Market Openings in the Telecommunication Goods and Services Sectors

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I. Introduction

Advanced economic sectors are a diverse group that comprises industries in both manufacturing and services. The manufacturing component includes manufacturers of computers, communications equipment, semiconductors, pharmaceuticals, scientific instruments, and aircraft. The services component includes providers of professional, telecommunication, and financial services. Basic sectors, such as agriculture, textiles, and low valued-added manufacturing, play an important role in many countries’ economies. For several of them, however, basic sectors represent a static and even declining percentage of the overall economy.

Countries with sustained economic growth in the 1990s have fueled that growth by moving into the advanced economic sectors. Advanced-sector industries have rapid growth and high productivity in common. At the close of the Uruguay Round in 1994, the United States, for example, had a total gross domestic product (GDP) of $6 trillion. Of that figure, services accounted for seventy-six percent, manufacturing accounted for twenty percent, and mining and agriculture accounted for three and a half percent. Consequently, trade liberalization of advanced sectors was a high priority for countries that participated in the Uruguay Round and have a comparative advantage in these sectors.

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1. In 1996, the United States exported nearly $40 billion in computer and office equipment, $30 billion in airplanes and parts, and $21 billion in scientific instruments, for a total of $90 billion. This figure represents fifteen percent of all U.S. exports of goods in 1996. See U.S. INT’L TRADE COMM’N, U.S. TRADE DEVELOPMENTS, INT’L ECON. REV. 12 (Feb./Mar. 1997).

Although ranking the various service sectors in order of importance is risky, a good case can be made that the telecommunications sector ranks extremely high among them. Why? Consider the following facts. The telecommunications industry generated $867 billion in revenue in 1996 from the sale of goods and services, a figure that is predicted to exceed $1.25 trillion by 2000.\(^\text{3}\) In 1996, world trade in telecommunication goods and services was valued at $115 billion.\(^\text{4}\) The world telecommunications market is clearly an economically valuable one, accounting for more than two percent of world GDP. It is also a fast-growing one, with average annual revenue growth rates of 5.2 percent since 1980, and 9.7 percent in developing countries from 1990 to 1995.\(^\text{5}\) The Quad Members\(^\text{6}\) plus Australia account for more than three-quarters of revenue in world telecommunications.

For countries with an advanced-sector economy, or those hoping to someday have one, telecommunication products are an increasingly valuable and growing component of an advanced economy’s manufacturing base. For 1996, world trade in telecommunications equipment alone was worth $85 billion.\(^\text{7}\) Equally important, a reliable telecommunications network is a critical element of an advanced economy’s infrastructure. It makes possible other advanced-sector economic activities, including virtually all service sector activities.

This paper describes the recent market openings in the telecommunication goods and services sectors that have been negotiated under the auspices of the World Trade Organization (WTO). It begins with a brief overview of the General Agreement on Trade in Services.

II. The General Agreement on Trade in Services

The 1947 General Agreement on Tariff and Trade (GATT) was concerned almost exclusively with rules on trade in goods. The Uruguay Round’s banner achievements were in expanding the scope of the GATT-WTO system to include non-goods sectors, liberalizing trade in several advanced sectors and setting the WTO Members on a course to further liberalization agreements on advanced-sector trade. With the successful conclusion of the General Agreement on Trade in Services (GATS), the negotiators broke new ground by introducing core GATT disciplines to trade in services. Further WTO negotiations have also produced agreements on trade in information technology products, telecommunications, and financial services.


\(^{4}\) See Economic Indicators, supra note 3, at 119.


\(^{6}\) The Quad Members are Canada, the EU, Japan, and the United States.

\(^{7}\) See Economic Indicators, supra note 3, at 119.
The service sector has overtaken manufacturing as the most important part of
developed countries' economies. Service industries account for sixty-one percent
of GDP and over one-half of employment in developed countries. The ratio of
world merchandise trade to services trade was nearly four to one in 1997. The
WTO estimates that world trade in commercial services exceeded $1.3 trillion
in 1997. Jobs in the service sector provide nearly eighty percent of U.S.
employment. That figure is expected to increase to eighty-eight percent by 2005.

The service sector generated seventy-five percent of GDP in the United States
in 1996. In 1997, total U.S. exports of commercial services was over $230
billion, up from nearly $224 billion in 1996. Total U.S. exports of merchandise
trade in 1997, by comparison, was nearly $689 billion. Services trade thus
represents more than one-third of total U.S. exports. The United States also had
a trade surplus in services of $68 billion in 1995, $73 billion in 1996, and $20
billion in 1997. It enjoys a services trade surplus with Canada, the European
Union (EU), and Japan.

Given the substantial share that services trade represents of the total world trade
picture, it is no wonder that liberalizing trade in services by bringing multilateral
disciplines to bear on this sector was an important Uruguay Round goal for
developed countries. Developed countries enjoy a comparative advantage in

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10. See id. at 2.
11. See id.; Recent Trends, supra note 2, at 1-3.
12. See id.
14. See FOCUS, supra note 9, at 6.
15. See id.
trade with Canada, the EU, Japan, and Mexico, see U.S. Int’l Trade Comm’n, Pub. No. 2940,
General Agreement on Trade in Services: Examination of Major Trading Partners’ Sched­
ules of Commitments ch. 2 (1995) [hereinafter GATS Study].
18. In extending the President’s fast-track negotiating authority under the Omnibus Trade and
Competitiveness Act of 1988, Congress identified liberalization of trade in services as a principal
trade negotiating objective. Section 1101(b)(9) of the 1988 Act provides in part:
(A) The principal trade negotiating objectives of the United States regarding trade in
services are—
(i) to reduce or to eliminate barriers to, or other distortions of, international
trade in services, including barriers that deny national treatment and restrictions on
establishment and operation in such markets; and
(ii) to develop international rules, including dispute settlement proce­
dures, which—
(I) are consistent with the commercial policies of the United States, and
(II) will reduce or eliminate such barriers or distortions, and help ensure
fair, equitable opportunities for foreign markets.
the more capital-intensive and highly-skilled service industries, such as telecommunications and financial services. Developing countries, on the other hand, were unreceptive to the proposal to add services trade to the Uruguay Round agenda. Behind the leadership of India and Brazil, they were opposed to putting services trade on the Uruguay Round agenda at all. To the extent that they enjoy any comparative advantage in this sector, it is in the labor-intensive construction industry. But restrictive immigration and labor laws historically have prevented trade in such services. More importantly, developed countries showed no interest in changing these trade-restrictive immigration laws.19

Ultimately, services trade was added to the Uruguay Round agenda. After resolving some preliminary issues (e.g., the definition and quantification of services trade), the GATS was successfully concluded. It was, however, one of the last agenda items to be wrapped up during the negotiations.

The GATS is the first multilateral agreement covering trade and investment in the services sector. It is divided into seven parts, consisting of twenty-nine articles and eight annexes.20 The bricks and mortar of the GATS are built on three pillars. First, the GATS framework agreement prescribes core principles and basic obligations governing trade in services that are applicable to all WTO Members. These basic obligations include rules on most-favored-nation (MFN) treatment, national treatment, and transparency. The GATS is modeled after the GATT in both name and content.

Second, market access commitments made by WTO Members are included in national schedules of commitments that are appended to and made an integral part of the GATS. The Members’ schedules of market access commitments are analogous to the schedule of tariff concessions that Members make under GATT Article II.

Third, the GATS’ eight annexes complement the general rules and market access commitments. The Uruguay Round participants recognized that negotiations would have to be continued on certain service sectors if the Round was ever going to be concluded. These specific sectors (e.g., maritime transport, telecommunications, financial services) had proven to be major stumbling blocks for the negotiators. To that end several annexes are appended to the GATS with guidelines and deadlines for future market access negotiations on the maritime transport, financial, and basic telecommunication services sectors. Market access commitments were successfully negotiated for the telecommunication sector.


III. Telecommunications Trade

A. INTRODUCTION

Telecommunication services are commonly bifurcated into basic and value-added services. Value-added services are sometimes referred to in the United States as "enhanced" services. Basic telecommunication services include voice telephone, telex, and telegraph. Value-added services are computer-based and include electronic and voice mail, online and database information retrieval, and data and transaction processing.

Many countries offered commitments on value-added telecommunications during the Uruguay Round. Negotiations on basic telecommunications was a different story. The openness of countries' markets in basic telecommunications varies widely. For example, in contrast to the open and competitive U.S. telecommunications market that followed the 1984 break-up of AT&T, the basic telecommunications market in Europe is dominated by public and private monopolies or single service providers. Because of this gulf in perspectives, offers on basic telecommunications were slow to develop. Despite these difficulties, and rather than end negotiations on this branch of telecommunication services trade, participants agreed to extend negotiations on basic telecommunications for two years. After a further extension of negotiations, an Agreement on Basic Telecommunications was finally concluded in early 1997. It entered into force on January 1, 1998, and liberalizes trade in the basic telecommunications sector.

An Information Technology Agreement was also concluded in early 1997 to further liberalize trade in telecommunication products. The Information Technology Agreement is discussed below.

Thus, at the conclusion of the Uruguay Round in December 1993, approximately one-half of the participants scheduled specific commitments on value-added telecommunication services. Negotiations on basic telecommunication services were extended through 1996. The participants also reached agreement on access to Members' telecommunication networks, which is memorialized in the GATS Annex on Telecommunications. The achievements of the Uruguay Round negotiations on telecommunication services are explained in the next two sub-sections.

B. THE URUGUAY ROUND COMMITMENTS ON ENHANCED TELECOMMUNICATION SERVICES

The modes of delivery for enhanced telecommunication services are either cross-border or through a foreign commercial presence. Physical delivery is through telecommunication and computer networks that link communication centers throughout the world. As explained in the next sub-section, the Annex on Telecommunications ensures suppliers reasonable and nondiscriminatory access to and use of public telecommunication network carriers and services when such
services or facilities are required to supply a service included in a Member's schedule of commitments.

Enhanced telecommunication service suppliers create global networks by leasing lines from basic telecommunication carriers. Consumers can access enhanced services, such as e-mail or computer databases, by connecting to an enhanced telecommunication network through a personal computer. Consumers can use a local telephone number provided by the supplier, a long-distance number, an Integrated Services Digital Network (ISDN) connection through a local telephone network, or a local telephone company to connect to a network.21

The negotiations on specific commitments on enhanced telecommunication services were a modest success. Fifty-eight countries, including all of the Quad Members, scheduled commitments on value-added telecommunication services. As is true with the vast majority of specific GATS commitments negotiated during the Uruguay Round, however, the value-added service commitments are standstill commitments that maintain the status quo rather than liberalize trade. But because the global market for value-added telecommunication services was comparatively open at the start of the negotiations, the standstill commitments made in the Uruguay Round will prevent rollbacks on existing market access. The openness of the enhanced telecommunications market is an indication that countries believe that their enhanced telecommunication service providers are competitive on a global basis and that neither they nor the public need protection from foreign competition.22

The International Trade Center (ITC) reported in late 1995 that, with few exceptions, U.S. providers of enhanced telecommunication services operate freely in Canada, the EU, Japan, and Mexico.23 This open business environment for value-added telecommunication services is largely the by-product of bilateral and regional agreements that predate the GATS.24 Nevertheless, the GATS but-

21. For additional information on the nature of international trade in enhanced telecommunication services, see GATS STUDY, supra note 17, at 5-2.
23. See GATS STUDY, supra note 17, at 5-3. In a GATS study of selected South American countries (i.e., Argentina, Bolivia, Brazil, Chile, Colombia, Paraguay, Peru, Uruguay, and Venezuela) conducted by the ITC in 1996, their commitments on enhanced telecommunication services were not as forthcoming. Only Argentina, Chile, Colombia, and Peru scheduled any commitments on enhanced telecommunication services. Of these four, only Argentina committed to full market access and national treatment for foreign suppliers of enhanced telecommunication services. While Argentina and Chile have the least restrictive markets in South America, market access and national treatment for most modes of supply are unbound in Colombia and Peru. See U.S. INT’L TRADE COMM’N, PUB. NO. 3007, GENERAL AGREEMENT ON TRADE IN SERVICES: EXAMINATION OF SOUTH AMERICAN TRADING PARTNERS' SCHEDULES OF COMMITMENTS Table 4-1 (1996).
24. For example, the United States and Japan concluded an international value-added network services (IVANS) agreement in 1991 that provided market access to Japanese business markets for U.S. providers of enhanced telecommunication services. The NAFTA also provides U.S. enhanced service suppliers with liberalized access to the Canadian and Mexican markets.
tresses this already favorable climate through the standstill commitments sched-
uled by the Quad Members.

First, with regard to the cross-border delivery of enhanced telecommunication services, market access is virtually unrestricted in Canada, the EU, Japan, and the United States. While no national treatment limitations exist in Mexico, some modest market access restrictions require that a permit be obtained to provide many types of value-added services. None of the Quad Members listed any MFN exemptions that apply directly to enhanced telecommunication services.

Second, with regard to the delivery of enhanced telecommunication services through a commercial presence, foreign suppliers face far more restrictions in all Quad Member states. For example, while Canada and Japan do not have any limitations that specifically are targeted at the enhanced telecommunication service sector, cross-industry (horizontal) restrictions on market access include capping equity ownership, voting rights, and representation on boards of directors. Typical cross-industry limitations on national treatment include require­ments that residents of the host country control newly established businesses.

In the United States, enhanced telecommunication service providers have ex­pressed overall satisfaction with the GATS commitments made by Canada, the EU, Japan, and Mexico. Their main criticism is the GATS scheduling methodol­ogy. The GATS' positive list approach does not automatically accord market access or national treatment to new services that grow out of technological advance­ves. Because restrictions on emerging services are unbound, trading partners may impose on such services whatever national treatment limitations or market access restrictions they choose, without paying compensation to adversely af­fected WTO Members. NAFTA's negative list approach is, for that reason, a preferable methodological approach because all emerging services are automatic­ally entitled to market access and national treatment.

C. THE GATS ANNEX ON TELECOMMUNICATIONS

The telecommunications sector serves a dual role as both a distinct sector of economic activity and the means of delivery for other economic activities. Recognizing this duality, the GATS Annex on Telecommunications was negoti-

25. See GATS STUDY, supra note 17, app. L. At the request of the United States Trade Representative (USTR), the ITC has assumed responsibility for maintaining and updating the U.S. Schedule of GATS Commitments in all service sectors. See U.S. INT'L TRADE COMM'N, U.S. SCHEDULES OF COMMITMENTS UNDER THE GENERAL AGREEMENT ON TRADE IN SERVICES (May 1997) [hereinafter U.S. SCHEDULES OF COMMITMENTS]. It is available from the ITC's website at <http://www.usitc.gov>.
27. See GATS STUDY, supra note 17, app. L.
28. See id.
29. See id. at 5-6.
ated to ensure that in its role as the means of delivery, access to telecommunication networks does not turn into a non-tariff barrier to trade.

The Annex applies to all measures that affect access to and use of public telecommunication transport networks and services.\(^{30}\) It does not apply to measures affecting cable or broadcast distribution of radio or television programming. Each Member must ensure that the obligations of the Annex are applied to its own suppliers of public telecommunication transport networks and services by whatever means necessary.

Unless a Member has scheduled a specific commitment that requires access or use, nothing in the Annex requires a Member to authorize a service supplier of any other Member to establish, construct, acquire, or otherwise supply telecommunication transport networks or services.\(^{31}\) Likewise, much to the relief of developing countries, the Annex does not require a Member to acquire, lease, or build a telecommunications network or to supply telecommunication services that are not offered to the public generally.\(^{32}\)

Paragraph 4 of the Annex on transparency obligates Members to make publicly available all relevant information on conditions affecting access to and use of the networks and services.

The heart of the Annex is Paragraph 5. Its heading could easily serve as the sub-title of the Annex: Access to and Use of Public Telecommunications Transport Networks and Services. Paragraph 5(a) provides in pertinent part: "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."\(^{33}\)

A footnote clarifies that the term "non-discriminatory" refers to MFN and national treatment as defined in the GATS.\(^{34}\) It adds that sector-specific usage of the term means "terms and conditions no less favourable than those accorded to any other user of like public telecommunications transport networks or service under like conditions."\(^{35}\) This language strongly suggests that no derogations from the MFN or national treatment obligations may be listed in a Member's schedule of commitments regarding access to or use of public telecommunication networks or services.

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30. GATS Annex on Telecommunications para. 2(a), Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, 33 I.L.M. 1192, 1193 [hereinafter GATS Annex]. Public telecommunications transport service means service that a member requires to be offered to the public generally (thus, they may be privately owned), and includes telegraph, telephone, telex, and data transmission. Public telecommunication transport network means the infrastructure which permits telecommunications between defined network termination points. GATS Annex paras. 3(a), (c).

31. See GATS Annex para. 2(c)(i).

32. See GATS Annex para. 2(c)(ii).

33. GATS Annex para. 5(a).

34. See GATS Annex para. 5(a) n.2.

35. GATS Annex para. 5(a) n.2.

VOL. 33, NO. 1
The specific access and use rights accorded foreign service suppliers include (1) the right to purchase or lease and attach terminal or other equipment that is necessary to supply services; (2) the right to interconnect private leased or owned circuits with public networks or services; (3) the right to use operating protocols of the supplier's choice in the supply of any service; and (4) the right to use networks and services for the movement of information within and across borders, subject to reasonable measures necessary to ensure security and confidentiality (e.g., encryption requirements).36

A Member may impose three general types of measures on access and use. First, a Member may impose measures necessary to ensure that public service suppliers are able to make their networks or services available to the public generally. Second, a Member may impose measures necessary to protect the technical integrity of networks or services. Third, a Member may impose measures necessary to ensure that service suppliers are providing only services for which the Member has scheduled a commitment.37 Provided that they fall within one of the three types of permissible measures just described, a Member may impose specific conditions on access and use. These conditions include (1) restrictions on resale or shared use, (2) requirements to use specified technical interfaces and protocols for inter-connection with such networks and services, (3) approval of terminal or other equipment that interfaces with the network, (4) restrictions on inter-connection of private leased or owned circuits with such networks or services, and (5) requirements on registration and licensing.38

Developing countries are given a special dispensation that allows them to protect ("strengthen," in the words of the Annex) their domestic telecommunications infrastructure and service capacity through reasonable conditions on access and use, notwithstanding the limitations imposed on Members by Paragraph 5 in that connection.39 Any such conditions must be specified in the developing-country Member's schedule; no Member has done so thus far. The Annex also encourages technical cooperation between developed- and developing-country Members.40

Finally, recognizing the importance of international standards for global compatibility and inter-operability of telecommunication networks and services, Members agree in Paragraph 7 to promote such standards through appropriate international organizations. Such organizations include the International Telecommunication Union and the International Organization for Standardization. Members also agree to engage relevant nongovernmental organizations (NGOs) by making arrangements with them for consultation on matters arising from the

36. See GATS Annex paras. 5(b)-(d). Compare GATS art. III bis.
37. See GATS Annex para. 5(e).
38. See GATS Annex para. 5(f).
39. See GATS Annex para. 5(g).
40. See GATS Annex para. 6.
implementation of the Annex. In May 1998, the United States and the EU concluded a mutual recognition agreement on conformity assessment procedures covering several sectors, including telecommunications equipment. In June 1998, the twenty-one members of the Asia-Pacific Economic Cooperation (APEC) Forum concluded a mutual recognition arrangement on telecommunications equipment that will streamline the conformity assessment procedures for a wide range of such equipment. Once it is fully implemented, the mutual recognition arrangement will facilitate trade in telecommunications and telecommunications-related equipment among the APEC members.

D. THE URUGUAY ROUND DECISION ON NEGOTIATIONS ON BASIC TELECOMMUNICATIONS

Basic telecommunication services account for eighty-five percent of total global trade in telecommunication services; enhanced telecommunication services account for the remainder. As noted above, differences between the United States and the other Quad Members over their respective regulatory environments for basic telecommunication services made agreement on market openings in this sector impossible to achieve during the Uruguay Round.

Having established a precedent for extending negotiations beyond the Uruguay Round in the financial services and maritime transport sectors, doing the same for basic telecommunication negotiations was not ground-breaking. Accordingly, undeterred by the lack of progress and optimistic that market access commitments on basic telecommunication services could be secured if Members were given more time to negotiate, trade ministers issued a Decision on Negotiations on Basic Telecommunications at the conclusion of the Uruguay Round. That Decision extended the negotiations until April 30, 1996 (subsequently extended by the Council on Trade in Services until February 15, 1997), under the auspices of the Negotiating Group on Basic Telecommunications.

In contrast with the negotiations on value-added telecommunication services, the Decision called for negotiations leading to the “progressive liberalization” of trade in telecommunications transport networks and services (i.e., “basic telecommunications”). In other words, offers in the nature of standstill commit-

42. Additional information on APEC is available at its website: <http://www.apecsec.org.sg>.
ments would be unacceptable. The Decision imposed a standstill obligation that prohibited Members from applying any measure affecting trade in basic telecommunications in a manner that would improve their negotiating position and leverage. The negotiations were to be comprehensive in scope, with no basic telecommunications excluded a priori.

Prospects for reaching an agreement that actually liberalizes trade in basic telecommunications improved dramatically with two developments. First, the EU-member states reached internal agreement in 1993 to liberalize their domestic and international telephone markets by January 1998. Second, passage in the United States of the Telecommunications Act of 1996 opens competition in the local, long distance, and international calling markets through all telecommunications infrastructure (wire, radio, and cable), and allows 100 percent indirect foreign ownership of U.S. telecommunications firms.

By the original April 30, 1996 deadline, fifty-three participants had submitted forty-seven offers. The United States, however, was of the opinion that a sufficient number of acceptable, high-quality offers had not been tabled. While the United States was generally pleased with most offers tabled by EU-member states, it was less enthusiastic about offers from Canada and Japan because they did not liberalize investment restrictions.

In order to preserve the high quality offers that had been made and to salvage the negotiations, the Council on Trade in Services adopted the Decision on Commitments in Basic Telecommunications on April 30, 1996, extending the negotiations until February 15, 1997. Participants were at liberty to withdraw or modify any offer they had previously made. The additional breathing room cured the malaise that had settled over the negotiations. Between November 1996 and January 1997, improved offers came from all quarters that were sufficient to build the critical mass necessary for an agreement.

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45. See The Year in Trade 1996, supra note 5, at 37.


E. THE 1997 COMMITMENTS ON BASIC TELECOMMUNICATION SERVICES

On February 15, 1997, sixty-nine developed and developing countries from fifty-five WTO Members (fifty-four governments plus the fifteen EU-member states) successfully concluded an agreement on basic telecommunication services that entered into force on January 1, 1998. Not only were the number of offers broader than those from April 1996 (fifty-five versus thirty-four), but they were deeper as well, covering services not previously scheduled by Members in April 1996.

No single document memorializes the participants' agreement per se. Rather, the legal document that provides authoritative and complete information on the commitments made by each participant is the national Schedule of Specific Commitments annexed to the Fourth Protocol of the GATS.49

The agreement covers ninety-five percent of world revenue in telecommunication services. Before the agreement, only seventeen percent of the top twenty telecommunication markets were open to foreign service providers. With the agreement, 100 percent of those markets are now open.

The basic telecommunication services covered by the agreement are defined broadly as any telecommunication transport network or service. Specifically, these services include telephone services, circuit-switched data transmission services, packet-switched data transmission services, telex services, telegraph services, facsimile services, private leased circuit services, analog and digital cellular mobile telephone services, mobile data services, paging, personal communications services, submarine cable services, satellite-based mobile services, fixed satellite services, VSAT services, gateway earthstation services, teleconferencing, video transport, and trunked radio system services.

The fifty-five national schedules of specific commitments have three elements: market access, investment, and pro-competitive regulatory principles. A sample of the market access commitments shows that forty-seven of the fifty-five schedules, representing ninety-nine percent of WTO Members' total basic telecommunication services revenue, commit to the competitive supply (i.e., two or more suppliers are permitted) of voice telephone service either immediately on January


50. Circuit-switching is the technical description of older technology for the switching process that dedicates to two or more users the exclusive use of the circuit until the connection is terminated. Packet-switching is newer technology that is used almost exclusively for data exchange. Unlike circuit-switched data, packet-switched data are transmitted in multiple "packets" through available circuits and reassembled at the termination point. See generally A Survey of Telecommunications, THE ECONOMIST, Sept. 13, 1997, at 25-27.
1, 1998, or, in the case of twenty-five Members, on a phased-in timetable.\textsuperscript{51} These commitments include forty-one scheduled commitments on local service; thirty-eight on domestic long-distance service; and forty-two on international service.\textsuperscript{52} Market access commitments on other basic telecommunication services include forty-nine schedules with commitments on data transmission service, forty-six on cellular/mobile telephone service, forty-one on leased circuit service, and thirty-six on fixed satellite service. Nine countries listed MFN exemptions (Argentina, Antigua and Barbuda, Bangladesh, Brazil, India, Pakistan, Sri Lanka, Turkey, and the United States).\textsuperscript{53}

\textsuperscript{51} In 1997, the Chairman of the Group on Basic Telecommunications issued two notes on assumptions applicable to the scheduling of commitments in basic telecommunications. For example, any basic telecommunication service listed in the Sector column of a Member’s schedule encompasses local, long-distance, and international services for public and private use and may be provided through any means of technology (e.g., cable, wireless, satellites). It is not necessary to list cellular or mobile services as a separate sub-sector, even though a number of Members have done so. See Note by the Chairman, Revision, Notes for Scheduling Basic Telecom Services Commitments, GATT Doc. S/GBT/W/2/Rev.1 (1997).

In a second communication, the Chairman also noted that many Members have entries in the market access column indicating that commitments are “subject to availability of spectrum/frequency” or similar wording. In light of the physical nature of the radio spectrum and the inherent constraints in its use, such words are unnecessary and should be deleted from Members’ schedules. See Chairman's Note, Market Access Limitations on Spectrum Availability, GATT Doc. S/GBT/W/3 (1997).

\textsuperscript{52} The following countries have deferred full market access to international telephone services: Spain, until December 1, 1998; Peru, until 1999; Argentina, Ireland, Portugal, Singapore, Venezuela, until 2000; Bolivia, the Czech Republic, until 2001; Greece, Poland, Romania, the Slovak Republic, until 2003; Hungary, Mauritius, until 2004; Bulgaria, Indonesia, until 2005; Grenada, Senegal, Thailand, Turkey, until 2006; Brunei, until 2010; Antigua and Barbuda, until 2012; and Jamaica, until 2013.

\textsuperscript{53} The United States listed an MFN exemption in response to Canada’s unwillingness to eliminate its 46.7 percent equity cap restriction on foreign ownership of most basic telecom service providers. The exemption provides:

\textbf{THE UNITED STATES—LIST OF ARTICLE II (MFN) EXEMPTIONS}

<table>
<thead>
<tr>
<th>Sector or subsector</th>
<th>Description of measure indicating its inconsistency with Article II</th>
<th>Countries to which the measure applies</th>
<th>Intended duration</th>
<th>Conditions creating the need for the exemption</th>
</tr>
</thead>
<tbody>
<tr>
<td>Telecommunication services: One-way satellite transmission of DTH and DBS television services and of digital audio services</td>
<td>Differential treatment of countries due to application of reciprocity measures or through international agreements guaranteeing market access or national treatment</td>
<td>All</td>
<td>Indefinite</td>
<td>Need to ensure substantially full market access and national treatment in certain markets</td>
</tr>
</tbody>
</table>

The abbreviations “DTH” and “DBS” stand for “direct-to-home” and “direct broadcast satellite,” respectively. See United States, List of Article II (MFN) Exemptions, GATS/EL/90/Suppl.2 (1997).
On investment, most schedules of commitments (forty-two of fifty-five, covering ninety-seven percent of WTO Members’ total basic telecommunication services revenue\(^{54}\)) permit delivery through some form of a commercial presence. Foreign service suppliers thus have the right to acquire, establish, or own all or part of a foreign-based telecommunications company. For example, in its schedule of commitments the EU has inscribed “none” in the market access and national treatment columns with respect to the delivery of the following services through a commercial presence: voice telephone, packet-switched data transmission, circuit-switched data transmission, telex, telegraph, facsimile, leased circuit, and mobile and personal communication systems.\(^{55}\) With respect to these same services, Japan has limited foreign capital participation in its two largest carriers, Nippon Telegraph and Telephone (NTT) and Kokusai Denshin Denwa (KDD), to a maximum of twenty percent.\(^{56}\)

Canada likewise has restricted the delivery through a commercial presence of basic telecommunications services by limiting foreign capital participation in most basic telecommunications service companies based in Canada to a cumulative total of 46.7 percent of voting shares, based on 20 percent direct investment and 33\(\frac{1}{3}\)% percent indirect investment. In light of several developing-country offers that allow more foreign participation than does Canada, this limitation was not well received by Canada’s major trading partners. An exception to this limitation has been made for mobile satellite systems and fixed satellites that are 100 percent foreign-owned and controlled. These services may be used by Canadian service providers to provide services in Canada.\(^{57}\)

Mexico has also inscribed market access limitations with regard to delivery through a commercial presence. Only companies organized under the laws of Mexico are eligible to receive approval from the Secretary of Communication and Transportation to supply basic telecommunication services in Mexico. Direct foreign participation in such companies is capped at 49 percent.\(^{58}\) An exception exists for cellular services where Mexico allows 100 percent foreign ownership. The United States has inscribed market access limitations with respect to direct foreign ownership of a common carrier radio license.\(^{59}\)


\(^{55}\) European Communities and Their Member States, Schedule of Specific Commitments, GATT Doc. GATS/SC/31/Suppl.3 (1997). Some EU member states have deferred the implementation of the commercial presence commitment until 2000 (Ireland and Portugal) and 2003 (Greece). See also John David Donaldson, “Television Without Frontier”: The Continuing Tension Between Liberal Free Trade and European Cultural Integrity, 20 FORDHAM INT’L L.J. 90 (1996).

\(^{56}\) Japan, Schedule of Specific Commitments, GATT Doc. GATS/SC/46/Suppl.2 (1997).

\(^{57}\) Canada, Schedule of Specific Commitments, Supplement 3, GATT Doc. GATS/SC/16/Suppl.3 (1997).


\(^{59}\) The United States of America, Schedule of Specific Commitments (2d Supp.), GATT Doc. GATS/SC/90/Suppl.2 (1997), reprinted in U.S. SCHEDULE OF COMMITMENTS, supra note 25. The limitations are fourfold. A license may not be granted to or held by (1) a foreign government, (2)
Under the rubric of regulatory principles, the Negotiating Group on Basic Telecommunications developed a Reference Paper on competition principles based on the U.S. Telecommunications Act of 1996. It addresses the following matters:

- safeguards against anti-competitive practices by monopolies, such as cross-subsidization or using information obtained from competitors with anti-competitive results;
- cost-based and timely interconnection on non-discriminatory terms, rates, and quality;
- transparent and non-discriminatory universal service requirements (i.e., requirements that mandate basic telecommunication service for every citizen at affordable prices);
- transparent and publicly available licensing criteria, including a statement of reasons for licensing denial;
- independence of regulators from suppliers of basic telecommunication services;
- transparent and non-discriminatory rules for the allocation of scarce resources, such as radio spectrum frequencies; and
- publication of international accounting rates.

Sixty-three of the sixty-nine participating governments, covering ninety-four percent of WTO Members’ total basic telecommunication services revenue, inscribed commitments on regulatory principles in the “Additional Commitments” column of their national schedules. Of these, fifty-seven committed to the Reference Paper by inscribing it in whole or in part in their schedule of commitments, including the Quad Members and Mexico. Bangladesh, Brazil, Mauritius, Morocco, Turkey, and Venezuela deferred the date of entry into force of the regulatory principles. Bolivia, India, Malaysia, Pakistan, and the Philippines adopted them in part.

Of all the service sectors for which GATS commitments have been made, the scope of the commitments made on basic telecommunications services are the most ambitious to date. It opens the world’s three largest telecommunication markets—the EU, Japan, and the United States—to international competition beginning in 1998. Still, much hard work lies ahead, especially in loosening the grip that government-owned telecommunication monopolies have on their domestic markets. Additional market openings will be sought in the GATS negotiation round scheduled for 2000.

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a non-U.S. citizen, (3) any corporation not organized under U.S. laws, or (4) a U.S. corporation of which more than twenty percent of the capital stock is owned or voted by a foreign government, a non-U.S. citizen, or a corporation not organized under U.S. laws. See Vincent M. Paladini, Foreign Ownership Restrictions under Section 310(B) of the Telecommunications Act of 1996, 14 B.U. INT’L L.J. 341 (1996).
F. The 1998 Declaration on Electronic Commerce

In 1991, there were fewer than five million Internet users. The WTO estimates that by 2000 there will be more than 300 million users.60 The value of electronic commerce is predicted to reach $300 billion by 2000.61 In light of the staggering growth in electronic commerce, WTO members began work in 1998 on answering the question of how the WTO should deal with the issue of electronic commerce.

At the second session of the WTO Ministerial Conference held in Geneva in May 1998, the trade ministers of the 132 WTO Members issued a Declaration on Global Electronic Commerce.62 In that Declaration, the Ministers charged the General Council with the task of establishing a work program to examine all trade-related issues relating to global electronic commerce. The General Council is to report to the Ministerial Conference at its third biennial meeting to be held in 2000. Among the policy issues that the work program will address are: the legal and regulatory framework for Internet transactions, security and privacy questions, taxation, Internet access, intellectual property questions, and content regulation. In the interim, the Ministerial Conference declared “that Members will continue their current practice of not imposing customs duties on electronic transmissions.”63 Products purchased over the Internet that are physically delivered cross-border will continue to be subject to existing WTO rules on trade in goods, including customs duties on such transactions.

IV. Trade in Information Technology Products

A. Overview

Manufacturers interested in creating well-paying jobs for workers, earning high returns on their investments, and being competitive in world markets for their goods have shifted all or a substantial portion of their manufacturing base out of low value-added, labor-intensive production and into more capital-intensive, high value-added pursuits. Their primary focus has been on advanced-sector products. Similarly, governments interested in job creation and fostering new industries have lowered, or eliminated altogether, tariff and non-tariff barriers to trade in advanced-sector products.

One of the most important advanced-product sectors is information technology products. The most noteworthy achievement of the first WTO Ministerial Conference, held in Singapore in December 1996, was the successful conclusion of the Information Technology Agreement (ITA). The parties to the ITA agreed to

60. See FOCUS, supra note 9, at 8. See also WTO SECRETARIAT, ELECTRONIC COMMERCE AND THE ROLE OF THE WTO (1998).
61. See FOCUS, supra note 9, at 8.
63. Id.
eliminate all duties on a host of high-technology products (referred to as "information technology" products) beginning July 1, 1997, and ending no later than January 1, 2000.

A non-exhaustive list of the products covered by the ITA includes the following:  
- computers (supercomputers, mainframe computers, work stations, personal computers, automatic teller machines, calculators, and all computer peripherals);  
- telecommunications equipment (telephone sets, cordless phones, cellular phones, pagers, answering machines, fax machines, switching and transmission equipment, and optical fiber cable);  
- software;  
- semiconductors (memory chips, microprocessors, manufacturing equipment, and test equipment);  
- printed circuit boards.

In view of this list of products, even a casual observer can see how the ITA and the Agreement on Basic Telecommunications perfectly complement one another.

The ITA is a set of three documents: (1) the Ministerial Declaration on Trade in Information Technology Products, (2) Implementation of the Ministerial

64. For a complete list of the products by name and HS headings included in the ITA, see WTO, Ministerial Declaration on Trade in Information Technology Products (Attachments A & B), GATT Doc. WT/Min(96)/16 (1996).


66. Bilateral trade in semiconductors between the United States and Japan is covered by an arrangement first negotiated in 1986 and renewed in 1996. It initially was negotiated in the aftermath of a successful complaint by U.S. semiconductor manufacturers that Japanese manufacturers were dumping their memory chips in the U.S. and other markets. This antidumping proceeding was followed by a Section 301 petition by the Semiconductor Industry Association, a trade association of U.S. semiconductor manufacturers, alleging that the Japanese semiconductor market was unfairly protected by non-tariff barriers to trade. The upshot was the 1986 Arrangement Between the Government of Japan and the Government of the United States of America Concerning Trade in Semiconductor Products, guaranteeing market access to the Japanese semiconductor market and commitment from Japan not to dump semiconductors in third-country markets. The Arrangement was renewed in 1991 with modifications.


67. WTO, Ministerial Declaration on Trade in Information Technology Products, GATT Doc. WT/Min(96)/16 (1996).

SPRING 1999
Declaration on Trade in Information Technology Products prepared by the Council for Trade in Goods, and (3) the participating Members' schedules of tariff concessions.

B. MINISTERIAL DECLARATION ON TRADE IN INFORMATION TECHNOLOGY PRODUCTS

The Ministerial Declaration on Trade in Information Technology Products memorializes the parties' agreement on information technology (IT) products. Fourteen WTO Members (twenty-eight governments, counting the fifteen EU-member states), accounting for over eighty percent of world trade in IT products, agreed on December 13, 1996, to bind and eliminate over a two-and-a-half year period all duties and charges of any kind on the products listed in the two attachments to the Declaration. By late March 1997, eleven more WTO Members (the Czech Republic, Costa Rica, Estonia, India, Israel, Macau, Malaysia, New Zealand, Romania, the Slovak Republic, and Thailand) also joined the fourteen charter Members. By March 26, 1997, twenty-five schedules of tariff concessions had been approved, covering more than a ninety-two percent share of world trade in IT products. The criterion laid down in the Ministerial Declaration that ninety percent of the world IT market had to be represented before the ITA would enter into force thus had been reached. Under the generalizing effect of the unconditional MFN commitment, all WTO Members are entitled to these accelerated tariff reductions, even though not all WTO Members participate in the ITA.

The annex on modalities appended to the Declaration provides the terms for scheduling tariff concessions on covered IT products and on tariff reductions. All tariff concessions must be bound no later than July 1, 1997, and eliminated in equal steps. The first duty rate reduction is to be made on July 1, 1997, the

70. The original parties to the ITA are Australia, Japan, Canada, Korea, Taiwan, Norway, the EU, Singapore, Hong Kong, Switzerland, Iceland, Turkey, Indonesia, and the United States.

The participants agreed to encourage autonomous elimination of customs duties prior to these dates. In that connection, the EU agreed to accelerate the reduction of its seven percent duty on semiconductors a year early (January 1, 1999) in exchange for a commitment from the United States to eliminate on July 1, 1997, all duties on IT products with duty rates of three percent or less, or where the EU's share of the U.S. market for the product is ten percent or greater. Over $2.5 billion in EU imports to the United States will benefit from such agreement.\(^\text{73}\)

C. IMPLEMENTATION OF THE MINISTERIAL DECLARATION

In March 1997, the ITA participants established a Committee of Participants on the Expansion of Trade in Information Technology Products.\(^\text{74}\) The Committee's function is to oversee implementation of the ITA and to serve as the forum for meetings of the participants.

The ITA participants also adopted procedures for consultations on and review of product coverage.\(^\text{75}\) To be known as "ITA-II," the procedures included the submission of lists of additional IT products for possible additional tariff concessions no later than December 31, 1997. No later than June 30, 1998, the Committee was to meet and decide whether to revise the list of IT products in Attachments A and B to the Annex to the Declaration. If a revised list was established, participants must have submitted a revised schedule of tariff concessions by September 1, 1998. Any revised tariff schedules must have been reviewed by the Committee and submitted to the WTO Secretariat no later than January 1, 1999.

On July 17, 1998, the forty-four participants in the ITA-II negotiations agreed to suspend negotiations on extending the product coverage of the WTO ITA. The main sticking point in the negotiations was the inclusion of consumer electronic products in the ITA-II. Major exporting countries of consumer electronic products (Hong Kong, Malaysia, and Singapore) met opposition from the Quad countries and India (the latter maintains high tariffs on imports of these products). ITA-II negotiations resumed in Fall 1998,\(^\text{76}\) were again suspended in December 1998, and are set to restart in February 1999.\(^\text{77}\)

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\(^{74}\) See Implementation of the Declaration, supra note 71, paras. 3-6.

\(^{75}\) See id. para. 7. At the Committee's first meeting on September 29, 1997, the United States, the EU, and Japan urged that product coverage under the ITA be expanded. See Industrialized Nations, supra note 72, at 1657.

\(^{76}\) See Rift Over Product Coverage Hurts Talks on Expanded ITA Until Fall, 15 Int'l Trade Rep. (BNA) 1261 (1998); ITA-II Talks Suspended, WTO Press Release/110 (July 17, 1998).


SPPRING 1999
D. SCHEDULES OF TARIFF CONCESSIONS

Each of the ITA participants submitted revised schedules of tariff concessions that reflect the duty reductions agreed to under the ITA. Over 300 tariff line items were included in the U.S. schedule submitted on April 2, 1997. Over seventy-five IT products scheduled by the United States already received duty-free treatment as the result of concessions made either during the Uruguay Round negotiations or under the Agreement on Trade in Civil Aircraft. Other IT products scheduled by the United States carried duty rates ranging from 9.4 percent to .8 percent. Over 115 products carry duty rates of three percent or less, and fewer than fifty products carry duty rates of six percent or greater.

V. Conclusion

Most market access and national treatment commitments to date under the GATS are essentially standstill agreements. That is, existing market access and national treatment limitations, if any, were maintained in the Uruguay Round negotiations, but Members committed not to impose additional or new trade restrictions in the future. Consequently, while the GATS generally lays a foundation, broad trade liberalization in services has not yet occurred.

A notable exception in this regard is the market access commitments made in both the basic and enhanced telecommunication services sector, where WTO Members sought and secured genuine trade liberalization. In conjunction with the complementary ITA, significant barriers to trade in telecommunication goods and services have been eliminated and broad market access achieved.

78. The schedules have been annexed to the Marrakesh Protocol of Accession to the WTO and are available at the WTO's website: <http://www.wto.org>. The ITA permits Members to extend the time period for tariff elimination "in limited circumstances." India has taken advantage of this exception by agreeing to eliminate tariffs on information technology products by 2005. See India to Eliminate Tariffs On Info Tech Products by 2005, 14 Intl'l Trade Rep. (BNA) 1019 (1997).

79. In 1997, a group of U.S. capacitor and resistor manufacturers brought suit in the U.S. Court of International Trade challenging the president's authority to enter into the ITA. See Kemet Elecs. Corp. v. Barshefsky, 976 F. Supp. 1012 (Ct. Intl' Trade 1997). The court denied the plaintiffs' request for a preliminary injunction, but ruled that they had standing to challenge the President's authority to issue a proclamation implementing the tariff cuts called for under the ITA.