarding country of origin regulation versus country of destination regulation).

³⁰⁸ Drake & Nicolaidis (2000) and Panagariya (2000) at p. 12.

³⁰⁹ For example, if a Malaysian customer transacts business using a Swiss bank's website, classification of the electronic delivery of financial services as mode 1 would result in the application of Malaysian law (re privacy, confidentiality, investor protection) and as mode 2 would result in the application of Swiss law.

³¹⁰ Hoekman & Kostecki (2001) at p. 265.

³¹¹ General Council, *Second Dedicated Discussion on E-commerce Under the Auspices of the General Council on May 6, 2002*, WT/GC/W/475 (20 June 2002) at section 5.

203. The decision to classify the electronic delivery of services may be addressed in the services negotiations in two ways. First, Members may use the bilateral request-offer process to obtain equivalent commitments under mode 1 and mode 2 so it matters not how electronically traded services are classified.³¹² Second, Members may explore this question using the concrete examples provided in their bilateral request-offer negotiations and use the information provided to develop a consensus within the Special Session of the GATS Council on how electronically-traded services are classified. This consensus could then be reflected in a Chairman's note. Alternatively, Members may address this issue as it arises through the dispute settlement process.

3. Likeness

204. The general MFN obligation and specific national treatment commitments apply only to the extent that a foreign service or service supplier is "like" a domestic service or service supplier. Therefore, under the Work Programme, the GATS Council considered the extent to which electronically traded services may be "like" services delivered by other methods. According to the GATS Council report to the General Council, only "[s]ome Members" agreed that "likeness would not depend on whether a service was delivered electronically or otherwise."³¹³

205. Questions regarding the meaning of "likeness" under the GATS exist independent of e-commerce.³¹⁴ The GATS does not provide guidance on when services must be considered "like" other services and this issue remains largely untested in dispute settlement.³¹⁵ The increase in the tradability of services, stimulated by the increased use of IT and e-commerce, adds urgency to the need to develop a test for likeness, including the circumstances under which electronically supplied services are like services supplied otherwise.

206. The task of bringing more legal certainty to the concept of likeness under the GATS is not part of the Doha mandate. Nevertheless, GATS negotiators are aware that the value of the general MFN obligation and specific national treatments commitments is related to "likeness" and thus may want to seek some understanding in the negotiations regarding the relevance of electronic delivery to the likeness determination.

³¹² It is unlikely, however, that all WTO Members would be willing to adopt uniform mode 1 and mode 2 commitments in all sectors, particularly for sectors like financial services where they have extensive regulatory considerations and thus take a restrictive approach to mode 1 trade.

³¹³ *GATS Council E-commerce Report*, S/L/74 at para. 8.

³¹⁴ Wunsch-Vincent (2002) at p. 32.

³¹⁵ See Arkell (2002) at p. 5 (explaining that the GATS concept of likeness has not been subject to significant panel interpretations and that the advent of the Internet will constitute a severe test of the bounds of likeness).

4. Increasing the Participation of Developing Countries in E-commerce/World Services Trade

207. The GATS Council under the Work Programme on E-commerce reached a common understanding that “the participation of developing countries in electronic commerce should be enhanced *inter alia* by the implementation of Article IV of the GATS through the liberalization of market access in areas of export interest to them, and through better access to technology, including technology relating to encryption and security of transactions and to efficient telecommunication services.”³¹⁶ The services negotiations certainly may help to achieve these goals by providing the mechanism for developed countries to make specific commitments to liberalize services that are of export interest to developing countries.

5. Regulations Affecting E-commerce

208. The purpose of GATS Article VI is to recognize the right of WTO members to regulate services while at the same time ensuring that such regulations do not constitute an unnecessary barrier to trade. During the WTO’s Work Programme on E-commerce, it was the general view of the GATS Council that “provisions concerning domestic regulation in Article VI of the GATS apply to the supply of services through electronic means.”³¹⁷

209. The GATS Council, however, did not articulate how to apply GATS Article VI to e-commerce and there are a number of open issues regarding: (1) the desirable level of regulation affecting e-commerce; (2) a specific Article VI discipline on regulations affecting e-commerce; and (3) the relationship between Article VI and Article XIV with respect to e-commerce.

- Level of Regulation

Throughout the Work Programme, a number of Members advocated that the field of e-commerce regulations should be kept to a minimum to favor further growth.³¹⁸ Others focused more on the need to maintain a balance between the right of Members to regulate e-commerce and the need to ensure that domestic regulatory measures do not constitute unnecessary barriers to trade.³¹⁹

³¹⁶ *GATS Council E-commerce Report, S/L/74* at para. 10.

³¹⁷ *Id.* at para. 11.

³¹⁸ The passage of time calls into question the number of Members who would maintain their support for a formal and binding commitment to minimize regulation of e-commerce as governments have significantly increased their interest in exercising regulatory scrutiny over e-commerce and the Internet since 1998 (the year the WTO’s Work Programme on E-commerce began).

³¹⁹ *GATS Council E-commerce Report, S/L/74* at para. 11.

- E-commerce-Specific Article VI Discipline

210. There was disagreement during the Work Programme on how the development of new disciplines on domestic regulation under GATS Article VI should address e-commerce. GATS Article VI consists of two parts. One part currently imposes regulatory disciplines on Members with respect to sectors for which they have undertaken specific commitments. The second part mandates the development of further GATS regulatory disciplines. (See Table 17 below illustrating the two parts of GATS Article XVI). WTO Members have been struggling for more than seven years to develop further regulatory disciplines that would govern the Article VI general obligation that Members not implement or administer regulations that constitute “unnecessary barriers to trade” or are “more burdensome than necessary to ensure the quality of the service.”³²⁰

Table 17:
Current and Future Disciplines on Domestic Regulations

<i>Excerpts from GATS</i>	<i>Article VI</i>
Current Disciplines	<p>1. In sectors where specific commitments are undertaken, each Member shall ensure that all measures of general application affecting trade in services are administered in a reasonable, objective and impartial manner.</p> <p>5. (a) In sectors in which a Member has undertaken specific commitments, pending the entry into force of disciplines developed in these sectors pursuant to paragraph 4, the Member shall not apply licensing and qualification requirements and technical standards that nullify or impair such specific commitments. . . .</p> <p>6. In sectors where specific commitments regarding professional services are undertaken, each Member shall provide for adequate procedures to verify the competence of professionals of any other Member. . . .</p>
Future Disciplines (i.e., Built-in Agenda)	<p>4. With a view to ensuring that measures relating to qualification requirements and procedures, technical standards and licensing requirements do not constitute unnecessary barriers to trade in services, the Council for Trade in Services shall, through appropriate bodies it may establish, develop any necessary disciplines. Such disciplines shall aim to ensure that such requirements are, <i>inter alia</i>: (a) based on objective and transparent criteria, such as competence and the ability to supply the service; (b) not more burdensome than necessary to ensure the quality of the service; (c) in the case of licensing procedures, not in themselves a restriction on the supply of the service.</p>

Source: GATS Art. VI.

211. During the Work Programme, some Members thought the GATS Council should develop an e-commerce specific discipline under GATS Article VI:4 while others thought that a general purpose GATS regulatory discipline would adequately address e-commerce considerations or that such a discipline may infringe on Members rights under GATS Article XIV regarding General Exceptions. (See next paragraph for more on Article XIV). The Reference Paper for

³²⁰ See e.g., GATS Council-Working Party on Domestic Regulation Domestic Regulation, Communication From The European Communities and Their Member States, *Necessity and Transparency*, S/WPDR/W/14 (1 May 2001) (proposing how these provisions could be implemented with a “necessity test”).

basic telecommunications services was used as an example of the types of regulatory principles that could be developed for e-commerce.³²¹

- Article XIV Exceptions to Article VI

212. In reaction to the interest in creating an e-commerce specific discipline on domestic regulations, some WTO Members during the Work Programme emphasized the importance of distinguishing between disciplines under GATS Article VI (Domestic Regulation) and GATS Article XIV (General Exceptions).³²² Article XIV defines several different types of measures that may be applied by a Member, regardless of the GATS general obligations or specific commitments that a Member has made, provided that the measures meet certain criteria. For example, Members may maintain measures to protect public morals or to protect the privacy of individuals so long as they do not constitute: (1) an arbitrary or unjustifiable discrimination between countries; or (2) disguised restriction on trade; and (3) are necessary.³²³ Several of the types of measures permitted under Article XIV are pertinent to e-commerce.

213. In the discussions about GATS Articles VI and XIV in the Work Programme on E-commerce, some Members favored an e-commerce specific discipline that would specify the types of regulatory restrictions that a Member could impose on e-commerce-related activities in order to protect public morals, privacy, and other values with a view to minimizing unnecessary barriers to trade while others were seeking a “safe harbor” for such measures so that they would not be challenged through dispute settlement.³²⁴ Members acknowledged that Article XIV, as an exception provision, had to be interpreted narrowly, and its scope could not be expanded to cover regulatory objectives other than those listed in the Article. But, they could not agree further on whether and how to address domestic regulation of e-commerce.

214. Services submissions in the Doha negotiations have not addressed GATS Articles VI and XIV and their application to e-commerce.³²⁵ Nevertheless, it is within the mandate of the

³²¹ GATS Council, Interim Report to the General Council, *Work Program on E-commerce*, S/C/8 (31 Mar. 1999).

³²² *GATS Council E-commerce Report*, S/L/74 at para. 11.

³²³ GATS Art. XIV General Exceptions: “Subject to the requirement that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where like conditions prevail, or a disguised restriction on trade in services, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any Member of measures: (a) necessary to protect public morals or to maintain public order . . . ; (b) necessary to protect human, animal or plant life or health; (c) necessary to secure compliance with laws or regulations which are not inconsistent with the provisions of this Agreement including those relating to: (i) the prevention of deceptive and fraudulent practices or to deal with the effects of a default on services contracts; (ii) the protection of the privacy of individuals in relation to the processing and dissemination of personal data and the protection of confidentiality of individual records and accounts; (iii) safety”

³²⁴ GATS Council, Communication From The European Communities and Their Member States, *Work Programme on Electronic Commerce*, S/C/W/98 (23 Feb. 1999). In this communication, the EC submits: “In particular, we believe it would be worth discussing whether a list of regulatory objectives – for example, consumers’ protection, universal service, and security of the transactions, as well as those covered by Article XIV of the GATS, among others - could be established. Those public policy objectives could justify imposing ‘specific’ domestic regulation on services provided electronically. In any case, such regulation would need to be itself reasonable, objective and impartial in accordance with Article VI.1.”

³²⁵ The United States in a submission prepared for the Cancun Ministerial did address this topic, however. The U.S. submission states that “recognizing that where legitimate policy objectives require domestic regulations that affect

services negotiations for WTO Members to develop further regulatory disciplines pursuant to Article VI that could specifically or generally address domestic regulations affecting electronically traded services. Hence, the lack of progress on the rule-making side of the services negotiations does have consequences for e-commerce.³²⁶

6. Customs Duties

215. Virtually no customs duties are applied today to electronically traded services.³²⁷ Nonetheless, under the Work Programme, the GATS Council did explore—without reaching any conclusions—the question of how customs duties could affect electronic commerce and the electronic supply of services.³²⁸

216. The WTO Secretariat has noted that there is no reason in principle why customs duties could not be applied to services, whether delivered electronically or otherwise.³²⁹ During the WTO Work Programme on E-commerce, some Members argued that the concept of customs duties is alien to the GATS, others agreed with the Secretariat that duties theoretically could be applied to services, but wanted further discussion about the implications of applying customs duties to electronic transmissions, and others linked the question of renewing the moratorium on the application of customs duties to electronic transmissions to the resolution of the classification debate.³³⁰

217. At the Cancun Ministerial, the Ministers failed to affirmatively extend the duty-free moratorium on electronic transmissions. Consequently, Members' formal pledge not to impose customs duties on electronic transmissions has lapsed.

218. As an alternative to relying on the moratorium to prevent the levying of customs duties on electronically traded services, Members could seek national treatment commitments in the Doha services negotiations. Members who have not made national treatment commitments are free to impose discriminatory measures such as tariffs or internal taxes on services and service

trade in products and services using electronic networks, such regulations should be transparent, and non-discriminatory, and their purpose should not serve as a restriction on trade.” The submission also stresses that regulations should not act as an intended, protectionist barrier to trade and that measures taken consistent with GATS Art. XIV should not constitute a means of arbitrary or unjustifiable discrimination between countries or serve as a disguised restriction on trade. GATS Council, Submission from the United States, *Work Programme on Electronic Commerce*, WT/GC/W/493/Rev. 1 (8 July 2003) at paras. 3, 17-18.

³²⁶ See Trade Negotiations Committee, *Report by the Chairman of the Trade Negotiations Committee to the General Council*, TN/C/3 (23 July 2003) at para. 25.

³²⁷ GATS Council, Note by the Secretariat, *Work Programme on Electronic Commerce*, S/C/W/68 (16 Nov. 1998) at para. 32.

³²⁸ *GATS Council E-commerce Report*, S/L/74 at paras. 22-23.

³²⁹ GATS Council, Note by the Secretariat, *Work Programme on Electronic Commerce*, S/C/W/68 (16 Nov. 1998) at para. 32.

³³⁰ *GATS Council E-commerce Report*, S/L/74 at paras. 22-23.

suppliers of other Members.³³¹ Note, however, that neither a moratorium nor a fully bound national treatment commitment would affect a Member's freedom to impose taxation on a non-discriminatory basis (i.e., value-added taxes).

7. New Services

219. The GATS Council during the Work Programme on E-commerce took the “general view that electronic delivery has given rise to very few new services, if any, but that further work is needed to identify any such services and decide how they should be classified.”³³² Examples of such new services in the area of computer and telecommunication services include application service providers (ASP), data warehousing, on-line shopping, web-site hosting, and especially multimedia services). (See Section VI below).

220. Although it is not the role of the GATS market access negotiations to discuss classification issues—this role is traditionally taken on the by the Committee on Specific Commitments—the ongoing negotiations certainly provide an opportunity to make commitments for so-called new services or to clarify that these are covered by existing commitments. Failure to do so would mean that uncertainty as to their coverage by current or even future commitments could be detrimental to business development.

D. Conclusion

221. The Doha negotiations provide WTO Members with the opportunity to make services commitments that would facilitate e-commerce and to address some of the difficult questions identified during the Work Programme regarding the application of the GATS to e-commerce. It is too early in the negotiating process, however, to determine how much progress will be made. To maximize certainty regarding the scope of specific commitments on services that can be traded electronically, Members should use the Doha negotiations to clarify the classification of electronically delivered services as mode 1 or 2, likeness of services that are traded electronically pr by other means, restraints on the regulation of e-commerce, the applicability of customs duties to electronic transmissions, and the classification of new electronically traded services.

³³¹ The EC, for example, has argued that instead of agreeing on a generic moratorium, it may be more practicable use the negotiations to prevent the appearance of customs duties as a scheduled limitation to national treatment obligations. *EC Discussion Paper on Electronic Commerce and the WTO*, (10 May 2000) at p. 10, europa.eu.int/comm/trade/issues/sectoral/services/docs/elcomwto.pdf (visited in August 2003).

³³² *GATS Council E-commerce Report*, S/L/74 at para. 26.

VI. Internet Infrastructure Services – Basket II

222. A number of WTO members are seeking further liberalization of telecommunications services (basic and value added) and computer services (e.g., online information or data base retrieval) in the Doha negotiations. These services provide the infrastructure for the Internet/intranets through which e-commerce is conducted. Globally linked electronic networks are becoming the primary medium for commercial transactions.³³³ Two phenomena—falling communication costs and increasing bandwidth—are catalysts for the affordable, high-quality connectivity that is responsible for the proliferation of electronic networks. Telecommunications and computer services provide the infrastructure for e-commerce, and are themselves a significant and rising share of total cross-border trade in services. These services not only create new trading opportunities but also pose significant challenges to the ongoing negotiations.

223. The purpose of this section is to identify and explain the most significant issues regarding telecommunications and computer services that will arise in the Doha negotiations: (1) improvements in specific commitments to liberalize trade in these services; (2) clarification of the scope and coverage of specific commitments given the convergence of and development of new high tech services; (3) development of disciplines on the regulation of telecommunications and computer services; and (4) development-related issues.

224. Despite the increasing convergence of these two sectors, they continue to be addressed separately by the WTO in the Doha negotiations. For this reason, and because of their distinct negotiating histories in the Uruguay Round, these services are addressed separately in this paper. (*See* Section VI.A regarding telecommunications services and Section VI.B regarding computer and related services).

A. Telecommunication Services

225. The General Agreement on Trade in Services is the WTO instrument governing trade in telecommunications services. Accordingly, all WTO Members must assume the general obligations under GATS Part II (e.g., MFN and transparency) for *all* telecommunications services and may volunteer under GATS Part III to undertake specific commitments for *selected* telecommunications services.

³³³ GATS Council-Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: Market Access in Telecommunications and Complementary Services: The WTO's Role in Accelerating the Development of a Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000).

1. Scheduling Telecommunications Services

226. During the Uruguay Round, the negotiators used the Services Sectoral Classification List, or W/120, to develop their offers and requests for services, including telecommunications services. (See Section V.A above regarding scheduling of services). “Communications” is one of the twelve services sectors listed in W/120 and this sector is further subdivided into five subsectors: Postal Services, Courier Services, Telecommunications Services, Audiovisual Services, and Other. (See Table 10 above). “Telecommunications services” are further subdivided into fourteen subsectors. (See Table 18 below).³³⁴ The same classifications are being used in the Doha negotiations.

Table 18:
Classification of Telecommunications Services

<i>Telecommunications Services</i>	
Basic	<ul style="list-style-type: none"> a. Voice telephone services b. Packet-switched data transmission services c. Circuit-switched data transmission services d. Telex services e. Telegraph services f. Facsimile services g. Private leased circuit services
Value-Added	<ul style="list-style-type: none"> h. Electronic mail i. Voice mail j. On-line information and data base retrieval k. Electronic data interchanged (EDI) l. Enhanced/value-added facsimile services, incl. store and forward, store and retrieve m. Code and protocol conversion n. On-line information and/or data processing (incl. transaction processing)
Other	<ul style="list-style-type: none"> o. Other (e.g., analog/digital cellular/mobile telephone services; mobile data services; paging; personal communications services; satellite-based mobile services (e.g., telephony, data, paging, and/or PCS); fixed satellite services; VSAT services; gateway earthstation services; teleconferencing; video transport; trunked radio system services).

Source: Services Sectoral Classification List, MTN.GNS/W/120. The list of services included at “o” can be found on the WTO website in the section explaining telecommunications services, www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_e.htm (visited 18 Sept. 2003).

³³⁴ See www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_e.htm (visited 18 Sept. 2003); www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_history_e.htm (visited 18 Sept. 2003); and GATS Council, Background Note by the Secretariat, *Telecommunication Services*, S/C/W/74 (8 Dec. 1998) [*Secretariat Note on Telecommunications Services*]. See also Bronckers & Larouche (1997), Guermazi (2001), and Hufbauer & Wada (1997) for essential background to the GATS negotiations on telecommunications services.

227. Although the W/120 list of telecommunications services does not distinguish between “basic” and “valued-added” telecommunications services, the negotiators grouped services a-g and o together as basic telecom services and h-n as value-added.³³⁵

228. According to the WTO’s website, “basic telecommunications services” include “all telecommunications services, both public and private that involve end-to-end transmission of customer supplier information”³³⁶ on a real time basis.³³⁷ In comparison, “value-added telecommunications services” are “telecommunications for which suppliers ‘add value’ to the customer's information by enhancing its form or content or by providing for its storage and retrieval (i.e., on-line data processing, email, on-line data base storage and retrieval).³³⁸ Telecommunications services are generally supplied on a cross-border (mode 1) basis or through a commercial presence (mode 3).³³⁹

229. During the Uruguay Round, the negotiators developed four “categories” of services to further define their basic telecom commitments: geography (local, long distance, and international); technology (wire-based or radio-based, including satellite); delivery (facilities-based or on a resale basis); and clientele (for public use or non-public use (closed user groups)).³⁴⁰ Unless otherwise specified, a specific commitment for any of the telecommunications subsectors includes all four categories.³⁴¹ For example, a mode 1 commitment on “voice telephone services” includes local, long distance, and international service.

2. Uruguay Round Negotiations and Telecommunications Services

230. During the Uruguay Round negotiations, Members agreed to include the Annex on Telecommunications as part of the GATS, and forty-eight Members (counting the Member States and European Communities as one) submitted schedules offering specific commitments to liberalize trade in telecommunications services. Most of these schedules included commitments for value-added telecommunications services, but only twenty-two made specific commitments

³³⁵ *Secretariat Note on Telecommunications Services, S/C/W/74* at para. 7

³³⁶ WTO, *Telecommunications Services: Coverage*, www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_coverage_e.htm (visited 18 Sept. 2003).

³³⁷ *Secretariat Note on Telecommunications Services, S/C/W/74* at para. 7.

³³⁸ WTO, *Telecommunications Services: Coverage*, www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_coverage_e.htm (visited 18 Sept. 2003).

³³⁹ *Id.*

³⁴⁰ *Id.*; *Secretariat Note on Telecommunications Services, S/W/C/74* at para. 10.

³⁴¹ Group on Basic Telecommunications, Note by the Chairman, *Notes for Scheduling Basic Telecom Services Commitments, S/GBT/W/2/Rev. 1* (16 Jan. 1997), attached to group on Basic Telecommunications, *Report of the Group on Basic Telecommunications, S/GBT/14* (15 Feb. 1997).

for basic telecommunications services and many of those commitments were of a very limited nature.³⁴²

231. Negotiations on the Annex on Telecommunications and the specific commitments on value-added services were completed in December 1993 and entered into force on 1 January 1995 at the same time as the rest of the GATS. (See Table 19 below regarding the Annex on Telecommunications). Negotiations on basic telecommunications services did not conclude until 15 February 1997 and did not enter into force until 5 February 1998.

Table 19:
GATS Annex on Telecommunications

<i>Annex on Telecommunications</i>	
Purpose	The GATS Annex on Telecommunications ensures non-discriminatory access to the public telecommunications networks and services for service suppliers who rely on those networks and services to do business. ³⁴³
Applicability	All WTO Members must comply with the Annex on Telecommunications, whether or not they have made specific commitments to liberalize trade in telecommunications services.
Impact	Foreign service suppliers such as banks are guaranteed reasonable access to public telecommunication networks to run data transfers, intra-corporate communications, data bases, etc.
General Provisions	The Annex states that “each Member shall ensure that any service supplier of any other Member is accorded access to and use of public telecommunications transport networks and services on reasonable and non-discriminatory terms and conditions, for the supply of a service included in its Schedule.” ³⁴⁴
Specific Provisions	Through the Annex, service suppliers in sectors that are covered by a WTO Member’s specific commitments are permitted, <i>inter alia</i> : (1) to purchase or lease and attach terminal or other equipment which interfaces with the network; (2) to interconnect private leased or owned circuits with public telecommunications transport networks; and, (3) to use operating protocols of the service supplier's choice in the supply of any service, other than as necessary to ensure the availability of telecommunications transport networks and services to the public generally. ³⁴⁵

³⁴² WTO Press Release, *Background Note on the WTO Negotiations on Basic Telecommunications* (22 Feb. 1996), www.wto.org/english/news_e/pres96_e/ta3-tel.htm (visited 18 Sept. 2003).

³⁴³ This means that Country A must provide access to public telecom networks and services for service suppliers of all other WTO Members for each service that Country A has made a specific commitment to liberalize. See www.wto.org/english/tratop_e/serv_e/telecom_e/tel12_e.htm (visited 18 Sept. 2003).

³⁴⁴ Annex on Telecommunications at para. 5(a). The term “non-discriminatory” refers to “most-favored-nation and national treatment as used in [the General] Agreement [on Trade in Services], as well as to reflect sector-specific usage of the term to mean ‘terms and conditions no less favorable than those accorded to any other user of like public telecommunications transport networks or services under like circumstances.’” *Id.* at n. 15. The term “Public telecommunications transport network” means “the public telecommunications infrastructure which permits telecommunications between and among defined network termination points.” *Id.* at para. 3(c). Thus a country's telephone system, including local loops, exchanges, trunks, and international links for providing telephone service to the general public is covered by this definition. See www.wto.org/english/tratop_e/serv_e/12-tel_e.htm (visited 18 Sept. 2003) for the text of the Annex and www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_annex_expl_e.htm (visited 18 Sept. 2003) for a brief explanation of the Annex.

³⁴⁵ Annex on Telecommunications at para. 5(b). By permitting services suppliers to select the operating protocol of their choice, the Annex provides for “technology neutrality,” a very important concept for establishing competitive services. See *id.* at para. 5(c)(iii).

232. At the close of the Uruguay Round, the few countries that had offered to make “full” commitments to liberalize basic telecommunications services were concerned about free-riders (i.e., countries that had not made specific commitments to liberalize basic telecommunications services but would benefit from those that had via the GATS Article II MFN obligation), and withdrew their offers. At the Ministerial Meeting in Marrakech in April 1994, the Ministers agreed to continue negotiations on basic telecommunications under the auspices of the negotiating Group on Basic Telecommunications (NGBT) beginning May 1994 and concluding April 1996.³⁴⁶

233. As of April 1996, forty-seven countries had submitted offers, but only eleven had made “full” commitments (i.e., market access and national treatment for all domestic and international services and facilities, 100 percent foreign investment, and the additional commitments embodied in the Reference Paper). The Members agreed to extend the negotiations until 15 February 1997. As a result of the extended negotiations, sixty-nine countries (counting the Member States and the European Communities separately) made specific commitments to liberalize trade in telecommunications services and fifty-five adopted the specific commitments in the Reference Paper.³⁴⁷ (*See* Table 20 below regarding the Reference Paper).

Table 20:
Reference Paper on Basic Telecommunications

<i>Reference Paper</i>	
Purpose	The Reference Paper establishes a set of pro-competitive regulatory principles to safeguard foreign services and service suppliers from monopoly or dominant suppliers of basic telecommunications services.
Applicability	The Reference Paper applies only to the extent that WTO Members incorporate it in column 4, “additional commitments,” of their schedules of specific commitments for basic telecommunications services. ³⁴⁸
Impact	The Reference Paper is the first legally enforceable, multilateral trade instrument establishing standards to safeguard competition, provide transparent licensing procedures, and require independent regulators. It provides policymakers with a valuable road map for introducing competition into monopolized sectors and establishing regulatory frameworks. ³⁴⁹
Key Provisions	The Reference Paper requires Members to: prevent anti-competitive practices such as cross-subsidization; ensure interconnection at any technically feasible point in the network under non-discriminatory terms, conditions, and rates; administer universal service obligations in a transparent, non-discriminatory, and competitively neutral manner; make licensing criteria publicly available; establish a regulator that is separate from and not accountable to any supplier of basic telecommunications services (but not necessarily independent of all government ministries); and

³⁴⁶ In the 1994 Ministerial Decision on Negotiations of Basic Telecommunications, the Ministers agreed that “Negotiations shall be entered into on a voluntary basis with a view to the progressive liberalization of . . . ‘basic telecommunications’ . . . within the framework of the General Agreement on Trade in Services.” The Ministers also agreed to extend negotiations on three other aspects of the services negotiations: financial services, maritime services, and movement of natural persons. *See* Hufbauer & Wada (1997) (providing background on the Basic Telecommunications Agreement).

³⁴⁷ Sherman (1998) at pp. 88-90 and 97-99. For further information about the Reference Paper, *see* Bronckers & Larouche (1997) and Guermazi (2001).

³⁴⁸ *See* Table 12 above for a sample schedule showing column 4.

³⁴⁹ Guermazi (2001).

3. Doha Development Agenda and Telecommunications Services

234. Both the Uruguay Round and post-Uruguay Round negotiations on telecommunications services achieved remarkable results for the liberalization of value-added and basic telecommunications services as well as access to telecommunications networks for other services. In the Doha negotiations, Members are hard at work to achieve progressively higher levels of liberalization as called for in GATS Article XIX.

235. Since 2000, nine WTO Members have made specific submissions regarding further liberalization of telecommunications services.³⁵⁰ Three additional Members address liberalization of telecommunications services in their general GATS submissions.³⁵¹ Members have filed initial requests and offers on telecommunications services as well. These documents indicate that the primary focus of the services negotiations will be on: (1) improving specific commitments to liberalize telecommunications services; (2) clarifying the scope and coverage of specific commitments on telecommunications services given the convergence of and development of new high tech services; (3) developing disciplines on the regulation of telecommunications services; and (4) development-related issues. Each of these issues is addressed below.

a. Improving Specific Commitments

³⁵⁰ GATS Council, Communication from Cuba, *Negotiating Proposal on Telecommunications Services*, TN/S/W/2 (30 May 2002); GATS Council-Special Session, Communication from Colombia, *Telecommunications Services*, S/CSS/W/119 (27 Nov. 2001); GATS Council-Special Session, Communication from Mexico, *Telecommunications Services*, S/CSS/W/101 (10 July 2001); GATS Council-Special Session, Communication from Korea, *Negotiating Proposal for Telecommunication Services*, S/CSS/W/83 (11 May 2001); GATS Council-Special Session, Communication from Switzerland, *GATS 2000: Telecommunications*, S/CSS/W/72 (4 May 2001); GATS Council-Special Session, Communication from Canada, *Initial Negotiating Proposal on Telecommunication Services*, S/CSS/W/53 (14 Mar. 2001); GATS Council-Special Session, Communication from the EC and their Member States, *GATS 2000: Telecommunications Services*, S/CSS/W/35 (22 Dec. 2000); GATS Council-Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: The WTO's Role in Accelerating the Development of a Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000); GATS Council-Special Session, Communication from Australia, *Negotiating Proposal on Telecommunication Services*, S/CSS/W/17 (5 Dec. 2000).

³⁵¹ GATS Council-Special Session, Communication from Japan, *The Negotiations on Trade in Services*, S/CSS/W/42 (22 Dec. 2000); GATS Council-Special Session, Communication from Chile, *The Negotiations on Trade in Services*, S/CSS/W/88 (14 May 2001); GATS Council-Special Session, Communication from Norway, *The Negotiations on Trade in Services*, S/CSS/W/59 (21 Mar. 2001).

236. Although the Uruguay Round and post-Uruguay Round negotiations on telecommunications were very successful, there is plenty of room to achieve progressively higher levels of liberalization in the Doha negotiations by expanding the number and scope of commitments and removing existing limitations.

237. As of 1999, the most recent year for which the WTO Secretariat had prepared an analysis of GATS specific commitments, less than one-half of WTO Members had made any commitments on key basic telecommunications and value-added telecommunications services (i.e., voice telephone services, private leased circuit services, electronic mail, and online information and data base retrieval).³⁵² More Members made commitments on basic telecommunications services than on value-added network services (e.g., seventy-six for voice telephone service versus sixty-five for online information and data base retrieval).³⁵³ Of those Members making telecommunications commitments, the vast majority had made partial commitments versus full commitments, and those making full commitments tended to do so more frequently for mode 2 (consumption abroad) than for mode 1 (cross-border) or mode 3 (commercial presence).³⁵⁴ (See Table 21 below for data analyzing WTO Members' telecommunications commitments).

Table 21:
Commitments for Selected Telecommunications Services

	<i>Telecommunication Services</i>						
	<i>Total</i>	<i>Market Access</i>			<i>National Treatment</i>		
		<i>Full</i>	<i>Partial</i>	<i>Unbound</i>	<i>Full</i>	<i>Partial</i>	<i>Unbound</i>
Voice telephone services	76	M1-08% M2-38% M3-05%	M1-84% M2-53% M3-93%	M1-08% M2-09% M3-01%	M1-20% M2-22% M3-13%	M1-70% M2-68% M3-82%	M1-11% M2-09% M3-05%
Private leased circuit services	66	M1-09% M2-47% M3-03%	M1-88% M2-50% M3-97%	M1-03% M2-03% M3-00%	M1-30% M2-33% M3-23%	M1-64% M2-62% M3-71%	M1-06% M2-05% M3-06%
Electronic mail	63	M1-24% M2-33% M3-06%	M1-71% M2-57% M3-90%	M1-05% M2-10% M3-03%	M1-41% M2-37% M3-37%	M1-54% M2-51% M3-59%	M1-05% M2-13% M3-05%
Online info & data base retrieval	65	M1-22% M2-31% M3-06%	M1-72% M2-58% M3-89%	M1-06% M2-11% M3-05%	M1-43% M2-40% M3-37%	M1-51% M2-46% M3-57%	M1-06% M2-14% M3-06%

Source: GATS Council, Background Note by the Secretariat, *Structure of Commitments for Modes 1, 2, and 3*, S/C/W/99 (3 Mar. 1999) at Table A1-A3. "Total" refers to the number of members making commitments in modes 1, 2, and 3. "M1" refers to mode 1 (cross-border), "to mode 2 (consumption abroad), and "M3" to mode 3 (commercial presence). "Partial" refers to

³⁵² GATS Council, Background Note by the Secretariat, *Structure of Commitments for Modes 1, 2, and 3*, S/C/W/99 (3 Mar. 1999) at Table A1-A3. Since 1999, all newly acceding WTO Member have undertaken specific commitments for telecommunications services, thereby increasing the number of WTO Members that have committed to provide market access and national treatment to at least some telecommunications services.

³⁵³ *Id.*

³⁵⁴ *Id.*

partial commitments and includes not only sector-specific limitations but also horizontal limitations.

238. As can be seen in Table 21, for the cross-border supply of voice telephone services, only 8 percent of market access commitments and 20 percent of national treatment commitments were full commitments (i.e., without limitation). The percentages are even less for commercial presence where only 5 percent of market access and 13 percent of national treatment commitments are without limitations.

239. The percentages are somewhat better for value-added network services. For the cross border supply of electronic mail, 22 percent of market access and 43 percent of national treatment commitments were without limitations. For commercial presence, 6 percent of market access and 37 percent of national treatment commitments were without limitations.

240. During the Doha negotiations, a number of WTO Members would like to see improvements in their trading partners' specific commitments to liberalize telecommunications services. Their submissions indicate that they will seek to accomplish this goal by: (1) increasing the number and scope of specific commitments; (2) removing limitations on existing commitments, including phase-in periods; (3) expanding the number of Members that have made additional commitments to implement the Reference Paper; and (4) eliminating MFN exemptions (e.g., one-way satellite transmission of DTH and DBS television services/digital audio services, and accounting rates).³⁵⁵

241. For example, the European Communities would like WTO Members to make specific commitments for all telecom sub-sectors for all modes of supply without limitations (i.e., schedules should read "none" for market access and national treatment).³⁵⁶ Others are requesting liberalization of selected modes or subsectors (e.g., data and message transmission services, mobile voice services, or direct-to-home (DTH) satellite video and audio services, which are excluded from current GATS schedules). Some Members may seek technological neutrality (e.g., expansion of commitments to include wireline as well as wireless service), or liberalization of all delivery technologies (e.g., expansion of commitments to include cable and satellite).³⁵⁷

242. Examples of the types of limitations that Members may be asked to eliminate during the negotiations include:

- For mode 1 (cross border), requirements to: route traffic through a specific gateway; establish a branch or representative office or set up joint ventures; solicit permits from a government agency to establish private networks or provide other unregulated services; or locate equipment used in the provision of value-added services in a foreign country.

³⁵⁵ GATS Council-Special Session, Communication from the EC and their Member States, *GATS 2000: Telecommunications Services*, S/CSS/W/35 (22 Dec. 2000).

³⁵⁶ GATS Council, Communication from the EC and their Member States, *GATS 2000: Telecommunications Services*, S/CSS/W/35 (22 Dec. 2000).

³⁵⁷ See e.g., *Australia's Telecom Submission*, S/CSS/W/17 (regarding the limitations placed on satellite operators).

- For mode 3 (commercial presence), restrictions on: the number of operators; unreasonably high licensing charges; types of legal entity; monopoly of business by state owned enterprises, level of direct and foreign ownership (e.g., equity caps on foreign investment); ownership of property or lands; nationality and residency requirements for board members or other management personnel; and ownership of radio licenses.³⁵⁸

243. Some Members also will ask their trading partners to remove phase-in periods for their specific commitments.³⁵⁹

244. Sixty-six Members have adopted the Reference Paper for Basic Telecommunications Services in whole or in part.³⁶⁰ That is less than half of the current WTO Membership. Therefore, a number of Members will use the Doha negotiations to expand the number of countries that have undertaken additional commitments to implement the Reference Paper, as well as to revise those commitments that deviate from the Reference Paper as drafted,³⁶¹ and to address problems that may have arisen in the implementation of existing Reference Paper commitments.

245. The Reference Paper provisions on interconnection are particularly important to the development of e-commerce because WTO Members can use these provisions to set standards for interconnection that will result in more affordable service for ISPs that can be in turn passed on to end-users.³⁶²

³⁵⁸ GATS Council, Background Note by the Secretariat, *Telecommunication Services*, S/C/W/74 (8 Dec. 1998) at para. 25; Tuthill (2002, 2003); GATS Council, Communication from the EC and their Member States, *GATS 2000: Telecommunications Services*, S/CSS/W/35 (22 Dec. 2000); and GATS Council-Special Session, Communication from Japan, *The Negotiations on Trade in Services*, S/CSS/W/42 (22 Dec. 2000). Some of the limitations noted for mode 3 also would affect mode 1.

³⁵⁹ See e.g., GATS Council-Special Session, Communication from Canada, *Initial Negotiating Proposal on Telecommunication Services*, S/CSS/W/53 (14 Mar. 2001); GATS Council-Special Session, Communication from the EC and their Member States, *GATS 2000: Telecommunications Services*, S/CSS/W/35 (22 Dec. 2000); GATS Council-Special Session, Communication from Norway, *The Negotiations on Trade in Services*, S/CSS/W/59 (21 Mar. 2001).

³⁶⁰ GATS Council-Special Session, Communication from the EC and their Member States, *GATS 2000: Telecommunications Services*, S/CSS/W/35 (22 Dec. 2000); and *Secretariat Note on Telecommunication Services*, S/C/W/74 at para. 25.

³⁶¹ See e.g., GATS Council, Communication from Switzerland, *GATS 2000: Telecommunications*, S/CSS/W/72 (4 May 2001); GATS Council-Special Session, Communication from Japan, *The Negotiations on Trade in Services*, S/CSS/W/42 (22 Dec. 2000); GATS Council-Special Session, Communication from Norway, *The Negotiations on Trade in Services*, S/CSS/W/59 (21 Mar. 2001); GATS Council-Special Session, Communication from the EC and their Member States, *GATS 2000: Telecommunications Services*, S/CSS/W/35 (22 Dec. 2000); GATS Council-Special Session, Communication from Australia, *Negotiating Proposal on Telecommunication Services*, S/CSS/W/17 (5 Dec. 2000); GATS Council-Special Session, Communication from Colombia, *Telecommunications Services*, S/CSS/W/119 (27 Nov. 2001) (noting that the additional Reference Paper commitments undertaken by a large number of Members represent a very important advance in developing binding disciplines for telecommunications services).

³⁶² See GATS Council, Communication from United States, *Work Programme on Electronic Commerce*, S/C/7 (12 Feb. 1999).

b. Clarifying the Scope and Coverage of Telecommunications Services Commitments

246. There are three classification issues that may be addressed in the Doha negotiations on telecommunications: (1) the adequacy of the existing classifications in W/120 given the convergence of telecommunications services; (2) coverage of new telecommunications services by existing commitments; and (3) classification of “Internet access services” as basic or value-added telecommunications services.³⁶³

- Convergence of Telecommunications Services

247. The first classification issue that may be addressed in the Doha negotiations is the impact of technological convergence on the classification of telecommunications services in W/120.³⁶⁴ (See Table 18 above for a list of telecommunications services found in W/120). In the modern economy, firms increasingly invest in networks seeking to provide a broad range of integrated services (voice, data, and video) through a variety of technologies using wireless (fixed, mobile, terrestrial, and satellite) and wireline platforms.³⁶⁵ Fixed and mobile services, for example, are being combined, voice-telephone services are being delivered via the Internet (IP-telephony), and new satellite-based communication systems are being deployed. Distinctions between basic and value-added services as well as distinctions among the specific types of basic and value-added services are becoming increasingly difficult to maintain.³⁶⁶

248. The WTO Secretariat warned members about the blurring of telecom subsectors in a 1998 report:

Another difficulty with the GATS list of telecom services is that the distinction between many of its subsectors has blurred with the adoption of new transmission technologies, the enhanced ability to integrate different technologies, and the advent of service suppliers who distinguish themselves not by specializing in particular telecom services, but rather by the market segments that they seek to

³⁶³ See WTO Conference, "Telecommunications and Audio-visual Services in the Context of the WTO: Today and Tomorrow," held on November 21-22, 2001. The proceedings of this conference are soon to be published by Oxford University Press.

³⁶⁴ Secretariat Note on *Telecommunication Services*, S/C/W/74 at paras. 8-10 and 33. See also GATS Council-Special Session, Communication from Canada, *Initial Negotiating Proposal on Telecommunication Services*, S/CSS/W/53 (14 Mar. 2001) and GATS Council-Special Session, Communication from Chile, *The Negotiations on Trade in Services*, S/CSS/W/88 (14 May 2001) (both regarding the overlap between telecommunication and computer services).

³⁶⁵ GATS Council-Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: The WTO's Role in Accelerating the Development of a Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000).

³⁶⁶ See Bronckers & Larouche (noting the difficulty in maintaining these distinctions even at their inception).

serve. Voice, data, fax, and a full range of value-added telecom services can and are being carried indiscriminately as digitalized information flows over telephony networks or leased lines of just about any supplier. . . . Market forces are giving rise to telecom services suppliers that may more accurately break down into categories characterized as wholesale versus retail, infrastructure owners versus resellers, or international versus national service providers than into categories based on supply of voice versus data.³⁶⁷

249. Notwithstanding this early warning, the GATS Council has not seriously addressed the classification issue for telecommunications services. The difficulty in distinguishing among different telecom subsectors is compounded by the convergence of telecom services with computer services and audiovisual services.³⁶⁸ Web-hosting and application service providers (ASPs) are, for example, a combination of various sub-sectors of computer and related services and telecommunication services.³⁶⁹ Video on demand over the Internet is a combination of telecommunications and audio-visual services. The distinction between content and delivery is one that negotiators have been struggling with since the Uruguay Round³⁷⁰ and continues to evoke strong positions, particularly among Members with cultural sensitivities.³⁷¹

- Development of “New” Telecommunication Services

250. The second classification issue that may be addressed in the Doha negotiations is whether “new” services—web-hosting services, online chat rooms, messenger services, electronic authentication services or data “push” and other Internet services—are captured by existing commitments.³⁷² Some Members have argued that these new services are not covered by

³⁶⁷ *Secretariat Note on Telecommunication Services*, S/C/W/74 at paras. 9-10.

³⁶⁸ *Id.* at para. 11

³⁶⁹ GATS Council, Communication from the EC, *Negotiating Proposal on Computer and Related Services*, S/CSC/W/35 (24 Oct. 2002).

³⁷⁰ GATS Council, *Background Note on Audiovisual Services*, S/C/W/40 (15 June 1998) (explaining that “Especially for the sub-category of Radio and television transmission services (CPC 7524), it sometimes becomes difficult to determine exactly the boundary between services classified under telecommunications and those classified under audiovisual services.”)

³⁷¹ The European Communities, for example, has argued that: “Telecommunications services are the transport of electro-magnetic signals - sound, data image and any combinations thereof, excluding broadcasting. Therefore, commitments in this schedule do not cover the economic activity consisting of content provision which require telecommunications services for its transport. The provision of that content, transported via a telecommunications service, is subject to the specific commitments undertaken by the European Communities and their Member States in other relevant sectors.” GATS Council-Special Session, Communication from the EC and their Member States, *GATS 2000: Telecommunications Services*, S/CSS/W/35 (22 Dec. 2000). See also GATS Council-Special Session, Communication from Norway, *The Negotiations on Trade in Services*, S/CSS/W/59 (21 Mar. 2001); GATS Council-Special Session, Communication from Canada, *Initial Negotiating Proposal on Telecommunication Services*, S/CSS/W/53 (14 Mar. 2001); and GATS Council, Communication from Australia, *Work Programme on Electronic Commerce*, S/C/W/108 (18 May 1999). But other Members, like the United States, do not agree that a clear distinction between telecommunications and content is appropriate in the digital world. See Nihoul (2001) (regarding US-EC positions on audiovisual and telecommunication services).

³⁷² See e.g., GATS Council, Communication from United States, *Work Programme on Electronic Commerce*, S/C/7 (12 Feb. 1999).

existing specific commitments and others have taken the opposing position that existing commitments should be interpreted expansively to incorporate technological developments.³⁷³

- Improving Classification of Telecommunication Services

251. Both classification issues—convergence and new services—raise questions about the scope of commitments and diminish the value and predictability of those commitments. There are several ways to improve the classification/scheduling of telecom services to better reflect the current organization of the industry and ways in which telecom services are traded. These include:

(1) Updating W/120. The Services Sectoral Classification List, or W/120, is based on the Provisional Central Product Classification (CPC).³⁷⁴ The Provisional CPC has been updated two times since the GATS commitments were made using W/120.³⁷⁵ One way to modernize the classification of telecom commitments would be to use the current version, CPC 1.1, as the basis for scheduling commitments during the Doha negotiations. (See Table 22 below comparing the classification of telecom services under W/120, the Provisional CPC, and CPC 1.1). As Table 22 illustrates, CPC 1.1 provides a more up-to-date classification of telecom services and could provide greater clarity regarding the scope of telecom commitments. A switch to CPC 1.1 for new commitments, however, may generate uncertainty as to the scope of existing commitments. And, CPC 1.1—like W/120—will become outdated in the future.³⁷⁶

(2) Using a “negative list” approach (versus a positive list approach). Under this approach, all telecom services would be subject to market access and national treatment commitments, except for those services that are specifically listed as *not* being subject to specific commitments. A negative list approach has been used in some bilateral and

³⁷³ See e.g., GATS Council-Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: The WTO’s Role in Accelerating the Development of a Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000); GATS Council-Special Session, Communication from Switzerland, *GATS 2000: Telecommunications*, S/CSS/W/72 (4 May 2001).

³⁷⁴ See United Nations Statistical Commission, *Central Product Classification List Version 1.1*, DRAFT ESA/STAT/SER.M/77/Ver.1.1 (updated 21 Feb. 2002) at p. viii (explaining that: “The Central Product Classification (CPC) constitutes a complete product classification covering goods and services. It was intended to serve as an international standard for assembling and tabulating all kinds of data requiring product detail including industrial production, national accounts, service industries, domestic and foreign commodity trade, international trade in services, balance of payments, consumption and price statistics. Other basic aims were to provide a framework for international comparison and promote harmonization of various types of statistics dealing with goods and services.”)

³⁷⁵ *Id.* (explaining that: “The first version of the . . . CPC, the Provisional Central Product Classification was published in 1990. This version was superseded by the Central Product Classification Version 1.0, published in 1998. Then, particular attention was paid to the elaboration of the services part of the classification. This newly revised Central Product Classification Version 1.1 represents a further update to the CPC. The development of this new version is intended to incorporate modifications due to recent changes in economies worldwide and sustained technological advancement in the period since the development of CPC Version 1.0).

³⁷⁶ See *Secretariat Note on Telecommunications Services*, S/C/W/74 at para. 10 (noting that “rapid changes in the sector mean not only that the existing GATS classification of telecom services is inadequate, but also that any other list that might be devised could become quickly out of date.”)

regional free trade agreements covering services and would prevent Members' schedules from becoming outdated. However, a negative list approach was not used in the Uruguay Round and has been rejected as an approach for the Doha negotiations.³⁷⁷

(3) Making full commitments and reading commitments flexibly. By making full commitments for all services subsectors included in W/120 and reading commitments in a manner that incorporates technological change, Members can maintain full coverage of telecom services as technological developments lead to new services.³⁷⁸

(4) Codifying understandings on scope through the negotiations. It also may be possible for Members, through the course of their bilateral request/offer process and their work as a whole in the GATS Committee meeting in Special Session, to establish understandings on the scope of existing and newly-made commitments on telecommunications services. These understandings could then be "codified" through a Chairman's note or similar vehicle, as was done during the negotiations on basic telecommunications.³⁷⁹

- Classification of Internet Access Services

252. A third classification issue that could be addressed in the negotiations is the classification of "Internet access services" as a basic or value added service.³⁸⁰ In the WTO Work Programme on E-commerce, Members addressed questions regarding whether and where Internet access services are included in telecom commitments. These questions remain unanswered.

253. According to the WTO Secretariat, ten Members made explicit commitments to liberalize "Internet access services" in the Uruguay Round and post-Uruguay Round negotiations on

³⁷⁷ The *Services Negotiations Guidelines* specify that the negotiations shall take place within and shall respect the existing structure and principle of the GATS, including the right to specify sectors in which commitments will be undertaken and the four modes of supply." Para 4.

³⁷⁸ See GATS Council-Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: the WTO's Role in Accelerating the Development of A Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000) at para. 14 (proposing that current services classification categories "adequately [capture] Internet-based services" and "obviates the need for Members to constantly update the nomenclature to take into account the rapid evolution of services that appear new").

³⁷⁹ Group on Basic Telecommunications, Note by the Chairman, *Notes for Scheduling Basic Telecom Services Commitments*, S/GBT/W/2/Rev.1 (16 Jan. 1997) (explaining the negotiators' understanding that "Unless otherwise indicated in the sector column, any basic telecom service listed in the sector column: (a) encompasses local, long distance and international services for public and non-public use; (b) may be provided on a facilities-basis or by resale; and (c) may be provided through any means of technology (e.g., cable, . . . wireless, satellites)."
See also Group on Basic Telecommunications, Chairman's Note, *Market Access Limitations on Spectrum Availability*, S/GBT/W/3 (3 Feb. 1997) (confirming each Members' right to exercise spectrum/frequency management whether or not specified in the market access column (column 2) of their schedules).

³⁸⁰ The term "Internet access services" in this papers refers to both retail and wholesale services. At the retail level, a variety of local "mom n' pop," regional, or national service suppliers provide Internet connectivity to individuals and enterprises. At the wholesale level, the suppliers are large regional, national, and international companies that trade and interconnect Internet traffic among themselves. The largest of these wholesale Internet access providers are sometimes referred to as "Tier 1" or "backbone" providers.

telecommunications services.³⁸¹ In the Secretariat's opinion, Internet access services would be liberalized in markets where Members have made full telecom commitments even if "Internet access services" are not specified in the Members' schedules.³⁸² However, "explicit commitments are clearly necessary where monopoly or other access limitations apply to most telecom services."³⁸³ The Secretariat recommended, therefore, that "Members may wish to consider whether, possibly in the context of the next Round, it would be desirable to make more explicit commitments on Internet access."

³⁸¹ GATS Council, Note by the Secretariat, *The Work Programme on Electronic Commerce*, S/C/W/68 (16 Nov. 1998) at para. 28.

³⁸² *Id.*

³⁸³ *Id.*

**Table 22:
Comparison of W/120 and Central Product Classification Lists**

<i>W/120</i>	<i>PROVISIONAL CPC</i>	<i>CPCI.1</i>
C. Telecommunication Services	Division 75 Post and Telecommunication Services	Division 84 Telecommunications services; information retrieval and supply services
a. Voice telephone services 7521	752 Telecommunications services	841 Telecommunications and program distribution services
b. Packet-switched data transmission services 7523**	7521 Public telephone services	8411 Carrier services
c. Circuit-switched data transmission services 7523**	75211 Public local telephone services	8412 Fixed telephony services
d. Telex services 7523**	75212 Public long distance telephone services	84121 Fixed telephony services - Access and use
e. Telegraph services 7522	75213 Mobile telephone services	84122 Fixed telephony services - Calling features
f. Facsimile services 7521**+ 7529**	7522 Business network services	8413 Mobile telecommunications services
g. Private leased circuit services 7522**+7523**	75221 Shared network services	84131 Mobile telecommunications services—Access and use
h. Electronic mail 7523**	75222 Dedicated network services	84132 Mobile Telecommunications services—Calling features
i. Voice mail 7523**	7529 Other telecommunications services	8414 Private network services
j. On-line information and data base retrieval 7523**	75291 Paging services	8415 Data transmission services
k. Electronic data interchange (EDI) 7523**	75292 Teleconferencing services	8416 All other telecommunications services
l. Enhanced/value-added facsimile services, incl. store and forward, store and retrieve 7523**	75299 Other telecommunications services not elsewhere classified.	8417 Program distribution services
m. Code and protocol		
n. Online information and/or data processing (incl. transaction processing)		
o. Other	7523 Data and message transmission services	842 Internet telecommunications services
	75231 Data network services	8421 Internet backbone services
	75232 Electronic message and information services	
		843 Data processing services

Source: *Services Sectoral Classification List*, MTN.GNS/W/120 at pp. 3-4; United Nations, Department of International Economic and Social Affairs, *Provisional Central Product Classification List*, ST/ESA/STAT/SER.M/77 (1991); United Nations Statistical Commission, *Central Product Classification List Version 1.1*, DRAFT ESA/STAT/SER.M/77/Ver.1.1 (updated 21 Feb. 2002).

254. In the WTO's Work Programme on E-commerce, Members disagreed on whether Internet access services should be classified as basic or value-added telecommunications services.³⁸⁴ The distinction is important to understand how Internet access services are affected by the Reference Paper and Annex on Telecommunications.

255. The Reference Paper applies to Internet access or other Internet-related services only if they are basic telecommunications services. If Internet access services are classified as basic telecommunications services, a Member who has adopted the Reference Paper would have to maintain appropriate measures to ensure that Internet access providers do not act in an anti-competitive manner, including, for example, ensuring interconnection between smaller ISPs to larger ISPs who could be classified as "major suppliers" at any technically feasible point in the network under non-discriminatory terms, conditions and rates.³⁸⁵

256. The Annex on Telecommunications guarantees access to a Member's public telecommunications network for those services that the Member has made a commitment to liberalize. Thus, it is important to know whether "Internet access services" could be considered: (1) a public telecommunications network to which members must provide non-discriminatory access pursuant to the Annex regardless of whether they have scheduled any specific commitment covering "Internet access services;" or (2) a service for which a specific commitment must be made to take advantage of the obligations under the Annex.³⁸⁶

257. Some Members (e.g., Australia and the EC) have indicated that Internet access services are basic telecommunication services, which means that the Reference Paper would impose obligations on Members to provide access to those services.³⁸⁷ In contrast, the United States

³⁸⁴ See GATS Council, Interim Report to the General Council, *Work Programme on Electronic Commerce*, S/C/8 (31 Mar. 1999) at pp. 8-9.

³⁸⁵ See Reference Paper at para. 2.2. Several developing countries have raised the cost of interconnection among Internet service providers as an issue they would like to address in the negotiations. See e.g., GATS Council-Special Session, Communication from Colombia, *Telecommunications Services*, S/CSS/W/119 (27 Nov. 2001) at para. 6 (explaining that "the barriers of access to the Internet should be eliminated, including the high costs incurred by national Internet Service Providers for connection to the international networks"); and GATS Council-Special Session, Communication from Mexico, *Telecommunications Services*, S/CSS/W/101 (10 July 2001) at para. 8(v) (proposing that "Members will have to devise principles for developing international Internet networks . . . such as the APEC principles on "International Charging Arrangements for Internet Services").

³⁸⁶ GATS Council, Interim Report to the General Council, *Work Programme on Electronic Commerce*, S/C/8 (31 Mar. 1999); GATS Council, *Progress Report to the General Council, Work Programme on Electronic Commerce*, S/L/74 (27 July 1999); GATS Council, Interim Report to the General Council, *Work Programme on Electronic Commerce*, S/C/8 (31 Mar. 1999).

³⁸⁷ See e.g., GATS Council, Communication from Australia, *Work Programme on Electronic Commerce*, S/C/W/108 (18 May 1999) at para. 18; GATS Council, Communication from the European Communities and Their Member States, *Electronic Commerce Work Programme*, S/C/W/183 (30 Nov. 2000) at para. 6(b); GATS Council-

would prefer to classify Internet access services as value-added because it views “the general non-regulatory approach to the Internet and other value-added services in most countries [as] . . . a boon to their responsiveness and growth.”³⁸⁸ Whereas the United States government and industry do see the need to protect Internet service providers from dominant operators via fair and non-discriminatory access to the underlying telecommunications infrastructure, they do not see the need to extend the provisions of the Reference Paper on interconnection to the Internet or to major suppliers of Internet access and network services. Rather they suspect that WTO Members that argue in favour for the basic telecommunication classification are interested in increasing regulation of the “Internet backbone.”³⁸⁹

258. Members concluded in the WTO Work Programme on E-commerce that the Annex on Telecommunications “applies to access to and use of the Internet network when it is defined in a Member’s regulatory system as a public telecommunications transport services and/or network.”³⁹⁰ When it is not so defined, Members did not agree whether the Annex guarantees access to Internet service providers’ networks and services to other service types of service suppliers. A key question in resolving this issue is whether Internet networks and services can be considered “public” networks where the Internet is literally a network of both public and private networks.³⁹¹

259. Underlying these questions of whether and how to classify Internet access services—as basic or value-added services—is the question of what types of competitive safeguards should apply to Internet access services in order to promote e-commerce. The Doha negotiations provide the opportunity to address this issue, either within the context of the existing Annex and Reference Paper, or possibly through some other instruments.

c. Developing Disciplines on the Regulation of Telecommunications Services

260. There are several GATS mechanisms that directly influence members’ regulation of the telecommunications sector: (1) GATS Article VI, a general obligation regarding domestic regulation; (2) the Annex on Telecommunications, a general obligation regarding access to public telecommunications networks; (3) specific commitments to provide market access (Art. XIV) and national treatment (Art. XVII); and (4) the Reference Paper, specific commitments to be applied to major suppliers of basic telecommunications services. Several delegations have

Special Session, Communication from Australia, *Negotiating Proposal on Telecommunication Services*, S/CSS/W/17 (5 Dec. 2000) at para. 12.

³⁸⁸ GATS Council-Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: The WTO’s Role in Accelerating the Development of a Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000) at para. 13.

³⁸⁹ Harris (1999).

³⁹⁰ GATS Council, Progress Report to the General Council, *Work Programme on Electronic Commerce*, S/L/74 (27 July 1999) at para. 19.

³⁹¹ *Id.* at paras. 20-21.

made proposals introducing the idea of using or amending these mechanisms to further develop the regulatory framework in which telecommunications commitments are made.

- Article VI - Australia has proposed the development of rules under GATS Article VI governing licensing requirements and technical standards that would apply to the telecom sector.³⁹² The United States has stressed that Members should avoid unnecessary restrictions on services offered by value-added services suppliers, consistent with GATS Article VI.³⁹³
- Annex on Telecommunications - Colombia has proposed that some principles in the Reference Paper, such as competition safeguards, universal service, the public availability of the procedures for interconnections negotiation, transparency of the interconnection arrangements, the public availability of licensing criteria, and the allocation and use of scarce resources, be included in the Annex on Telecommunications.³⁹⁴
- Reference Paper - Australia has proposed that the Reference Paper be strengthened by clarifying of its provisions on competitive safeguards (Article 1), interconnection (Article 2), transparency (Articles 2 and 4), the independence of regulators (Article 5), and the allocation of scarce resources (Article 6).³⁹⁵

261. The United States' initial offer³⁹⁶ proposes that the U.S. is willing to commit to several regulatory principles that exceed its current specific commitments under the Reference Paper, provided that other Members undertake equivalent obligations to:

- Maintain an absence of national government ownership in public telecommunications service suppliers;³⁹⁷
- Maintain a national telecommunications regulatory body independent of executive and legislative branches, which is required to employ transparent procedures in developing rules (including notice and comment) and is empowered to enforce regulations through sanctions, including fines and revocation of licenses; and permit licensed suppliers of

³⁹² GATS Council-Special Session, Communication from Australia, *Negotiating Proposal on Telecommunication Services*, S/CSS/W/17 (5 Dec. 2000) at para. 16.

³⁹³ GATS Council-Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: The WTO's Role in Accelerating the Development of a Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000) at para. 1.

³⁹⁴ GATS Council-Special Session, Communication from Colombia, *Telecommunications Services*, S/CSS/W/119 (27 Nov. 2001) at para. 8.

³⁹⁵ GATS Council-Special Session, Communication from Australia, *Negotiating Proposal on Telecommunication Services*, S/CSS/W/17 (5 Dec. 2000) at paras. 2-7. Australia has not specified how the Reference Paper should be clarified and has been careful to say that it does not want to re-open the Reference Paper. See Bronckers & Larouche (1997).

³⁹⁶ See United States, *Initial Offer* at pp. 47-49, www.ustr.gov/sectors/services/2003-03-31-consolidated_offer.pdf (visited 19 Sept. 2003).

³⁹⁷ See GATS Council-Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: The WTO's Role in Accelerating the Development of a Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000).

basic telecommunications services choice of technology used in the supply of services, subject to requirements necessary to fulfill legitimate public policy objectives.

- Require local exchange carriers, under certain circumstances, to provide dialing parity;
- Maintain measures prohibiting local exchange carriers from imposing unreasonable or discriminatory conditions or limitations on the resale of public telecommunications services;
- Ensure that local exchange carriers provide number portability where technically feasible; and
- Ensure that local exchange carriers provide access to poles, ducts, conduits and rights of way at just and reasonable rates and on non-discriminatory terms and conditions to competing basic public telecommunications service suppliers.

262. This U.S. offer is conditioned on other WTO Members entering into similar commitments and will, no doubt, be discussed during the bilateral request/offer process as well telecom-related discussions in the Council for Trade in Services.

d. Development-Related Negotiations Issues

263. Some Members' services negotiating submissions have addressed development-related issues directly related to the liberalization of telecommunication services.

264. For example, Cuba calls for "an assessment of the impact of the GATS in strengthening the capacity of developing countries to provide telecommunications services through better access to technology, distribution channels and information networks." Cuba contends that telecom liberalization has failed to resolve the telecommunications needs of many developing countries. Cuba focuses specifically on the need to regulate the telecom sector once privatized to "ensure harmonious national development" and to maintain the GATS understanding that accounting rates are not subject to MFN challenge.³⁹⁸ Mexico joins Cuba in linking the assessment on trade in services to the negotiations on specific commitments so that developing countries can make informed decisions about their market access opportunities and national development needs and considering the understanding on accounting rates to be in force.³⁹⁹

265. Colombia points out that more developing countries would improve market access for telecommunications services if they received improved market access for sectors of interest to

³⁹⁸ GATS Council, Communication from Cuba, *Negotiating Proposal on Telecommunications Services*, TN/S/W/2 (30 May 2002) at paras. 3, 7, 9-10.

³⁹⁹ GATS Council-Special Session, Communication from Mexico, *Telecommunications Services*, S/CSS/W/101 (10 July 2001) at paras. 8(ii) and (iii).

them. Columbia also calls for the elimination of barriers to Internet access, including the high interconnection charges that Internet service providers charge for connection to international networks.⁴⁰⁰ Similarly, Mexico calls for the development of principles, including Internet interconnection principles (i.e., "International Charging Arrangements for Internet Services"), to facilitate the use of Internet networks for economic development.⁴⁰¹

B. Conclusion

266. The Doha negotiations provide the opportunity to: (1) improve specific commitments to liberalize trade in telecommunications services; (2) clarify the scope and coverage of specific commitments given the convergence of and development of new telecom services with computer and related services as well as audio-visual services; (3) further develop disciplines embodied in the Annex on Telecommunications and the Reference Paper on pro-competitive regulation of telecom services; (4) develop disciplines under GATS Article VI on other forms of domestic regulation of telecom services; and (4) address development-related issues such as linking the assessment on trade in services to the negotiation of specific commitments that would assist developing countries in benefiting from telecom liberalization. Although it is too early in the negotiating process to determine how much progress may be made on these issues, it is certainly not too early for WTO Members to recognize the opportunity that the Doha negotiations present and too work towards their resolution in the bilateral request/offer process as well as broader work in the Committee on Trade in Services.

⁴⁰⁰ GATS Council-Special Session, Communication from Colombia, *Telecommunications Services*, S/CSS/W/119 (27 Nov. 2001) at paras. 5-6.

⁴⁰¹ GATS Council-Special Session, Communication from Mexico, *Telecommunications Services*, S/CSS/W/101 (10 July 2001) at para. 8(v).

C. Computer and Related Services

267. As with telecommunications services, the General Agreement on Trade in Services is the WTO instrument governing trade in computer and related services. Accordingly, all WTO Members must assume the general obligations under GATS Part II (e.g., MFN and transparency) for *all* computer and related services and may volunteer under GATS Part III to undertake specific commitments for *selected* services.

1. Uruguay Round Negotiations on Computer and Related Services

268. During the Uruguay Round, the negotiators used the Services Sectoral Classification List, or W/120, to develop their offers and requests for computer and related services. (See Section V.A above regarding scheduling of services). “Business Services” is one of the twelve services sectors listed in W/120 and this sector is further subdivided into six subsectors: Professional Services, Computer and Related Services, Research and Development Services, Real Estate Services, Rental/Leasing Services without Operators, and Other Business Services. (See Table 10 above). “Computer and Related Services” is further subdivided into five subsectors. (See Table 23 below). The same classifications are being used in the Doha negotiations.

269. In contrast to the negotiations on telecommunications, the negotiations on computer and related services were completed during the Uruguay Round (except for subsequently acceding Members) and did not generate either a sector-specific annex or specific commitments. This is because computer services, at the time of the negotiations, generally operated in a low-regulation/low-trade barrier environment with no state-sponsored or government-owned monopolies.⁴⁰²

⁴⁰² According to the WTO Secretariat, “The fact that computer and related services face little or no sector-specific regulation, does not mean that government policies and practices lack significance for the sector. On the contrary, a variety of government measures have an effect on the growth and development of these services . . . [including] labour policies (work permits/visas, education and training), research and development support, protection of intellectual property rights to address software piracy, technical standards, tariffs on computer equipment, and government procurement of information services. . . . It is probably true that efforts to improve global market access for computer and related services will hinge less on traditional or regulatory barriers, than on consideration of a diverse range of public policy issues.” GATS Council, Background Note by the Secretariat, *Computer and Related Services*, S/C/W/45 (14 July 1998) at para. 27 [*Secretariat Note on Computer Services*].

2. The Doha Development Agenda and Computer and Related Services

270. WTO Members have filed a number of submissions regarding the classification of computer and related services and their further liberalization.⁴⁰³ Five members have filed submissions dedicated to computer and related services as part of the Doha negotiations,⁴⁰⁴ two have filed submissions in the GATS Council Committee on Specific Commitments,⁴⁰⁵ and others have filed submissions as part of the GATS Council's "Information Exchange Programme" related to the Council's assessment of trade in services.⁴⁰⁶ These submissions indicate the primary focus of the services negotiations will be on: (1) improving specific commitments to further liberalize computer and related services; (2) classification of these services; and (3) development-related issues.

⁴⁰³ The great interest in computer services is corroborated by the existence of a Geneva-based "Friends Group" that meets periodically in Geneva to discuss trade issues related to this sector.

⁴⁰⁴ GATS Council—Special Session, Communication from Canada, *Initial Negotiating Proposal on Computer and Related Services*, S/CSS/W/56 (14 Mar. 2001); GATS Council—Special Session, Communication from MERCOSUR, *Computer and Related Services*, S/CSS/W/95 (9 July 2001); GATS Council—Special Session, Communication from Costa Rica, *Computer and Related Services*, S/CSS/W/129 (30 Nov. 2001); GATS Council—Special Session, Communication from India, *Negotiating Proposal on Computer and Related Services*, S/CSS/W/141 (22 Mar. 2002); and GATS Council—Special Session, Communication from the EC and Their Member States, *GATS 2000: Computer and Related Services (CPC 84) – Addendum*, S/CSS/W/34/Add.1 (15 July 2002). Other Members have included computer and related services in general services submissions. See e.g., GATS Council—Special Session, Communication from Japan, *The Negotiations on Trade in Services*, S/CSS/W/42 (22 Dec. 2000) at paras. 30-31; GATS Council—Special Session, Communication from Norway, *The Negotiations on Trade in Services*, S/CSS/W/59 (21 Mar. 2001) at paras. 17-21; and GATS Council—Special Session, Communication from Colombia, *Proposal for the Negotiations on the Provisions of Services Through Movement of Natural Persons*, S/CSS/W/97 (9 July 2001) at para. 6.

⁴⁰⁵ GATS Council-Committee on Specific Commitments, Communication from the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, *Computer and Related Services*, S/CSC/W/37 (8 Jan. 2003); and GATS Council-Committee on Specific Commitments, Communication from the EC and their Member States, *Computer and Related Services*, S/CSC/W/35 (24 Oct. 2002).

⁴⁰⁶ See e.g., GATS Council, Communication from the United States, *Computer and Related Services*, S/C/W/81 (9 Dec. 1998). The United States also addresses computer and related services in its negotiating submission on telecommunications. See GATS Council—Special Session, Communication from the United States, *Market Access in Telecommunications and Complementary Services: Market Access in Telecommunications and Complementary Services: The WTO's Role in Accelerating the Development of a Globally Networked Economy*, S/CSS/W/30 (18 Dec. 2000).

Table 23:
W/120 Classification of Computer and Related Services

W/120	<i>UNCPC Description—Division 84 Computer and Related Services</i>
I. Business Services	Section 8—Business Services
B. Computer and Related Services	Division 84—Computer and Related Services
a. Consultancy services related to the installation of computer hardware 841	841 <u>Consultancy services related to the installation of computer hardware</u> : Assistance services to clients in the installation of computer hardware (i.e. physical equipment) and computer networks.
b. Software implementation services 842	842 <u>Software implementation services</u> : All services involving consultancy services on, development and implementation of “software,” defined as “the sets of instructions required to make computers work and communicate” and includes application software, packaged software, and customized software. 8421 <u>Systems and software consulting services</u> : Services of a general nature prior to the development of data processing systems and applications, including management services, project planning services, etc. 8422 <u>Systems analysis services</u> : Includes analysis of clients’ needs, defining functional specifications, setting up the team, project management, technical coordination and integration, and definition of systems architecture. 8423 <u>Systems design services</u> : Includes technical solutions, with respect to the methodology, quality-assessment, choice of equipment software packages, or new technologies, etc. 8424 <u>Programming services</u> : Includes the implementation phase, i.e. writing and debugging, conducting tests, and editing documentation. 8425 <u>Systems maintenance services</u> : Includes consulting and technical assistance services of software use, rewriting or changing existing programmes or systems, and maintaining up-to-date documentation and manuals, and specialists work on conversions, etc.
c. Data processing services 843	843 <u>Data processing services</u> : 8431 <u>Input preparation services</u> : Data recording services such as key punching, optical scanning, or other methods for data entry. 8432 <u>Data-processing and tabulation services</u> : Includes data processing and tabulation services, computer calculating services, and rental of computer time. 8433 <u>Time-sharing services</u> : Same type of services as 8432. 8439 <u>Other data processing services</u> : Services which manage the full operations of a customer's facilities under contract: computer-room environmental quality control services; management services of in-place computer equipment combinations; and management services of computer work flows and distributions.
d. Data base services 844	844 <u>Data base services</u> : All services provided from primarily structured databases through a communication network, excluding “data and message transmission services” (e.g. network operation services added to network services which it classifies under telecommunications services) classified as Provisional CPC 7523 and documentation services (consisting of information retrieval from databases classified as “library services” under Provisional CPC 96311).
e. Other 845+849	845 <u>Maintenance and repair services of office machinery and equipment, including computers</u> : <u>Other computer services</u> : <u>Data preparation services</u> : Data preparation services for clients not involving data processing services. <u>Other computer services not elsewhere classified</u> : Includes training services for staff of clients and other professional computer services.

Source: *Secretariat Note on Computer and Related Services, S/C/W/45* at Fig. 1; *Services Sectoral Classification List, MTN.GNS/W/120* at p. 1; *Detailed Structure and Explanatory Notes for Provisional CPC 84*, <http://unstats.un.org/unsd/cr/registry/regcs.asp?Cl=9&Lg=1&Co=84>. The numbers in column one correspond to the Provisional CPC.

a. Improving Specific Commitments

271. The WTO Secretariat analysis of Uruguay Round commitments on computer and related services found that sixty-two schedules (counting the EC and its members States as one) contained specific commitments on computer and related services.⁴⁰⁷ The percentage of full mode 1 commitments is relatively high at 60-63 percent and higher still for consumption abroad at 70-76 percent.⁴⁰⁸ The level of commitments for commercial presence and movement of natural persons are less liberal. Although the percentage of full commitments for commercial presence is 68-77 percent, this falls to 29-33 percent when horizontal limitations on mode 3 are taken into account (e.g., restrictions on the level of participation of foreign equity and limitations on the type of legal entity required).⁴⁰⁹ The percentage of full commitments on market access for presence of natural persons—mode 4—is very low at 4-7 percent, falling to 2 percent when horizontal exemptions are factored in.⁴¹⁰ (See Table 24 below analyzing the structure of WTO Members' computer and related services commitments).

272. For modes 1, 2, and 3, developing countries have far fewer commitments than developed countries. Developed country WTO Members generally have committed the sector to its fullest extent (with the exception of the category “e. Other computer and related services”). Developing countries have tended to enter partial commitments or leave the sector unbound.⁴¹¹

273. The current commitment level shows that there is still room for progressively higher levels of liberalization in the computer and related services sector, particularly mode 4. And all submissions - from both developing and developed WTO Members - stress the importance of further liberalization in this sector. Canada, for example, seeks new commitments on computer and related services and the elimination of existing limitations on cross-border supply and commercial presence.⁴¹² Costa Rica seeks specific commitments for all modes of supply, including movement of natural persons, and the removal of all limitations, including three specific types of restrictions that its software producers face: discriminatory tax treatment for foreigners; excessive capital transfer or repatriation taxes; and restrictions or excessive requirements for temporary entry and exit of specialized personnel.⁴¹³ The European Commission is proposing that Members make commitments at the two-digit level of the CPC

⁴⁰⁷ Secretariat Note on Computer Services, S/C/W/45 at para. 34.

⁴⁰⁸ *Id.* at para. 34 and Table 5. The fact that the percentage of full mode 2 commitments does not significantly outweigh the percentage of full mode 1 commitments suggests that the mode 1 versus mode 2 classification issue is not too relevant for this sector.

⁴⁰⁹ *Id.* at paras. 34-35.

⁴¹⁰ *Id.*

⁴¹¹ OECD (2000a). Countries that have left the computer and related services sector unbound include: Brazil, Chile, India, Egypt, Thailand, Morocco.

⁴¹² GATS Council-Special Session, Communication from Canada, *Initial Negotiating Proposal on Computer and Related Services*, S/CSS/W/56 (14 Mar. 2001).

⁴¹³ GATS Council-Special Session, Communication from Costa Rica, *Computer and Related Services*, S/CSS/W/129 (30 Nov. 2001).

and for both modes 1 and 2 to ensure full coverage of the sector.⁴¹⁴ MERCOSUR also raises concerns about qualification requirements and procedures, licensing requirements, and technical standards that can constitute significant barriers to trade, particularly in modes 3 and 4.⁴¹⁵

Table 24:
Commitments for Computer and Related Services

<i>Computer and Related Services</i>				
	<i>Total</i>	<i>Full</i>	<i>Market Access Partial</i>	<i>Unbound</i>
Consultancy related to the installation of computer hardware	52	M1-63% M2-73% M3-77%	M1-13% M2-12% M3-21%	M1-23% M2-15% M3-02%
Software implementation services	57	M1-60% M2-70% M3-68%	M1-21% M2-19% M3-11%	M1-19% M2-11% M3-02%
Data processing services	55	M1-60% M2-71% M3-69%	M1-20% M2-18% M3-29%	M1-20% M2-11% M3-02%
Data base services	49	M1-63% M2-76% M3-71%	M1-14% M2-14% M3-27%	M1-22% M2-10% M3-02%
Other	30	M1-53% M2-57% M3-53%	M1-40% M2-37% M3-47%	M1-07% M2-07% M3-00%

Source: *Secretariat Note on Computer and Related Services, S/C/W/45* at Table 5. “Total” refers to the number of members making commitments in modes 1, 2, and 3. “M1” refers to mode 1 (cross-border), “M2” to mode 2 (consumption abroad), and “M3” to mode 3 (commercial presence). “Partial” refers to partial commitments and includes not only sector-specific limitations but also horizontal limitations.

b. Classification of Computer and Related Services

274. Members have been discussing whether and how to improve the classification of computer and related services almost since the entry into force of their Uruguay Round commitments. In 1996, the GATS Council Committee on Specific Commitments asked the

⁴¹⁴ GATS Council–Special Session, Communication from the EC and Their Member States, *GATS 2000: Computer and Related Services (CPC 84) – Addendum, S/CSS/W/34/Add.1* (15 July 2002).

⁴¹⁵ GATS Council–Special Session, Communication from MERCOSUR, *Computer and Related Services, S/CSS/W/95* (9 July 2001) at para. 7.

Secretariat to analyze changes in the CPC.⁴¹⁶ The Secretariat reported back in 1998 with a detailed comparison of the Provisional CPC on which W/120 was based and the newly adopted revised CPC, version 1.1.⁴¹⁷

275. That same year, in a background note prepared on computer and related services for the Information Exchange Programme, the Secretariat explained that there are two issues with respect to classification worth noting: “the relationship of activities under this sub-sector to telecommunications services and their relationship to the creation and supply of computer software.”⁴¹⁸ In addressing these questions, the Secretariat proposed that there was “considerable overlap” between computer services and telecommunications services and that computer software was not covered in the existing classification scheme.⁴¹⁹

276. The United States then submitted a paper for the Information Exchange Programme discussing the growth, outlook, and benefits and computer services liberalization.⁴²⁰ The U.S. disagreed with the Secretariat’s conclusion on coverage of computer software and proposed that: “The coverage of W/120 with respect to computer and related services should be further examined and discussed to see whether and what changes are necessary to reflect the current nature of business activity in the sector, while not diminishing the value of any commitments already made by WTO Members.”⁴²¹

277. Several Members that have submitted sector-specific negotiating proposals on computer and related services have indicated the need to address classification issues arising because of: (1) the convergence of telecommunications, computer, and audiovisual services; (2) the development of new services; and (3) coverage of software itself.⁴²² (See Section VIII below for

⁴¹⁶ GATS Council–Committee on Specific Commitments, Note by the Secretariat, *A Detailed Analysis of the Modifications Brought About by the Revision of the Central Product Classification*, S/CSC/W/16/Add.9 (27 Mar. 1998) at para. 1 (referring to the October 1996 request of the Committee to inform it “in the near future of any proposed changes to the CPC which could be of interest in the Committee’s deliberations”). The Committee on Specific Commitments is a “subsidiary body” to the GATS Council and is responsible for addressing questions relating to the scheduling of specific commitments and classification of services.

⁴¹⁷ *Id.* In CPC 1.1, Division 84 has completely disappeared and its content redistributed into several new divisions: 83 “Other professional, scientific and technical services;” 84 “Telecommunications services; Information retrieval and supply services;” 85 “Support services;” 87 “Production services, on a fee or contract basis.” United Nations Statistical Commission, *Central Product Classification List Version 1.1*, DRAFT ESA/STAT/SER.M/77/Ver.1.1 (updated 21 Feb. 2002).

⁴¹⁸ *Secretariat Note on Computer and Related Services*, S/C/W/45 at para. 7.

⁴¹⁹ *Id.* at paras. 8-9.

⁴²⁰ GATS Council, Communication from the United States, *Computer and Related Services*, S/C/W/81 (9 Dec. 1998).

⁴²¹ *Id.* at paras. 4 and 7.

⁴²² GATS Council–Special Session, Communication from Canada, *Initial Negotiating Proposal on Computer and Related Services*, S/CSS/W/56 (14 Mar. 2001) at para. 5 (proposing that WTO Members “examine how we can achieve greater clarity . . . for example with respect to whether certain electronically-delivered services should fall under computer and related services or telecommunications services”); GATS Council–Special Session, Communication from Costa Rica, *Computer and Related Services*, S/CSS/W/120 (30 Nov. 2001) at para. 11 (proposing that “[I]n the course of negotiations, the classification should be reviewed in order to determine whether it corresponds to the progress made in the sector”); and GATS Council–Special Session, Communication from the European Communities and Their Member States, *GATS 2000: Computer and Related Services (CPC 84): Addendum*, S/CSS/W/34/Add.1 (15 July 2002) at paras. 6-11 (noting the need to address “so-called” new services).

a discussion of software). Notably, Members have stressed that this work should be done without diminishing the value of any existing commitments.⁴²³

278. The Committee on Specific Commitments has discussed the classification of computer services in response to submissions from the European Communities and Taiwan.⁴²⁴

279. The EC submission was prompted by the “speed of technological development” which makes it increasingly difficult to distinguish between those services that are covered by CPC 84 and those that are not. The EC seeks to distinguish between those computer services that “enable” other services (e.g., web hosting or application hosting), and hence should be covered by CPC 84 commitments, and those that are “the content or core service” (e.g., banking) that is being delivered electronically and are covered by other commitments. The EC is not seeking a new list of services that elaborates on CPC 84, but rather a “functional” definition, embodied in an “Understanding” inscribed in Members’ schedules.⁴²⁵ (See Table 25 below for a draft of the Understanding). Some WTO Members have difficulty with this proposal because of the limited number of and significant limitations on specific commitments for core services such as audiovisual services.

280. The Taiwanese submission addresses the related concern of the “broad” and “overlapping” coverage of CPC 84. To ensure that the broad array of services that CPC 84 covers are in fact liberalized, Taiwan proposes that computer services be classified at the two digit versus three digit level. To address the overlap between CPC 84 and other services commitments, Taiwan proposes a “value chain” that distinguishes between services at four stages: the pre-implementation stage, the implementation stage, the operations stage, and the maintenance and support stage. The outsourcing of services at any stage would be covered by CPC 84, but not self-provisioning. Taiwan also proposes that certain convergence services (e.g., internet-based telecom services and the delivery of multimedia content) should be covered by the telecom and audio-visual sectors, not computer services. (See Table 26 below for a summary of the value chain).⁴²⁶

281. At this point in the GATS Council’s work on classification of computer and related services, there is basically a consensus that there needs to be a common understanding on the scope of definition of computer and related services is needed. This could occur either through the work of the Committee on Specific Commitments or through the GATS Council meeting in Special Session for the negotiations and, in either case, will be influenced by Members’ negotiations. In the interim, there could also be a dispute settlement case that tests the scope of CPC 84.

⁴²³ See e.g., *id.* at para. 7.

⁴²⁴ GATS Council-Committee on Specific Commitments, Communication from the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu, *Computer and Related Services*, S/CSC/W/37 (8 Jan. 2003).

⁴²⁵ GATS Council-Committee on Specific Commitments, Communication from the European Communities and Their Member States, *GATS 2000: Computer and Related Services*, S/CSS/W/35 (24 Oct. 2002).

⁴²⁶ GATS Council-Committee on Specific Commitments, Communication from the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu, *Computer and Related Services*, S/CSC/W/37 (8 Jan. 2003).

Table 25:
EC Proposal for An “Understanding” on the Scope of CPC 84

<i>EC Draft Understanding on CPC 84</i>	
Functional Description	CPC 84 covers the basic functions used to provide all computer and related services: computer programs defined as the sets of instructions required to make computers work and communicate (including their development and implementation), data processing and storage, and related services, such as consultancy and training services for staff of clients. Technological developments have led to the increased offering of these services as a bundle or package of related services that can include some or all of these basic functions. For example, services such as web or domain hosting, data mining services and grid computing each consist of a combination of basic computer services functions.
Services Covered	Computer and related services, regardless of whether they are delivered via a network, including the Internet, include all services that provide: consulting, strategy, analysis, planning, specification, design, development, installation, implementation, integration, testing, debugging, updating, support, technical assistance, or management of or for computers or computer systems; or computer programs defined as the sets of instructions required to make computers work and communicate (in and of themselves), plus consulting, strategy, analysis, planning, specification, design, development, installation, implementation, integration, testing, debugging, updating, adaptation, maintenance, support, technical assistance, management or use of or for computer programs; or data processing, data storage, data hosting or database services; or maintenance and repair services for office machinery and equipment, including computers; or training services for staff of clients, related to computer programs, computers or computer systems, and not elsewhere classified.
Services Not Covered	Computer and related services enable the provision of other services (e.g., banking) by both electronic and other means. However, there is an important distinction between the enabling service (e.g., web-hosting or application hosting) and the content or core service that is being delivered electronically (e.g., banking). In such cases, the content or core service is not covered by CPC 84.

Source: GATS Council—Committee on Specific Commitments, Communication from the European Communities and Their Member States, *GATS 2000: Computer and Related Services*, S/CSS/W/35 (24 Oct. 2002) at paras. 7-9.

Table 26:
Taiwan’s Proposal for a “Value Chain”

<i>Computer Services Value Chain Stages</i>	
Pre-Implementation Stage	The services provided in this stage mainly include consultancy services that can be classified within the scope of W/120 1.B.a and 1.B.b. (CPC 841+842). Even though it is necessary to perform some management consulting services at the same time, the core services undoubtedly belong to IT consulting services.
Implementation Stage Operations Stage	The current W/120 /1.B.b. (CPC 842) classification already accommodates activities in this stage. In-house services provided by businesses’ own functional departments require no additional classification. In the case of outsourcing services, as more and more companies are outsourcing some IT-intensive business processes (which do not affect their “core competencies”) to third-party services providers, it is widely accepted by the industry that these services are classified within the scope of Computer and Related Services. In addition, these services are usually “bundled” together and could cover the whole range of services under CPC 84 (W/120 1.B), sometimes overlapping with other services sectors. We must emphasize that in spite of this overlap, their core services still have the main characteristics of Computer and Related Services.
Maintenance and Support Stage/Others	This includes training services for staff of clients, and services that are not classified elsewhere. They can be accommodated by W/120 1.B.e.(CPC 845+849)

Source: GATS Council-Committee on Specific Commitments, Communication from the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu, *Computer and Related Services*, S/CSC/W/37 (8 Jan. 2003).

c. Development-related Issues

282. In recent years, a number of developing country WTO Members have capitalized on their qualified IT professionals to achieve high growth and export rates in the computer and related services sector.⁴²⁷ And not surprisingly, several of these Members also have manifested a keen interest in several issues affecting computer services trade, including:

- Improvements in mode 4 commitments.⁴²⁸ India has proposed that Members: replace their horizontal mode 4 commitments—which have achieved very little—with sector specific commitments; remove numerical limitations on the entry of professionals; grant short-term visas on a just in time basis; and provide greater transparency, simplicity, and certainty in visa regimes.
- Elimination of other trade barriers.⁴²⁹ According to Costa Rica, restrictions on or excessive requirements for temporary entry and exit of specialized technical personnel, discriminatory tax treatment for foreigners, and excessive capital transfer and/or repatriation taxes act as substantial market access barrier to their exports.⁴³⁰ MERCOSUR has raised concerns about qualification requirements and procedures, licensing requirements, and technical standards that can act as trade barriers.⁴³¹

⁴²⁷ See *Secretariat Note on Computer and Related Services*, S/C/W/45 at para. 19 (explaining that “The rapid market growth of the IT sector has led it to be a substantial generator of new employment, and of skilled, well-paying jobs in particular, not only in industrialized markets but in emerging markets as well.”)

⁴²⁸ See e.g., GATS Council–Special Session, Communication from MECOSUR, *Computer and Related Services*, S/CSS/W/95 (9 July 2001) at para. 7; GATS Council–Special Session, Communication from Costa Rica, *Computer and Related Services*, S/CSS/W/129 (30 Nov. 2001) at para. 6; and GATS Council–Special Session, Communication from India, *Negotiating Proposal on Computer and Related Services*, S/CSS/W/141 (22 Mar. 2002).

⁴²⁹ See e.g., GATS Council–Special Session, Communication from MECOSUR, *Computer and Related Services*, S/CSS/W/95 (9 July 2001) at para. 7; and GATS Council–Special Session, Communication from Costa Rica, *Computer and Related Services*, S/CSS/W/129 (30 Nov. 2001) at para.5.

⁴³⁰ GATS Council–Special Session, Communication from Costa Rica, *Computer and Related Services*, S/CSS/W/129 (30 Nov. 2001) at para. 5.

⁴³¹ GATS Council–Special Session, Communication from MERCOSUR, *Computer and Related Services*, S/CSC/W/95 (9 July 2001).

D. Conclusion

283. As with telecommunications, the Doha negotiations provide the opportunity to: (1) improve specific commitments to liberalize trade in computer and related services; (2) clarify the scope and coverage of specific commitments given the convergence of and development of new telecom services with computer and related services as well as audio-visual services; and (3) address development-related issues such as improved mode 1, 2, and 4 commitments to facilitate exports of computer and related services from developing countries to developed. At this juncture, there appears to be strong interest among Members in improving the classification and scheduling of computer services and this may be one issue successfully addressed through the Doha negotiations.

VII. Electronically Traded Services - Basket III

284. As previously explained in Section V of this paper, a number of WTO members are seeking further liberalization of services in the Doha negotiations. One key factor driving their interest in the services component of the Doha negotiations is the increasing number of services that can be traded electronically without having to establish a physical presence in the importing country. Interest in the services negotiations is shared by both developed and developing country Members, as both see new trade opportunities resulting from e-commerce, including for business process outsourcing services (BPOs).⁴³² The principal purpose of this section is to analyse the status of existing commitments for services that are traded electronically (*see* Section VII.A below) and to explain how the Doha services negotiations can result in further liberalization of trade in BPO services (*see* Section VII.B below).

A. Negotiations on Electronically Traded Services

285. During the Uruguay Round, Members used the Services Sectoral Classification List, or W/120, to develop their specific commitments for liberalizing trade in services. As shown in Table 10 above, W/120 divides the services sector into twelve subsectors.⁴³³ The majority of the W/120 services subsectors could be traded electronically without a commercial presence in some fashion and that is constantly increasing due to technological developments⁴³⁴ and regulatory reform.⁴³⁵ Whereas certain services are more amenable to electronic delivery than others, the distinction between the two is evaporating—what was un-tradable today without a commercial presence will not be tomorrow.

286. As Tables 27 and Table 28 below illustrate, there is much room for Members to use the Doha negotiations to increase the number of specific commitments on electronically traded services. These tables focus on mode 1 commitments for a select group of W/120 subsectors to illustrate the existing level of Uruguay Round commitments on those services that are frequently traded electronically today.⁴³⁶

⁴³² OECD (2004) at Chapter 2.

⁴³³ The twelve subsectors are: business services; communication services; construction and related engineering services; distribution services; education services; environmental services; financial services; health related and social services; tourism and travel related services; recreational, cultural, and sporting services; transport services; and other services not included elsewhere.

⁴³⁴ UNCTAD (1998a, 199b).

⁴³⁵ WTO (2003) at p. 35.9

⁴³⁶ Although Table 27 focuses on Mode 1, it should be noted that the electronic delivery of services could be classified as being supplied either through mode 1 (on a cross-border basis where the service is delivered to the consumer in the country making the specific commitment) or mode 2 (on a consumption abroad basis where the service is delivered to the consumer outside of the country making the specific commitment).

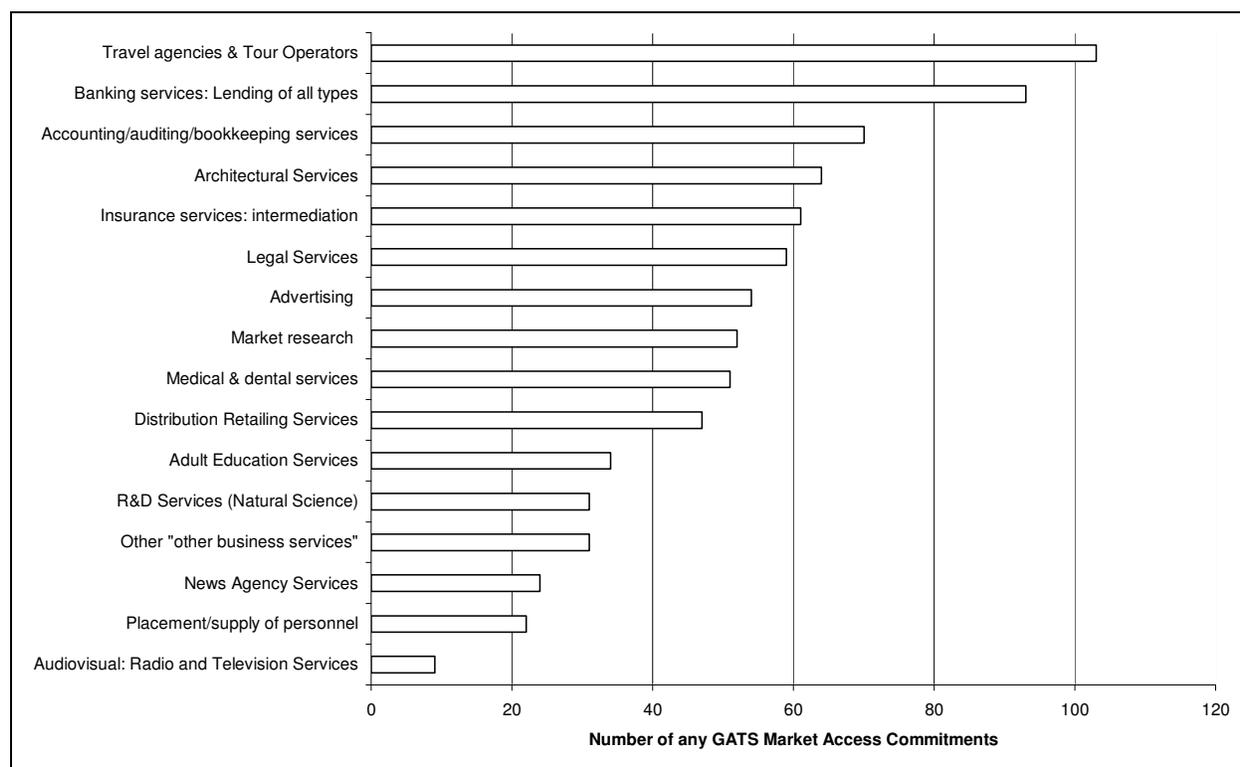
Table 27:
Mode 1 Commitments on Selected Electronically Traded Services

Sector	Total	Market Access			National Treatment		
		Full	Partial	Unbound	Full	Partial	Unbound
BUSINESS SERVICES							
Professional Services							
<i>Legal</i>	59	20%	60%	10%	20%	60%	14%
<i>Accounting/auditing/bookkeeping</i>	70	34%	41%	24%	37%	39%	24%
<i>Architectural</i>	64	58%	25%	17%	55%	31%	14%
<i>Medical & dental</i>	51	37%	27%	35%	47%	20%	33%
<i>R&D Services</i>							
<i>Natural sciences</i>	31	65%	16%	19%	65%	19%	16%
Other Business Services							
<i>Advertising</i>	54	57%	31%	11%	57%	24%	19%
<i>Market research</i>	52	69%	19%	12%	77%	15%	8%
<i>Placement/supply of personnel</i>	22	50%	18%	32%	59%	9%	32%
<i>Other⁴³⁷</i>	31	16%	68%	16%	16%	68%	16%
COMMUNICATION SERVICES							
Audiovisual Services							
<i>Radio and Television</i>	9	33%	44%	22%	67%	25%	8%
DISRIBUTION SERVICES							
Retailing Services	47	30%	53%	17%	28%	55%	17%
EDUCATIONAL SERVICES							
Higher Education Services	35	63%	29%	9%	51%	40%	9%
Adult Education Services	34	53%	41%	6%	50%	44%	6%
FINANCIAL SERVICES							
Insurance & Insurance-related Services							
<i>Insurance intermediation</i>	61	18%	52%	30%	45%	20%	35%
Banking & Other Financial Services							
<i>Lending of all types</i>	93	24%	35%	41%	42%	18%	40%
TOURISM & TRAVEL RELATED SERVICES							
Travel agencies & Tour Operators	103	54%	18%	27%	59%	15%	26%
RECREATIONAL, CULTURAL & SPORTING SERVICES							
News Agency Services	24	71%	21%	8%	63%	33%	40%

Source: GATS Council, Background Note by the Secretariat, *Structure of Commitments for Modes 1, 2, and 3*, S/C/W/99 (3 Mar. 1999), updated with data for specific subsectors by the WTO Secretariat (GATS Commitment Database, figures provided by Aaditya Mattoo). The numbers in the “Total” column indicate the total number of Members making mode 1 commitments for the specific service. The percentages in the “partial” columns include both sector-specific and horizontal limitations.

⁴³⁷ Includes Telephone answering services, Collection agency services, Duplicating services, Translation and interpretation services, Mailing list compilation and mailing services.

**Table 28:
Distribution of Commitments on Selected Electronically Traded Services**



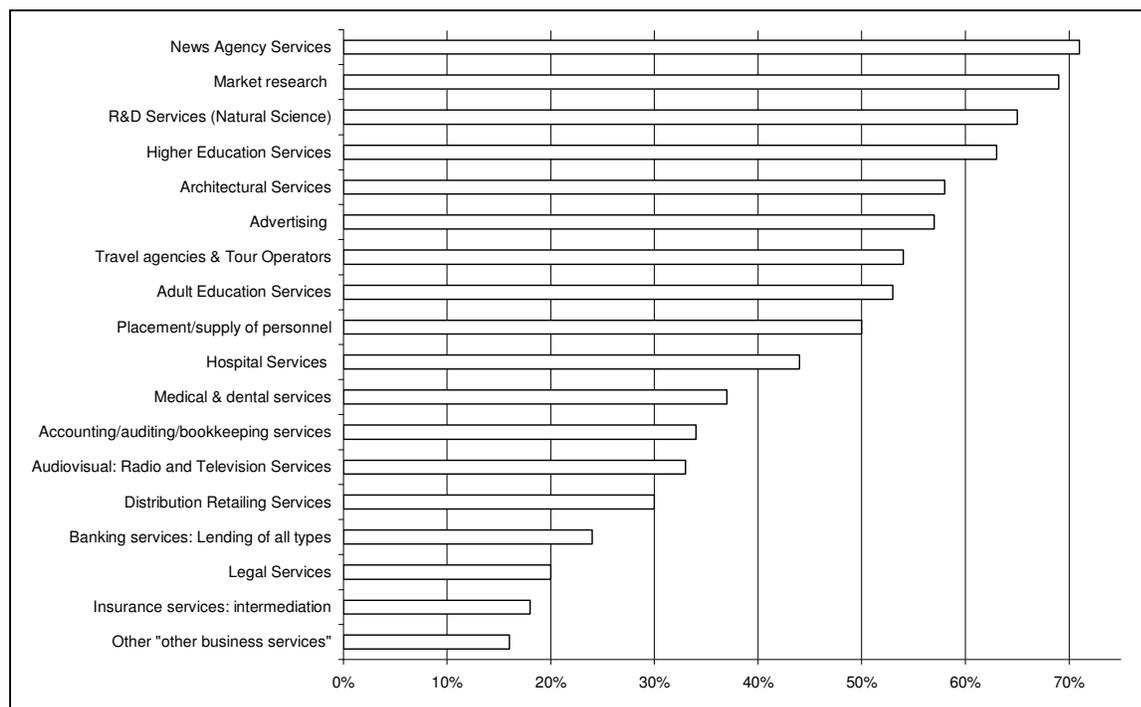
Source: Based on Table 27.

287. Members also may use the Doha negotiations to remove limitations in existing schedules. (See Table 29 below showing the percentage of full commitments, i.e., without limitation). The types of limitations include: nationality, residency, commercial presence, authorization, licensing and local authentication requirements.⁴³⁸ Notably, even though business services are generally thought to be well covered by GATS commitments,⁴³⁹ the data indicates a more nuanced picture. Only seventy out of 146 WTO Members have made commitments for “Accounting, auditing and bookkeeping” and the majority of those maintain some limitations on market access and national treatment. For “Other business services,” which includes telephone answering services, collection agency services, duplicating services, translation and interpretation services, mailing list compilation and mailing services, only thirty-one Members have made specific commitments and only a fraction of those made full commitments.

⁴³⁸ OECD (2000a) at pp. 6 ff (listing the limitations and commenting that their purpose may be to heavily restrict, if not outright prohibit, the cross-border supply of services).

⁴³⁹ GATS Council, Background Note by the Secretariat, *Computer and Related Services*, S/C/W/45 (14 July 1998).

**Table 29:
Full Market Access Commitments on Selected Electronically Traded Services**



Source: Based on Table 27.

288. The Doha negotiations could provide an important opportunity not only for developed countries but also developing countries to achieve progressively higher levels of liberalization for electronically traded services that are important to their economies. Some developing country Members, including India, Peru, Romania, Nicaragua, already have large and fast-growing services sectors,⁴⁴⁰ a relatively high degree of specialization,⁴⁴¹ (particularly for long-distance, labor-intensive services), and a growing share of the global services trade.⁴⁴² Their services exports yield direct benefits that can be measured in terms of economic growth and employment. In addition, there are more development-related benefits to be reaped from knowledge transfer, infrastructure investments, and regulatory reform. It is clearly in their interest to participate in the Doha negotiations request/offer process to secure commitments not only from developed countries in the North with an established and growing demand for electronically traded services, but also from their neighbors who will increasingly utilize these services. The following section on business process outsourcing services explains this point.

⁴⁴⁰ GATS Council, Communication from the People's Republic of China, *Assessment of Trade in Services*, TN/S/W/9 (19 Dec. 2002).

⁴⁴¹ Karsenty (2000); GATS Council-Committee on Specific Commitments, Communication from Costa Rica, *Computer and Related Services*, S/CSC/W/129 (30 Nov. 2001); GATS Council-Committee on Specific Commitments, Communication from India, *Negotiating Proposal on Computer and Related Services*, S/CSC/W/141 (22 Mar. 2002).

⁴⁴² WTO (2003) at p. 35.

B. Business Process Outsourcing (BPO) Services⁴⁴³

1. Understanding BPO Services

289. At that time of the Uruguay Round negotiations (1988 through 1993), the number of services that could be traded electronically on a competitive basis was limited by, *inter alia*, the cost of telecommunications and computer services and equipment. The ballooning number of high-speed, global communications networks and falling prices of high tech equipment have created new incentives and opportunities for companies to outsource not only back office operations (e.g., payroll) but also core operations (e.g., financial analysis) to skilled, but lower cost services suppliers in other countries.

290. This phenomenon is referred to as “business process outsourcing” (BPO), which is the delegation of one or more IT-intensive business processes to an external provider that in turn owns, administers and manages the selected process(es) based on defined and measurable performance criteria.”⁴⁴⁴ A prime example of this phenomenon is the decision by a multinational corporation headquartered in Canada to develop a call center in India that will respond to all customer inquiries regarding use, warranty, service, and replacement of the corporation’s products. Another example is the decision by a large hospital in Europe to use technicians in India to transcribe doctors’ taped notes on patient medical histories and examinations into text records.

291. There is a virtually infinite list of business process services that can be outsourced, including: customer interaction, administration (e.g., back office operations and human resources), sales, operations (e.g., logistics and procurement), and professional and business services. (*See* Table 30 below for a list of IT and BPO services that are increasingly outsourced.)

⁴⁴³ This section draws heavily on Mattoo & Wunsch-Vincent (2004) and the author is indebted to Aaditya Mattoo for his input on the subject of BPOs and the WTO. See also OECD (2004), at chapters 2, 3 and 6.

⁴⁴⁴ Gartner Group, *Worldwide IT Service Market Definitions Guide* (2003), www.gartner.com/search (visited 20 Nov. 2003).

**Table 30:
Information Technology and Business Process Outsourcing Services**

1. Information Technology Services	
Software Development and Implementation Services, Data processing and Database Services, IT Support Services, Application Development & Maintenance, Business Intelligence & Data Warehousing, Content Management, Enterprise Security, Package Implementation, System Integration, SCM, Enterprise Application Integration, Total Infrastructure Outsourcing, Web Services (Internet Content Preparation, etc.), Web-hosting and Application Service Providers (ASPs)	
2. Business Process Outsourcing Services	
Customer Interaction Services	Reservations and Ticketing, Customer Services Helpline, Technical Support, Membership Management, Subscription Renewal
Administrative Services	Back Office Operations: Data Entry and Handling, Data Processing and Database Services, Payment Services, Financial Information Processing, Asset and Real Estate Management Human Resource Services: Payroll, Benefit Enrollment and Management, Compensation Planning and Strategy, Employee Training Finance and Accounting: Accounts Payable (employee travel and expenses), Accounts Receivable, Billing, Tax Management, Electronic Payments
Sales	Sales Support, Telemarketing, Marketing Research Services
Operations	Warehousing, Logistics, Inventory, Supply Chain Services, E-procurement, B2B Marketplaces
Professional and Business Services	Financial: Insurance Claims Processing, Mortgage Processing, Check Processing, Credit Card Processing Accounting: Auditing, Bookkeeping, Taxation Marketing: Product Design and Development Healthcare: Patient Data Management, Medical Transcription, Medical Coding, Clinical Trials Translation and Interpretation.

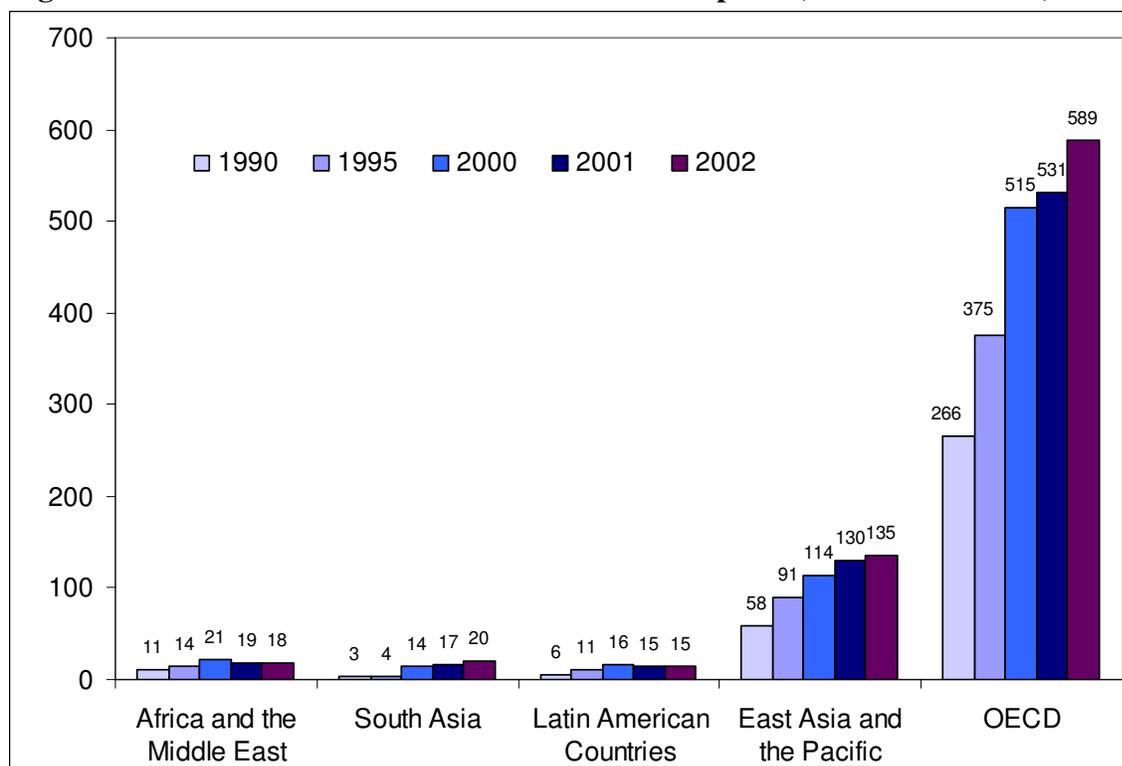
Source: Mattoo & Wunsch-Vincent (2004); WIPRO Technologies, www.wipro.com (visited 20 Nov. 2003); and Gartner, www4.gartner.com/displayDocument?id+406164&ref=g_search (visited 20 Nov. 2003). The list of activities is not exhaustive nor are the categories mutually exclusive.

2. The BPO Phenomenon

292. The BPO phenomenon is having a profound impact on the global economy. In developed countries, companies are using BPO to reduce costs, improve efficiency, and maximize innovation by tapping into new sources of expertise. A number of developing countries are supplying BPO services and their share of this worldwide market is growing rapidly. The services outsourcing phenomenon offers a new opportunity to integrate developing countries into the global trading system.

293. The largest markets for BPO services are in OECD countries⁴⁴⁵ and the bulk of BPO exports still originate in OECD countries. (See Table 31 below for information on the regional distribution of BPO and other services exports). Outsourcing can improve competitiveness by achieving cost savings and productivity gains.⁴⁴⁶ It is becoming a critical success factor for multinational firms (and increasingly for smaller enterprises) as they strive to compete in markets that have been opened to other domestic and foreign firms and that can be served electronically.⁴⁴⁷

Table 31:
Regional Distribution of BPO and Other Services Exports (billion US dollars)



Source: IMF, *Balance of Payment Statistics*. Here the “BPO and Other Services” category includes Total Services in the IMF statistics minus Transportation, Travel and Government Services. Communication, construction, insurance, Computer and Information, Other Business, Personal, Cultural and Recreational, as well as Royalties and License Fees.

⁴⁴⁵ “BPO Market to Reach \$122B in 2003,” CyberAtlas (11 June 2003), cyberatlas.internet.com/markets/b2b/article/0,,10091_220371,00.html (visited 20 Nov. 2003). Citing research from Gartner Inc., the Aberdeen group, and META Group Inc., this article reports that North America will account for 57 percent of the total BPO market in 2003, Western Europe will account for 22 percent, and Asia Pacific will account for 7 percent.

⁴⁴⁶ Mattoo & Wunsch-Vincent (2004) and “Offshoring Opens Gap in Financial Services Race,” *Financial Times* (29 June 2004).

⁴⁴⁷ “Indian outsourcing cuts costs,” *vnunet.com* (1 Jan. 2003); “U.S. gained \$17b from outsourcing to India,” *Deccan Chronicle* (7 July 2003); “The case for, and against, shifting backoffice operations overseas,” *Wharton Papers* (9 Oct. 2002); and “U.S. firms move IT overseas,” *CNET News.com* (11 Dec. 2002).

294. The financial services sector, for example, is a leader in using BPO to maintain or expand its competitive edge.

- Prudential, the British insurance company, plans to save \$26.2M by creating 1000 customer-service jobs in India.⁴⁴⁸
- The U.S. banking industry saved as much as \$8B in the last four years through outsourcing.⁴⁴⁹
- The world's top financial institutions are expected to save \$138B annually using BPO.⁴⁵⁰
- The world's 100 largest financial services firms expect to transfer \$350B billion of their cost bases abroad by 2008.⁴⁵¹

295. It is estimated that only 5 percent of U.S. firms with revenues from \$100 million to 4 billion have started to outsource.⁴⁵² Accordingly, the continued growth in BPO exports should be robust given the many firms in the U.S., as well as other countries, that have not yet started to outsource.

296. Given the enormous size and rapid growth of the BPO market, the economic implications for developing countries are enormous.⁴⁵³ Developing countries are literally topping the charts in growth rates for the export of BPO services. (See Table 32 below showing BPO export growth rates). While exports from the European Union and the United States have grown 3.5 and 11.2 percent per annum since 1995, exports from countries like India, Peru, Israel, Romania and Brazil have grown at rates exceeding 30 percent per annum. And, many other developing countries—including Nicaragua, Argentina, Jamaica, China and Barbados—have witnessed high rates of growth.

⁴⁴⁸ "India fears impact of bid to curb jobs exports," *Financial Times* (4 June 2003).

⁴⁴⁹ "US firms saved \$8bn via local outsourcing," *Business Standard* (16 Apr. 2003).

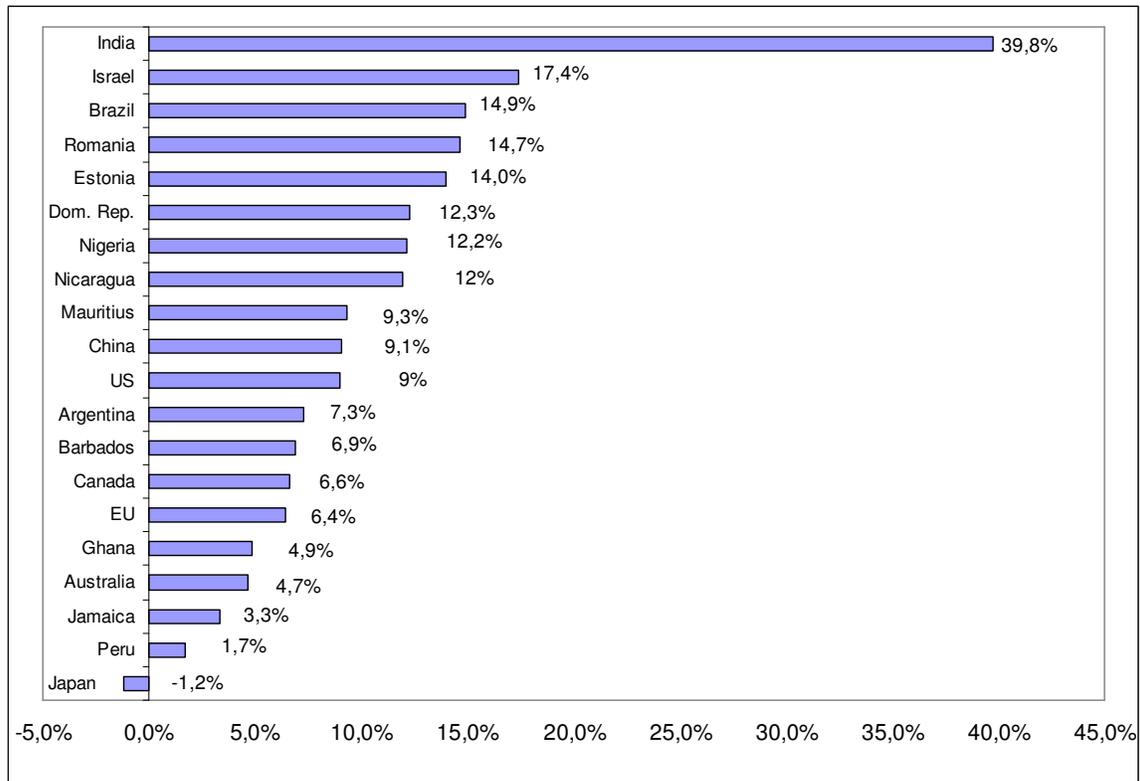
⁴⁵⁰ "Looking for savings on distant horizons," *Financial Times* (2 July 2003).

⁴⁵¹ Chris Gentle, "The Cusp Of A Revolution – How Off-shoring Will Transform The Financial Services Industry," *Deloitte Research* (Mar. 2003).

⁴⁵² Mattoo & Wunsch-Vincent (2004).

⁴⁵³ See "The New Global Job Shift: The next round of globalization is sending upscale jobs offshore," *Business Week* (3 Feb. 2003); "Call Centers: The Revolution Revs Up," *Financial Times* (10 Mar. 2003); U.S. firms move IT overseas," *CNET News.com* (11 Dec. 2002); Chris Gentle, Deloitte Research, "The Cusp Of A Revolution – How Off-shoring Will Transform The Financial Services Industry," (Mar. 2003).

Table 32:
Compound Annual Growth Rate of Exports of BPO and Other Services Exports for selected countries, 1995-2002



Source: IMF, *Balance of Payment Statistics*. For included service see source note under Table 31.

297. India is the undisputed developing country leader in exporting BPO services, first developing a reputation as a premier location for software development and now moving into many other types of BPO services. While classical IT service exports, such as software development, grew last year by a “mere” 22 percent, IT-enabled services such as outsourcing expanded by 65 percent.⁴⁵⁴ The latter typically involve India-based service operations providing an input or support service to a core activity/organizational function of the importing company (e.g., WIPRO provides payroll and customer care functions to a client, headquarters, or affiliate).

298. Other developing countries with well-educated workforces, inexpensive labor pools, and sufficient telecom reform to provide affordable, abundant connectivity can participate in the BPO phenomenon. A study by A.T. Kearney compared the attractiveness of different countries

⁴⁵⁴ Mattoo & Wunsch-Vincent (2004).

as outsourcing locations and found that Brazil, Mexico, the Philippines, Hungary, Russia and China to be very close competitors to India.⁴⁵⁵

299. But there is a possibility that protectionism can thwart growth in BPO exports and the ability of developing countries to use BPO as a complement or alternative to manufacturing-based development. Whereas the increasing reliance on BPO looks like healthy job creation in developing countries, it appears to be unhealthy “white collar job outflow” to some unions and politicians in industrialized countries.⁴⁵⁶

300. For example, in the United States, concerns about the jobless recovery have spawned both federal and state legislation to stop the export of service jobs. The U.S Congress passed an appropriations bill in January 2004 that includes a provision prohibiting a private firm that beats out a federal agency for a contract from performing the work overseas.⁴⁵⁷ The measure expires in September 2004 and is, therefore, very limited in both its term and scope.⁴⁵⁸ Several state legislatures, however, are considering measures with potentially broader impacts. According to the National Conference of State Legislatures, eight states have considered legislation that would prohibit public contracts from being performed overseas (e.g., welfare or unemployment hotline being served by a call center in India), including Indiana, Maryland, and New Jersey.⁴⁵⁹ Although no state legislation has been passed, this could become a new form of trade protectionism and impact not only BPO exports but also their potential to spread economic development.

301. Regulatory measures in the field of data protection, technical standards, qualification requirements, labor regulations, etc. also can act as non-tariff trade barriers that negatively impact BPO exports but that are neither disciplined by GATS market access and national treatment commitments nor by the lacking GATS regulatory discipline under GATS Art. VI:4.

302. Given the growing importance of BPO services to both developed and developing countries and the potential for both explicit or implicit protectionism, WTO Members should want to apply the rules-based trading system to these services by including BPOs services in their GATS schedules. The current status of commitments covering BPO services and the difficulties confronting Members who would like to ensure GATS coverage of these services is discussed in the next section.

⁴⁵⁵ A.T. Kearney, “*Selecting a Country for Offshore Business Processing: Where to Locate*” (2003), www.atkearney.com/shared_res/pdf/Where_to_Locate_S.pdf (visited 23 Sept. 2003). The study uses three broad indicators: costs (labor costs, taxes, etc.), environment (country infrastructure, cultural compatibility, etc.) and people (education level and language barriers) to assess outsourcing attractiveness and is validated by business questionnaires.

⁴⁵⁶ See “The New Global Job Shift: The next round of globalization is sending upscale jobs offshore,” *Business Week* (3 Feb. 2003); “Call Centers: The Revolution Revs Up,” *Financial Times* (10 Mar. 2003); “Services Go East,” *Financial Times* (7 Aug. 2003).

⁴⁵⁷ “Anxious About Outsourcing: States Try to Stop U.S. Firms from Sending High-Tech Workers Overseas,” *Washington Post* (31 Jan. 2004).

⁴⁵⁸ *Id.*

⁴⁵⁹ *Id.*

3. Scheduling BPO Service Commitments

303. As shown in Table 30 above, there are a wide variety of services that could be categorized as “business process outsourcing” services. For those WTO Members that are interested in exporting BPO services and who want to maximize the commitments that other Members make to provide market access and national treatment for these services, it is very difficult to know what commitments already exist and what commitments to seek. This difficulty is the result of the disconnect between: (1) the marketplace where BPOs are traded; and (2) the UN Provisional Central Product Classification (CPC) and Services Sectoral Classification List (W/120) that Members use to schedule GATS commitments. The disconnect may take one of several forms.

- W/120 classifications may be broader than the BPO services sold in the marketplace. This disconnect is most likely to impact the negotiating process for new commitments where a Member may be willing to make a commitment for a specific BPO service, but not for a broader category of services.
- W/120 classifications may be narrower than the BPO services sold in the marketplace. This disconnect affects both existing and new commitments by creating uncertainty as to what combination of commitments is needed to cover a specific BPO service.
- There may be no W/120 classification that readily corresponds to the BPO services sold in the marketplace. Examples of BPO services lacking obvious W/120 classifications include: call centers, medical transcription, insurance claims adjudication, web-enabled technical support services for electronic equipment, and payroll services.

304. These disconnects do not mean that W/120 or existing GATS commitments do not cover BPO services. Rather they require WTO Members to take advantage of the opportunity presented by the Doha negotiations to clarify the scope of the commitments pertaining to BPO services.

305. Some developing countries, such as India and Costa Rica, already have requested more commitments for BPO services in the Doha negotiations.⁴⁶⁰ Other developing countries who are exporting BPO services, or have the potential to do so, including China, Central and Eastern European countries, Morocco, Philippines, and Vietnam, may make such requests as the negotiations progress. But no country or group of countries has yet tabled a negotiating strategy for scheduling BPO services commitments.

306. There are several steps that Members could take during the Doha negotiations to ensure adequate coverage of BPO services. First, Members could make full commitments in a number

⁴⁶⁰ “India Urges U.S. Concessions on Temporary Work, Outsourcing,” *Inside US Trade* (20 June 2003).

of services sectors that cover BPO services, including: computer and related services, telecommunications services, professional services, business services, educational services, financial services, and library and archival services. A less radical approach would be to make commitments on a number of selected services subsectors, such as those listed in the model schedule at Table 33 below.

307. Another approach would be to use the newest version of the United Nations' Central Product Classification to schedule BPO services in the Doha negotiations,⁴⁶¹ although this approach would certainly raise questions about the scope of existing Uruguay Round commitments. And, the least radical approach would be simply to make commitments under selected sections of CPC 87, "Business Services" as a way of capturing some of the support services that are crucial to providing BPO services. (*See* Table 35 below for a description of the "Business Services" category). In addition to these mechanisms for scheduling BPO services, WTO Members could agree on a Chairman's note, as was done for the Uruguay Round basic telecommunications negotiations, or other device for defining the manner in which services commitments should be read to cover BPO services.

⁴⁶¹ CPC 1.1 incorporates a new category called "Support Services" (Division 85) that includes other supporting services like credit reporting services, collection agency services, and a great assortment of telephone-based support services (CPC 1.1 8593) that cover many, if not all, call center services.

Table 33:
Model Schedule for Selected IT and BPO Services⁴⁶²

<i>COMMITMENTS</i> <i>Sector or subsector from WI20 (with CPC)</i>	<i>Limitations on market access</i>	<i>Limitations on national treatment</i>
<u>INFRASTRUCTURE SERVICES</u>		
<u>Computer and Related Services</u> (84) ⁴⁶³	(1)+(2) None	(1)+(2) None
<u>Telecommunication Services</u> ⁴⁶⁴		
On-line information and/or data processing (incl. transaction processing) (843)	(1)+(2) None	(1)+(2) None
<u>ELECTRONICALLY TRADED SERVICES</u>		
<u>Professional Services</u> ⁴⁶⁵		
Accounting, auditing and bookkeeping services (862)	(1)+(2) None	(1)+(2) None
Taxation Services (863)	(1)+(2) None	(1)+(2) None
<u>Other Business Services</u> ⁴⁶⁶		
Market research / public opinion polling services (864)	(1)+(2) None	(1)+(2) None
Management consulting service (865)	(1)+(2) None	(1)+(2) None
Services related to manufacturing consulting (866)	(1)+(2) None	(1)+(2) None
Technical testing and analysis services (8676)	(1)+(2) None	(1)+(2) None
Related scientific/technical consulting services (8675)	(1)+(2) None	(1)+(2) None
Printing, publishing services (88442)	(1)+(2) None	(1)+(2) None
Other Business Services (8790)		
Credit reporting services (87901)	(1)+(2) None	(1)+(2) None
Collection Agency Services (87902)	(1)+(2) None	(1)+(2) None
Telephone Answering Services (87903)	(1)+(2) None	(1)+(2) None
Translation and Interpretation Services (87904)	(1)+(2) None	(1)+(2) None
Mailing List Compilation and Mailing Services (87905)	(1)+(2) None	(1)+(2) None
Other Business Services n.e.c. (87909)	(1)+(2) None	(1)+(2) None
<u>Educational Services</u> ⁴⁶⁷		
Adult education services n.e.c. (924)	(1)+(2) None	(1)+(2) None
Other education services (929)	(1)+(2) None	(1)+(2) None
<u>Financial Services</u> ⁴⁶⁸		
Insurance and insurance-related services		
Services auxiliary to insurance (including broking and agency services) (8140)	(1)+(2) None	(1)+(2) None
Banking and other financial services		
Provision and transfer of financial information and financial data processing and related software by providers of other financial services (8131)		
Other services auxiliary to financial intermediation (8133)	(1)+(2) None	(1)+(2) None
<u>Recreational, Cultural and Sporting Services</u> ⁴⁶⁹	(1)+(2) None	(1)+(2) None
Libraries, Archives, Museums and Other Cultural Services		
Library and archive services (9631)	(1)+(2) None	(1)+(2) None

⁴⁶² A version of this model schedule first appeared in Mattoo and Wunsch-Vincent (2004).

⁴⁶³ The model schedule proposes that WTO Members make mode 1 and 2 commitments for all computer and related services at the two-digit level to cover all such services, even if “new” computer and related services are identified after the completion of the negotiations.

⁴⁶⁴ The model schedule proposes that WTO Members make mode 1 and 2 commitments only on one type of value-added telecommunications service—online information and data processing services. It does not call for any commitments on basic telecommunications services or any commitments under mode 3. The editor of this paper notes that in the absence of basic telecom deregulation/competition, it is unlikely that there will be sufficient competition in the provision of online information and data processing to make the export of BPO services viable.

⁴⁶⁵ The model schedule is very selective with respect to professional services in its proposal that WTO Members make mode 1 and 2 commitments only with respect to accounting, auditing, bookkeeping and taxation services. It does not seek commitments on other professional services such as architectural, engineering, medical, or dental.

⁴⁶⁶ The model schedule includes the majority – but certainly not all – of the services classified under “Other Business Services” in the CPC. Some of these excluded services are not electronically tradable, such as janitorial services.

Source: Mattoo & Wunsch-Vincent (2004); *Services Sectoral Classification List*, (W/120).

Table 34:

Selected Sectors and Sub-sectors Relevant to BPO (CPC 87)

<i>CPC 87</i>	<i>Sector</i>
871	Advertising services
872	Placement and supply services of personnel, particularly: 87203 <u>Supply services of office support personnel</u> - Services consisting in supplying on a fee or contract basis to the clients, whether on a temporary or long-term basis, office support personnel hired by the supplier, who pays their emoluments. Included are the provision of personnel such as secretaries, clerks, receptionists, book-keepers, data entry operators, typists and word-processor operators.
879	Other business services, particularly: 87901 <u>Credit reporting services</u> - Services consisting in the reporting of credit ratings of persons and businesses. This involves the evaluation of the financial status and credit experience of prospective customers, loan applicants, etc. 87902 <u>Collection agency services</u> - Services consisting in the collection on a fee or contract basis of accounts, cheques, contracts or notes, and remittance of the money to the client. Included are both the collection of regular accounts (e.g. utility bills) and the recovery of delinquent accounts. Also included is the outright purchase of delinquent accounts and debts and subsequent recovery. 87903 <u>Telephone answering services</u> - Services consisting in the provision of telephone answering services. Included are telephone call forwarding services (excluding paging services), and telephone wake-up services. 87905 <u>Translation and interpretation services</u> - Services consisting in the provision of translation and interpretation services. Translation services generally relate to the rewriting of texts from one language to another; while interpretation services are generally concerned with stating orally in one language what has been stated orally in another language. 87909 <u>Other business services n.e.c.</u> - Services generally provided to businesses, not elsewhere classified. Included here are business brokerage services, appraisal services other than for real estate, secretarial services, demonstration and exhibition services, etc.

Source: *Services Sectoral Classification List*, (W/120).

⁴⁶⁷ The model schedule proposes that WTO Members make commitments on only two educational services—adult education and other education – to capture the types of education or training that are increasingly provided by the private sector for the private sector on-line.

⁴⁶⁸ By including commitments on only one insurance and two banking services, the model schedule proposes that WTO Members make commitments that would ensure the ability of financial institutions to outsource some BPO services (e.g., financial and pension consultancy services, evaluation and adjustment services of insurance claims, actuarial services) but not require full-fledged financial market liberalization or capital mobility.

⁴⁶⁹ The model schedule includes “library and archive services” to cover documentation services such as the collection, cataloguing, conservation and retrieval of documents that are likely to be involved with some BPO services.

C. Conclusion

308. As discussed in this section, the Doha negotiations provide the opportunity to: (1) increase the number of both developed on electronically traded services and developing Members that have made commitments to liberalize services that provide the infrastructure for e-commerce as well services that are traded electronically, particularly BPOs; (2) improve and clarify specific commitments to liberalize electronically traded services; and (3) clarify how the rapidly growing field of Business Process Outsourcing services is covered by GATS commitments.

309. Improvements to the classification system may be necessary to seize the opportunities provided by the Doha negotiations. In times of rapid technological change, the EC proposal to schedule computer service commitments at the two-digit level is very appealing and could serve as an example for other service sectors.

310. The Doha negotiations also provide the opportunity for negotiators to work on GATS rules (e.g., domestic regulation, emergency safeguard measures, government procurement, and subsidies) that could affect e-commerce. Although difficult, the GATS rules work is very important because market access and national treatment commitments alone are not sufficient to liberalize trade in services. Clearly, regulations that impose tough data privacy standards, stringent professional qualification requirements, restrictions on the outsourcing of publicly procured services, and other trade-distorting government procurement and subsidies measures can impact e-commerce.

311. Even though the modalities for services negotiations do not specifically mandate work on classification or rules, this work should proceed in parallel to the Doha negotiations request-offer process. If not, the scope and value of commitments made during the negotiations is uncertain.

PART FOUR

VIII. Digital Products – Basket IV

A. Introduction

312. “Digital products”—the fourth basket of IT goods and services addressed in this paper—include software, movies, music, books-on-tape, and games, that can be traded on a physical carrier medium such as a disc, VHS tape, CD, or book or electronically via the Internet.⁴⁷⁰ Bandwidth restraints, the hesitancy of the digital products industries to sell their content online, and the lack of business models for the online environment have restrained growth in digital products trade.⁴⁷¹ International trade in digital products, however, is one of the fastest-growing trade flows⁴⁷² and WTO Members need to make decisions regarding the application of the rules-based trading system to digital products.

313. A significant amount of business-to-business trade in software is already conducted over electronic networks. There is also tremendous momentum in the online distribution of music and movies. Since the closure of the original Napster site, a number of file-sharing communities (e.g., Kazaa Lite) have arisen that make movies or music available for free. New streaming and copy-protection technologies, faster network connections (e.g., DSL), more portable hardware to store and access downloaded content (e.g., Archos Jukebox), the increasing convergence between television and the Internet, the rise of online entertainment games, and the spread of cable TV with Pay-per-View capability, are rapidly increasing digital product trade. The success of Apple’s iTunes Music Store has spurred other companies such as Microsoft to follow suit.⁴⁷³

314. As technologies converge and content becomes increasingly more portable, the boundaries between “goods” and “services” blur as well as the distinguishing characteristics that have historically separated software, telecommunications services, computer services, and audio-visual services (e.g., multimedia online games).⁴⁷⁴ It is within this environment of fast-paced

⁴⁷⁰ The term “digital products” refers to computer programs, text, video, images, sound recordings and other products that are digitally encoded, regardless of whether they are fixed on a carrier medium or transmitted electronically. The term “product” is not meant to distinguish between goods or services.

⁴⁷¹ Some large record labels, for example, have agreed on shared electronic platforms to sell their content online.

⁴⁷² See Mattoo & Schuknecht (2001) for an estimate of the trade potential for digital products. See Hauser & Wunsch-Vincent (2002) at Part 1.3.2 for a discussion of the measurement problems and current trade figures for “digitizeable” media content.

⁴⁷³ “Apple Unveils Music Store,” *CNET News.Com*, (28 Apr. 2003); “Microsoft Considering Music Store,” *CNET News.Com* (25 July 2003).

⁴⁷⁴ If, for example, software is sold online (i.e., anti-virus software or the newest computer game) the question arises if a service or a good has been traded.

technological change and the resulting uncertainty of what/how WTO rules apply to digital products that WTO Members must prepare to make decisions regarding the application of the rules-based trading system to digital products.

315. To that end, WTO Members should focus on two issues:

- **Market Access:** The electronic trade of digital products does not yet face trade barriers like tariffs, quotas, or discriminatory regulations that hamper other goods and services. WTO Members should decide how to apply the WTO's rules-based trading system to sustain the "free trade" environment that currently benefits electronically traded digital products. There are three preliminary issues that WTO Members must address as part of their deliberations on how best to sustain free market access for digital products:
 - the lack of a permanent duty-free moratorium on electronic transmissions;
 - uncertainty as to the proper customs valuation of digital products; and
 - the unresolved classification debate surrounding digital products.⁴⁷⁵
- **Intellectual Property Protection:** WTO Members should decide how to apply the WTO's rules-based trading system to achieve a balanced global copyright framework for electronically traded digital products.

316. Although both topics were covered in the WTO's Work Programme on E-commerce, they have not yet been satisfactorily addressed. (*See* Section II.A above describing these stumbling blocks to the WTO's Work Programme on E-commerce). Section VIII.B below addresses the market access issues and Section VIII.C addresses the copyright issues by explaining how these issues were addressed in the Work Programme, what their significance is to the application of trade measures to digital products, and how they may be addressed in the Doha negotiations.

B. Market Access for Digital Products

317. In comparison to many other tradable goods and services that have to overcome tariffs or discriminatory regulations, the online trade of digital products does not yet face pervasive or systemic trade barriers. In practice, that means that most WTO Members do not apply tariffs, quotas, and other regulatory barriers to digital products. Although some Members do apply

⁴⁷⁵ Although it is possible that WTO Members could decide to classify digital products as something other than goods or services, this paper focuses on the goods v. services debate given that this is where WTO Members have focused most of their attention. *See* Drake & Nicolaidis (2000) at p. 410 (discussing that some Members have evoked the possibility of creating a new category of hybrids for products that have the properties of both goods and services). *See* General Council, Communication from Indonesia and Singapore, Work Programme on E-commerce, WT/GC/W/247 (9 July 1999) (proposing to classify digital products as intellectual property rather than as a good or a service).

discriminatory local content quotas or other audio-visual measures in the offline world (i.e., broadcasting quotas), this is not the case in the online world.

318. This free trade environment - so uncommon in other product areas - may change at any time, however, as Members have not reached agreement on how to secure it for digital products. Members have attempted to preserve the duty free treatment of digital products part by agreeing not to impose customs duties on electronic transmissions. For reasons stated below in Section VIII.B.1, this effort to secure free trade for digital products has not been entirely successful. Another avenue for protecting this duty free environment for digital products would be to rely upon existing valuation decisions, the Information Technology Agreement, or services commitments, as discussed in Section VIII.B.2. The success of this avenue, however, ultimately depends on whether digital products are classified as goods or services. The importance and difficulties of the classification decision are discussed in Section VIII.B.3.

1. Duty-free Moratorium on Electronic Transmissions

319. In May 1998, WTO Members issued a declaration agreeing to continue the current practice of not imposing customs duties on electronic transmissions.⁴⁷⁶ The moratorium was an important first step in the WTO's consideration of how the rules-based trading system should apply to electronic commerce. But, it did have a number of imperfections.

- First, the moratorium is a political commitment by Members that cannot be legally enforced via the WTO dispute settlement system. Thus, observers have argued that the moratorium is effective only because of the practical difficulties in actually trying to assess duties on electronic transactions.⁴⁷⁷
- Second, there is no clear understanding of what "electronic transmission" means. One meaning is that duties cannot be imposed on the electronic transmissions (the transport service) that support e-commerce. Another is that the moratorium prohibits duties on the content of the transmission, namely digital products and electronically delivered services (e.g., legal services). And another is that products that are duty-free in the offline world remain so in the online world.

⁴⁷⁶ *E-commerce Declaration*, WT/MIN(98)/DEC/2 (20 May 1998). The Declaration provides: "We also declare that Members will continue their current practice of not imposing customs duties on electronic transmissions. When reporting to our third session, the General Council will review this declaration, the extension of which will be decided by consensus, taking account the progress of the work programme."

⁴⁷⁷ See "U.S. looks for WTO Guidelines on E-commerce by Cancun Ministerial," *Inside U.S. Trade* (20 Sept. 2002). According to this argument, the moratorium inhibits governments from doing something that cannot practically/technically do anyway—levy tariffs on e-commerce. Even if customs authorities could trace and value electronic transactions, it is doubtful that the duties would outweigh the costs of this process. See General Council, Communication from Australia, *Work Programme on Electronic Commerce*, WT/GC/25 (5 July 1999).

- Third, the moratorium is temporary. WTO Members—after five years—have not yet agreed to make the moratorium permanent. Because the moratorium was not explicitly extended at Ministerial Conference in Seattle (1999), its status was uncertain⁴⁷⁸ until the Ministers expressly renewed it at the Ministerial Conference in Doha (2001). Its status is once again in question given that it was not expressly renewed at the Ministerial Conference in Cancun (2003). Although many WTO Members endorse the moratorium in principle,⁴⁷⁹ they have been unwilling to make it permanent.⁴⁸⁰ Some Members will not support permanence before the classification questions have been answered conclusively.⁴⁸¹ Others are still contemplating whether the moratorium is in their long-term fiscal interest.⁴⁸²
- Fourth, the moratorium is inconsistent with the principle of technological neutrality because products delivered physically could be subject to customs duties but not products delivered electronically.⁴⁸³
- Fifth, the moratorium does not inhibit taxation of e-commerce.⁴⁸⁴ Given that some developing countries rely more heavily on customs duties for revenue than developed

⁴⁷⁸ See e.g., “EC Discussion Paper on Electronic Commerce and the WTO,” (10 May 2000) at p. 13, europa.eu.int/comm/trade/issues/sectoral/services/docs/elcomwto.pdf (visited Aug. 2003) (providing that “After Seattle, the moratorium has disappeared, as a positive decision was necessary to maintain it.”)

⁴⁷⁹ See e.g., General Council, Communication from Australia, *Work Programme on Electronic Commerce*, WT/GC/25 (5 July 1999).

⁴⁸⁰ “EC Discussion Paper on Electronic Commerce and the WTO,” (10 May 2000) at p. 3-4, 10-11, europa.eu.int/comm/trade/issues/sectoral/services/docs/elcomwto.pdf (visited Aug. 2003) (explaining that the EC would accept re-activation of the moratorium only if further progress was made in the work programme on classification). See also “EU says it will not support WTO E-commerce Moratorium,” *International Trade Reporter* (14 July 1999).

⁴⁸¹ GATS Council, Progress Report to the General Council, *Work Programme on Electronic Commerce*, S/L/74 (27 July 1999); and GATS Council, Interim Report to the General Council, *Work Programme on Electronic Commerce*, S/C/8 (31 Mar. 1999) at p. 10.

⁴⁸² Even though the CTD Seminar on “Revenue Implications of E-commerce” illustrated that tariff revenue losses resulting from the moratorium would be small, developing countries continue to worry about foreclosing revenue streams. CTD, *Note on the Meeting of 25 Apr. 2002*, WT/COMTD/M/40 (26 June 2002), Annex II, report by the Chairperson, Seminar on “Revenue Implications of E-commerce.” See Mattoo, Perez-Esteve, *et al.* (2001) at pp. 10-11 (estimating that “tariff revenue currently collected from these products represents on average less than 1 per cent of total tariff revenue and a meager 0.03 per cent of total fiscal revenue. Even if such trade were to grow strongly and all such trade moved online, the revenue loss would be small. It would also have to be counted against revenue gains from any positive (and revenue generating) productivity effects.”) See also Schuknecht & Pérez-Esteve (1999); UNCTAD (2000b); and CTD, Note by the Secretariat, *Bibliography for the Seminar on Revenue Implications of Electronic Commerce*, WT/COMTD/W/98 (12 Apr. 2002).

⁴⁸³ In response to this criticism, at least one WTO Member has suggested that “if equalizing the treatment between physically delivered and electronically delivered products is the goal, instead of trying to impose a duty on the electronically delivered product, a more liberalizing course of action would be to lower a duty, if any, applied on the physically delivered product.” General Council, Submission from the United States, *Work Programme on Electronic Commerce*, WT/GC/W/493 (16 Apr. 2003) and WT/GC/W/493/Rev.1 (8 July 2003).

⁴⁸⁴ See CTD, Fourth Dedicated Discussion on E-commerce, *Note on the Meeting of 25 Apr. 2002*, WT/COMTD/M/40 (26 June 2002) (regarding the discussion of the EC’s interest in requiring foreign service and digital product suppliers to collect European value-added taxes).

countries which tend to rely on taxes, developing countries are hesitant to unilaterally tie their hands by extending the moratorium permanently.

320. As the moratorium is not yet permanent, WTO Members may once again be called to make a decision about it at Sixth Ministerial Conference in 2005. By extending—or making permanent—the moratorium, all WTO Members would effectively “bind” duties on electronic transmissions at zero—a task that the WTO is still trying to achieve with respect to physical goods more than seventy years after the GATT came into being. Depending on how the term “electronic transmission” is defined, this could be a very significant binding.

2. Limiting Tariffs on Digital Products

321. Given that the duty-free moratorium is neither permanent nor binding thus far and applies only to “electronic transmissions,” whatever that may be, it is important to consider whether there are other limitations on WTO members’ ability to impose customs duties on digital products. The answer is “perhaps.” A WTO decision on valuation of software and the Information Technology Agreement both set a precedent for limiting customs duties on digital products. In addition, services commitments under GATS also could prohibit the levying of customs duties. Alternatively, Members could simply agree not to impose customs duties on digital products in the course of the Doha negotiations.

322. Under the GATT 1947, the Committee on Customs Valuation adopted a decision permitting Members to levy duties on imported software for data processing equipment based on either: (1) the cost or value of the carrier medium (e.g., a diskette) itself, which is negligible; or (2) the transaction value (the price paid or payable) for the carrier media and the software, which is higher.⁴⁸⁵ (See Table 35 for the decision). In May 1995, the WTO Committee on Customs Valuation adopted this same decision at its first meeting.⁴⁸⁶ At that time, 23 Members were applying the GATT 1947 Decision.⁴⁸⁷ Individual WTO Members that decide to use the cost or value of the carrier medium itself must notify their decision to the WTO Committee on Customs Valuation and apply the decision on an MFN basis.

Table 35:

⁴⁸⁵ GATT Council, Committee on Customs Valuation, *Decisions Adopted by the Tokyo Round Committee on Customs Valuation*, G/VAL/W/1 (28 Apr. 1995) at section A.4 (reprinting the Decision on the Valuation of Carrier Media Bearing Software for Data Processing Equipment, VAL/8, as adopted by the GATT 1947, Committee on Customs Valuation, *Minutes*, VAL/M/10 (24 Sept. 1984) at para. 7.

⁴⁸⁶ GATT Council, Committee on Customs Valuation, *Decisions Concerning the Interpretation and Administration of the Agreement on Implementation of Article VII of the GATT 1994 (Customs Valuation)*, G/VAL/5 (13 Oct. 1995) at section A.4.

⁴⁸⁷ GATT Council, Background Note by the Secretariat, *Work Programme on Electronic Commerce*, G/C/W/128 (5 Nov. 1998) at para 5.1. For a current list of WTO Members applying the Decision, see GATT Council, Committee on Customs Valuation, *Information on the Application of the Decisions on Interest Charges in the Customs Valuation of Imported Goods and on the Valuation of Carrier Media Bearing Software for Data Processing Equipment*, G/VA/W/5/Rev.14 (16 Feb. 2004).

Decision on the Valuation of Carrier Media Bearing Software for Data Processing Equipment

The Valuation Decision reads:

1. It is reaffirmed that transaction value is the primary basis of valuation under the Agreement on Implementation of Article VII of the GATT and that its application with regard to data or instructions (software) recorded on carrier media for data processing equipment is fully consistent with the Agreement.

2. Given the unique situation with regard to data or instructions (software) recorded on carrier media for data processing equipment, and that some Parties have sought a different approach, it would also be consistent with the Agreement for those Parties which wish to do so to adopt the following practice:

In determining the customs value of imported carrier media bearing data or instructions, only the cost or value of the carrier medium itself shall be taken into account. The customs value shall not, therefore, include the cost or value of the data or instructions, provided that this is distinguished from the cost or the value of the carrier medium.

For purposes of this Decision, the expression "carrier medium" shall not be taken to include integrated circuits, semiconductors, or similar devices or articles incorporating such circuits or devices; the expression "data or instructions" shall not be taken to include sound, cinematic or video recordings.

3. Those Parties adopting the practice referred to in paragraph 2 of this Decision shall notify the Committee of the date of its application.

4. Those Parties adopting the practice in paragraph 2 of this Decision will do so on a most-favoured-nation (m.f.n.) basis, without prejudice to the continued use by any Party of the transaction value practice.

Source: GATT Council, Committee on Customs Valuation, *Decisions Adopted by the Tokyo Round Committee on Customs Valuation*, G/VAL/W/1 (28 Apr. 1995) at section A.4.

323. During the WTO Work Programme on E-commerce, the GATT Council considered the impact of the Valuation Decision on e-commerce.⁴⁸⁸ Some Members thought that the Decision was of limited relevance because it did not extend to electronically transmitted data, or sound and image recordings. Others thought that the relevance of the Decision should be discussed in the GATS Council—not GATT Council—because only services—not goods—are involved in transactions where there is no carrier media. Others took the position that electronic transmissions could be goods, in which case the Decision would be applicable. And, still others used the Decision to argue that there was no importation of the software itself without a carrier medium, and hence duties should not be levied on software.

324. WTO Members who apply the Valuation Decision must use the low value of the physical carrier media to levy tariffs on software. In an electronic transaction, there is no such media. Thus, the question is whether members who apply the Valuation Decision should be permitted to levy a higher tariff for an electronic transaction using the value of the software? Similarly, should ITA Members who have committed to eliminate duties on selected ITA products including computer software be permitted to levy duties on electronically traded computer software? And, a related question is whether GATS commitments would otherwise prohibit the levying of duties on digital products such as software? (See Section IV.A.1 above). Given the WTO's goal of reducing tariffs and other barriers to trade and the relatively barrier-free environment that e-commerce enjoys today, the answer to this question should be no.

⁴⁸⁸ GATT Council, Communication from the Chairman of the Council for Trade in Goods, Interim Review of Progress in the Implementation of the Work Programme on Electronic Commerce, WT/GC/24 (12 Apr. 1999) at paras. 6.1-6.7.

325. WTO Members, however, have not answered these questions primarily because of the debate on whether electronically traded digital products are goods or services. Following is a list of the types of issues that must be addressed in answering these questions:

- 1) Whether there is an importation on which a duty may be levied;
- 2) If yes, whether electronically traded software is a good or service;
- 3) If a good,
 - a) whether the Member has notified the Committee on Customs Valuation of its decision to use the value of the physical carrier medium to levy duties on software;
 - i) if yes, whether software traded electronically is “like” software traded on a physical carrier medium;
 - ii) if yes, whether the Member should value electronically traded software no more than it values like physically traded software;
 - b) whether the Member is a member of the ITA and bound duties on computer software at zero;
 - i) if yes, whether software traded electronically is “like” software traded on a physical carrier medium;
 - ii) if yes, whether the Member should apply the ITA tariff binding to electronically traded software.
- 4) If a service,
 - a) whether the Member has made a GATS national treatment commitment on the relevant service that would preclude it from imposing customs duties on the particular software in question;
 - b) if yes, whether electronically traded software from another Member is “like” electronically traded software from the Member; and
 - c) if yes, whether the Member is treating another Member’s electronically traded software no less favorably than its own electronically traded software by imposing the duty.
- 5) Whether a binding decision not to impose customs duties on electronic transactions is in effect, and what the definition of “electronic transmission” is.

326. As the above discussion reveal, the analytical process for determining how existing WTO measures may limit the levying of customs duties on electronically traded digital products is very complicated and integrally linked to the classification of these products as goods or services. (See Table 36 below further illustrating the relationship between the Customs Moratorium, the Valuation Decision, the ITA, and the classification of electronically traded digital products as goods or services).

Table 36:
Levying Duties/Customs Valuation in Offline and Online Transactions

<i>Transaction involving a Digital Product</i>	<i>Offline (e.g., software delivered on a disc in a shrink-wrap box)</i>	<i>Online (e.g., software delivered electronically via Internet)</i>	
Classification	Good	Good	Service
General Ability to Levy Duties	Yes.	Yes, but technically would be very difficult.	Maybe. Members do not generally levy duties on services, could not do so where they have made a national treatment commitment on the service in question, and would have difficulty doing so technically.
Impact of Duty-free Moratorium on Ability to Levy Duties	Not applicable.	Maybe—depending on interpretation of “electronic transmission.”	Maybe—depending on interpretation of “electronic transmission.”
Impact of 1995 Decision on Customs Valuation	Members may elect to levy duties on the basis of the value of the physical carrier medium or the content. Most Members have made the decision to use the carrier medium.	To be consistent, Members should make the same election for online transactions as they make for offline transactions.	Members would have more leeway to levy the duty on the basis of the content.
ITA	ITA Signatories must bind tariffs to be levied on the basis of the physical carrier medium at zero.	To be consistent, ITA Signatories should bind the tariffs to be levied at zero.	Same as above.

3. Classifying Digital Products: Goods or Services?

327. Most WTO Members agree that the majority of services that are delivered electronically (e.g., financial or professional services) are services and governed by the GATS. But Members do not agree on whether digital products that have traditionally been traded on a physical carrier medium are goods but are now traded electronically governed by GATT, services governed by GATS, or some unique category deserving its own set of trade rules?

328. Why is this question so difficult? Because neither the GATT classification system (Harmonized System) nor GATS classification system (Services Sectoral Classification List,

W/120) offer an unambiguous way to classify digital products. This point is illustrated by the WTO's treatment of computer software.

- Because software has no physical attributes, there is no classification for it under the Harmonized System. Only certain carrier media on which software is recorded (e.g., laser discs or magnetic tapes) are listed in the Harmonized System.⁴⁸⁹ Accordingly, the ITA applies only indirectly to software by binding tariffs at zero for the carrier media.⁴⁹⁰
- The classification of computer software under the GATS is not any easier. The sub-sector classification for computer services refers only to the "consultancy" services related to "development and implementation" of software—not to the software itself.⁴⁹¹

329. Movies illustrate the same point that neither GATT nor GATS unambiguously classify digital products. The Harmonized System addresses only the recorded physical carrier media on which movies are distributed—not the content of the movie itself (i.e., 37.06 Cinematographic film, 85.24 Records, tapes and other recorded media for sound or other similarly recorded phenomena).⁴⁹² The Services Sectoral Classification System covers "Motion picture and video tape production, projection and distribution services" or "Radio and television services," but does not explicitly address the actual movie content (i.e., Prov. CPC 9611 Motion picture and video tape production and distribution services, Prov. CPC 9612 Motion picture projection service, etc.).

330. Why is this question so important? Because the classification of digital products will determine the level of trade liberalization that exporters of these products can expect from WTO Members and whether Members can maintain cultural protections in the face of ubiquitous electronic distribution of movies, music, and literature.⁴⁹³

331. The GATT and GATS trade liberalization levels—both in terms of general obligations and specific commitments—are very different.⁴⁹⁴ Physical carrier media classified as goods can be subject to border measures, but these are limited by an established set of obligations and

⁴⁸⁹ See Task Force on Software Measurement in the National Accounts (2002) at p. 4 ff. (explaining how software is treated under the Harmonized System. Carriers of software, for example, are classified under HS heading 85.24, i.e., packaged sets containing CD-ROMs with stored computer software and/or data developed for general or commercial use.") See also GATT Council, Background Note by the Secretariat, *Work Programme on Electronic Commerce*, G/C/W/128 (5 Nov. 1998).

⁴⁹⁰ See WTO Press Brief, "Information Technology Agreement," (27 Mar. 1997) www.wto.org/english/tratop_e/inftec_e/itadec_e.htm or the (providing the list of ITA products, which does not include software). See also, WTO, Press Release, "Ruggiero cites progress in the ITA," (3 Mar. 1997) at www.wto.org/english/news_e/pres97_e/pr69_e.htm. Also note that the ITA commitment lists for the USA and EC do not include "software" individually but rather via the HS classification for carrier media. ITA, US Rev 3 (26 Mar. 1997) and ITA, EC Rev 2 (26 Mar. 1997). ITA schedules can be downloaded from www.wto.org/english/tratop_e/inftec_e/itscheds_e.htm.

⁴⁹¹ GATS Council, Background Note by the Secretariat, *Computer and Related Services*, S/C/W/45 (14 July 1998) at pp. 3-4; and Chadha (1999, 2000).

⁴⁹² See Teltscher (2002) for the HS classifications.

⁴⁹³ See Sauvé & Steinfatt (2001) at p. 324.

⁴⁹⁴ Panagariya (2000) at p. 4.

agreements governing tariff bindings, national treatment, quotas, subsidies, safeguards as well as the Customs Valuation Decision and the ITA as previously discussed. Under the GATT the range of discriminatory trade treatment that a WTO Member may engage in is limited.

332. In contrast, under the GATS, digital products are guaranteed national treatment or market access only pursuant to a GATS commitment and these commitments may include significant limitations.⁴⁹⁵ A threshold—and very difficult—question is, “What GATS commitment applies?”⁴⁹⁶ If a Member has not made commitments on a service that captures a specific type of digital product, the Member is free to deny market access or national treatment to those digital products. Even if the Member has made a commitment, the strength of the commitment may be weakened through limitations or circumvented by an MFN exemption. (See Table 37 below illustrating the differences between the two WTO Agreements with respect to liberalization of digital products trade).⁴⁹⁷

333. Given the discrepancies in the level of trade liberalization that would be accorded digital products today if they were classified as goods rather than services, it is not surprising that some WTO Members are steadfast in their opposition to “re-classifying” digital products under the GATS. The battle lines are further hardened by the “trade and culture” debate.

334. During the Uruguay Round, some WTO Members wanted to exclude audiovisual and other services related to “culture” from the GATS (the so-called “exception culturelle”). In the end, audiovisual services were included under the general GATS obligations, but many WTO Members did not make specific market access or national treatment commitments for audiovisual services. The classification of digital products under the GATT would prevent WTO Members from applying market access or national treatment barriers or quotas to “cultural products.” In contrast, a GATS classification would permit Members to extend discriminatory limitations and cultural support measures to audiovisual services that are delivered electronically. As in the Uruguay Round, sensitivities to entertainment/cultural products will play an important role in the Doha negotiations as some Members try to improve and expand commitments covering these products while others resist in the name of culture.

⁴⁹⁵ General Council, Submission by the United States, *Work Programme on Electronic Commerce*, WT/GC/16 (12 Feb. 1999) at p. 5. See Hauser & Wunsch-Vincent (2002) at pp. 74 ff (providing a further discussion of the differences between the GATT and the GATS relevant to e-commerce).

⁴⁹⁶ This is a difficult question because of the: (1) overlapping classifications under W/120 that make it difficult to know which individual commitment or combination of commitments are necessary to cover a specific digital product; (2) disagreements among Members as to whether the commitment should cover the content, i.e., the movie, or the means of transmission, i.e., television broadcast transmission services; and (3) antiquity of W/120, which does not adequately reflect the types of services that are being traded today, e.g., Pay-TV, or the way that they are being traded, e.g., Internet transmission.

⁴⁹⁷ Note that some WTO experts would argue that the distinction between the level of trade liberalization afforded to digital products under GATT and GATS is overblown. The GATS, over time, should evolve to be as trade liberalizing as the GATT – if not more so – because it will eventually include the same disciplines as GATT and will cover four modes of supply v. the single, cross-border mode of supply covered by GATT.

Table 37:
Comparison of GATT and GATS Agreements

	<i>GATT; (1948 and 1995: 55 years) Many GATT rules are well-developed.</i>	<i>GATS, 1995 (8 years) Many GATS rules are untested or incomplete</i>
National Treatment Principle	Governed by general obligation for domestic measures with no exceptions for any Member. ⁴⁹⁸	Governed by specific commitments made by each Member.
Most-favored-nation status	Exemptions granted under limited special circumstances (preferential trade agreements, developing countries, etc.)	Time bound country-specific exemptions from MFN permitted.
Customs duties	Allowed where members have not bound customs duties at zero, which is the case for Members of the ITA.	Permitted theoretically, because GATS does not specifically address custom duties. Members with unlimited national treatment commitments, however, cannot impose duties.
Quotas	Permitted only in emergency safeguard situations.	Permitted for Members with no, or limited, market access commitments.
Transparency	GATT obligation reinforced by GATT agreements, such as the TBT.	GATS obligation less strict than GATT (no consultation requirements, etc.)
Regulatory discipline	Exists for technical standards and sanitary and phytosanitary measures to impede unnecessary trade-restricting regulations and to encourage the use of international standards.	Exists only as an incomplete regulatory discipline and a mandate to develop such a discipline exists (GATS Art. VI:4).
Preferential treatment for developing countries	Special conditions for developing countries exist.	Special conditions less far-reaching than under GATT. ⁴⁹⁹
Subsidies rules	Yes.	No.
Anti-dumping rules	Yes.	No.
Emergency safeguard rules	Yes.	No.
Rules of origin	Yes.	No.
Trade-related investments rules	Yes.	No, but market access for physical establishments (investment) is covered by specific commitments under GATS mode 3.
Access for natural persons	No.	Yes under GATS mode 4.
Applicability of TRIPS provisions	Yes.	Yes

Source: Adapted from Hauser & Wunsch-Vincent (2002) at p. 18.

335. As has been mentioned before, the classification debate dominated the debate in the GATS and GATT Councils⁵⁰⁰ and five dedicated discussions under the WTO Work Programme on E-commerce. In the last dedicated discussion, the Chairman stated that “there appeared to be a clear gap in perceptions about exactly how the classification issue could be resolved, in the

⁴⁹⁸ The procurement division of the public sector is excluded.

⁴⁹⁹ Senti (2000) at para. 645.

⁵⁰⁰ The classification debate does not appear to affect the protection of intellectual property embodied in digital products. See TRIPS Council, Background Note by the Secretariat, *Work Programme on Electronic Commerce: Addendum*, IP/C/W/128/Add.1 (15 May 2003) at para. 7 (*Second TRIPS Background Note*).

context of forwarding recommendations to Ministers in Cancun as part of the Work Programme on E-commerce.”⁵⁰¹

336. Given this clear and persistent gap, Members should perhaps consider alternative mechanisms to secure a free trade environment for digital products. For example, trading partners could simply decide to limit duties on digital products or discrimination against digital products, regardless of whether they are traded electronically or on a physically carrier medium. A number of countries, in fact, are considering such agreements in regional and bilateral free trade agreements. For example, the draft text of the Australia-United States Free Trade Agreement provides that:

A Party shall not impose customs duties or other duties, fees or charges . . . on or in connection with the importation or exportation of digital products, regardless of whether they are fixed on a carrier medium or transmitted electronically.

A Party shall not accord less favourable treatment to some digital products than it accords to other like digital products. . . .⁵⁰²

337. These provisions achieve duty-free and non-discriminatory treatment of digital products without deciding whether they should be classified as goods or services. The inclusion of such provisions in free trade agreements and ultimately in the WTO would help to sustain the free trade environment for digital products.

4. Doha Negotiations

338. How will the Doha Negotiations take up the market access issues for digital products that have been described above: the duty-free moratorium on electronic transmission, other limitations on the imposition of customs duties, and classification of digital products as goods or services?

339. The un-adopted Conference Draft for the Cancun Ministerial Declaration states that: “We take note of the reports from the General Council and subsidiary bodies on the Work Programme on Electronic Commerce, and agree to continue the examination of issues under that ongoing Work Programme, with the current institutional arrangements. We instruct the General Council

⁵⁰¹ General Council, Summary by the Secretariat of Issues Raised, *Fifth Dedicated Discussion on Electronic Commerce Under the Auspices of the General Council on 16 May and 11 July 2003*, WT/GC/W/509 (31 July 2003).

⁵⁰² United States-Australia Free Trade Agreement, Draft Texts, Chapter 16: Electronic Commerce at para. 16.3 - .4 (posted on 1 Mar. 2004 at ustr.gov/new/fta/Australia/text/index.htm).

to report on further progress to our next Session. We declare that Members will maintain their current practice of not imposing customs duties on electronic transmissions until that Session.”⁵⁰³

340. The lack of ambition in this draft declaration indicates that the Members in Cancun were not prepared to agree on making the moratorium permanent, the classification of digital products, or any other measures to secure the existing free trade environment for digital products. The net result of Cancun is that the status of the moratorium is unclear because the Ministers did not expressly extend it. Nor did the Ministers take any steps towards bridging the gap in the classification debate. The continuation of this debate leaves Members free to chip away at the existing free trade environment for digital products. It also significantly complicates the Doha negotiations with respect to digital products because there will be so much uncertainty about the coverage of digital products in Members’ commitments.

⁵⁰³ Preparations for the Fifth Session of the Ministerial Conference Draft Cancun Ministerial Text, JOB(03)/150 (18 July 2003) www.insidetrade.com/secure/pdf4/wto2003_4910.pdf.

C. Intellectual Property Right Protection for Digital Products

341. The most striking development in the field of intellectual property since the entry into force of the WTO TRIPS Agreement in 1995 has been the rapid increase in the use of digital technology in the commercial domain.⁵⁰⁴ Through digital technology, works protected by copyright, related rights, or other intellectual property rights ("IPRs") (e.g., sound recordings, audiovisual works, video games, computer software and literary works, etc.) may be copied and distributed at virtually zero marginal cost around the world. Much of what is traded on the Internet are products protected by intellectual property and hence the growth of e-commerce is linked to how IPRs are applied in cyberspace.⁵⁰⁵

342. At the outset of the WTO Work Programme on E-commerce, the WTO Secretariat noted that:

Copyright owners will be reluctant to put their protected materials on the net as long as they fear that the Internet may lead to uncontrolled dissemination and copying of phonograms, films, computer programs and other protected materials, which will seriously undermine copyright industries. Also service providers and others involved in the process of making materials available to end users will need clear rules to be able to plane how to develop their services.⁵⁰⁶

343. This statement is as true today as it was in 1998. Yet, as discussed below, the WTO has been—and is likely to continue being—a relatively minor forum for the discussion of IPR in cyberspace, notwithstanding the importance to IPR to electronically traded digital products.⁵⁰⁷ This may not be a serious problem, however, given the work that the World Intellectual Property Organization (WIPO) is doing.

1. The TRIPS Agreement

344. The objectives of the TRIPS Agreement include: (1) reducing distortions and impediments to international trade; (2) taking into account the need to promote effective and adequate protection of intellectual property rights; and (3) ensuring that measures and procedures

⁵⁰⁴ See TRIPS Council, Submission from Australia, *Electronic Commerce Work Programme*, IP/C/W/144 (6 July 1999) (*Australia's Submission*).

⁵⁰⁵ General Council, Secretariat Note, WTO Agreements and Electronic Commerce, WT/GC/W/90 (14 July 1998) at paras. 19-22.

⁵⁰⁶ *Id.* at para. 24.

⁵⁰⁷ Note that this paper focuses on copyright protection in the digital world as this is most relevant to digital products.

to enforce intellectual property rights do not themselves become barriers to legitimate trade.⁵⁰⁸ The Agreement recognizes that “the protection and enforcement of intellectual property rights should contribute to the provision of technological innovation and to the transfer and dissemination of technology, the mutual advantage of producers and users of technological knowledge and in a manner conducive to social and economic welfare, and to a balance of rights and obligations.”⁵⁰⁹

345. The TRIPS Agreement defines minimum standards for the protection of IPRs that Members must respect but leaves them free to provide more extensive protection at the national level or international level in bilateral, regional and multilateral agreements.⁵¹⁰ These standards are actually set forth in WIPO treaties and incorporated by reference into the TRIPS Agreement, making them applicable and enforceable among all WTO Members, even if they are not parties to the WIPO conventions.⁵¹¹

346. The Uruguay Round negotiations on IPRs were substantively concluded by December 1991 with the publication of the draft agreement in the "Draft Final Act Embodying the Results of the Uruguay Round of Multilateral Trade Negotiations." Even though the Uruguay Round negotiations continued until December 1993, there were no substantive changes to the draft TRIPS Agreement. Given that the TRIPS negotiations significantly pre-dated the Internet revolution, the Members did not consider the implications of global digital networks on the protection and enforcement of IPRs.⁵¹² The WTO Work Programme on E-commerce now provides Members with the opportunity to examine the effectiveness and adequacy of the TRIPS Agreement in protecting IPR in cyberspace.

2. WTO Work Programme on Electronic Commerce

347. In September 1998, the WTO General Council established the WTO Work Programme on Electronic Commerce and asked the TRIPS Council to “examine and report on the intellectual property issues arising in connection with electronic commerce . . . [including]: protection and enforcement of copyright and related rights; protection and enforcement of trademarks; and new

⁵⁰⁸ TRIPS Agreement Preamble. See www.wto.org/english/tratop_e/trips_e/trips_e.htm (providing a detailed introduction to the TRIPS and direct links to the ongoing WTO activities).

⁵⁰⁹ TRIPS Agreement Art. 7.

⁵¹⁰ TRIPS Council, Background Note by the Secretariat, *The Work Programme on Electronic Commerce*, IP/C/W/128 (10 Feb. 1999) at para. 17 (*TRIPS Background Note*). See TRIPS Art. 1

⁵¹¹ See *TRIPS Background Note* at n. 3 (listing four conventions: The Paris Convention for the Protection of Industrial Property, the Stockholm Act of 14 July 1967; the Berne Convention for the Protection of Literary and Artistic Works, the Paris Act of 24 July 1967; the International Convention for the Protection of Performers, Producers of Phonograms and Broadcasting Organizations, adopted at Rome on 26 Oct. 1961 (Rome Convention); and the Treaty on Intellectual Property in Respect of Integrated Circuits, adopted at Washington on 26 May 1989 (the IPIC Treaty)). See www.wipo.int/treaties/ip for treaty texts.

⁵¹² *TRIPS Background Note*, IP/C/W/128 (10 Feb. 1999) at para. 14.

technologies and access to technologies.”⁵¹³ As a result, the issue of e-commerce has been a standing item on the TRIPS Council’s beginning with its December 1998 meeting.

348. Over the course of the Work Programme, the TRIPS Council has asked the Secretariat to prepare two Background Notes “examining the provisions of the TRIPS Agreement relevant to the Work Programme.” The Secretariat released the first note in 1999 and the second in 2003.⁵¹⁴ Like the other Councils, the TRIPS Council submitted its first Progress Report on the Work Programme to the General Council in July 1999,⁵¹⁵ a second Progress Report in December 2000,⁵¹⁶ and a third report prior to the Cancun Ministerial in July 2003.⁵¹⁷ The Council received a handful of submissions for the Work Programme, including two from developing countries—Cuba and India.⁵¹⁸

349. The focal point of the TRIPS Council’s work was “whether the norms contained in the TRIPS Agreement provide “effective and adequate protection of intellectual property rights” in respect of the new forms of exploitation made possible by means of interactive digital networks.”⁵¹⁹ The Secretariat concluded that “the TRIPS Agreement would appear to remain valid in cyberspace.”⁵²⁰ The Members agreed on the following general points regarding IPRs in cyberspace:

⁵¹³ General Council, Work Programme on Electronic Commerce: Adopted by the General Council on 25 September 1998, WT/L/274 (30 Sept. 1998) at para. 4.1.

⁵¹⁴ *TRIPS Background Note*, IP/C/W/128 (19 Feb. 1999); *Second TRIPS Background Note*, IP/C/W/128/Add.1 (15 May 2003). In the second note, the WTO Secretariat observed that “as far as IPRs are concerned, the classification of digital products in question for the purposes of GATS and GATT would not appear to affect the IP protection that the contents embodied on those products enjoy under the provisions of the TRIPS Agreement.” *Id.* at para. 7. This view has not – so far – been contested by any WTO Members and therefore it does not appear that the classification debate will impact the degree of IPR protection afforded to digital products.

⁵¹⁵ TRIPS Council, Progress Report to the General Council, *Work Programme on Electronic Commerce*, IP/C/18 (30 July 1999) (*First TRIPS Progress Report*).

⁵¹⁶ TRIPS Council, Progress Report by the Chairman to the General Council, *Work Programme on Electronic Commerce*, IP/C/20 (4 Dec. 2000) (*Second TRIPS Progress Report*).

⁵¹⁷ TRIPS Council, Report to the General Council, *Work Programme on Electronic Commerce*, IP/C/29 (2 July 2003).

⁵¹⁸ TRIPS Council, Submission from Switzerland, *Electronic Commerce Work Programme*, IP/C/W/286 (22 June 2001); TRIPS Council, Communication from Cuba, *Need for Unrestricted Global Electronic Commerce*, IP/C/W/264 (16 May 2001); TRIPS Council, Submission from Australia, *Electronic Commerce Work Programme*, IP/C/W/233 (7 Dec. 2000); TRIPS Council, Submission from the EC and their Member States, *Electronic Commerce Work Programme*, IP/C/W/224 (17 Nov. 2000); TRIPS Council, Submission from the United States, *Electronic Commerce Work Programme*, IP/C/W/149 (14 July 1999); TRIPS Council, Submission from Japan, *Electronic Commerce Work Programme*, IP/C/W/145 (13 July 1999); TRIPS Council, Submission from India, *Electronic Commerce Work Programme*, IP/C/W/147 (13 July 1999); *Australia’s Submission*, IP/C/W/144 (6 July 1999); TRIPS Council, Submission from the United States, *Electronic Commerce Work Programme*, IP/C/16 (12 Feb. 1999).

⁵¹⁹ TRIPS Background Note, IP/C/W/128 (19 Feb. 1999) at para. 14. The Council also considered the related question of “whether differences in the way in which new forms of exploitation of protected subject-matter in the digital environment are addressed in legislation and case law at the national level may result in increased distortions of and impediments to international trade.” *Id.* at para. 15.

⁵²⁰ *First TRIPS Progress Report*, IP/C/18 (30 July 1999). As Switzerland put it, “what is valid off-line, is valid on-line.” TRIPS Council, Submission from Switzerland, *Electronic Commerce Work Programme*, IP/C/W/140 (May 7, 1999) at para. 3. See also, TRIPS Council, Submission from the EC and their Member States, *Electronic*

- IPRs are important for the development of e-commerce;
- E-commerce has a relatively high degree of intellectual property content;
- A secure and predictable legal environment for IPRs would foster e-commerce;
- It should not be assumed that the benefits of e-commerce would automatically—or equitably—flow to developing countries; and
- Multilateral approaches to IPR issues arising from e-commerce are needed.⁵²¹

350. The Members disagreed, however, on whether the TRIPS Agreement was technologically neutral and whether e-commerce related challenges to IPR could be addressed within the existing international framework.⁵²² For example, Japan noted that: “. . . the language used in the TRIPS Agreement is generally neutral with regard to technology” and “rights given to the right holder under the rules of the current agreement and the exceptions should continue to be applied under the new digital or network environment.”⁵²³ Australia proposed that TRIPS Council agree to a statement regarding the applicability to electronic commerce of the traditional objectives of the intellectual property system, the generally technology-neutral nature of TRIPS provisions, and the relevance of TRIPS provisions in the digital network environment.⁵²⁴

351. Other Members, however, questioned the principle of technological neutrality because the TRIPS Agreement had been negotiated before global digital networks and their impact on IPRs had become an issue before the international community.⁵²⁵ The representative of Korea, for example, urged caution when using the term “technological neutrality” in the TRIPS context and proposed further study of the issue. She recalled that the term had been first used in the basic telecommunications negotiations in 1997 to mean that specific commitments made under the GATS applied to all technological means of supplying a service unless otherwise specified.⁵²⁶

352. In summary, the “Members of the Council are of the view that the novelty and complexity of the intellectual property issues arising in connection with electronic commerce are such that further study is required by the international community to better understand the issues

Commerce Work Programme, IP/C/W/224 (17 Nov. 2000); and TRIPS Council, Submission from the United States, *Electronic Commerce Work Programme*, Submission from the United States, IP/C/W/149 (14 July 1999).

⁵²¹ First TRIPS Progress Report, IP/C/18 (30 July 1999) at para. 4.

⁵²² *Id.*

⁵²³ TRIPS Council, Submission from Japan, *Electronic Commerce Work Programme*, IP/C/W/145 (13 July 1999).

⁵²⁴ *Australia's Submission*, IP/C/W/144 (6 July 1999).

⁵²⁵ *First TRIPS Progress Report*, IP/C/18 (30 July 1999) at para. 4.

⁵²⁶ TRIPS Council, *Minutes of Meeting - Held in the Centre William Rappard on 19 and 20 Sept. 2001*, IP/C/M/33 (2 Nov. 2001) at para. 142.

involved” and that “the WTO should continue to consider developments in this area, including the further work of WIPO.”⁵²⁷

353. Since year-end 2001, no WTO Member has submitted a communication to the Council for TRIPS on the matter of e-commerce and IPRs and the minutes of Council meetings for 2002 and 2003 show very limited activity on this topic.⁵²⁸

3. The Copyright Challenge for Digital Products

354. Put simply, the primary issue regarding copyright protection in cyberspace is how to prevent unauthorized copying or use of works (e.g., to ensure the payment of royalties). The challenge is significant:

The advent of digital technology, with its ability to create perfect reproductions of works at minimal cost, creates a major challenge for IPR holders. They face an even greater challenge from the networked environment typical of electronic commerce, where IPR protection via control over the media (e.g., a CD) or the player may no longer be possible. If content is freely distributed through an open network and accessible by computers based on open standards, new and unique problems are created.⁵²⁹

355. WTO Members—including developing country members—will need to determine the extent to which they want to undertake legal obligations to protect copyrights in cyberspace. This understanding requires WTO Members to first take a position on the balance that should be struck between protecting digital products and making them available online. It further requires them to understand their own enforcement capabilities, an important consideration for developing countries with limited enforcement resources.

356. The TRIPS Council’s work on e-commerce has started to shape the understanding of Members in this regard. The Secretariat’s first Background Note and communications from Members have identified a number of issues regarding the implications of e-commerce for the elements relevant to determining the existence and scope of copyrights, including: the definition of “publication” of a work; the notion of country of origin; the right of reproduction; the right of communication; the delimitation of moral rights; the definition of who is a right holder; the

⁵²⁷ *First TRIPS Progress Report*, IP/C/18 (30 July 1999) at para. 12; *Second TRIPS Progress Report*, IP/C/20 (4 Dec. 2000) at para. 9.

⁵²⁸ The records of the discussions can be found in the minutes of the following meetings: 2-5 April 2001, IP/C/M/30; 18-22 June 2001, IP/C/M/32; 19-20 Sept. 2001, IP/C/M/33; 5-7 Mar. 2002, IP/C/M/35; 25-27 June 2002, IP/C/M/36/Add.1; 17-19 Sept. 2002, IP/C/M/37/Add.1; 25-27 and 29 Nov. and 20 Dec. 2002, IP/C/M/38; 18-19 Feb. 2003, IP/C/M/39; 4-5 June 2003, IP/C/M/40.

⁵²⁹ TRIPS Council, Submission by the United States, *Work Programme on Electronic Commerce*, IP/C/16 (12 Feb. 1999) at para. 6.

decision on what types of work are protected subject-matter (e.g., computer programs and databases; the determination of limitations to copyrights; and collective management of rights (including with respect to folklore and other forms of traditional expression)).⁵³⁰

357. With regard to enforcement issues—traditionally undertaken on a territorial basis—the Secretariat’s first Background Paper described a number of issues, arising out of the growing use of global electronic networks, including: appropriate jurisdiction and applicable law; liability of service providers for intellectual property infringements; the role of technological measures for facilitating protection of copyright and related rights; and the role of electronic rights management information.⁵³¹

358. The link between TRIPS and WIPO treaties is particularly interesting for the enforcement of copyright protections for digital products. In 1996, following the entry into force of the Uruguay Round WTO Agreements, WIPO Members adopted two “Internet Treaties:” the WIPO Copyright Treaty (WCT) and the WIPO Performances and Phonograms Treaty (WPPT). These treaties entered into force in 2002 after they had been ratified by 30 countries.⁵³²

359. According to the WTO Secretariat:

These new instruments are self-standing treaties, which build on the Berne and Rome Conventions and the TRIPS Agreement, but in some respects go considerably further. The implementation of these new treaties will facilitate the creation of a secure and predictable legal environment that will foster the development of electronic commerce involving on-line distribution of materials protected by copyright and related rights.

The main improvements that relate to the use of works and phonograms on the Internet and other interactive digital networks concern the right of communication, circumvention of technological measures and integrity of rights management information.⁵³³

360. As part of the Work Programme, Members in the TRIPS Council have considered the relationship between the WIPO Internet Treaties and the TRIPS Agreement and how they might be used further to enhance the relevance of the TRIPS Agreement in the digital environment.

⁵³⁰ *First TRIPS Progress Report*, IP/C/18 (19 July 1999) at para. 5 (summarizing issues addressed in the *TRIPS Background Note*, IP/C/W/128 (16 Feb. 1999) and Council discussions.

⁵³¹ *Id.* at para. 6.

⁵³² See U.S. Department of State, “Global Internet Copyright Treaty Enters Into Force,” (7 Mar. 2002) usinfo.state.gov/topical/econ/ipr/ipr-wct.htm (visited 12 Aug. 2003). The WIPO Copyright Treaty (WCT) can be found at www.wipo.int/treaties/ip/wct/index.html, and the WIPO Performances and Phonograms Treaty (WPPT) at www.wipo.int/treaties/ip/wppt/index.html. Both constitute a substantial improvement to the older Berne and Rome Conventions. See Ficsor (1997) for details on both treaties.

⁵³³ *TRIPS Background Note*, IP/C/W/128 (10 Feb. 1999) at para. 82.

There seemed to be consensus that the Council and Members should continue to monitor WIPO's work in this area.⁵³⁴ Other Members advocated more ambitious action, such as:

- Confirming the existing TRIPS rules are technology neutral;⁵³⁵
- Ratifying the WIPO Internet Treaties, independent of the TRIPS Agreement;⁵³⁶
- Amending, in the future, the TRIPS Agreement to include the WIPO Internet Treaties or reference to them to provide a sufficient minimal level of copyright protection in the context of the Internet.⁵³⁷

361. Australia proposed the last—and most far—reaching—suggestion of creating a link between the WIPO Internet Treaties and the TRIPS Agreement. Its submission notes that “Members could consider making one outcome of the Work Programme an encouragement of a continued mutually supporting linkage between TRIPS and the provisions of the WCT and WPPT. . . . Australia does not at this stage advocate any specific linkage between these instruments, but suggests that it would be appropriate to consider the possibilities.”⁵³⁸ Australia also specified three options for WTO Members to consider:

One option is a statement on the part of the TRIPS Council that recognizes the value of the WCT and WPPT in giving effect to the objectives of TRIPS, and specifically acknowledges the relevance of its provisions to copyright law in the digital environment. Alternatively, relevant parts of the WCT and WPPT could be incorporated into TRIPS by reference. A third option is that Members could use existing WCT provisions as a starting point for the negotiation of new TRIPS provisions.⁵³⁹

362. The United States⁵⁴⁰ supported Australia, and the European Union⁵⁴¹ whereas, for instance, Korea argued in 2001 that it was premature to consider adopting the WCT and WPPT in the context of the TRIPS Agreement.⁵⁴²

⁵³⁴ First TRIPS Progress Report, IP/C/18 (30 July 1999) at para. 12; Second TRIPS Progress Report, IP/C/20 (4 Dec. 2000) at para. 9.

⁵³⁵ *Australia's Submission*, IP/C/W/144 (6 July 1999) at para. 5.

⁵³⁶ TRIPS Council, Submission by United States, *Electronic Commerce Work Programme*, IP/C/W/149 (14 July 1999) at para. 3.

⁵³⁷ *Australia's Submission*, IP/C/W/144 (6 July 1999) at para. 21.

⁵³⁸ *Id.*

⁵³⁹ *Id.*

⁵⁴⁰ TRIPS Council, *Minutes of Meeting - Held in the Centre William Rappard on 18 - 19 February 2003*, IP/C/M/39 (21 Mar, 2003) at para. 191 (reporting the statement of the U.S. Representative).

⁵⁴¹ In its submission, the EC did not make direct reference to the WIPO Treaties but noted that, “At an appropriate time in the future, and taking into account work done in other fora, it might be desirable to adapt or clarify the provisions of the TRIPS Agreement to reflect new technological developments.” TRIPS Council, Submission by the EC and Its Member States, *Electronic Commerce Work Programme*, IP/C/W/224 (17 Nov. 2000) at para. 5.

⁵⁴² TRIPS Council, *Minutes of Meeting - Held in the Centre William Rappard on 19 and 20 Sept. 2001*, IP/C/M/33 (2 Nov. 2001) at para. 142.

4. The Doha Negotiations

363. The Doha Declaration does not provide for IPR negotiations *per se*. It does, however, instruct “the Council for TRIPS, in pursuing its work programme . . . to examine, *inter alia*, . . . other relevant new developments raised by Members pursuant to 71.1. . . .”⁵⁴³ (See Table 38 below providing the text of Article 71 of the TRIPS Agreement.)

Table 38:

TRIPS Art. 71: Review and Amendment

TRIPS Art. 71

1. The Council for TRIPS shall review the implementation of this Agreement after the expiration of the transitional period referred to in paragraph 2 of Article 65. The Council shall, having regard to the experience gained in its implementation, review it two years after that date, and at identical intervals thereafter. The Council may also undertake reviews in the light of any relevant new developments which might warrant modification or amendment of this Agreement.
2. Amendments merely serving the purpose of adjusting to higher levels of protection of intellectual property rights achieved, and in force, in other multilateral agreements and accepted under those agreements by all Members of the WTO may be referred to the Ministerial Conference for action in accordance with paragraph 6 of Article X of the WTO Agreement on the basis of a consensus proposal from the Council for TRIPS.

364. Australia has in fact proposed modalities for amending the TRIPS Agreement to reflect the WIPO Internet Treaties using the review process set forth in Article 71.⁵⁴⁴ Although Australia notes that it is very unlikely that the exact terms of Article 71:2 will ever be met, it found Article 71 to be a useful starting point because it indicates that the TRIPS Agreement may be amended where new universally accepted international intellectual property standards emerge.⁵⁴⁵

365. It is doubtful, however, that the Doha negotiations will lead to action on the WIPO Internet Treaties. Proposals to modernize the TRIPS Agreement for cyberspace—and hence to extend its current rules and obligations—probably is a non-starter during this stage of the Doha Negotiations for several reasons.

- First, only a handful of WTO Members shaped the TRIPS Council e-commerce debate and prospect of updating the TRIPS Agreement to reflect the WIPO Internet Treaties. All of these countries have or will soon implement the WPPT or the WCT. And even

⁵⁴³ Doha Declaration at para. 19.

⁵⁴⁴ TRIPS Council, Submission from Australia, *Electronic Commerce Work Programme*, IP/C/W/233 (7 Dec. 2000) at para. 30.

⁵⁴⁵ *Id.*

these countries have only proposed to “consider” a possible linkage. No WTO Member has—so far—advocated and pushed for more specific steps in that direction.⁵⁴⁶

- Second, the debate on this topic is not a high priority for most WTO Members as evidenced by the time that has passed since the last submission or substantive discussion on this topic in the TRIPS Council.
- Third, a proposal to discuss modernization of the TRIPS Agreement may be seriously out of step with what is currently acceptable to the majority of the WTO Member States.⁵⁴⁷ Many developing countries still question the benefits of their TRIPS obligations, particularly with respect to the transfer of technology to developing countries.⁵⁴⁸ As submissions of some developing countries indicate there is a widespread feeling that provisions contained in some of the WTO Agreements like the TRIPS hinder rather than help transfer of technology to developing countries.⁵⁴⁹ And, many also struggle with the enforcement of current TRIPS obligations.

⁵⁴⁶ Even the U.S. that has great interests in the IPR protection of digital products has not moved so far. See “U.S. To Raise E-commerce Copyright Issues In WTO TRIPS Talks,” *Inside U.S. Trade* (July 19, 2002). According to this source, although the U.S. has begun discussions on strengthening copyright protections on the Internet, it is not yet ready to push for incorporation of the two WIPO treaties in WTO rules.

⁵⁴⁷ Consider, for example, developing country reactions to Australia’s proposal to use Art. 71 in connection with the WIPO Internet Treaties. Peru took the position that e-commerce should not receive disproportionate attention under the Art. 71:1 at the expense of development related subjects, see TRIPS Council, *Minutes of Meeting - Held in the Centre William Rappard from 26 - 29 June 2000*, IP/C/M/27 (14 Aug. 2000) at para. 147. Brazil rejected Art. 71:1 as a venue for amending the TRIPS as the issue had no connection with implementation of the Agreement and therefore fell outside the scope of the review under Article 71:1. TRIPS Council, *Minutes of Meeting - Held in the Centre William Rappard on 21 and 22 September 2000*, IP/C/M/28 (23 Nov. 2000) at para. 185. . Also consider the “Declaration on the TRIPS Agreement and Public Health,” reached before the Cancun Ministerial that makes it easier for poorer countries to import certain generic drugs under compulsory licensing if they are unable to manufacture the medicines themselves. WTO, Press Releases, “Intellectual Property: Decision removes final patent obstacle to cheap drug imports,” No. 350 (30 Aug. 2003).

⁵⁴⁸ Working Group on Trade and Transfer of Technology, Communication from Cuba, India, Indonesia, Kenya, Pakistan, Tanzania and Zimbabwe, *Possible Recommendations on Steps that might be taken within the mandate of the WTO to increase flows of technology to developing countries*, WT/WGTTT/W/6 (7 May 2003). The Members stated, that “though one of the objectives of the Agreement is that protection and enforcement of intellectual property rights (IPRs) should contribute to the technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge, there is widespread recognition now, that the developing countries are facing more hardships than benefits because of the TRIPS Agreement and that the balance between private profits and public policy objectives has not been properly reached in this Agreement.”

⁵⁴⁹ Working Group on Trade and Transfer of Technology, Communication from Cuba, India, Indonesia, Kenya, Pakistan, Tanzania and Zimbabwe, *Possible Recommendations on Steps That Might Be Taken Within the Mandate of the WTO To Increase Flows of Technology to Developing Countries*, WT/WGTTT/W/6 (7 May 2003). The Members stated, that “though one of the objectives of the Agreement is that protection and enforcement of intellectual property rights (IPRs) should contribute to the technological innovation and to the transfer and dissemination of technology, to the mutual advantage of producers and users of technological knowledge, there is widespread recognition now, that the developing countries are facing more hardships than benefits because of the TRIPS Agreement and that the balance between private profits and public policy objectives has not been properly reached in this Agreement.”

- Fourth, the fact that in August 2003 less than one third (WCT: 47 members, WPPT: 43 members) of the WTO Membership had signed and ratified the comparatively new WIPO Internet treaties (see Table 39) points to the fact that treatment of this topic in the WTO may take some more time.⁵⁵⁰ Clearly, it will be difficult to hurry Members that are not yet signatories of the WIPO Treaties into related, increased TRIPS commitments. Still, some WTO Members like the U.S. have used the review process under Art. 71 to suggest accession to the new WIPO Internet Treaties.⁵⁵¹

Table 39:

Status of Accession WIPO Internet Treaties

<i>WIPO INTERNET TREATIES</i>			
<i>WIPO Performances and Phonograms Treaty (WPPT)</i>		<i>WIPO Copyright Treaty (WCT)</i>	
<i>Status on April 15, 2004</i>		<i>Status on April 15, 2004</i>	
Albania	Latvia	Argentina	Latvia
Argentina	Lithuania	Belarus	Lithuania
Belarus	Mali	Bulgaria	Mali
Bulgaria	Mexico	Burkina Faso	Mexico
Burkina Faso	Mongolia	Chile	Mongolia
Chile	Nicaragua	Colombia	Nicaragua
Colombia	Panama	Costa Rica	Panama
Costa Rica	Paraguay	Croatia	Paraguay
Croatia	Peru	Cyprus	Peru
Czech Republic	Philippines	Czech Republic	Philippines
Ecuador	Poland	Ecuador	Poland
El Salvador	Republic of Moldova	El Salvador	Republic of Korea
Gabon	Romania	Gabon	Republic of Moldova
Georgia	Saint Lucia	Georgia	Romania
Guatemala	Senegal	Guatemala	Saint Lucia
Guinea	Serbia and Montenegro	Guinea	Senegal
Honduras	Slovakia	Honduras	Serbia and Montenegro
Hungary	Slovenia	Hungary	Slovakia
Jamaica	Togo	Indonesia	Slovenia
Japan	Ukraine	Jamaica	Frmr. Yugoslav Rep. of Macedonia
Jordan	USA	Japan	Togo
Kyrgyzstan		Jordan	Ukraine
		Kyrgyzstan	United Arab Emirates
			United States of America

Source: www.wipo.int/treaties/documents/english/word/s-wct.doc and www.wipo.int/treaties/documents/english/word/s-wppt.doc.

366. Despite the apparent lack of activity in using the Doha negotiations to modernize the TRIPS Agreement of the Digital Age, legal protection of IPR for digital products is an issue that the WTO Members eventually will need to address. In the interim, developing countries are

⁵⁵⁰ In July/August 2003, 42 countries had signed and ratified the WPPT and the WCT. See <http://www.wipo.int/treaties/documents/english/word/s-wct.doc> (visited 4 Aug. 2003) and WPT link (visited 21 July 2003). Then, WIPO members like the EC had not yet deposited instruments of ratification with WIPO because not all individual EC Member States have yet ratified the implementing legislation. But many other WTO Member States have no intention to sign and/or ratify the new WIPO Internet Treaties.

⁵⁵¹ TRIPS Council, *Minutes of Meeting, Held in Centre William Rappard on 4-5 June 2003*, IP/C/M/40 (22 Aug. 2003) at para. 141.

reminded by multi-national corporations that functioning intellectual property rights regimes are a key criterion for the assessment of potential foreign direct investment locations. And, a number of trading partners like the United States are addressing the protection of intellectual property in the online environment using bilateral agreements.⁵⁵²

D. Conclusion

367. This section has shown that neither the existing free trade environment nor intellectual property protection is secured for digital products via the WTO's rules-based trading system. It is important that Members use the Doha negotiations to secure a high level of market access for digital products so that the existing free trade environment does not slip away. It is also important that Members continue monitoring the work of WIPO on Internet-related instruments as well as other developments given the significance of intellectual property to e-commerce.

⁵⁵² See e.g., the completed United States -Singapore Free Trade Agreement under www.ustr.gov/new/fta/Singapore/final.htm or the United States-Chile Free Trade Agreement under www.ustr.gov/new/fta/chile.htm.

Concluding Remarks

368. As this paper has demonstrated, the search for principles and rules concerning IT and e-commerce is ongoing in the WTO and the WTO has a very important role to play in IT/e-commerce governance. The WTO's influence on these matters, however, may not be fully appreciated outside the realm of trade policy experts. The purpose of this paper is to increase not only awareness but also knowledge of the WTO's existing and potential IT/e-commerce agenda.

370. Although the WTO has been an important forum for discussing IT/e-commerce issues, little concrete progress has been made in the Doha negotiations on these issues. The lack of progress can be explained by many factors: the lull in negotiations after the Cancun Ministerial; failure of Doha Declaration to identify IT/e-commerce as a negotiating topic; the dispersion of IT/e-commerce issues in different WTO negotiating groups; threshold negotiating issues that pre-occupy WTO members, such as agriculture; and the relative lack of trade barriers effecting e-commerce today.

372. Because of the inaction on IT/e-commerce in the WTO, negotiations on this important has gravitated to preferential trade agreements. The United States, in particular, has been addressing digital trade in its bilateral and regional trade negotiations.⁵⁵³

373. The global nature of e-commerce flows and the increasingly globalized nature of the IT and services industries warrant a more concerted approach at the multilateral level. Moreover, there is also a symbolic value in keeping the WTO Agreements in line with the reality of international trade flows. Waiting for next global trade talks to be launched—possibly not before five or more years—is definitely not satisfactory. And it is quasi certain that the complex issues involved cannot be handled by the WTO Members between rounds of global trade talks.

374. When this work was completed in June 2004 new signs of a possible second take-off the Doha Negotiations became visible. Ideally, this analysis of digital trade issues and the proposed solutions will succeed in putting a spotlight on electronic trade and in providing direction.

⁵⁵³ Wunsch-Vincent (2003).

BIBLIOGRAPHY (By Subject Matter)

Websites

The **WTO** website has a section on the WTO Work Programme on E-commerce at: www.wto.org/english/tratop_e/ecom_e/ecom_e.htm.

UNCTAD has an E-commerce Branch with interesting documents, notably the *UNCTAD E-commerce and Development Report 2003*. This work can be found: <http://r0.unctad.org/ecommerce/>.

The **OECD's Information, Computer and Communications Policy Division** produces studies and suggestions for regulatory frameworks on IT-related issues. The Working Party of the Information Economy (WPIE) and the Information, Computer & Communications Policy Division produce the *OECD Communications Outlook* (last edition in 2003 and next edition in 2005) and the *OECD Information Technology Outlook* (next edition released in September 2004). This work can be found at: www.oecd.org/sti/ict.

The **WIPO** Electronic Commerce and Intellectual Property website can be found under ecommerce.wipo.int/.

The **Harvard Trade Negotiations Homepage** contains a large section with papers on the role of the WTO, international trade and E-commerce. See www.cid.harvard.edu/cidtrade/issues/ecommercepaper.html. The papers on trade in services can be found at: www.cid.harvard.edu/cidtrade/issues/servicespaper.html.

Trade, the WTO and E-commerce

ASEM, Issue Paper for the 2nd ASEM Seminar on E-commerce, ASEM E-commerce Officials' Meeting, 24 September, 2002, Helsinki, Finland, at: www.ktm.fi/eng/news/asem2002ecom/Issues_Paper.doc (last visited June 2003).

Bacchetta, Marc, Patrick Low, Aaditya Mattoo, Ludger Schuknecht, Hannu Wager and Madeöpm Wehrens (1998), *Electronic Commerce and the Role of the WTO*, WTO Publication, Geneva: World Trade Organization.

Baird, Zoe (2002), *Governing the Internet: Engaging Government, Business, and Nonprofits*, *Foreign Affairs*, Vol. 81, No.6, pp. 15-20.

Berkey, Judson O. and Emad Tinawi (1999), *E-Services and the WTO: The Adequacy of the GATS Classification Framework*, Washington D.C., Institute of International Finance, at: www.oecd.org/dsti/sti/it/ec/act/paris_ec/pdf/gatsfin.pdf (last visited September 2003).

Berkey, Judson O. (2001), *A Framework Agreement for Electronic Commerce Regulation Under the GATS*, Washington D.C., Institute of International Finance, December 2001, at: www.cid.harvard.edu/cidtrade/Papers/eserv_frame.pdf (last visited September 2003).

Bhatnagar, Pradip (1999), *Convergence and the World Trade Organization*, Info, Vol. 1, Issue 2, pp. 159-169.

Drake, William and Kalypso Nicolaidis (2000), *Global Electronic Commerce and the GATS: The "Millennium Round" and Beyond*, in: Sauv , Pierre and Robert M. Stern (Eds.), *GATS 2000: New Directions in Services Trade Liberalisation*, Washington D.C.: Brookings Institution Press; chapter 14, pp. 399-437.

Ficsor, M. (1997), *Copyright for the Digital Era: The WIPO 'Internet' Treaties*, Columbia Journal of Law & Arts, Vol. 21, Issue 3-4 (Spring/Summer 1997).

Freund, Caroline and Diana Weinhold (2000), *On the Effect of the Internet on International Trade*. International Finance Discussion Papers, Washington D.C.: Board of Governors of the Federal Reserve System, No. 2000-693, December 2000, at: federalreserve.gov/Pubs/ifdp/2000/693/default.htm (last visited September 2003).

FTC (2000), *Consumer Protection in the Global Electronic Marketplace – Looking Ahead*, Washington D.C.: Federal Trade Commission (Bureau of Consumer Protection), September 2000, at: www.ftc.gov/opa/2000/09/globalecommfin.htm (last visited September 2003).

GBDe (2001), *Trade/WTO*, at: www.gbde.org/tradewto/01trade.pdf (last visited September 2003).

Harris, Scott Blake (1999), *The WTO and the Internet*, American Bar Association, Section of International Law and Practice International Communications Committee Newsletter, Fall 1999.

Hauser, Heinz and Sacha Wunsch-Vincent (2001), *A Call for a WTO E-commerce Initiative*, International Journal of Communications Law and Policy, Issue 6 (Winter 00/01), IJCLP Web-Doc 1-6-2001, at: www.ijclp.org/6_2001/ijclp_webdoc_1_6_2001.html (last visited September 2003).

Hauser, Heinz and Sacha Wunsch-Vincent-Vincent (2002), *Der grenzüberschreitende Handel mit elektronischen Dienstleistungen - die Rolle der WTO und die Anforderungen an die nationale Politik* (The cross-border trade in electronic services: the role of the WTO and the role of national policies), Expert report for the German Parliament, delivered in April 2002, downloadable from www.siaw.unisg.ch

Mann, Catherine (2000), *Transatlantic Issues in Electronic Commerce*, Institute for International Economics working paper 00-7, at: www.iie.com/CATALOG/WP/2000/00-7.html (last visited June 2003).

Mann, Catherine L. and Sarah C. Knight (2000), *Electronic Commerce in the WTO*, in: Jeffrey Schott (Ed.), *The WTO after Seattle*, Washington D.C.: Institute for International Economics, chapter 16, pp. 253-266.

Mann, Catherine L., Susan E. Eckert, and Sarah C. Knight (2000), *Global Electronic Commerce - A Policy Primer*, Washington D.C.: Institute for International Economics.

Mann, Catherine L. (2003), *Globalization of Information Technology Firms and the Impact on Economic Performance*, with Jacob Kirkegaard, Washington D.C.: Institute for International Economics, mimeo, May 2003.

Mattoo, Aaditya, Rosa Perez-Esteve and Ludger Schuknecht (2001), *Electronic Commerce, Trade and Tariff Revenue: A Quantitative Assessment*, *The World Economy*, Vol. 24, Issue 7, pp. 955-970.

Merges, Robert P., Peter S. Menell und Mark A. Lemley (2000), *Intellectual Property in the New Technological Age*, second edition, New York: Aspen Law and Business

OECD (1997), *Dismantling the Barriers to Global Electronic Commerce*, at: www.oecd.org//dsti/sti/it/ec/prod/DISMANTL.HTML (last visited June 2002).

OECD (1998a), *Measuring Electronic Commerce: International Trade in Software*, Paris: Organisation for Economic Cooperation and Development (Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy), Doc. DSTI/ICCP/IE(98)3/FINAL.

OECD (1998b), *Content as a New Growth Industry*, Working Party on the Information Economy, Paris: Organisation for Economic Cooperation and Development (Directorate for Science, Technology and Industry), Doc. DSTI/ICCP/IE(96)6/FINAL.

OECD (1999a), *Policy and Regulation Issues for the Network-Based Content Services*, Paris: Organisation for Economic Cooperation and Development (Working Party on the Information Economy), Doc. DSTI/ICCP/IE(96)9/FINAL.

OECD (1999b), *OECD Forum on Electronic Commerce- Report on the Forum*, Paris: Organisation for Economic Cooperation and Development (Directorate for Science, Technology and Industry), Doc. SG/EC(99)12.

OECD (2000a), *Electronic Commerce- Existing GATS Commitments for Online Supply of Services*, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Doc. TD/TC/WP(99)37/Final.

OECD (2000b), *Electronic Commerce: Initial Survey Of Unilateral Liberalisation And Facilitation Measures*, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Doc. TD/TC/WP(99)38/Final.

OECD (2001a), *Electronic Commerce: A Cluster Approach to the Negotiation of Input Services*, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Doc. TD/TC/WP(2000)33/Final.

OECD (2001b), Revised Report On International And Regional Bodies: Activities And Initiatives In Electronic Commerce, Forum on Electronic Commerce, Paris: Organisation for Economic Cooperation and Development (Directorate for Science, Technology and Industry).

OECD (2004): Information Technology Outlook 2004; Paris: Organisation for Economic Co-operation and Development.

Sauvé, Pierre (2002), The Trade Policy Implications of the New Economy, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), at: www.cid.harvard.edu/cidtrade/Papers/Sauve/sauvetpimp.pdf (last visited August 2003).

Schuknecht, Ludger and Rose Pérez-Esteve (1999), A Quantitative Assessment of Electronic Commerce, at: www.wto.org/english/tratop_e/ecom_e/ecom_e.htm (last visited December 2001).

WIPO (2000), A Primer on Electronic Commerce and Intellectual Property Issues, Geneva, World Intellectual Property Organization, Doc. WIPO/OLOA/EC/PRIMER.

WTO (2002a), International Trade Statistics, Geneva: World Trade Organization.

Wunsch-Vincent, Sacha, (2002a), Outstanding WTO Issues and Deliverables with Respect to the Electronic Cross-border Trade of Digital Products, at: www.cid.harvard.edu/cidtrade/Papers/Wunsch_WTO.pdf (last visited February 2003).

Wunsch-Vincent, Sacha (2002b), The Trade Act Of 2002: The New Fast-track Authority And Its Implications For The WTO E-commerce Negotiations, at: www.wtoeconomy.ch (last visited February 2003).

Wunsch-Vincent, Sacha (2003), The Digital Trade Agenda of the U.S.: Parallel Tracks of Bilateral, Regional and Multilateral Liberalization, *Aussenwirtschaft*, Vol. 58, Issue 1, pp. 301–341, at: www.iie.com/publications/papers/wunsch0303.pdf (last visited September 2003).

E-commerce and Development

Aitic, (1999), Electronic commerce within the framework of the WTO: Implications for the less developed countries, Agency for International Trade Information and Cooperation, at: www.acici.org/aitic/documents/Notes/note5ang.html#3 (last visited June 2003).

Goldstein, Andrea and David O'Connor (2000), E-commerce for Development: Prospects and Policy Issues, Paris: Organisation for Economic Cooperation and Development (OECD Development Centre), September 2000.

ITC (2000), Offshore Back Office Operations: Supplying Support Services to Global Markets, Geneva: International Trade Centre .

Mann, Catherine L (1999), *Electronic Commerce in Developing Countries*, Washington D.C.: Institute for International Economics.

Panagariya, Arvind (2000), *E-commerce, WTO and Developing Countries*, United Nations Conference on Trade and Development, U.N. Doc. UNCTAD/ITCD/TAB/3, at: www.unctad.org/en/docs/itcdtab3_en.pdf (last visited February 2003).

SECO (2002), *Rapport sur la politique économique extérieure 2002*, Secrétariat d'Etat à l'économie, at: www.seco-admin.ch/publikationen/00002/index.html?lang=fr (last visited September 2003).

Senti, Richard (2000), *WTO - System und Funktionsweise der Welthandelsordnung*, Zürich: Schulthess Juristische Medien AG.

Singh, Didar (1999), *Electronic Commerce: Issues for the South, Organization? Working Paper 4*, Geneva: South Centre, October 1999, at: www.southcentre.org/publications/ecommerce/wto4.pdf (last visited May 2003).

Singh, Didar (2002), *Electronic Commerce: Issues of Policy and Strategy for India*, New Delhi: Indian Council For Research on International Economic Relations, Working Paper 86, September 2002, at: mama.icrier.res.in/public/WP-86.pdf (last visited September 2003).

Task Force on Software Measurement in the National Accounts (2002), *Computer Software: International Trade Flows Identifying Imports and Exports of Software Goods and Services*, Point 4, Draft paper prepared by Bill Cave, OECD/STD/TIASDRAFT; prepared for the meeting of the OECD-EUROSTAT National Accounts Software Task Force, 22-23 April, 2002.

Teltscher, Susanne (2002), *Revenue Implications of E-commerce: The Development Dimension*, Address to the Seminar on Revenue Implications of E-commerce, WTO Committee on Trade and Development, at: www.wto.org/english/tratop_e/devel_e/sem05_e/presentation_teltscher.Ppt (22 April, 2002) (last visited February 2003).

UNCTAD (1998a), *Scope For Expanding Exports Of Developing Countries In Specific Services Sectors Through All GATS Modes Of Supply, Taking Into Account Their Interrelationship, The Role Of Information Technology And Of New Business Practices*, Geneva: United Nations Conference on Trade and Development, U.N. Doc. TD/B/COM.1/21.

UNCTAD (1998b), *Implications For Trade And Development Of Recent Proposals To Set Up A Global Framework For Electronic Commerce*, Geneva: United Nations Conference on Trade and Development (Trade and Development Board), Doc. TD/B/COM.3/17.

UNCTAD (1998c), *Policy Issues Relating To Access To Participation In Electronic Commerce*, Geneva: United Nations Conference on Trade and Development (Trade and Development Board), Doc. TD/B/Com.3/16.

UNCTAD (1999a), Legal Dimensions of Electronic Commerce, Geneva: United Nations Conference on Trade and Development, Doc. TD/B/COM.3/EM.8/2, May 4, 1999.

UNCTAD (1999b), Can Electronic Commerce Be An Engine For Global Growth?, Geneva: United Nations Conference on Trade and Development (Trade and Development Board), Doc. TD/B/Com.3/23.

UNCTAD (1999c), Legal Dimensions of Electronic Commerce, Geneva: United Nations Conference on Trade and Development (Trade and Development Board), Doc. TD/B/COM.3/EM.8/2.

UNCTAD (1999d) Report of the Expert Meeting on Capacity-Building in the Area of Electronic Commerce: Legal and Regulatory Dimensions, Geneva: United Nations Conference on Trade and Development, Doc. TD/B/COM.3/28, <http://r0.unctad.org/p166/modules2001/mod3/c3em8d3.pdf> (last visited September 2003).

UNCTAD (2000a), Building Confidence – Electronic Commerce and Development, Geneva: United Nations Conference on Trade and Development, Doc. UNCTAD/SDTE/MISC.11.

UNCTAD (2000b), Tariffs, Taxes and Electronic Commerce: Revenue Implications for Developing Countries, Policy Issues in International Trade and Commodities, Study Series No. 5, New York and Geneva: United Nations. Doc. UNCTAD/ITCD/TAB/5, at: http://192.91.247.38/tab/pubs/itcdtab5_en.pdf (last visited September 2003).

Vivas, David Eugui, (2001), Issues on the Relationship between E-commerce and Intellectual Property Rights in the WTO: Implications for Developing Countries, Trade-related Agenda, Development and Equity (T.R.A.D.E), Occasional Papers, No. 5, Geneva: South Centre.

World Bank Group (2000), The Networking Revolution- Opportunities and Challenges for Developing Countries, info Dev working paper, Washington D.C.: World Bank Group.

GATS

Altinger, L. and A. Enders (1996), The Scope and Depth of GATS Commitments, The World Economy; Vol. May 1996; pp. 315 – 326.

Arkell, Julian (2002), The GATS – Its Innovative Approach to Trade Rules in the New Economy, Address to the 12th Annual International Conference of the European Network of Economic and Spatial Service Research, Theme: Services and Innovation, Manchester, paper available from the author at: arkell@infotelecom.es, 26-27 September, 2002.

Arkell, Julian (2003a), Background Paper on GATS Issues, Address to the Symposium on “Trade Policy Challenges in East Asia: the New Regionalism and the WTO”, 20, February 2003.

Arkell, Julian (2003b), What are the prospects for liberalisation in Services?, Address to the Wilton Park Conference No. 712, The World Trade Negotiations and Prospects for the Cancun Ministerial, 27-30 May, 2003.

Feketekuty, Geza (1998), Setting the Stage for the Next Round of Negotiations on Trade in Services, at: www.commercialdiplomacy.org/articles_news/trade_services.htm (last visited October 2002).

Feketekuty, Geza (2000), Regulatory Reform and Trade Liberalisation in Services; in: Sauvé, Pierre and Robert M. Stern (Eds.), GATS 2000: New Directions in Services Trade Liberalisation, Washington D.C.: Brookings Institution Press; chapter 9; pp. 225-240.

Hoekman, Bernard and Pierre Sauvé (1994), Liberalising Trade in Services, Washington D.C.: World Bank, Discussion Paper Series, World Bank Doc. 243.

Hoekman, Bernard (1996), Assessing the General Agreement on Trade in: Services, Martin, W. and L. A. Winters (Eds.), The Uruguay Round and the Developing Countries, Cambridge: Cambridge University Press.

Hoekman, Bernard and Carlos A. Primo Braga (1997), Protection and Trade in Services: A Survey, London: Centre for Economic Policy Research, CEPR Discussion Paper 1705.

Hoekman, Bernard and Patrick Messerlin (1999), Liberalizing Trade In Services: Reciprocal Negotiations And Regulatory Reform, Address to the World Services Congress, Atlanta, November 1-3, at: www.worldservicescongress.com (last visited June 2003).

Hoekman, Bernard M. and Michel M. Kostecki (2001), The Political Economy of the World Trading System - The WTO and Beyond, 2nd edition, Oxford: Oxford University Press.

Hufbauer, Gary and Tony Warren (1999), Globalization of Services: What Has Happened? What Are the Implications? Washington D.C.: Institute for International Economics, October 1999.

ICTSD (2003a), GATS: Development Since the Fourth WTO Ministerial, Doha Round Briefing Series, Vol. 1, No. 3, February 2003, Geneva: The International Centre for Trade and Sustainable Development (ICTSD).

ICTSD (2003b), Trade in Services: Cancun Update, Doha Round Briefing Series, Vol. 2, No. 3, August 2003, Geneva: The International Centre for Trade and Sustainable Development (ICTSD).

Karsenty, Guy (2000), Assessing Trade in Services by Mode of Supply, in: Sauvé, Pierre and Robert M. Stern (Eds.), GATS 2000: New Directions in Services Trade Liberalisation, Washington D.C.: Brookings Institution Press; chapter 2; pp. 33-56.

Mashayekhi, Mina and Elisabeth Tuerk (2002), The WTO Services Negotiations: Some Strategic Considerations, Trade-related Agenda, Development and Equity (T.R.A.D.E) Working Papers, No. 14, January 2002.

Mattoo, Aaditya and Sacha Wunsch-Vincent (2004): Pre-Emptying Protectionism in Services: The WTO and Outsourcing; World Bank Working Paper, No. 3237 (11 Mar. 2004), forthcoming in: *Journal of International Economic Law* (Dec. 2004), pages quoted from the draft available under Internet: www.iie.com (20 June 2004)

OECD (2000c), Quantification Of The Costs To National Welfare Of Barriers To Trade In Services, OECD Working Party of the Trade Committee Scoping Paper, 4-5 December, 2000, Paris: Organisation for Economic Cooperation and Development.

OECD (2000d), Quantification Of Costs To National Welfare From Barriers To Services Trade: A Literature Review, OECD Working Party of the Trade Committee, 18 September 2000, Paris: Organization for Economic Cooperation and Development.

OECD (2002), GATS: The Case for Open Services Markets, Paris: Organization for Economic Cooperation and Development.

Riddle, Dorothy (2000), Business Guide to the General Agreement on Trade in Services, Geneva: International Trade Centre.

Sauvé, Pierre (2002), Completing the GATS Framework: Addressing Uruguay Round Leftovers, *Aussenwirtschaft*, Vol. 57, Issue 3, pp. 301–341.

Sauvé, Pierre (2003), Trade Rules Behind Borders: Essays on Services, Investment, and the New Trade Agenda, London: Cameron May.

Sauvé, Pierre and Karsten Steinfatt (2000): Towards multilateral rules on trade and culture: protective regulation or efficient protection?; in: Australian Productivity Commission (Ed.), *Achieving better regulation of services*, Canberra: Australian University, chapter 13, pp. 323-348.

Senti, Richard (2000), WTO - System und Funktionsweise der Welthandelsordnung, Zürich: Schulthess Juristische Medien AG.

UNCTAD and the World Bank (1994), *Liberalizing International Transactions in Services: A Handbook*, New York and Geneva: United Nations Conference for Trade and Development.

United Nations (2002), Central Product Classification (CPC): Version 1.1; Department of Economic and Social Affairs, Statistical Papers, Series M No. 77, Ver.1.1, ESA/STAT/SER.M/77/Ver.1.1, New York: United Nations.

U.N. Dep't of Int'l Economics & Social Affairs (2002), Statistical Papers, Central Product Classification Series M No. 77, Ver.1.1 (2002), Geneva: United Nations.

World Bank (2002), *Global Economic Prospects And The Developing Countries*, chapter 3: *Trade In Services: Using Openness To Grow*, Washington D.C.: World Bank Group.

WTO (2001), *Market Access: Unfinished Business – Post Uruguay Round, Inventory and Issues*, Geneva: World Trade Organisation (Economic Research and Analysis Division).

WTO (2002b), *2002 Annual Report*, Geneva: World Trade Organization.

WTO (2003), *2003 Annual Report*, Geneva: World Trade Organization.

GATS and Telecom

Bhatnagar, Pradip (1999), *Telecom Reforms in Developing Countries and the Outlook for Electronic Commerce*, *Journal of International Economic Law*, Vol. (2), Issue (4), pp. 695-712, ideas.repec.org/a/oup/jieclw/v2y1999i4p695-712.html (last visited September 2003).

Bronckers, C. E. J. Marco and Pierre Larouche (1997), *Telecommunications Services and the WTO*, *Journal of World Trade*, Vol. 31 (June 1997), pp. 5-48.

Chadha, Rajesh (2000), *GATS and Developing Countries: A Case Study of India*, Paper commissioned by the World Bank (Washington D.C.), New Delhi: National Council of Applied Economic Research.

Cowhey, Peter and Mikhail Klimenko (2001), *The WTO Agreement and Telecommunications Policy Reform*, April 2001, Washington D.C.: World Bank.

Drabek, Zdenek (2002), *Investment Policies and Telecommunications Regimes*, HWWA Discussion Paper, No. 166, at: www.hwwa.de/Publikationen/Discussion_Paper/2002/166.pdf (last visited August 2003).

Guermazi, Boutheina (2001), *Exploring The Reference Paper On Regulatory Principle*, Centre For The Study Of Regulated Industries at: www.law.mcgill.ca/institutes/csri/paper-guermazi-reference.php3 (last visited June 2003).

Hufbauer, Gary C. and E. Wada (1997), *Unfinished Business: Telecommunications After The Uruguay Round*, Washington D.C.: Institute for International Economics.

Nihoul, Paul (2001), *Audiovisual And Telecommunication Services – A Review Of Definitions Under WTO Law*, Address to the World Trade Organization's audiovisual conference "Telecommunications and Audio-visual Services in the Context of the WTO: Today and Tomorrow," 21-22 November, 2001, at: www.ulg.ac.be/ieje/nip/ (last visited June 2003).

OECD (1995), *International Telecommunications: A Review Of Issues And Developments*, Paris: Organisation for Economic Cooperation and Development (Committee for Information, Computer and Communications Policy).

OECD (1999c), A review of market openness and trade in telecommunications, Paris: Organisation for Economic Cooperation and Development, OECD Doc. DSTI/ICCP/TISP(99)5/Final.

OECD (2001c), Local Access Pricing and E-commerce, Organisation for Economic Cooperation and Development, OECD Doc. DSTI/ICCP/TISP(2000)1FINAL,DSTI (2000d), at: [www.oalis.oecd.org/oalis/2000doc.nsf/linkto/dsti-iccp-tisp\(2000\)1-final](http://www.oalis.oecd.org/oalis/2000doc.nsf/linkto/dsti-iccp-tisp(2000)1-final) (last visited June 2003).

Senti, Richard (2001), Die Welthandelsordnung der Telekommunikation, Aussenwirtschaft, Vol. 56; Issue 1, pp. 43-68.

Laura B. Sherman, Wildly Enthusiastic About the First Multilateral Agreement on Trade in Telecommunications Services, Federal Communications Law Journal, Vol. 51 (Dec. 1998).

Tuthill, Lee (2000), Trade In Telecom: The New Round and Beyond, Address at the Asia Pacific Telecommunity, Phuket, Thailand, 15-17 May, 2000, at: www.apsec.org/seminar/meeting-2001/forum/s1-1.ppt (last visited August 2003).

Tuthill, Lee (2003), Negotiations on Telecom: The Road from Doha, Address to the WTO Workshop, 24 March 2003, APEC TEL 27, at: www.apectel27.org.my/WTO/WTO-09.ppt (last visited June 2003).

GATS and Development

Chadha, Rajesh (1999), GATS And Developing Countries: A Case Study Of India, Address to the World Services Congress, Atlanta, 1-3 November, 1999, at: www.worldservicescongress.com (last visited June 2003).

Chanda, Rupa (2003), Globalization of Services: India's Opportunities and Constraints, Oxford: Oxford University Press.

Findlay, Christopher (2001), Service Sector Reform and Development Strategies: Issues And Research Priorities, Policy Issues In International Trade and Commodities Study Series, No. 8, UNCTAD/ITCD/TAB/9; Geneva: UNCTAD and Australian National University Canberra.

Goh Chien Yen (2003), Developing Countries Cautioned Against Services Liberalization Commitments in GATS/WTO, United Nations Conference on Trade and Development (Commission on Trade).

International South Group Network (2002), Statement Concerning The GATS Request Offer Process And The Developing Countries, 29 May, 2002, Geneva: International South Group Network.

ITC (2000), Offshore Back Office Operations: Supplying Support Services to Global Markets, Geneva: International Trade Centre.

Mashayekhi, Mina and Martine Julsaint (2002), Assessment of Trade in Services in the Context of the GATS 2000 Negotiations, Trade-related Agenda, Development and Equity (T.R.A.D.E.) Working Papers, No. 13, December 2002.

Mattoo, Aaditya (2000), Developing Countries in the New Round of GATS Negotiations: Towards a Pro-Active Role, Washington D.C.: World Bank, World Economy, April 2000.

Raghavan, Chakravarthi (1990), Recolonisation: GATT, the Uruguay Round & the Third World, Third World Network, Penang, Malaysia: p. 108.

Raghavan, Chakravarthi (2002), Developing Countries and Service Trade, Geneva: Third World Network.

Sauvé, Pierre (2000), Developing Countries And The GATS 2000 Round, Journal of World Trade Law, April 2000.

UNCTAD (1998d), Scope for expanding exports of developing countries in specific services sectors through all GATS modes of supply, taking into account their interrelationship, the role of information technology and of new business practices, Geneva: United Nations Conference for Trade and Development, TD/B/COM.1/21, July.

UNCTAD (2002), Audiovisual Services: Improving Participation of Developing Countries, Doc.No.TD/B/COM.1/EM.20/2, Note by the United Nations Conference for Trade and Development Secretariat, September 27,2002, at: r0.unctad.org/en/special/c1em20do.htm (last visited February 2003).

WDM (2002a), GATS: A Disservices To the Poor – the High Costs And Limited Benefits of the General Agreement on Trade in Services For Developing Countries, March 2003, London: World Development Movement.

WDM (2002b), Out of Service: The Development Dangers of the General Agreement on Trade in Services, March 2003, London: World Development Movement.

ITA and Non-tariff trade barriers to Information Technology Trade

CSIS (1999), National Conformity Assessment Schemes: Non-tariff Trade Barriers in Information Technology, Washington D.C.: Center for Strategic and International Studies Publications.

GTW Associates (2001), Potential for International Co-operation and Reduction of Trade Barriers arising from Technical Requirements and Conformity Assessment Procedures in the Telecommunications Sector, at: www.gtwassociates.com/alerts/Feb6OECD.pdf.

ITC (1999), Trade in Information Technology Products and the WTO Agreements: Current Situation and Views of Exporters in Developing Countries, Geneva: International Trade Centre.

OECD (1999d), An Assessment of the Costs for International Trade in Meeting Regulatory Requirements, Organisation for Economic Cooperation and Development (Trade Directorate Working), at: [www.oalis.oecd.org/oalis/1999doc.nsf/linkto/td-tc-wp\(99\)8-final](http://www.oalis.oecd.org/oalis/1999doc.nsf/linkto/td-tc-wp(99)8-final).

OECD (2001d), Standards-related Barriers and Trade Liberalisation: Telecommunications Sector Study, Interim Report, Organisation for Economic Cooperation and Development (Trade Directorate), Working Paper, at: [www.oalis.oecd.org/oalis/2001doc.nsf/linkto/td-tc-wp\(2001\)11-rev1](http://www.oalis.oecd.org/oalis/2001doc.nsf/linkto/td-tc-wp(2001)11-rev1) (last visited June 2003).

OECD (2002a), Standards-related Barriers and Trade Liberalization: Telecommunications Sector Study, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Working Party, OECD Doc. TD/TC/WP (2001)11/Final, March 2002.

OECD (2002b), Tackling Non-Tariff Measures in ICT Sector: Survey of Developed and Developing Countries, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Working Party, OECD Doc. TD/TC/WP(2001)44/Rev1, June 2002.

OECD (2002c), Non-Tariff Measures in the ICT Sector: A Survey, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Working Party, OECD Doc. TD/TC/WP(2001)44/FINAL, Sept. 11, 2002.

OECD (2004): Information Technology Outlook 2004; Paris: Organisation for Economic Cooperation and Development.

Sauvé, Pierre and Barbara A. Fliess (1998), Of Chips, Floppy Disks and Great Timing: Assessing the WTO Information Technology Agreement, Les Cahiers de l'IFRI, No. 26, 4ème trimestre 1998, Paris: Institut Français des Relations Internationales.

U.S. International Trade Commission, Global Assessment of Standards Barriers to Trade in the Information Technology Industry, at: www.usitc.gov/wais/reports/arc/w3141.htm (last visited June 2003).

Wasescha, Luzius and Markus Schlagenhof (1998), Information Technology Agreement (ITA) - Towards a New Area of Sectorial Market Liberalisation in WTO, Aussenwirtschaft, Vol. 53, Issue 1, pp. 113-127.

BIBLIOGRAPHY (In Alpha Order)

Aitic, (1999), Electronic commerce within the framework of the WTO: Implications for the less developed countries, Agency for International Trade Information and Cooperation, at: www.acici.org/aitic/documents/Notes/note5ang.html#3 (last visited June 2003).

Altinger, L. and A. Enders (1996), The Scope and Depth of GATS Commitments, The World Economy; Vol. May 1996; pp. 315 – 326.

Arkell, Julian (2002), The GATS – Its Innovative Approach to Trade Rules in the New Economy, Address to the 12th Annual International Conference of the European Network of Economic and Spatial Service Research, Theme: Services and Innovation, Manchester, paper available from the author at: arkell@infotelecom.es, 26-27 September, 2002.

Arkell, Julian (2003a), Background Paper on GATS Issues, Address to the Symposium on “Trade Policy Challenges in East Asia: the New Regionalism and the WTO”, 20, February 2003.

Arkell, Julian (2003b), What are the prospects for liberalisation in Services?, Address to the Wilton Park Conference No. 712, The World Trade Negotiations and Prospects for the Cancun Ministerial, 27-30 May, 2003.

ASEM, Issue Paper for the 2nd ASEM Seminar on e-Commerce, ASEM e-Commerce Officials’ Meeting, 24 September, 2002, Helsinki, Finland, at: www.ktm.fi/eng/news/asem2002ecom/Issues_Paper.doc (last visited June 2003).

Bacchetta, Marc, Patrick Low, Aaditya Mattoo, Ludger Schuknecht, Hannu Wager and Madeöpm Wehrens (1998), Electronic Commerce and the Role of the WTO, WTO Publication, Geneva: World Trade Organization.

Baird, Zoe (2002), Governing the Internet: Engaging Government, Business, and Nonprofits, Foreign Affairs, Vol. 81, No.6, pp. 15-20.

Berkey, Judson O. (2001), A Framework Agreement for Electronic Commerce Regulation Under the GATS, Washington D.C., Institute of International Finance, December 2001, at: www.cid.harvard.edu/cidtrade/Papers/eserv_frame.pdf (last visited September 2003).

Berkey, Judson O. and Emad Tinawi (1999), E-Services and the WTO: The Adequacy of the GATS Classification Framework, Washington D.C., Institute of International Finance, at: www.oecd.org/dsti/sti/it/ec/act/paris_ec/pdf/gatsfin.pdf (last visited September 2003).

Bhatnagar, Pradip (1999a), Convergence and the World Trade Organization, Info, Vol. 1, Issue 2, pp. 159-169.

Bhatnagar, Pradip (1999b), Telecom Reforms in Developing Countries and the Outlook for Electronic Commerce, *Journal of International Economic Law*, Vol. (2), Issue (4), pp. 695-712, ideas.repec.org/a/oup/jieclw/v2y1999i4p695-712.html (last visited September 2003).

Bronckers, C. E. J. Marco and Pierre Larouche (1997), Telecommunications Services and the WTO, *Journal of World Trade*, Vol. 31 (June 1997), pp. 5-48.

Chadha, Rajesh (1999), GATS And Developing Countries: A Case Study Of India, Address to the World Services Congress, Atlanta, 1-3 November, 1999, at: www.worldservicescongress.com (last visited June 2003).

Chanda, Rupa (2003), *Globalization of Services: India's Opportunities and Constraints*, Oxford: Oxford University Press.

Cowhey, Peter and Mikhail Klimenko (2001), *The WTO Agreement and Telecommunications Policy Reform*, April 2001, Washington D.C.: World Bank.

CSIS (1999), *National Conformity Assessment Schemes: Non-tariff Trade Barriers in Information Technology*, Washington D.C.: Center for Strategic and International Studies Publications.

Drabek, Zdenek (2002), *Investment Policies and Telecommunications Regimes*, HWWA Discussion Paper, No. 166, at: [www.hwwa.de /Publikationen/ Discussion_Paper /2002/166.pdf](http://www.hwwa.de/Publikationen/Discussion_Paper/2002/166.pdf) (last visited August 2003).

Drake, William and Kalypso Nicolaidis (2000), *Global Electronic Commerce and the GATS: The "Millennium Round" and Beyond*, in: Sauvé, Pierre and Robert M. Stern (Eds.), *GATS 2000: New Directions in Services Trade Liberalisation*, Washington D.C.: Brookings Institution Press; chapter 14, pp. 399-437.

Feketekuty, Geza (1998), *Setting the Stage for the Next Round of Negotiations on Trade in Services*, at: www.commercialdiplomacy.org/articles_news/trade_services.htm (last visited October 2002).

Feketekuty, Geza (2000), *Regulatory Reform and Trade Liberalisation in Services*; in: Sauvé, Pierre and Robert M. Stern (Eds.), *GATS 2000: New Directions in Services Trade Liberalisation*, Washington D.C.: Brookings Institution Press; chapter 9; pp. 225-240.

FICSOR, M. (1997), *Copyright for the Digital Era: The WIPO 'Internet' Treaties*, *Columbia Journal of Law & Arts*, Vol. 21, Issue 3-4 (Spring/Summer 1997).

Findlay, Christopher (2001), *Service Sector Reform and Development Strategies: Issues And Research Priorities*, *Policy Issues In International Trade and Commodities Study Series*, No. 8, UNCTAD/ITCD/TAB/9; Geneva: UNCTAD and Australian National University Canberra.

Freund, Caroline and Diana Weinhold (2000), *On the Effect of the Internet on International Trade*. *International Finance Discussion Papers*, Washington D.C.: Board of Governors of the

Federal Reserve System, No. 2000-693, December 2000, at:
<http://federalreserve.gov/Pubs/ifdp/2000/693/default.htm> (last visited September 2003).

FTC (2000), Consumer Protection in the Global Electronic Marketplace – Looking Ahead, Washington D.C.: Federal Trade Commission (Bureau of Consumer Protection), September 2000, at: www.ftc.gov/opa/2000/09/globalecommfin.htm (last visited September 2003).

GBDe (2001), Trade/WTO, at: www.gbde.org/tradewto/01trade.pdf (last visited September 2003).

Goh Chien Yen (2003), Developing Countries Cautioned Against Services Liberalization Commitments in GATS/WTO, United Nations Conference on Trade and Development (Commission on Trade).

Goldstein, Andrea and David O'Connor (2000), E-commerce for Development: Prospects and Policy Issues, Paris: Organisation for Economic Cooperation and Development (OECD Development Centre), September 2000.

GTW Associates (2001), Potential for International Co-operation and Reduction of Trade Barriers arising from Technical Requirements and Conformity Assessment Procedures in the Telecommunications Sector, at: www.gtwassociates.com/alerts/Feb6OECD.pdf.

Guermazi, Boutheina (2001), Exploring The Reference Paper On Regulatory Principle, Centre For The Study Of Regulated Industries at: www.law.mcgill.ca/institutes/csri/paper-guermazi-reference.php3 (last visited June 2003).

Harris, Scott Blake (1999), The WTO and the Internet, American Bar Association, Section of International Law and Practice International Communications Committee Newsletter, Fall 1999.

Hauser, Heinz and Sacha Wunsch-Vincent (2001), A Call for a WTO E-commerce Initiative, International Journal of Communications Law and Policy, Issue 6 (Winter 00/01), IJCLP Web-Doc 1-6-2001, at: www.ijclp.org/6_2001/ijclp_webdoc_1_6_2001.html (last visited September 2003).

Hauser, Heinz and Sacha Wunsch-Vincent (2002), Der grenzüberschreitende Handel mit elektronischen Dienstleistungen - die Rolle der WTO und die Anforderungen an die nationale Politik (The cross-border trade in electronic services: the role of the WTO and the role of national policies), Expert report for the German Parliament, delivered in April 2002, downloadable from www.siaw.unisg.ch

Hoekman, Bernard (1996), Assessing the General Agreement on Trade in: Services, Martin, W. and L. A. Winters (Eds.), The Uruguay Round and the Developing Countries, Cambridge: Cambridge University Press.

Hoekman, Bernard and Carlos A. Primo Braga (1997), *Protection and Trade in Services: A Survey*, London: Centre for Economic Policy Research, CEPR Discussion Paper 1705.

Hoekman, Bernard and Patrick Messerlin (1999), *Liberalizing Trade In Services: Reciprocal Negotiations And Regulatory Reform*, Address to the World Services Congress, Atlanta, November 1-3, at: www.worldservicescongress.com (last visited June 2003).

Hoekman, Bernard and Pierre Sauvé (1994), *Liberalising Trade in Services*, Washington D.C.: World Bank, Discussion Paper Series, World Bank Doc. 243.

Hoekman, Bernard M. and Michel M. Kostecky (2001), *The Political Economy of the World Trading System - The WTO and Beyond*, 2nd edition, Oxford: Oxford University Press.

Hufbauer, Gary C. and E. Wada (1997), *Unfinished Business: Telecommunications After The Uruguay Round*, Washington D.C.: Institute for International Economics.

Hufbauer, Gary and Tony Warren (1999), *Globalization of Services: What Has Happened? What Are the Implications?* Washington D.C.: Institute for International Economics, October 1999.

ICTSD (2003a), *GATS: Development Since the Fourth WTO Ministerial, Doha Round Briefing Series, Vol. 1, No. 3, February 2003*, Geneva: The International Centre for Trade and Sustainable Development (ICTSD).

ICTSD (2003b), *Trade in Services: Cancun Update, Doha Round Briefing Series, Vol. 2, No. 3, August 2003*, Geneva: The International Centre for Trade and Sustainable Development (ICTSD).

International South Group Network (2002), *Statement Concerning The GATS Request Offer Process And The Developing Countries*, 29 May, 2002, Geneva: International South Group Network.

ITC (1999), *Trade in Information Technology Products and the WTO Agreements: Current Situation and Views of Exporters in Developing Countries*, Geneva: International Trade Centre.

ITC (2000), *Offshore Back Office Operations: Supplying Support Services to Global Markets*, Geneva: International Trade Centre.

Karsenty, Guy (2000), *Assessing Trade in Services by Mode of Supply*, in: Sauvé, Pierre and Robert M. Stern (Eds.), *GATS 2000: New Directions in Services Trade Liberalisation*, Washington D.C.: Brookings Institution Press; chapter 2; pp. 33-56.

Mann, Catherine L (1999), *Electronic Commerce in Developing Countries*, Washington D.C.: Institute for International Economics.

Mann, Catherine L. (2000), Transatlantic Issues in Electronic Commerce, Institute for International Economics working paper 00-7, at: www.iie.com/CATALOG/WP/2000/00-7.html (last visited June 2003).

Mann, Catherine L. (2003), Globalization of Information Technology Firms and the Impact on Economic Performance, with Jacob Kirkegaard, Washington D.C.: Institute for International Economics, mimeo, May 2003.

Mann, Catherine L. and Sarah C. Knight (2000), Electronic Commerce in the WTO, in: Jeffrey Schott (Ed.), *The WTO after Seattle*, Washington D.C.: Institute for International Economics, chapter 16, pp. 253-266.

Mann, Catherine L., Susan E. Eckert, and Sarah C. Knight (2000), *Global Electronic Commerce - A Policy Primer*, Washington D.C.: Institute for International Economics.

Mashayekhi, Mina and Elisabeth Tuerk (2002), The WTO Services Negotiations: Some Strategic Considerations, Trade-related Agenda, Development and Equity (T.R.A.D.E) Working Papers, No. 14, January 2002.

Mashayekhi, Mina and Martine Julsaint (2002), Assessment of Trade in Services in the Context of the GATS 2000 Negotiations, Trade-related Agenda, Development and Equity (T.R.A.D.E.) Working Papers, No. 13, December 2002.

Mattoo, Aaditya (2000), Developing Countries in the New Round of GATS Negotiations: Towards a Pro-Active Role, Washington D.C.: World Bank, *World Economy*, April 2000.

Mattoo, Aaditya, Rosa Perez-Esteve and Ludger Schuknecht (2001), Electronic Commerce, Trade and Tariff Revenue: A Quantitative Assessment, *The World Economy*, Vol. 24, Issue 7, pp. 955-970.

Mattoo, Aaditya and Sacha Wunsch-Vincent (2004): Pre-Empting Protectionism in Services: The WTO and Outsourcing; World Bank Working Paper, No. 3237 (11 Mar. 2004), forthcoming in: *Journal of International Economic Law* (Dec. 2004), pages quoted from the draft available under Internet: www.iie.com (20 June 2004)

Merges, Robert P., Peter S. Menell und Mark A. Lemley (2000), *Intellectual Property in the New Technological Age*, second edition, New York: Aspen Law and Business

Nihoul, Paul (2001), Audiovisual And Telecommunication Services – A Review Of Definitions Under WTO Law, Address to the World Trade Organization's audiovisual conference "Telecommunications and Audio-visual Services in the Context of the WTO: Today and Tomorrow," 21-22 November, 2001, at: www.ulg.ac.be/ieje/nip/ (last visited June 2003).

OECD (1995), *International Telecommunications: A Review Of Issues And Developments*, Paris: Organisation for Economic Cooperation and Development (Committee for Information, Computer and Communications Policy).

OECD (1997), Dismantling the Barriers to Global Electronic Commerce, at: www.oecd.org//dsti/sti/it/ec/prod/DISMANTL.HTML (last visited June 2002).

OECD (1998a), Measuring Electronic Commerce: International Trade in Software, Paris: Organisation for Economic Cooperation and Development (Directorate for Science, Technology and Industry, Committee for Information, Computer and Communications Policy), Doc. DSTI/ICCP/IE(98)3/FINAL.

OECD (1998b), Content as a New Growth Industry, Working Party on the Information Economy, Paris: Organisation for Economic Cooperation and Development (Directorate for Science, Technology and Industry), Doc. DSTI/ICCP/IE(96)6/FINAL.

OECD (1999a), Policy and Regulation Issues for the Network-Based Content Services, Paris: Organisation for Economic Cooperation and Development (Working Party on the Information Economy), Doc. DSTI/ICCP/IE(96)9/FINAL.

OECD (1999b), OECD Forum on Electronic Commerce- Report on the Forum, Paris: Organisation for Economic Cooperation and Development (Directorate for Science, Technology and Industry), Doc. SG/EC(99)12.

OECD (1999c), A review of market openness and trade in telecommunications, Paris: Organisation for Economic Cooperation and Development, OECD Doc. DSTI/ICCP/TISP(99)5/Final.

OECD (1999d), An Assessment of the Costs for International Trade in Meeting Regulatory Requirements, Organisation for Economic Cooperation and Development (Trade Directorate Working), at: [www.oecd.org/olis/1999doc.nsf/linkto/td-tc-wp\(99\)8-final](http://www.oecd.org/olis/1999doc.nsf/linkto/td-tc-wp(99)8-final).

OECD (2000a), Electronic Commerce- Existing GATS Commitments for Online Supply of Services, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Doc. TD/TC/WP(99)37/Final.

OECD (2000b), Electronic Commerce: Initial Survey Of Unilateral Liberalisation And Facilitation Measures, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Doc. TD/TC/WP(99)38/Final.

OECD (2000c), Quantification Of The Costs To National Welfare Of Barriers To Trade In Services, OECD Working Party of the Trade Committee Scoping Paper, 4-5 December, 2000, Paris: Organisation for Economic Cooperation and Development.

OECD (2000d), Quantification Of Costs To National Welfare From Barriers To Services Trade: A Literature Review, OECD Working Party of the Trade Committee, 18 September 2000, Paris: Organization for Economic Cooperation and Development.

OECD (2001a), Electronic Commerce: A Cluster Approach to the Negotiation of Input Services, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Doc. TD/TC/WP(2000)33/Final.

OECD (2001b), Revised Report On International And Regional Bodies: Activities And Initiatives In Electronic Commerce, Forum on Electronic Commerce, Paris: Organisation for Economic Cooperation and Development (Directorate for Science, Technology and Industry).

OECD (2001c), Local Access Pricing and E-commerce, Organisation for Economic Cooperation and Development, OECD Doc. DSTI/ICCP/TISP(2000)1FINAL,DSTI (2000d), at: [www.oilis.oecd.org/olis/2000doc.nsf/linkto/dsti-iccp-tisp\(2000\)1-final](http://www.oilis.oecd.org/olis/2000doc.nsf/linkto/dsti-iccp-tisp(2000)1-final) (last visited June 2003).

OECD (2001d), Standards-related Barriers and Trade Liberalisation: Telecommunications Sector Study, Interim Report, Organisation for Economic Cooperation and Development (Trade Directorate), Working Paper, at: [www.oilis.oecd.org/olis/2001doc.nsf/linkto/td-tc-wp\(2001\)11-rev1](http://www.oilis.oecd.org/olis/2001doc.nsf/linkto/td-tc-wp(2001)11-rev1) (last visited June 2003).

OECD (2002), GATS: The Case for Open Services Markets, Paris: Organization for Economic Cooperation and Development.

OECD (2002a), Standards-related Barriers and Trade Liberalisation: Telecommunications Sector Study, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Working Party, OECD Doc. TD/TC/WP (2001)11/Final, March 2002.

OECD (2002b), Tackling Non-Tariff Measures in ICT Sector: Survey of Developed and Developing Countries, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Working Party, OECD Doc. TD/TC/WP(2001)44/Rev1, June 2002.

OECD (2002c), Non-Tariff Measures in the ICT Sector: A Survey, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), Working Party, OECD Doc. TD/TC/WP(2001)44/FINAL, Sept. 11, 2002.

OECD (2004): Information Technology Outlook 2004; Paris: Organisation for Economic Cooperation and Development.

Panagariya, Arvind (2000), E-commerce, WTO and Developing Countries, United Nations Conference on Trade and Development, U.N. Doc. UNCTAD/ITCD/TAB/3, at: www.unctad.org/en/docs/itcdtab3_en.pdf (last visited February 2003).

Raghavan, Chakravarthi (1990), Recolonisation: GATT, the Uruguay Round & the Third World, Third World Network, Penang, Malaysia: p. 108.

Raghavan, Chakravarthi (2002), Developing Countries and Service Trade, Geneva: Third World Network.

- Riddle, Dorothy (2000), *Business Guide to the General Agreement on Trade in Services*, Geneva: International Trade Centre.
- Sauvé, Pierre (2000), *Developing Countries And The GATS 2000 Round*, *Journal of World Trade Law*, April 2000.
- Sauvé, Pierre (2002), *Completing the GATS Framework: Addressing Uruguay Round Leftovers*, *Aussenwirtschaft*, Vol. 57, Issue 3, pp. 301–341.
- Sauvé, Pierre (2002), *The Trade Policy Implications of the New Economy*, Paris: Organisation for Economic Cooperation and Development (Trade Directorate), at: www.cid.harvard.edu/cidtrade/Papers/Sauve/sauvetpimp.pdf (last visited August 2003).
- Sauvé, Pierre (2003), *Trade Rules Behind Borders: Essays on Services, Investment, and the New Trade Agenda*, London: Cameron May.
- Sauvé, Pierre and Barbara A. Fliess (1998), *Of Chips, Floppy Disks and Great Timing: Assessing the WTO Information Technology Agreement*, *Les Cahiers de l'IFRI*, No. 26, 4ème trimestre 1998, Paris: Institut Français des Relations Internationales.
- Sauvé, Pierre and Karsten Steinfatt (2000): *Towards multilateral rules on trade and culture: protective regulation or efficient protection?*; in: Australian Productivity Commission (Ed.), *Achieving better regulation of services*, Canberra: Australian University, chapter 13, pp. 323-348.
- Schuknecht, Ludger and Rose Pérez-Esteve (1999), *A Quantitative Assessment of Electronic Commerce*, at: www.wto.org/english/tratop_e/ecom_e/ecom_e.htm (last visited December 2001).
- SECO (2002), *Rapport sur la politique économique extérieure 2002*, Secrétariat d'Etat à l'économie, at: www.seco-admin.ch/publikationen/00002/index.html?lang=fr (last visited September 2003).
- Senti, Richard (2000), *WTO - System und Funktionsweise der Welthandelsordnung*, Zürich: Schulthess Juristische Medien AG.
- Senti, Richard (2001), *Die Welthandelsordnung der Telekommunikation*, *Aussenwirtschaft*, Vol. 56; Issue 1, pp. 43-68.
- Singh, Didar (1999), *Electronic Commerce: Issues for the South, Organization?*, Working Paper 4, Geneva: South Centre, October 1999, at: www.southcentre.org/publications/ecommerce/wto4.pdf (last visited May 2003).
- Singh, Didar (2002), *Electronic Commerce: Issues of Policy and Strategy for India*, New Delhi: Indian Council For Research on International Economic Relations, Working Paper 86, September 2002, at: <http://mama.icrier.res.in/public/WP-86.pdf> (last visited September 2003).

Task Force on Software Measurement in the National Accounts (2002), Computer Software: International Trade Flows Identifying Imports and Exports of Software Goods and Services, Point 4, Draft paper prepared by Bill Cave, OECD/STD/TIASDRAFT; prepared for the meeting of the OECD-EUROSTAT National Accounts Software Task Force, 22-23 April, 2002.

Teltscher, Susanne (2002), Revenue Implications of E-commerce: The Development Dimension, Address to the Seminar on Revenue Implications of E-commerce, WTO Committee on Trade and Development, at: www.wto.org/english/tratop_e/devel_e/sem05_e/presentation_teltscher.Ppt (22 April, 2002) (last visited February 2003).

Tuthill, Lee (2000), Trade In Telecom: The New Round and Beyond, Address at the Asia Pacific Telecommunity, Phuket, Thailand, 15-17 May, 2000, at: www.aptsec.org/seminar/meeting-2001/forum/s1-1.ppt (last visited August 2003).

Tuthill, Lee (2003), Negotiations on Telecom: The Road from Doha, Address to the WTO Workshop, 24 March 2003, APEC TEL 27, at: www.apectel27.org.my/WTO/

WTO-09.ppt (last visited June 2003).

U.N. Department of International Economic and Social Affairs (2002), Statistical Papers, Central Product Classification Series M No. 77, Ver.1.1 (2002), Geneva: United Nations.

U.S. International Trade Commission, Global Assessment of Standards Barriers to Trade in the Information Technology Industry, at: www.usitc.gov/wais/reports/arc/w3141.htm (last visited June 2003).

UNCTAD (1998a), Scope For Expanding Exports Of Developing Countries In Specific Services Sectors Through All GATS Modes Of Supply, Taking Into Account Their Interrelationship, The Role Of Information Technology And Of New Business Practices, Geneva: United Nations Conference on Trade and Development, U.N. Doc. TD/B/COM.1/21.

UNCTAD (1998b), Implications For Trade And Development Of Recent Proposals To Set Up A Global Framework For Electronic Commerce, Geneva: United Nations Conference on Trade and Development (Trade and Development Board), Doc. TD/B/COM.3/17.

UNCTAD (1998c), Policy Issues Relating To Access To Participation In Electronic Commerce, Geneva: United Nations Conference on Trade and Development (Trade and Development Board), Doc. TD/B/Com.3/16.

UNCTAD (1998d), Scope for expanding exports of developing countries in specific services sectors through all GATS modes of supply, taking into account their interrelationship, the role of information technology and of new business practices, Geneva: United Nations Conference for Trade and Development, TD/B/COM.1/21, July.

UNCTAD (1999a), Legal Dimensions of Electronic Commerce, Geneva: United Nations Conference on Trade and Development, Doc. TD/B/COM.3/EM.8/2, May 4, 1999.

UNCTAD (1999b), *Can Electronic Commerce Be An Engine For Global Growth?*, Geneva: United Nations Conference on Trade and Development (Trade and Development Board), Doc. TD/B/Com.3/23.

UNCTAD (1999c), *Legal Dimensions of Electronic Commerce*, Geneva: United Nations Conference on Trade and Development (Trade and Development Board), Doc. TD/B/COM.3/EM.8/2.

UNCTAD (1999d) *Report of the Expert Meeting on Capacity-Building in the Area of Electronic Commerce: Legal and Regulatory Dimensions*, Geneva: United Nations Conference on Trade and Development, Doc. TD/B/COM.3/28, <http://r0.unctad.org/p166/modules2001/mod3/c3em8d3.pdf> (last visited September 2003).

UNCTAD (2000a), *Building Confidence – Electronic Commerce and Development*, Geneva: United Nations Conference on Trade and Development, Doc. UNCTAD/SDTE/MISC.11.

UNCTAD (2000b), *Tariffs, Taxes and Electronic Commerce: Revenue Implications for Developing Countries, Policy Issues in International Trade and Commodities*, Study Series No. 5, New York and Geneva: United Nations. Doc. UNCTAD/ITCD/TAB/5, at: http://192.91.247.38/tab/pubs/itcdtab5_en.pdf (last visited September 2003).

UNCTAD (2002), *Audiovisual Services: Improving Participation of Developing Countries*, Doc.No.TD/B/COM.1/EM.20/2, Note by the United Nations Conference for Trade and Development Secretariat, September 27,2002, at: <http://r0.unctad.org/en/special/c1em20do.htm> (last visited February 2003).

UNCTAD and the World Bank (1994), *Liberalizing International Transactions in Services: A Handbook*, New York and Geneva: United Nations Conference for Trade and Development.

United Nations (2002), *Central Product Classification (CPC): Version 1.1*; Department of Economic and Social Affairs, Statistical Papers, Series M No. 77, Ver.1.1, ESA/STAT/SER.M/77/Ver.1.1, New York: United Nations.

Vivas, David Eugui, (2001), *Issues on the Relationship between E-commerce and Intellectual Property Rights in the WTO: Implications for Developing Countries, Trade-related Agenda, Development and Equity (T.R.A.D.E)*, Occasional Papers, No. 5, Geneva: South Centre.

Wasescha, Luzius and Markus Schlagenhof (1998), *Information Technology Agreement (ITA) - Towards a New Area of Sectorial Market Liberalisation in WTO*, *Aussenwirtschaft*, Vol. 53, Issue 1, pp. 113-127.

WDM (2002a), *GATS: A Disservices To the Poor – the High Costs And Limited Benefits of the General Agreement on Trade in Services For Developing Countries*, March 2003, London: World Development Movement.

WDM (2002b), *Out of Service: The Development Dangers of the General Agreement on Trade in Services*, March 2003, London: World Development Movement.

WIPO (2000), *A Primer on Electronic Commerce and Intellectual Property Issues*, Geneva, World Intellectual Property Organization, Doc. WIPO/OLOA/EC/PRIMER.

World Bank (2002), *Global Economic Prospects And The Developing Countries*, chapter 3: *Trade In Services: Using Openness To Grow*, Washington D.C.: World Bank Group.

World Bank Group (2000), *The Networking Revolution- Opportunities and Challenges for Developing Countries*, info Dev working paper, Washington D.C.: World Bank Group.

WTO (2001), *Market Access: Unfinished Business – Post Uruguay Round, Inventory and Issues*, Geneva: World Trade Organisation (Economic Research and Analysis Division).

WTO (2002a), *International Trade Statistics*, Geneva: World Trade Organization.

WTO (2002b), *2002 Annual Report*, Geneva: World Trade Organization.

WTO (2003), *2003 Annual Report*, Geneva: World Trade Organization.

Wunsch-Vincent, Sacha (2002a), *Outstanding WTO Issues and Deliverables with Respect to the Electronic Cross-border Trade of Digital Products*, at: www.cid.harvard.edu/cidtrade/Papers/Wunsch_WTO.pdf (last visited February 2003).

Wunsch-Vincent, Sacha (2002b), *The Trade Act Of 2002: The New Fast-track Authority And Its Implications For The WTO E-commerce Negotiations*, at: www.wtoeconomy.ch (last visited February 2003).

Wunsch-Vincent, Sacha (2003), *The Digital Trade Agenda of the U.S.: Parallel Tracks of Bilateral, Regional and Multilateral Liberalization*, *Aussenwirtschaft*, Vol. 58, Issue 1, pp. 301–341, at: www.iie.com/publications/papers/wunsch0303.pdf (last visited September 2003).