Recent Trends in U.S. Services Trade

1998 Annual Report
Investigation No. 332-345

Publication 3105 **May 1998**

U.S. International Trade Commission

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U.S. International Trade Commission

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PREFACE

On August 27, 1993, on its own motion and pursuant to section 332 (b) of the Tariff Act of 1930 (19 U.S.C. 1332(b)), the U.S. International Trade Commission (USITC) instituted investigation No. 332-345, *Annual Reports on U.S. Trade Shifts in Selected Industries.* The current report format was developed by the USITC in response to Congressional interest in establishing a systematic means of examining and reporting on the significance of major trade shifts, by product, and with leading U.S. trading partners, in service, agricultural, and manufacturing sectors. A significant amount of the information contained in this recurring report reflects basic research that is required to maintain a proficient level of trade expertise. The Commission has found such expertise to be essential in its statutory investigations and in apprising its varied customer base of global industry trends, regional developments, and competitiveness issues.

On December 20, 1994, the Commission on its own motion expanded the scope of this report to include detailed coverage of service industries. Under the expanded scope, the Commission publishes two reports annually, one entitled *Shifts in U.S. Merchandise Trade* (July) and the second entitled *Recent Trends in U.S. Services Trade*[1] (May). Services trade is presented in a separate report in order to provide more comprehensive and timely coverage of the sector's performance.

The current report begins with a statistical overview of U.S. trade in services and a discussion of key trends. Thereafter, the report presents industry-specific analyses that focus on trends in exports, imports, and trade balances during 1991-96. Industry-specific analyses also identify major trading partners during the subject period. The report concludes with an examination of commitments on basic telecommunication services scheduled for the 20 largest foreign telecommunication markets under the General Agreement on Trade in Services (GATS) administered by the World Trade Organization.

Further USITC analyses of the GATS may be found in the reports *General Agreement on Trade in Services: Examination of Major Trading Partners' Schedules of Commitments* (USITC Publication 2940, Dec. 1995), *General Agreement on Trade in Services: Examination of South American Trading Partners' Schedules of Commitments* (USITC Publication 3007, Dec. 1996), *General Agreement on Trade in Services: Examination of the Schedules of Commitments Submitted by Asia/Pacific Trading Partners* (USITC publication 3053, Aug. 1997), and *General Agreement on Trade in Services: Examination of the Schedules of Commitments Submitted by Trading Partners of Eastern Europe, European Free Trade Area, and Turkey,* (forthcoming, 1998).

The information and analysis in this report are for the purpose of this report only. Nothing in this report should be construed to indicate how the Commission would find in an investigation conducted under other statutory authority.

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[1] Starting with the 1997 issue, the title of the report on services was changed from *U.S. Trade Shifts in Selected Industries: Services* to *Recent Trends in U.S. Services Trade.*

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CHAPTER 1
Introduction

Scope and Purpose

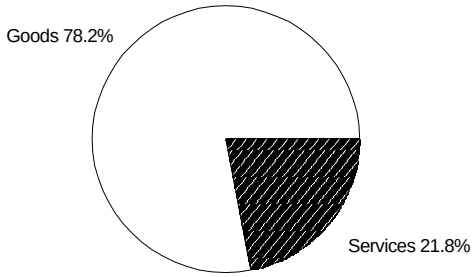
The U.S. International Trade Commission (USITC) routinely monitors trade developments in the service, agricultural, and manufacturing sectors. This report, prepared annually, analyzes significant trends in services trade as a whole, assesses trade in selected service industries, and identifies major U.S. trading partners. Since a considerable share of services trade takes place through affiliates established abroad, data for both cross-border and affiliate transactions are presented to provide a comprehensive analysis of the international activities of U.S. service industries.

Methodology and Organization

The data presented herein are drawn from the most recent annual data available for U.S. trade in services, which are estimated and published by the U.S. Department of Commerce, Bureau of Economic Analysis. Comparable annual data regarding cross-border services trade are available for the period 1986-96, whereas comparable data pertaining to affiliate transactions are available for the period 1987-95.

Chapter 2 of this report describes the nature of cross-border and affiliate trade in services and provides an overview of U.S. services trade by industry and by trading partner. Chapter 3 examines trade in selected service industries, describing how the services are traded and indicating whether recent trade performance marks a continuation of, or a departure from, trends observed since 1991. Chapter 3 features separate discussions of the distribution, education, financial, intellectual property-related, accounting, architectural/engineering/construction, computer, health care, legal, maintenance, telecommunication, transportation, and travel service industries. The discussions compare cross-border trade performance in 1996 with trends evident during 1991-95, and affiliate transactions in 1995 with trends during 1991-94. Each discussion in chapter 3 also reviews the principal factors underlying the volume and direction of recent trade, and identifies factors likely to influence future trade performance. Outlooks regarding the subject service industries are based on USITC staff interviews with industry representatives and reviews of secondary sources, such as industry journals. Chapter 4 of the report examines the commitments on basic telecommunication services scheduled for the 20 largest foreign telecommunication markets under the General Agreement on Trade in Services (GATS). The World Trade Organization (WTO) carried out negotiations over basic telecommunication services

Figure 1-1
U.S. cross-border trade volume, by sector, 1996



Total trade volume: $1.8 trillion

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 69.

during 1994-97, with 69 countries submitting finalized commitments on February 15, 1997.[1]

U.S. merchandise trade is not presented in this report. As noted in the *Preface*, it is the subject of a separate USITC annual report. However, to put U.S. services trade in perspective with merchandise trade, in 1996, cross-border services trade accounted for 22 percent of total U.S. cross-border trade volume (figure 1-1).[2] U.S. cross-border trade in services generated an $80-billion surplus in 1996, in contrast to a U.S. merchandise trade deficit of $191 billion.[3] Further, the service sector accounted for 77 percent of U.S. private-sector gross domestic product (GDP) in 1996 (figure 1-2).[4] By comparison, manufacturing accounted for 20 percent of GDP, and mining and agriculture together accounted for 4 percent. In 1996, the service sector provided 78 percent of total private-sector employment, compared to manufacturing with 19 percent, and mining and agriculture together with 3 percent (figure 1-3).[5]

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[1] The USITC has published several reports that examine in detail the commitments scheduled by GATS signatories. See USITC, *General Agreement on Trade in Services: Examination of Major Trading Partners' Schedules of Commitments*, USITC publication 2940, 1995; USITC, *General Agreement on Trade in Services: Examination of South American Trading Partners' Schedules of Commitments*, USITC publication 3007, 1996; USITC, *General Agreement on Trade in Services: Examination of the Schedules of Commitments Submitted by Asia/Pacific Trading Partners*, USITC publication 3053, 1997; USITC, *U.S. Trade Shifts in Selected Industries: Services*, USITC publication 2969, 1996; and *Recent Trends in U.S. Services Trade*, USITC publication 3041, 1997.

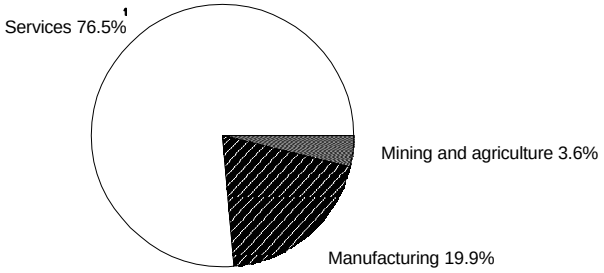
[2] Total trade volume is the sum of imports and exports.

[3] U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, Oct. 1997, p. 69.

[4] USDOC, BEA, National Accounts Data, Gross Domestic Product by Industry, 1987-96, found at Internet address http://www.bea.doc.gov/, retrieved Dec. 5, 1997.

[5] USDOC, BEA, *Survey of Current Business,* Aug. 1997, p. 96.

Figure 1-2
U.S. private-sector gross domestic product, by sector, 1996

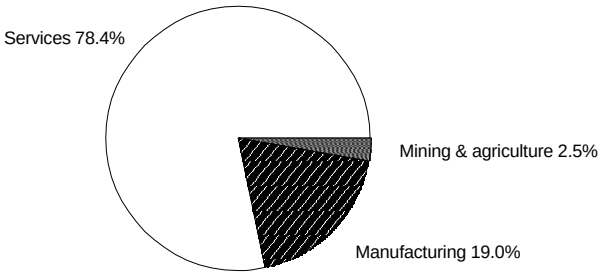


Total private-sector GDP: $6.6 trillion

[1] The services sector consists of distribution, education, financial, intellectual property-related, telecommunication, travel, and a broad range of business, professional, and technical services.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, National Accounts Data, Gross Domestic Product by Industry, 1987-96, found at Internet address http://www.bea.doc.gov/, retrieved Dec. 5, 1997.

Figure 1-3
U.S. private-sector employment, by sector, 1996



Total full-time equivalent employees = 95.4 million workers

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Aug. 1997, p. 96.

CHAPTER 2
U.S. Trade in Services

Nature of Trade in Services

Nations trade services through two principal channels. One channel, cross-border trade, entails sending individuals, information, or money across national borders. The current account of the United States[1] explicitly delineates cross-border exports and imports of services. The other channel, affiliate transactions, entails selling services through affiliates established by multinational companies in foreign markets. The current account does not list such transactions among exports and imports, but does report direct investors' shares of the income generated by these affiliates as investment income.

Cross-Border Trade

The analysis of cross-border trade in this report examines private-sector transactions only. Part of cross-border services trade reported in the current account reflects U.S. public-sector transactions (e.g., expenditures related to the operations of the military and U.S. embassies). As a result, they are not considered to be representative of U.S. service industries' performance and introduce anomalies due to such events as peace-keeping operations in Bosnia.

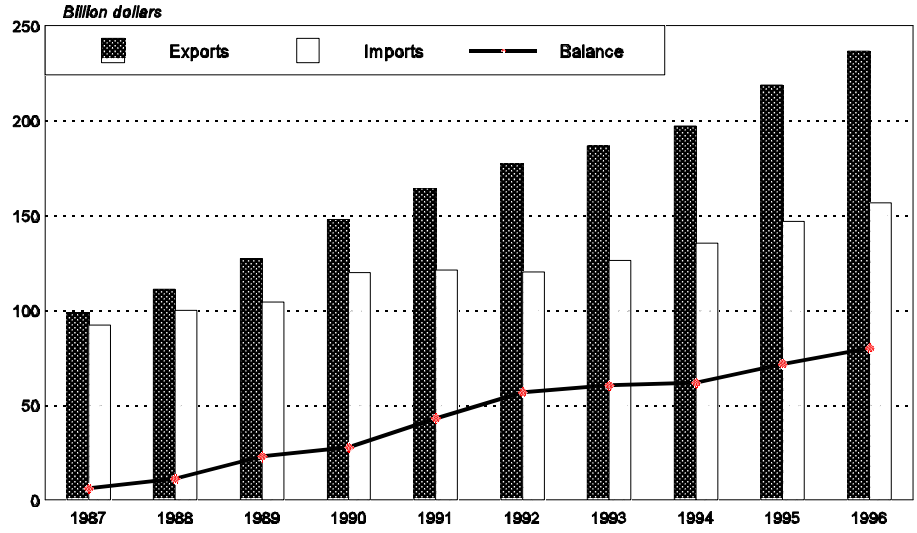
The volume and growth of U.S. cross-border service exports have consistently exceeded those of imports in recent years, yielding a services trade surplus that grew to $80 billion in 1996 (figure 2-1) and offsetting 42 percent of the merchandise trade deficit (figure 2-2). When public-sector transactions are removed from the 1996 data, the volume and growth of service exports still exceed those of imports, but the services trade surplus totals only $78 billion (table 2-1).[2]

In 1996, private-sector cross-border service exports increased by 8 percent, to $221 billion. Export growth in 1996 was slower than the 1987-95 average annual export growth rate of 11 percent. In comparison, private-sector cross-border service imports increased by 6 percent in 1996, to $143 billion. As with exports, imports grew more slowly in 1996 than during 1987-95, when annual import growth averaged 7 percent.

[1] The current account of the balance of payments reports trade in goods and services, flows of investment income, and unilateral transfers of funds (e.g., U.S. Government grants, pensions, and other funds).

[2] USDOC, BEA, *Survey of Current Business*, Oct. 1997, p. 76.

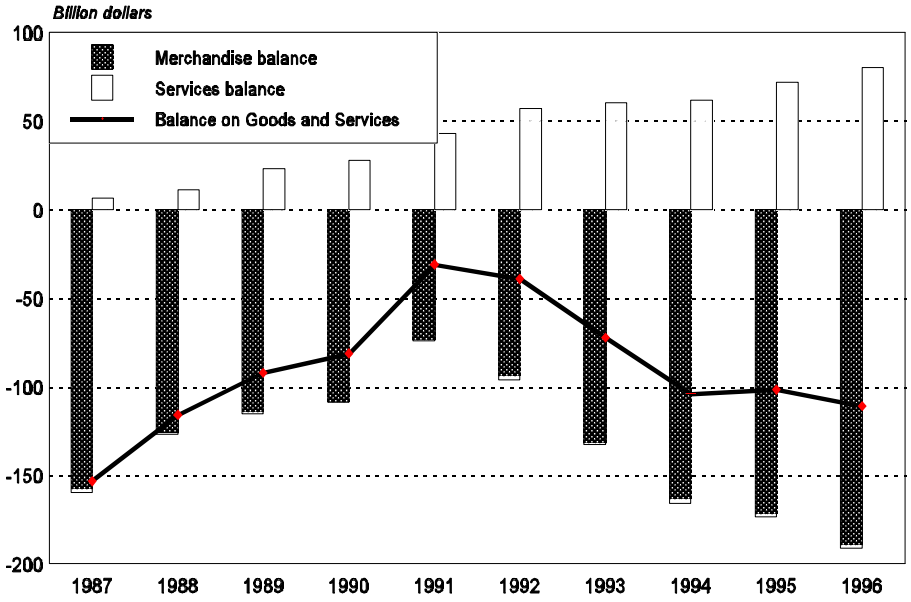
Figure 2-1
U.S. cross-border trade in services: Exports, imports, and trade balance, 1987-96[1]



[1] Data are presented as they appear in the current account of the U.S. balance of payments. Consequently, the services trade balance includes public-sector trade in addition to private-sector trade.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* July 1997, p. 65.

Figure 2-2
U.S. merchandise and services trade balances, 1987-96[1]



[1] Data are presented as they appear in the current account of the U.S. balance of payments. Consequently, the services trade balance includes public-sector trade in addition to private-sector trade.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* July 1997, pp. 65, 78-80.

Table 2-1
Derivation of U.S. private-sector, cross-border services trade balance, 1987-96

	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
					Million dollars					
Total exports	98,553	111,024	127,142	147,824	164,236	177,154	186,711	197,248	218,739	236,764
Public-sector exports	(11,632)	(9,948)	(9,152)	(10,600)	(11,823)	(13,228)	(14,354)	(13,053)	(14,574)	(15,540)
Private-sector exports	86,921	101,076	117,990	137,224	152,413	163,926	172,357	184,195	204,165	221,224
Total imports	(92,349)	(99,965)	(104,185)	(120,019)	(121,195)	(120,255)	(126,403)	(135,472)	(147,036)	(156,634)
Public-sector imports	16,843	17,524	17,184	19,449	18,524	16,098	14,456	12,852	12,513	13,548
Private-sector imports	(75,506)	(82,441)	(87,001)	(100,570)	(102,671)	(104,157)	(111,947)	(122,620)	(134,523)	(143,086)
Private-sector trade balance	11,415	18,635	30,989	36,654	49,742	59,769	60,410	61,575	69,642	78,138

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 1997, pp. 64-65, and Oct. 1997, pp. 108-109.

As export growth exceeded import growth during 1996, the surplus on cross-border trade in services increased, by 12 percent. Though considerable, growth of the service trade surplus in 1996 was about half of the 25-percent average annual growth rate experienced in 1987-95.[3]

Cross-Border Trade by Industry

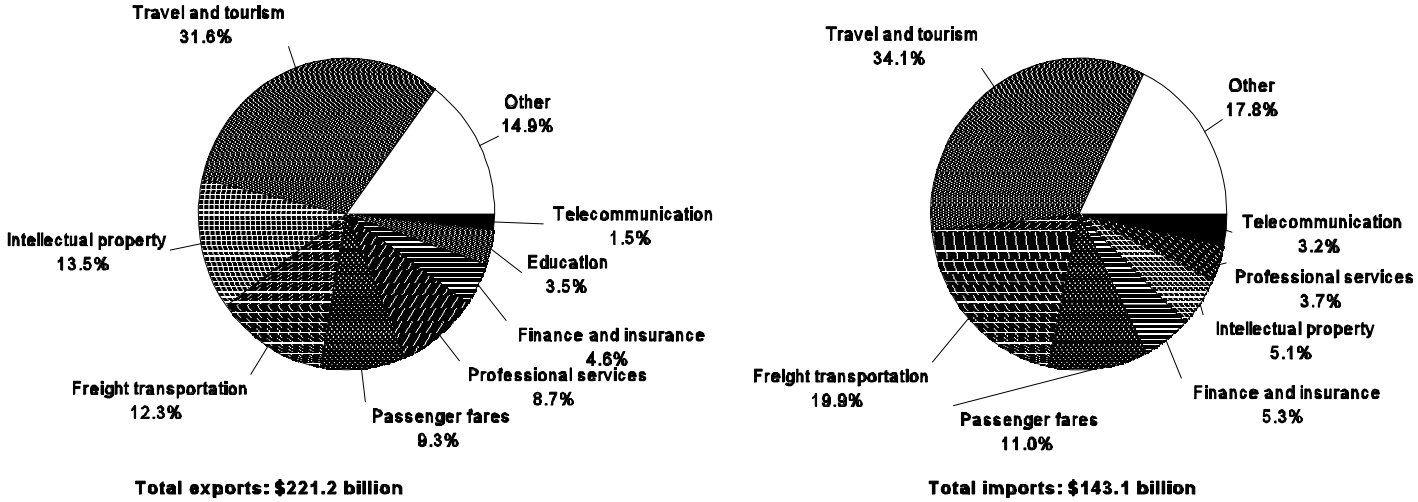
In 1996, travel and tourism services accounted for 32 percent of U.S. service exports, the largest share of total service exports represented by any single industry. Travel and tourism exports consistently loom large in the service trade account because they reflect inbound travelers' total expenditures while in the United States (e.g., food, lodging, recreation, local transportation, and gifts). Other services accounting for large shares of total U.S. exports were intellectual property-related services, representing 14 percent; freight transportation services (including port services), representing 12 percent; and passenger fares (airline and maritime) and professional services, each representing 9 percent (figure 2-3). Travel and tourism, freight transportation, and passenger fares also figured prominently among U.S. service imports in 1996, accounting for 34 percent, 20 percent, and 11 percent of total service imports, respectively.[4]

In 1996, all U.S. service industries registered trade surpluses, with the exception of those providing freight transportation, telecommunication, and insurance services. The trade deficits posted by these service industries, however, largely reflect accounting conventions and trade estimation methodologies, rather than unfavorable competitive positions. For instance, the shortfall in freight transportation services mirrors the deficit in U.S. merchandise trade in large part, as payments for freight transportation are generally made by importers to maritime carriers of exporting countries. Because the United States imports more merchandise than it exports, U.S. importers are likely to pay foreign freight carriers more than U.S. freight carriers receive from foreign importers of U.S. goods. The deficit in telecommunication services reflects the relatively high volume of international calls originating in the United States, and an international accounting convention whereby carriers providing outbound international calls compensate the carriers handling inbounds calls (see chapter 4). Last, the surplus of premiums received by U.S. insurers over claims paid to foreign policyholders (i.e., net exports by accounting convention) was less than the surplus of premiums collected by foreign insurers over claims paid to U.S. policyholders (i.e., net imports by accounting convention), resulting in a cross-border deficit.

Intellectual property-related services, involving sales of rights to and use of intangible property, accounted for 29 percent of the overall services trade surplus, followed by travel and tourism with 27 percent, and professional services such as law and health care with 18 percent.[5] Intellectual property-related trade, measured by flows of

[3] USDOC, BEA, *Survey of Current Business*, Oct. 1997, pp. 108-109.
[4] Ibid.
[5] Ibid.

Figure 2-3
U.S. cross-border service exports and imports,[1] by industries, 1996[2]



[1] Trade data exclude public-sector trade.
[2] Totals may not equal 100 percent due to rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 1997, pp. 108-109.

royalties and license fees, encompasses a vast array of transactions involving proprietary rights over manufacturing processes, copyrights, broadcast rights, trademarks, and other intangible property. U.S. trade in intellectual property rights takes place principally between U.S. parent companies and their foreign affiliates, reflecting the large volume of U.S. direct investment abroad, and the predominance of U.S. firms as innovators. This trade has consistently generated large U.S. surpluses as U.S. parent firms have licensed foreign affiliates to sell intellectual property abroad, and collected licensing fees in return, with the latter appearing as exports in the U.S. balance of payments. During 1991-96, the surplus on trade in intellectual property accounted for between 24 percent and 30 percent of the overall cross-border surplus in services trade (figure 2-4).

Since 1989, the surplus on trade in travel and tourism services has increased every year, with the exception of 1994 (figure 2-5). However, the continuation of this surplus appears to be dependent on exchange rates, as historical data show high negative correlation between the balance on travel and tourism trade and the value of the dollar. The importance of this relationship was demonstrated most recently in 1994-95, when the depreciation of the Mexican peso severely curtailed inbound tourism in the United States from Mexico. As a result of the peso's devaluation, U.S. cross-border tourism exports to Mexico dropped from $5.1 billion in 1993 to $4.9 billion in 1994 and $2.9 billion in 1995, while a stronger dollar encouraged more U.S. outbound tourism to Mexico. Consequently, the U.S. deficit in cross-border tourism trade with Mexico widened from $43 million in 1993 to $468 million in 1994 and $2.5 billion in 1995. In this light, it is reasonable to expect that the recent currency crisis in Southeast Asia will have an adverse impact on the overall U.S. tourism trade surplus.

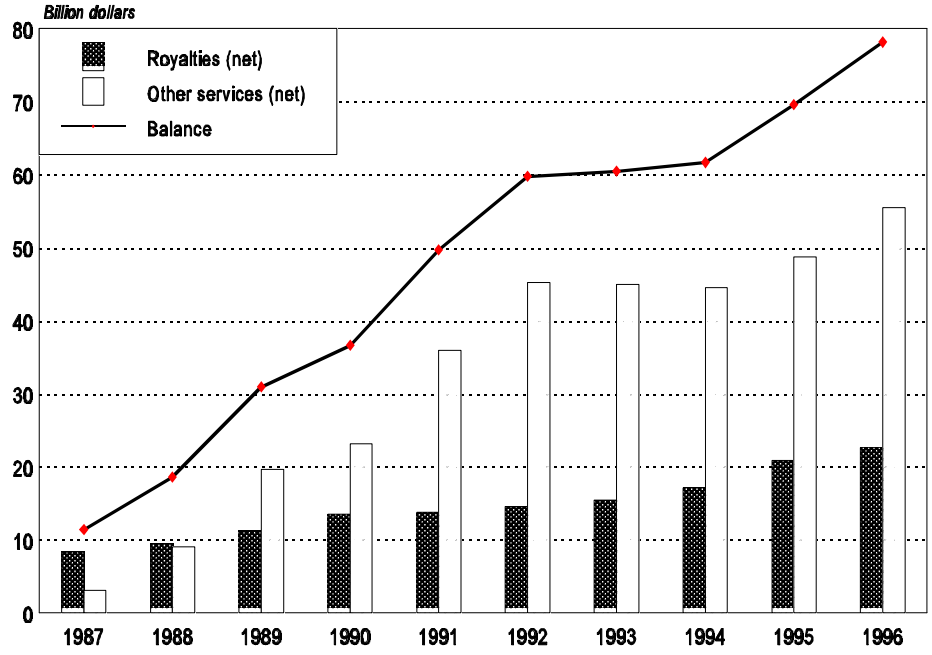
Cross-Border Trade by Trading Partner

In 1996, the European Union (EU) was the largest U.S. partner with respect to cross-border trade in services, accounting for 32 percent of U.S. exports and 33 percent of imports. Japan was second, accounting for 16 percent of exports and 9 percent of imports. Canada was third, with 9 percent of exports and 10 percent of imports, and Mexico fourth, with 4 percent of exports and 8 percent of imports (figure 2-6). Jointly, these four major trading partners accounted for 60 percent of both U.S. cross-border service exports and imports.

In 1996, the United States registered cross-border trade surpluses in services with all major trading partners except Mexico. Surpluses ranged from $6.1 billion with Canada to $22 billion each with Japan and the European Union.[6] For the second consecutive year, the United States recorded a deficit on cross-border services trade with Mexico, which amounted to $3.6 billion in 1996. Much of the United States' services trade deficit with Mexico stems from lower inbound travel from Mexico compared to the period preceding the peso's declining value.

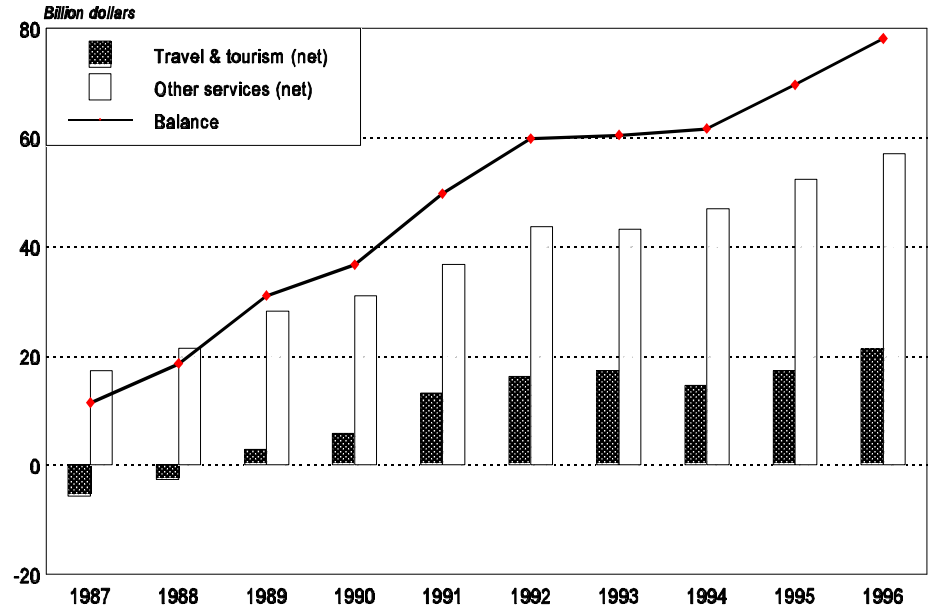
[6] Ibid.

Figure 2-4
Royalties and license fees in the U.S. cross-border services trade balance, 1987-96



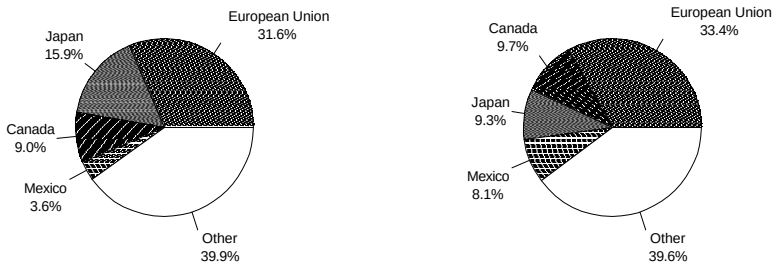
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 1997, pp. 108-109.

Figure 2-5
Travel and tourism in the U.S. cross-border services trade balance, 1987-96



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 1997, pp. 108-109.

Figure 2-6
U.S. cross-border service exports and imports,[1] by selected trading partners, 1996



[1] Trade data exclude public-sector trade.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 110-111.

Affiliate Transactions

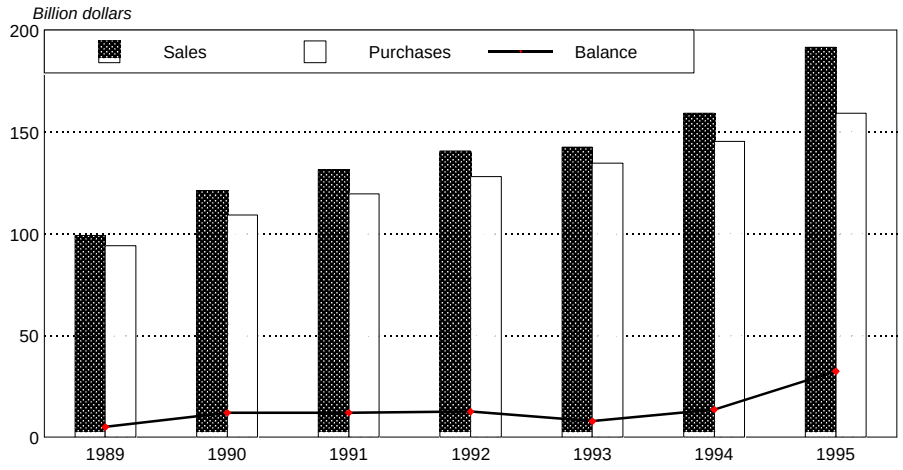
Data on affiliate transactions track majority-owned affiliates' sales to unaffiliated foreigners in the host market.[7] The provision of many services requires the physical presence of the provider in proximity to the consumer for practical and regulatory reasons. For example, the delivery of hospitality services is not feasible across borders. On the other hand, accounting firms prefer to provide services to overseas clients through foreign affiliates, in part, because regulations may restrict, or render uneconomic, cross-border transmission of financial data. Similarly, architectural and engineering firms find that establishment of a commercial presence in foreign markets is often a necessary prerequisite for obtaining contracts.

In 1995, sales by foreign-based affiliates of U.S. companies increased by 20 percent, double the 10-percent average annual growth posted during 1989-94 (figure 2-7). Sales grew by 35 percent in the European Union, principally in Germany and the United Kingdom. This reflected continued economic recovery in these two countries

[7] Majority-owned foreign affiliates of U.S. firms are defined as foreign affiliates for which the combined direct and indirect ownership interest of all U.S. parents exceeds 50 percent. Majority-owned U.S. affiliates of foreign firms are U.S.-based affiliates for which the combined direct and indirect ownership interest of all foreign parents exceeds 50 percent. For reporting purposes, the country in which the U.S.-based affiliate's "ultimate beneficial holder" resides receives credit for sales to U.S. persons. An ultimate beneficial holder of a U.S. affiliate is the entity, proceeding up the affiliate's ownership chain, that is not owned more than 50 percent by another person.

in 1995,[8] which resulted in increased demand for U.S. services, especially insurance, and computer and data processing services. By comparison, purchases from U.S.-based affiliates of foreign firms increased by 9 percent, equal to the 9-percent average annual rate established in 1989-94. Purchases from affiliates of Japanese parents declined by 14 percent, while those from affiliates of Canadian parent firms increased by 19 percent, [9] due in part to the April 1995 transfer of Universal Studios-MCA Inc., a major motion picture company in the United States, from Japanese to Canadian ownership. Purchases from affiliates of European firms increased by 10 percent, in large part due to sales by Swiss-owned insurance companies in the United States. Overall, sales by foreign-based affiliates of U.S. firms exceeded purchases from U.S.-based affiliates of foreign firms by $32.4 billion, more than double the previous year's level.

Figure 2-7
Affiliate service transactions: U.S. sales, purchases, and balance, 1989-95



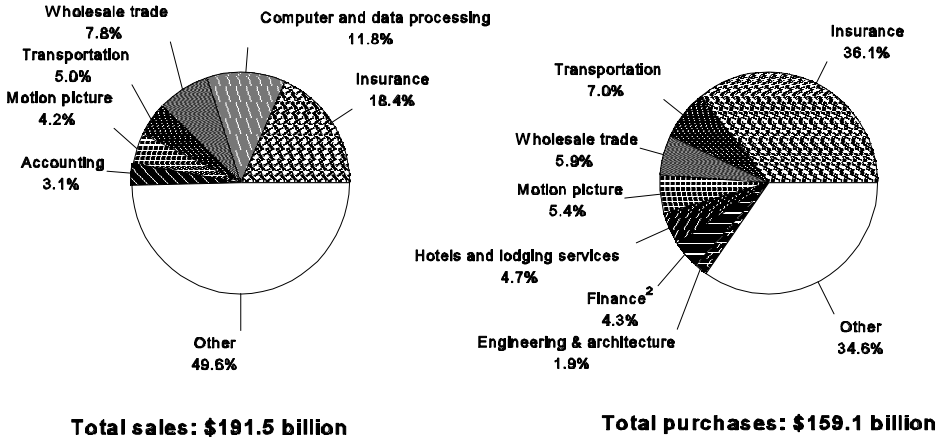
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 136.

[8] Organization for Economic Co-operation and Development (OECD), *OECD Economic Outlook*, vol. 61, June 1997 (Paris: OECD, 1997), p. A4.
[9] Ibid., p. 136.

Affiliate Transactions by Industry

In 1995, sales by U.S.-owned insurance affiliates in foreign countries accounted for 18 percent of total affiliate sales, the largest share held by a single industry (figure 2-8). The computer and data processing service industry, accounting for 12 percent of total sales, placed second.[10] By comparison, purchases of insurance services from U.S.-based affiliates of foreign parents accounted for 36 percent of total U.S. purchases from affiliates, reflecting the large presence of foreign insurance companies in the U.S. market. Purchases of services from U.S. affiliates of foreign-owned freight transportation firms represented 7 percent of total affiliate sales.[11]

Figure 2-8
Affiliate service transactions: U.S. sales and purchases, by industry, 1995[1]



[1] Due to rounding, figures may not equal 100 percent.
[2] Does not include depository institutions.
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 1997, pp. 137-138.

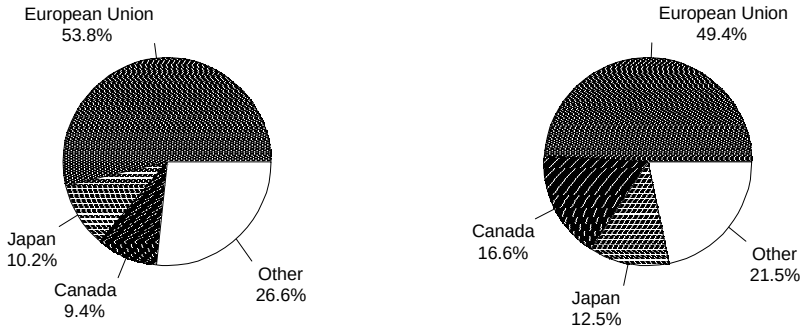
[10] Ibid., pp. 137-138.
[11] Ibid., p. 138.

Affiliate Transactions by Trading Partner

The great majority of U.S. affiliate sales and purchases are transacted with the European Union, Japan, and Canada, reflecting the substantial flow of direct investment capital between the United States and these trading partners. In 1995, the European Union accounted for 54 percent of U.S.-owned affiliates' sales of services to foreigners, while Japan and Canada accounted for 10 and 9 percent, respectively (figure 2-9). By comparison, affiliates owned by EU-parent companies accounted for 49 percent of total U.S. purchases from foreign-owned affiliates, followed by affiliates of Canadian and Japanese firms, with 17 percent and 13 percent, respectively.[12]

In 1995, the United States posted a $24.4-billion surplus on affiliate transactions with the European Union, more than 4 times larger than the previous year. However, the deficit on affiliate transactions with Canada nearly doubled to $8.4 billion, mainly due to Canada's direct investment in the U.S. insurance and motion picture markets. The U.S. affiliate trade deficit with Japan declined from $3.7 billion in 1994 to $325 million in 1995, principally because of the decrease of Japanese direct investment in the U.S. motion picture industry, as discussed above.[13]

Figure 2-9
Affiliate service transactions: U.S. sales and purchases, by selected trading partners, 1995[1]



Total sales: $191.5 billion

Total purchases: $159.1 billion

[1] Due to rounding, figures may not equal 100 percent.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 136.

[12] Ibid., pp. 136-138.
[13] Ibid.

CHAPTER 3
Industry Discussions

This chapter discusses U.S. international trade in services, by industry. Each section describes how services are traded within the industry and examines cross-border trade during 1991-96 and affiliate transactions during 1991-95 to the extent that such information is available. Each section concludes with a brief summary of the factors that determined the volume and direction of recent trade, and an outlook that identifies industry trends and other factors that may shape future trade patterns.

Distribution Services

Distribution service providers move merchandise through various channels from producers to consumers. Generally, merchandise proceeds from producers through wholesalers to retailers and ultimately to consumers. Wholesalers and retailers collect fees for services that typically are calculated as a percentage of the value of the product. These fees then constitute the value of the distribution service provided. Many distributors also routinely earn revenue for providing services that are unrelated to the distribution of merchandise, such as financial services or installation and maintenance services.

International trade in distribution services takes place when a customer located in one market pays fees for distribution or nondistribution services to a foreign-owned affiliate also located in the customer's market, or to an overseas distributor operating in the customer's market. The volume of transactions by foreign affiliates of distribution service firms appears to be much greater than the volume of cross-border transactions and, in fact, only data on affiliate transactions are tracked by data collection agencies. For this reason, the following discussion focuses on the transactions that take place through affiliates established as wholesalers or retailers in foreign markets.[1]

[1] Franchising services and commission agent services are sometimes considered to be additional components of distribution services. However, international trade data are not available for commission agent services. Certain data on trade in franchising royalties and fees are available, but they principally reflect revenues from the sale of intellectual property. Hence, this report examines franchising transactions in the chapter on intellectual property-related services.

Wholesale Trade

Introduction

Wholesalers serve as intermediaries, purchasing merchandise from manufacturers that is subsequently resold to retailers. In addition to buying and selling merchandise, wholesalers often provide nonwholesaling services to manufacturers, retailers, and other consumers. For example, wholesalers may sell inventory management services; extend credit; assemble, install, or deliver products; provide maintenance and repair services; and, with respect to computers, provide systems integration services. Foreign-based wholesaling affiliates also may act as agents for their parent manufacturing concerns and license patents or trademarks to local retailers in exchange for royalties and license fees (see discussion of intellectual property-related services). Because wholesale trade services incidental to the wholesaling of merchandise are indistinguishable from merchandise trade data, only nonwholesaling services provided by wholesalers are captured in official services trade data. Consequently, this discussion focuses solely on services provided by wholesalers that are not incidental to merchandise wholesaling.

International trade in wholesaling services principally occurs through foreign-based affiliates. In many cases, these affiliates are owned by manufacturers and essentially serve as manufacturers' representatives in foreign markets. For this reason, international trade in wholesale services is closely related to international trade in goods and direct investment flows. For example, the largest durable-goods wholesaler in the United States is American Honda Motor Co., which is an affiliate of Honda Motor Co. of Japan.[2] This relationship between merchandise trade and wholesaling, combined with enormous U.S. merchandise trade volumes, explains why international trade in wholesale services accounts for a large portion of total service sales through foreign affiliates.

Recent Trends in Affiliate Transactions, 1991-95

In 1995, foreign sales of services by wholesaling affiliates of U.S. firms totaled $15 billion, while corresponding purchases from U.S.-based affiliates of foreign firms amounted to only $9.4 billion (figure 3-1). These values represented 8 percent and 6 percent of total sales and purchases of services through affiliates, respectively.

Foreign sales of services by wholesaling affiliates of U.S. firms increased by 8 percent in 1995, reversing the overall negative trend recorded during 1991-94, when sales declined at an average annual rate of 7 percent (except for a slight increase in 1992).[3]

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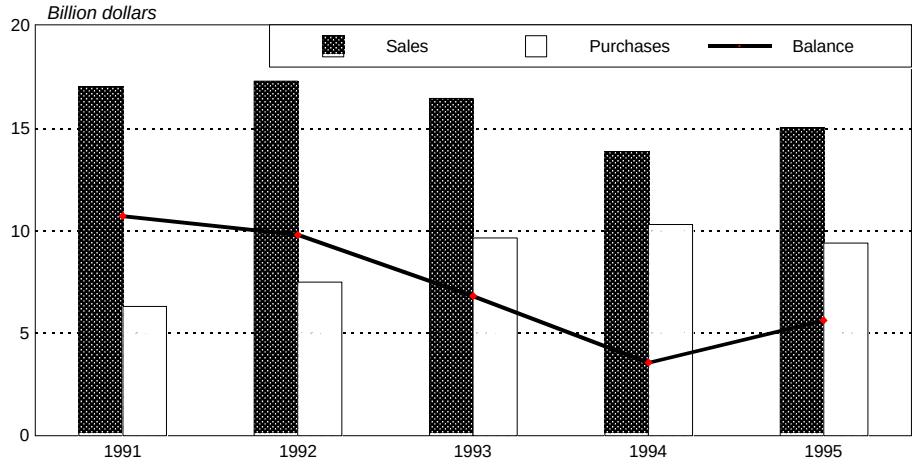
[2] Dun & Bradstreet, *Dun's Business Rankings* (Bethlehem, PA: Dun & Bradstreet, 1996), pp. 109-119.

[3] The Commission calculates the average annual rate of change by using the standard statistical method employed in calculating compound interest.

Figure 3-1
Wholesale services transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95[1]



[1] Data for 1991 understate U.S. purchases because selected data were suppressed in order to avoid disclosing information about the operations of individual firms.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138.

Meanwhile, purchases from U.S. affiliates of foreign firms declined by 9 percent in 1995. This reversed the trend of 18-percent average annual growth in these purchases during 1991-94. As a result of increased sales and reduced purchases, the U.S. surplus in such trade increased by 58 percent in 1995, from $3.6 billion in 1994.

General economic conditions and direct investment activity significantly influence the volume of wholesaling affiliates' transactions. Inbound and outbound direct investment flows in wholesaling establishments grew at a similar rate in 1995, with foreign investment in the United States growing by 7 percent and U.S. investment abroad growing by 6 percent.[4] However, foreign investment in U.S.-based affiliates involved in the wholesale of motor vehicles and equipment declined by more than $1 billion in 1995, a drop of 7 percent from the 1994 level.[5] This could explain the nearly $1 billion decline in U.S. purchases of services through wholesalers, since most of these purchases were related to motor vehicles and equipment.[6] In addition, the U.S. economy grew by 2 percent in 1995, considerably slower than the 3.5-percent growth rate recorded in 1994.[7] Slower economic growth may have discouraged U.S. consumption of large items such as motor vehicles, which in turn may have contributed to the modest decline in U.S. purchases of related services from affiliates of foreign firms.

[4] USDOC, BEA, *Survey of Current Business,* Sept. 1996, pp. 95 and 126.

[5] Ibid., p. 95.

[6] USDOC, BEA, *Foreign Direct Investment in the United States,* preliminary 1995 estimates, table A-1.

[7] OECD, *OECD Economic Outlook,* vol. 61, June 1997, annex table 1.

The increase in sales by foreign affiliates of U.S. firms appears to be explained by relatively strong overall economic growth recorded by several major trading partners. While the U.S. economy grew by 2.0 percent in 1995, the European Union grew by 2.4 percent, the heretofore dynamic Asian economies grew by 6.7 percent, and Brazil and Chile grew by 4.1 percent and 8.5 percent, respectively.[8] Such relatively fast economic growth likely spurred purchases of professional and commercial equipment and supplies, including computers and peripheral equipment, which accounted for the largest single share of U.S.-owned wholesaling affiliates' sales.[9] Concomitant sales of computer services by foreign wholesaling affiliates could explain the increase in sales.

In terms of bilateral trade relationships, the United States recorded a surplus on wholesaling transactions with most countries, but deficits of $4.8 billion and $1.8 billion with Japan and Germany, respectively (figure 3-2). These two countries accounted for most U.S. purchases, with Japan responsible for 63 percent and Germany for 25 percent. However, purchases from U.S. affiliates of Japanese firms declined by $1.6 billion or 21 percent in 1995, leading to a $1.7 billion reduction in the deficit recorded with Japan. The decline in purchases through U.S. affiliates of Japanese firms most likely reflected the effects of Japan's currency appreciation. In 1995, the Japanese yen appreciated to 93.96 yen per dollar, as compared to 102.18 in 1994 and 108.78 in 1996.[10] The higher value of the yen in 1995 made the price of Japanese products more expensive for U.S. consumers, which may in part account for a 5-percent drop in the number of Japanese automobiles purchased in that year.[11] In 1995, Japan displaced the United Kingdom as the largest market for U.S.-owned wholesaling affiliates. These affiliates registered sales of $1 billion in Japan, accounting for 7 percent of total U.S. sales. This shift, too, may be explained by Japan's currency appreciation, which made Japanese affiliates of U.S. service providers more competitive in the Japanese market.

Summary and Outlook

In 1995, international trade in wholesaling services appeared to undergo significant change, as trends for both sales and purchases through affiliates reversed direction. The causes of this change appear to be macroeconomic factors such as Japan's currency appreciation and the relative economic growth rates of major U.S. trading partners. Another factor affecting the amount of purchases through U.S. affiliates of foreign firms was the apparent $1-billion disinvestment by foreign firms in the U.S. motor vehicle sector.

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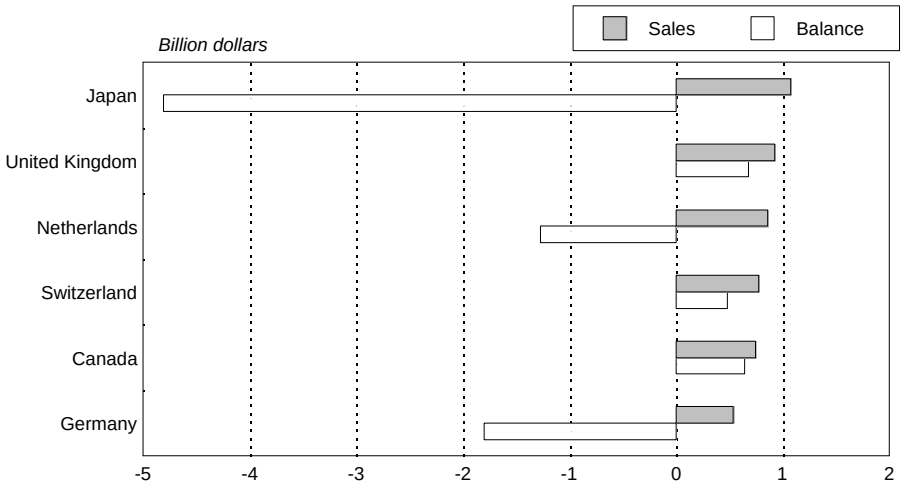
[8] The noted Asian economies include Taiwan, Hong Kong, Malaysia, the Philippines, Singapore, and Thailand. OECD, *OECD Economic Outlook*, June 1997, tables 23-4 and annex table 1.

[9] USDOC, BEA, *U.S. Direct Investment Abroad*, preliminary 1995 estimates, table II.A.2.

[10] *Federal Reserve Bulletin*, Oct. 1997, p. A62.

[11] Automotive News, *Market Data Book*, 1997, p. 46.

Figure 3-2
Wholesale services transactions by majority-owned affiliates: U.S. sales and balance, by major trading partners,[1] 1995



[1] Ranked in order of U.S. sales.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 137-138.

As noted, wholesaling affiliates established by U.S. manufacturers of professional and commercial equipment, including computers, computer peripheral equipment, and medical equipment, are most active in foreign service markets. Since U.S. manufacturers of professional and commercial equipment enjoy a relatively strong competitive position internationally, foreign-based wholesale affiliates of these firms will likely continue to offer related services aggressively. Demand for professional and commercial equipment is likely to remain strong in developed and developing markets alike.

However, sales of equipment, and hence services, are heavily influenced by economic factors such as currency fluctuations, disposable income levels, and overall economic growth. The global outlook on such factors is mixed. The Asia-Pacific region, long considered to be the most promising market for exports of goods and services, was profoundly affected by currency instability during the latter half of 1997. The currency devaluations that occurred in Thailand, Malaysia, and Indonesia will increase the relative prices of products imported into these countries and likely reduce sales of goods and services through wholesaling affiliates of U.S. firms. A decline in the regional growth rate would also diminish the income generated by U.S. wholesalers. However, the Canadian economy grew more strongly in 1997,[12] the Latin American

[12] Statistics Canada, "Canadian Statistics: The Economy in detail," found at Internet address http://www.statcan.ca/, retrieved May 5, 1998, and USDOC, International Trade

(continued...)

market appears to be growing rapidly, and the European market appears to be recovering from recent slow growth.[13]

Conversely, the continued strength of the U.S. economy and rising strength of the dollar[14] are likely to generate more purchases of services from U.S. wholesaling affiliates of foreign parents. Since most of these parents are Japanese motor vehicle manufacturers, an increase in U.S. purchases of Japanese vehicles is likely to lead to corresponding growth in purchases of financing and repair services from Japanese-owned affiliates.

Another major factor affecting the balance on affiliate transactions is the relative ability of foreign firms to acquire or establish a commercial presence. While the United States is generally open to foreign investment, many other countries, particularly those in Asia, remain restrictive. For example, China generally does not permit foreign companies to act as wholesalers, although it is experimenting with foreign-owned distribution facilities in Shanghai.[15] Others, including Thailand, Indonesia, and the Philippines, may limit foreign firms to minority shareholding positions.[16] Such policies may deter U.S. firms from establishing wholesaling affiliates in these markets, thereby hindering the growth of these affiliates' sales of services.

Despite the adverse effects of remaining limitations on direct investment and weakened economic conditions in the Asia-Pacific region, the outlook for sales of services by affiliates of U.S. wholesalers remains positive. Global merchandise trade and investment flows continue to grow strongly,[17] indicating that markets for goods and services are expanding. As a result, both sales and purchases of services through wholesaling affiliates should expand. Should developing countries continue to grow and open further to U.S. investment, U.S. sales of services likely will continue to grow.

Retail Trade

Introduction

Retailers serve as intermediaries between wholesalers or manufacturers, and ultimate consumers, who may be individuals, households, or businesses. Retailers may take title to merchandise or they may hold merchandise through a contractual arrangement. Although international trade in retail services is increasingly taking place across borders through catalogue shopping and the Internet, the majority of transactions currently take place through foreign-based affiliates. For this reason, data collection

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[12] (...continued)
Administration (ITA), "Canada - Retail Trade Restructuring - IMI970616," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted June 16, 1997, retrieved Oct. 14, 1997.

[13] OECD, *OECD Economic Outlook*, June 1997, pp. 1, 124, and A4.

[14] Bob Davis, "Trade Deficit Widened a Bit in August, Reflecting a Growing Gap with China," *The Wall Street Journal*, Oct. 22, 1997, p. A3.

[15] Justin Zubrod, Robert Tasiaux, and Alan Beebe, "The Challenges of Logistics Within Asia," *T&D*, Feb. 1996, p. 86.

[16] Philippine Government representative, letter dated Mar. 25, 1997, and industry representative, telephone interviews by USITC staff, Apr. 15, 1997, and Oct. 8, 1997.

[17] International Monetary Fund (IMF), *World Economic Outlook* (Washington, DC: IMF, Oct. 1996), p. 2.

agencies focus solely on affiliate transactions. As with wholesale trade, revenues from retailing services cannot be distinguished from merchandise sales. Thus, trade data capture sales of services that are unrelated to the basic retailing activity. Nonretailing services provided by retailers could include installation or repair services, credit services, or warranty services, as well as promotion and advertising services. In the case of computer systems, retailers also may provide systems integration and support services.

Recent Trends in Affiliate Transactions, 1991-95

In contrast to services provided by wholesalers, services provided by retailers constitute a small proportion of total service transactions by affiliates. In 1995, U.S. sales of services through foreign retail affiliates measured $1.1 billion, while purchases amounted to $576 million, or less than 1 percent of total sales and purchases (figure 3-3). In 1995, sales of services through retailing affiliates of U.S. parents continued to increase as during 1991-94 (except for a slight decline in 1993), although limitations on sales data published for 1994 preclude precise estimation of the growth rate in 1995.[18] Corresponding purchases increased by 29 percent in 1995, a sharp reversal to an average annual decline of 15 percent during 1991-94 (except for an increase in 1992). This decline was most pronounced in 1994, when U.S. purchases dropped by 45 percent. The sharp reversal of transaction patterns that brought the United States into surplus in 1994 was principally accounted for by changes in accounting classifications of two U.S. affiliates of foreign firms, which are no longer classified as retailing affiliates.[19]

On a bilateral basis, Germany, Canada, and the United Kingdom accounted for most sales of services from retailing affiliates of U.S. firms in 1995, with sales of $251 million (22 percent), $138 million (12 percent), and $100 million (9 percent), respectively (figure 3-4).[20] Reflecting a high level of investment in the United States, Japanese firms accounted for 22 percent of total U.S. purchases of services through affiliates of foreign firms, amounting to $125 million.[21] U.S. consumers also frequented retailing affiliates of U.K. firms, purchasing services valued at $85 million, or 15 percent of total U.S. purchases.

Summary and Outlook

As indicated above, the United States has posted recent surpluses on retailing affiliates' transactions after a long period of deficits, in part due to a change in the accounting classification of certain large foreign-owned affiliates. This change in accounting

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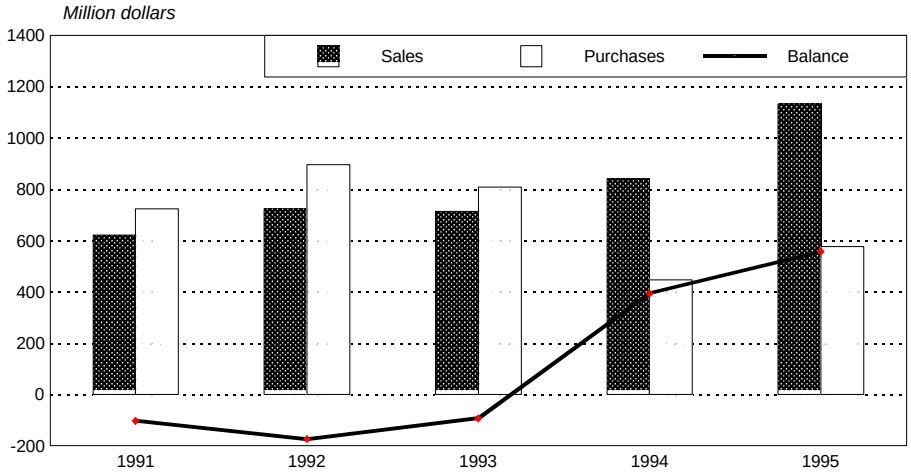
[18] Data for 1994 are believed to understate U.S. sales through foreign affiliates because selected data were suppressed by BEA in order to avoid disclosing information about the operation of individual firms.

[19] BEA representative, telephone interview by USITC staff, Dec. 13, 1996.

[20] Data on sales through French affiliates of U.S. retailers are not available, as BEA statistics suppressed the data in order to avoid disclosing proprietary information about the operation of individual firms.

[21] In contrast to relatively minimal affiliate sales in Japan by U.S. firms, due to the slow opening of the Japanese retail market and the complicated Japanese distribution structure.

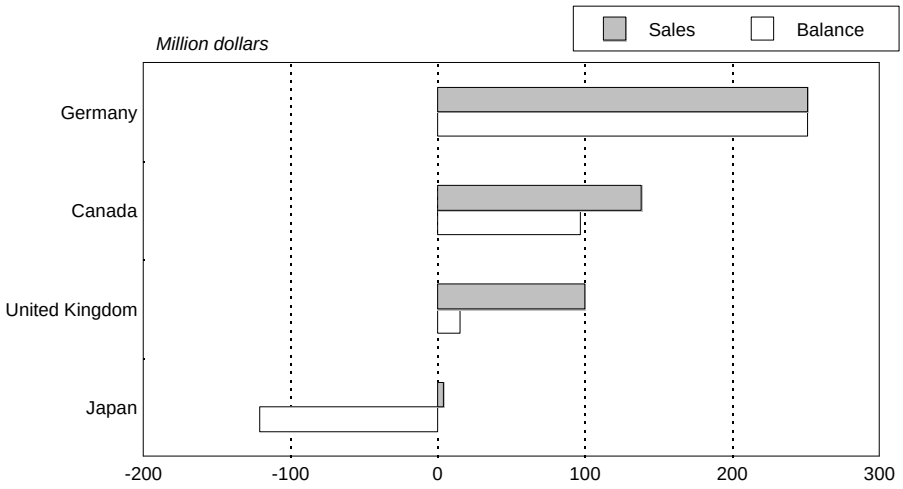
Figure 3-3
Retail services transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95[1]



[1] Data for 1994 understate U.S. sales because selected data were suppressed in order to avoid disclosing information about the operations of individual firms.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138.

Figure 3-4
Retail services transactions by majority-owned affiliates: U.S. sales and balance, by major trading partners, 1995



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 137-138.

classification impedes trend analysis of purchases from U.S. affiliates of foreign firms. Nonetheless, sales of services through foreign affiliates of U.S. firms have demonstrated consistently strong growth that seems to be indicative of a broader trend toward increased internationalization of U.S. retailers.

The United States has one of the most vibrant and competitive retail industries in the world. U.S. consumers have access to an enormous range of products and services through distribution channels that range from the Internet to factory outlets and department stores. The large U.S. retailing industry continues to benefit from steady economic growth and relatively high disposable incomes. Furthermore, to keep prices low, U.S. retailers have become highly efficient at the fundamental elements of retailing, which include sourcing, logistics, and merchandising. To boost profitability further, U.S. retailers have developed the skills necessary to provide services such as credit card financing, installation and repair, or systems integration services.

Despite intense competition, the U.S. market remains attractive to major foreign retailers due to its size and level of consumption. Foreign retailers with well-known brands such as Benetton find it advantageous to participate in one of the world's largest consumer markets. Other foreign retailers choose to take advantage of the relatively open U.S. policy toward foreign direct investment by acquiring major U.S. retailers.

The intensity of competition and the relative ease of market entry, exerting downward pressure on prices and profitability, have motivated U.S. retailers to seek new geographic markets, particularly in the developing regions of Asia, Latin America, and Eastern Europe. Until the recent financial market upheavals, Asian retail markets have been particularly promising as a result of the sustained period of strong economic growth that fostered the development of a middle class with high disposable income.[22] A number of U.S. retailers have been pursuing opportunities in the region through joint ventures or licensing agreements with local partners. These include Costco's warehouse store in Seoul[23] and Wal-Mart's store in Shanghai.[24]

Although U.S. retailers continue to find the Asia-Pacific region attractive, competition among retailers is increasingly intense. Some local competitors are well entrenched, such as P.T. Matahari Putra Prima in Indonesia and Robinson Department Store in Thailand.[25] Singapore and Hong Kong are already highly competitive markets, which prompted Kmart to leave Singapore[26] and Wal-Mart to exit from its joint-venture agreement in Hong Kong.[27] In addition, the 1997 currency crisis in Southeast Asia is expected to lead to slower growth in the retail sector, which may curb some of the developments planned by U.S. firms. J.C. Penney, Calvin Klein, and Donna Karan had

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[22] Alice Z. Cuneo, "New Markets Lure Retailers Wanting Growth," *Ad Age International,* Oct. 1996, p. 118.

[23] "Top 10 Retailers," *Discount Merchandiser,* Mar. 1997, p. 26.

[24] Debra Hazel, "U.S. Development Comes to the World," *Chain Store Age,* Feb. 1997, p. 131.

[25] Ibid.

[26] Laura Liebeck, "It's a Small World after All," *Discount Store News,* Dec. 9, 1996, p. 117.

[27] Alice Z. Cuneo, "New Markets Lure Retailers Wanting Growth," *Ad Age International,* Oct. 1996, p. 118.

been pursuing opportunities throughout the region;[28] however, in light of the Asian currency crisis these firms have adjusted their market entry strategies. For example, Donna Karan has decided to take a wait-and-see approach, while J.C. Penney has closed its joint venture stores in Indonesia and the Philippines, and curtailed plans to open new stores in the region.[29]

Another difficulty in Asian markets is presented by widespread limitations on foreign direct investment. For example, in the Philippines, only Filipinos may engage in retail trade.[30] Other countries, such as Indonesia, limit the ownership position of foreign firms, typically requiring them to operate through a joint venture as a minority partner.[31] Indonesia also appears to be taking some steps to protect small- and medium-sized retail establishments by requiring large retailers to partner with smaller establishments in towns outside provincial capital cities.[32] While in some cases it may be advantageous for foreign firms to partner with local firms and thereby acquire local expertise, regulatory requirements to establish joint ventures may limit the control of the parent organization over the use of the brand name or the quality of the services provided.[33]

Other developing markets have been more receptive to foreign investment and consequently are attracting the attention of U.S. retailers. Due to lower inflation and stronger economic growth in recent years, Argentina, Chile, and Brazil are presently viewed with relative optimism. As a result, Wal-Mart has established discount stores in Argentina and Brazil,[34] and National Amusements is developing multiscreen movie theaters in Chile.[35] U.S. retailers have also become interested in Eastern Europe, particularly countries such as the Czech Republic and Poland, which are thought to present the least risk. Although European firms have a leading position in these countries, U.S. firms that have established a presence include Levi Strauss, Estée Lauder, and LA Gear.[36]

Although developing countries generally present some of the most promising business opportunities to U.S. retail firms, the industrial economies of Canada, Japan, and Western Europe also offer considerable potential. In Canada, higher interest rates and unemployment combined with low disposable income growth have hurt retail expansion

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[28] Alice Z. Cuneo, "New Markets Lure Retailers Wanting Growth," *Ad Age International*, Oct. 1996, p. 118.

[29] Industry representatives, telephone interviews by USITC staff, Feb. 11 and 12, 1998.

[30] Philippine Government representative, letter dated Mar. 25, 1997.

[31] Industry representative, telephone interview by USITC staff, Apr. 15, 1997.

[32] USDOC, ITA, "Indonesia - Restrictions on Retail Chains - IMI970611," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted June 11, 1997, retrieved Oct. 14, 1997.

[33] Industry representative, telephone interview by USITC staff, Apr. 15, 1997.

[34] James Mammarella and Pete Hisey, "Wal-Mart International reshapes the world retailing order," *Discount Store News*, Jan. 20, 1997, pp. 21 and 28.

[35] Debra Hazel, "U.S. Development Comes to the World," *Chain Store Age*, Feb. 1997, p. 131.

[36] Coopers & Lybrand, "Emerging Opportunities," *Assignment: Eastern Europe*, 1996, p. 2.

over the past few years.[37] However, these factors have led to a shift in consumer patterns that favors discounting, a competitive strength of U.S. firms such as Costco and Wal-Mart. In response, Costco has developed 55 warehouse stores[38] and Wal-Mart has captured the largest share of the discount retail market in Canada.[39] In Europe, U.S. firms have steadily been developing a presence, most visibly in the major markets of the United Kingdom and Germany. Examples include Costco, which has 5 discount stores in the United Kingdom, and Staples, which has 34 office-supply outlets in the United Kingdom and 16 Maxi-Papier stores in Germany.[40]

Future prospects for U.S. sales of services through retailers are generally promising, although upheaval in several major Asia-Pacific countries' currencies and financial markets in 1997 may slow sales in the near term. Retailing in developed countries continues to grow and, increasingly, to favor the development of discount outlets, where U.S. firms have established a competitive advantage. In addition, as foreign investment policies are gradually liberalized, sales through U.S. affiliates should improve, particularly when foreign majority ownership is permitted. Conversely, while U.S. purchases of services from affiliates of foreign-owned firms are likely to continue growing and major acquisitions may shift the balance on affiliate transactions, the highly competitive domestic market is likely to grow more slowly than many foreign markets. This suggests that the balance on service transactions through retailing affiliates will likely continue in surplus.

Education Services

Introduction

Education services include formal academic instruction in primary, secondary, and higher education institutions such as colleges and universities, as well as instructional services offered by correspondence, vocational, language, and special education schools, and libraries. Formal foreign study programs sponsored by colleges and universities account for approximately 90 percent of trade in education services.[41] U.S. cross-border exports reflect the estimated tuition and living expenses of foreign residents enrolled in U.S. colleges and universities.[42] U.S. imports of education services represent the estimated tuition and living expenses of U.S. residents who study

[37] USDOC, ITA, "Canada - Retail Trade Restructuring - IMI970616," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted June 16, 1997, retrieved on Oct. 14, 1997.

[38] "Top 10 Retailers," *Discount Merchandiser*, Mar. 1997, p. 26.

[39] James Mammarella and Pete Hisey, "Wal-Mart International Reshapes the World Retailing Order," *Discount Store News*, Jan. 20, 1997, pp. 21 and 28.

[40] Laura Liebeck, "Staples, OfficeMax Look Abroad," *Discount Store News*, Jan. 6, 1997, p. 6.

[41] USITC staff estimates.

[42] Foreign residents do not include U.S. citizens, immigrants, or refugees.

abroad.[43] Affiliate trade in education services occurs when U.S. institutions provide courses overseas using their own faculty and facilities, or when foreign institutions provide courses in the United States using their own faculty and facilities. Because comprehensive data on affiliate trade are not available, this chapter will focus solely on cross-border trade.

Recent Trends in Cross-Border Trade, 1991-96

In 1996, U.S. exports of education services totaled $7.8 billion, while U.S. imports measured $1 billion (figure 3-5).[44] Exports rose by 4 percent, slower than the 7-percent average annual increase during 1991-95. By comparison, U.S. imports grew by nearly 10 percent, surpassing the 8-percent average annual growth rate during 1991-95, due to increased expenditures by U.S. students pursuing language skills and experience abroad.[45] Although imports grew at a higher rate, the rate of growth in the number of U.S. students studying abroad slowed in the 1995-96 academic year.[46] Trade in education services generated a $6.8-billion U.S. surplus in 1996. Despite a $200-million addition to the surplus in education services, proportional growth of the surplus slowed to 3 percent from the 7-percent average annual increase during 1991-95. Slower growth of this surplus is attributable to increased competition from abroad. It has long been clear that higher education is integral to the continued development of industrializing nations. Thus, in the late 1970s and 1980s, lacking sufficient facilities and expertise, industrializing countries sent their students abroad, often to the United States, to obtain high quality educations, especially in the sciences.[47] At the same time, these nations committed themselves to expanding and modernizing their own education systems[48] and, although the absolute numbers continue to increase, this decade has seen a steady decline in the rate at which foreign students travel to the United States for their educations. Foreign students studying in the United States numbered 453,787 in the 1995-96 academic year, increasing at the smallest rate since

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[43] U.S. residents must receive credit from accredited U.S. institutions to be included in trade data; those who do not transfer foreign academic credit to U.S. institutions, or who study abroad on an informal basis, are not included.

[44] BEA trade data reported for 1996 include services provided during the 1995-96 academic year. The same pattern of reporting holds for each year beginning in 1991, which spans the 1990-91 academic year.

[45] Amy Magaro Rubin, "Colleges Offer Financial Help to Encourage Foreign Travel," *The Chronicle of Higher Education*, Nov. 1, 1996, p. A41; Amy Magaro Rubin, "Study-Abroad Programs for Americans Had Boom Year in 1994-95," *The Chronicle of Higher Education*," Dec. 6, 1996, p. A66; "Researchers Say Study Abroad is Key to Learning Languages," *The Chronicle of Higher Education*, Feb. 7, 1997, p. A45; and Katherine S. Mangan, "Business Schools Promote International Focus, but Critics See More Hype Than Substance," *The Chronicle of Higher Education*, Sept. 12, 1997, p. A14.

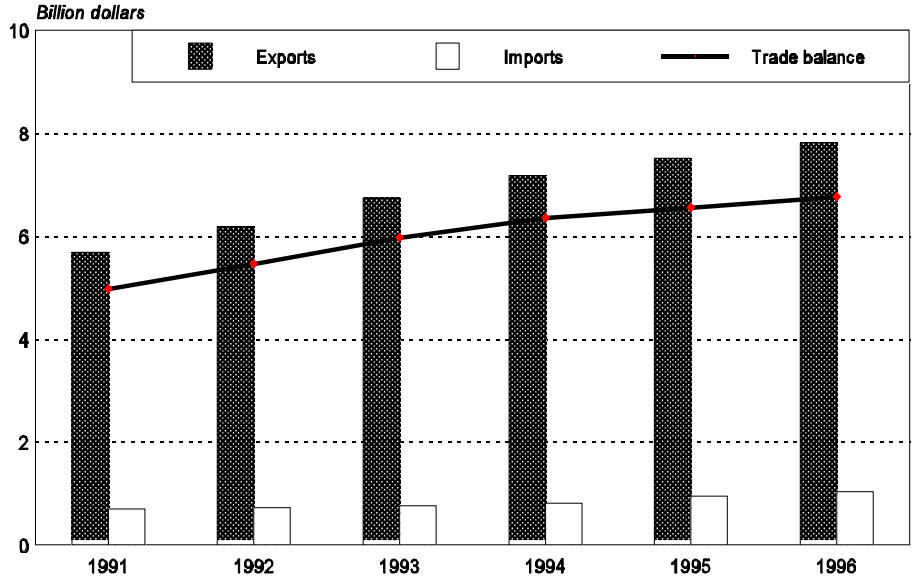
[46] Paul Desruisseaux, "The Number of Americans Studying Abroad Increases by 5.7%," *The Chronicle of Higher Education*, Dec. 12, 1997, p. A44-A46.

[47] U.S. Department of Education, National Center for Education Statistics, "Degrees Earned by Foreign Graduate Students: Fields of Study and Plans After Graduation," *Issue Brief*, Nov. 1997.

[48] See, for example, David Cohen, "Malaysian Higher Education Finds Itself at a Crossroads: Government's plans stress science and technology," *The Chronicle of Higher Education*, Oct. 17, 1997, pp. A55-A56.

the early 1970s, at 0.3 percent above the 1994-95 academic year. These latest data continued a 6-year deceleration in foreign student enrollment in U.S. institutions.[49]

Figure 3-5
Education services: U.S. cross-border exports, imports, and trade balance, 1991-96



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 1997, pp. 108-109.

The United States also faces competition from other countries and educational institutions that have stepped up efforts to recruit foreign students, especially Asian students. In recent years, Australia and the United Kingdom have been particularly aggressive, and successful, in recruiting foreign students.[50] More recently, Canadian institutions, in concert with provincial governments and the federal government, have expanded recruitment efforts, not only targeting Asian students, but U.S. students as well.[51] In addition, higher education in Europe is moving away from centralized state control and towards more institutional autonomy. Consequences of this shift in control

[49] Todd M. Davis, ed., *Open Doors 1995/96: Report on International Educational Exchange* (New York: Institute of International Education, 1996), p. 1.

[50] Robert Lawrence, "Service, Not Product: Australia's successful educational marketing," *International Educator*, Winter 1997, pp. 29-30; Kyna Rubin, "Australia Takes Center Stage," and "Luring Students to the United Kingdom," both in *International Educator*, Summer 1996, pp. 26-30, 36; Denis Blight, "International Education: Australia's Potential Demand & Supply," in Davis, ed., *Open Doors 1995/96*, pp. 12-13; and industry representative, telephone interview by USITC staff, Oct. 16, 1997.

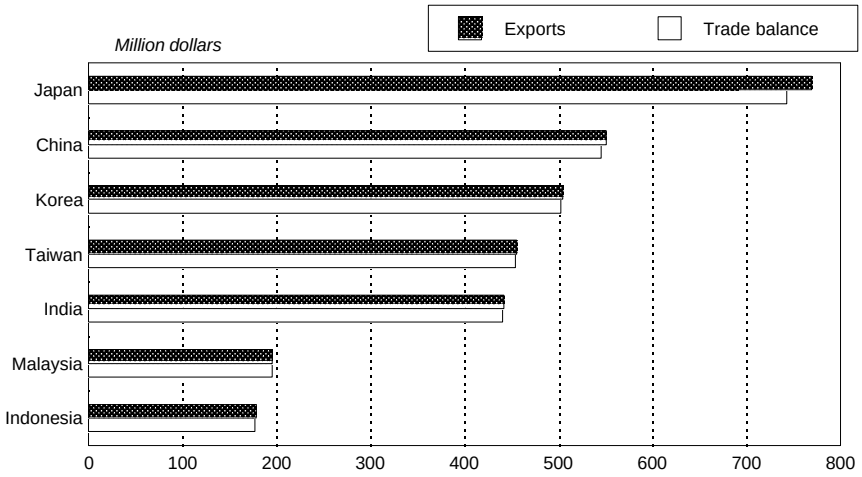
[51] Jefferey Holmes, "Export-Readiness in Canadian Higher Education," *International Educator*, Winter 1997, pp. 31-34; and Jennifer Lewington, "Canadian Universities See U.S. As a Fertile Recruiting Ground," *The Chronicle of Higher Education*, Oct. 24, 1997, pp. A63-A64.

are less government funds, more competition, and institutional reforms aimed at cutting costs and raising revenue. Thus, in an effort to attract more fee-paying students, European universities have expanded international recruitment of students.[52]

Major U.S. export markets for education services continue to be Asian countries. In 1996, Asia accounted for just under 58 percent of all U.S. exports of education services. Specifically, Japan, China, Korea, Taiwan, India, Malaysia, and Indonesia are the top-seven export markets for the United States (figure 3-6). In 1996, exports of education services on a value basis increased in 5 of the 7 markets, with exports to Taiwan and India declining from 1995 levels. However, U.S. export growth rates continued to slow in 2 of the 5 leading markets—Japan, the largest, and Korea—even though the value of exports increased. Korea replaced Taiwan as the third-largest export market, while Hong Kong dropped from number seven to number nine, replaced by Indonesia. As stated earlier, these trends are due, in varying degrees, to improvements in higher education systems abroad and increased competition.

European markets continued to be the principal destination for U.S. residents studying abroad, accounting for 64 percent of all U.S. imports of education services in 1996. As in years past, the United Kingdom held the largest share of U.S. imports, followed by France, Spain, Mexico, and Italy. The United States maintained an education services trade surplus with all of its trading partners except Italy and the United Kingdom.

Figure 3-6
Education services: U.S. cross-border exports and trade balance, by major trading partners, 1996



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 1997, pp. 126-127.

[52] Burton Bollag, "European Universities Expect Less Support From Government, More Competition," *The Chronicle of Higher Education*, Oct. 10, 1997, p. A49; and Borton Bollag, "Higher Education in Europe Moves Away from State Control," *The Chronicle of Higher Education*, Nov. 7, 1997, p. A47.

Summary and Outlook

Although the United States continued to enjoy a substantial trade surplus in education services, the rate of growth of the U.S. trade surplus slowed in recent years and stood at 3 percent in 1996. Asian countries continued to be the largest foreign consumers of U.S. education services, with Japan, China, Korea, Taiwan, and India continuing to top the list.

A recent survey of Asian students studying abroad examined opinions with regard to education services.[53] When asked to name the most important factor in choosing to study overseas, Asian students from all countries included in the survey gave precedence to country destination, rather than city, university, or even course of study. Further, surveyed students, regardless of which country they were studying in, overwhelmingly chose the United States as the country that was "first in quality of education."[54] Among Asian students who chose to study in the United States, 36 percent cited "better quality of education" as their reason for choosing the United States; 28 percent responded that they were seeking to "broaden [their] experience."[55]

Despite remaining the preferred destination for Asian students, the United States faces competition for Asian education revenue. In the Asia-Pacific region, Australia is the leading exporter of education services to Asian consumers. Australia's primary advantage in the Asian market is, of course, its relative proximity to the consumer, which means lower travel costs for Asian students. In addition, the Australian Government has undertaken a long-term effort to bolster its share of the international market, looking out to 2020.[56] In September 1997, however, Australian educators nevertheless noted a sharp decline in the number of Asian students who chose to study in Australia and suggested that recent Australian public debate over race, Asian immigration, and Australian employment might be discouraging potential candidates.[57]

In China, which is the second-largest export market for U.S. education services, the government took steps that could result in a loss to U.S. service providers. In the face of rising numbers of Chinese scholars who choose not to return to China after

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[53] Robert Lawrence, "How Asian Students Buy Education," *International Educator*, Summer 1997, pp. 18-19, 30. The survey, conducted between March and May 1997, included students from China, Hong Kong, India, Indonesia, Japan, Malaysia, Singapore, South Korea, Taiwan, and Thailand. The students were first-year undergraduate students studying at 50 universities in the United States, Canada, Great Britain, and Australia.

[54] Ibid., p. 19. The majority of students surveyed from Malaysia and Singapore, however, chose the United Kingdom above the United States; the United Kingdom and the United States received equal votes among Hong Kong students who were surveyed. Lawrence suggests that the United Kingdom is more favorably viewed in these countries because of its strong influence there historically.

[55] Ibid., p. 18. Similarly, of Asian students who chose to study in Canada, 41 percent cited "better quality of education," and 27 percent chose "to broaden experience."

[56] Robert Lawrence, "Service, Not Product: Australia's successful educational marketing," *International Educator*, Winter 1997, pp. 29-30; and industry representative, telephone interview by USITC staff, Oct. 16, 1997.

[57] Geoffrey Maslen, "Australian Educators Alarmed by Decline in Number of Fee-Paying Asian Students," *The Chronicle of Higher Education*, Sept. 19, 1997, p. A52; and "Australian Officials Embark on Tour to Recruit Southeast Asian Students," *The Chronicle of Higher Education*, Nov. 7, 1997, p. A49.

completing training, the State Education Commission announced that government-sponsored scholars who travel abroad, primarily to the United States, for advanced training will be required to post a $6,000 bond, refundable only upon the scholar's return. Observers argue that this added expense may preclude some scholars from choosing to study abroad.[58]

Another development that may dissuade foreigners from choosing to study in the United States is a change in the manner in which the TOEFL[59] exam is administered. The TOEFL exam, designed to measure a non-native speaker's proficiency in the English language, is required for all foreign students wishing to study in U.S. universities. The new administrator of the TOEFL exam will eliminate the paper and pencil exam in most parts of the world and offer a computer-based exam only. The shift to a computer-based exam will raise the exam fee from the current US$55 to US$100 in the United States and Canada and US$125 in all other countries.[60] It is not clear whether this added expense will prove burdensome, but educators in the United States are concerned that it may prompt some foreign students to study elsewhere.[61]

Perhaps the greatest threat to the United States' export position in education services is the recent economic turmoil that has struck several countries in Southeast Asia. Four countries in particular — Indonesia, Korea, Malaysia, and Thailand — have seen their currencies plummet in the second half of 1997. Like all exports (products and services), as foreign currencies lose relative value, U.S. educational services become relatively more expensive. The sudden and severe currency erosions effectively doubled or tripled the cost of U.S. tuitions when expressed in several Asian currencies. Thus, currency devaluations accompanied by rising unemployment reportedly are motivating parents to withdraw their children from universities in the United States, as they can no longer afford the tuition.[62]

Despite the challenges, the United States maintains its position as the world's leading exporter of education services. And while four-year, degree-producing colleges and universities continue to account for the overwhelming majority of these exports, industry professionals point to other areas that are of increasing interest. In particular, U.S. community colleges have begun to attract a larger share of foreign students. Community colleges are increasingly viewed by foreign students as a viable and less

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[58] Amy Margo Rubin, "China Requires Deposit of Scholars Going Abroad," *The Chronicle of Higher Education*, Sept. 5, 1997, p. A74. Chinese students who receive government scholarships to study abroad are required to sign an agreement that obligates them to repay the scholarships in full if they choose not to return to China. For a more extensive examination of Chinese students and scholars in the United States, see John H. Jia and Kyna Rubin, "China's Brain Trust Abroad: Students Are Pivotal Players in China's Reform and in U.S.-China Relations," *International Educator*, Spring 1997, pp. 16-25.

[59] Test of English as a Foreign Language. The TOEFL is designed by Graduate and Professional Educational Testing Services (ETS) in Princeton, New Jersey.

[60] As of December 1997, the computer-based version was still being tested. In December 1997, ETS announced that, in July 1998, they would introduce the computer format throughout the world. See electronic mail to all NAFSA members, from John Yopp, Vice President, ETS, "TOEFL on Computer Update," Dec. 18, 1997.

[61] Industry representatives, telephone interviews by USITC staff, Oct. 16 and 30, 1997.

[62] Tony Gillotte, "Financial Crisis in Thailand Disrupts Plans of College Students," *The Chronicle of Higher Education*, Nov. 14, 1997, p. A49; and Cohen, "Malaysian Higher Education Finds Itself at a Crossroads," p. A 55.

expensive entry point into the U.S. system of higher education.[63] There is a concern, however, that foreign students who wish to attend a community college in the United States face greater difficulties in obtaining a visa.[64]

Other areas that have seen significant increases in the number of foreign students are continuing education and extension programs. In particular, short-term certificate programs and intensive English as a Foreign Language programs have become increasingly popular among foreign students.[65] In response to the demand, major universities on the U.S. east and west coasts vigorously market such programs to students abroad.[66] The attraction to these programs stems in part from the often interesting locations such as New York or Los Angeles, and from the ability to attend these programs on a tourist visa. Thus, such short-term students are often referred to as "educational tourists."[67]

On the import side, time spent abroad continues to be viewed as a valuable experience, and U.S. students continue to go abroad in record numbers. The rate at which they go, however, has slowed considerably. While the 1994-95 academic year saw an over 11-percent increase in the number of U.S. students who studied abroad, the 1995-96 academic year saw less than a 6-percent increase.[68] Further, U.S. students continue to pursue short-term opportunities abroad; rarely do they pursue a degree from a foreign college or university.

Financial Services

The following section presents a discussion of trade in financial services. The first discussion examines banking and securities services; the second examines insurance.

Banking and Securities

Introduction

International trade data on financial services, excluding insurance, encompass both the fee-based commercial banking business and securities-related activities of financial service firms. Fee-based commercial banking essentially involves banking services other than deposit-taking and lending activities. These include financial management and transaction services; advisory services; custody services;[69] credit card services; and

[63] Industry representative, telephone interview by USITC staff, Oct. 16, 1997.

[64] Ibid. This is possibly because foreign students who choose community colleges over 4-year colleges and universities generally have less financial resources.

[65] See, for example, Amy Magaro Rubin, "Intensive English Programs Are Lucrative for Universities," *The Chronicle of Higher Education*, Dec. 12, 1997, p. A48.

[66] Industry representatives, telephone interviews by USITC staff, Oct. 16, 1997.

[67] Industry representative, telephone interview by USITC staff, Oct. 16, 1997.

[68] Desruisseaux, "The Number of Americans Studying Abroad Increases by 5.7%," p. A44; and industry representative, telephone interview by USITC staff, Oct. 16, 1997.

[69] A custodian holds securities under a written agreement for a client and buys or sells when instructed. Custody services include securities safekeeping as well as collection of

(continued...)

other credit-related services, such as providing standby letters of credit[70] for trade financing. Securities-related activities include securities lending services,[71] mutual fund services, securities clearance and settlement services, securities trading services, private placements,[72] and underwriting services. Both fee-based commercial banking services and securities-related services may be provided either on a cross-border basis or through the transactions of foreign affiliates.

Recent Trends

Cross-Border Trade, 1992-96[73]

In 1996, U.S. financial service firms generated cross-border exports of $8 billion, while imports measured $3.2 billion, resulting in a $4.8-billion surplus (figure 3-7). Banking and securities services accounted for 4 percent and 2 percent of total U.S. services exports and imports, respectively. U.S. exports grew by 14 percent in 1996, which is somewhat slower than the average annual growth rate of 20 percent recorded during 1992-95. Import growth of 29 percent in 1996 was similarly slower than the average annual rate of 36 percent recorded during 1992-95. Growth rates in cross-border financial services trade have fluctuated widely during 1992-96, reflecting trends in global financial markets.[74] The relatively rapid pace of import growth is due in part to the smaller base of imports, as, in absolute terms, exports increased by $1 billion, while imports increased by only $712 million.

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[69] (...continued)
dividends and interest. Thomas P. Fitch, *Dictionary of Banking Terms* (New York: Barron's, 1990), p. 172.

[70] A standby letter of credit represents an obligation by the issuing bank to a designated third party (the beneficiary) that is contingent on the failure of the bank's customer to perform under the terms of a contract with the beneficiary. A standby letter of credit is most often used as a credit enhancement, with the understanding that, in most cases, it will never be drawn against or funded. Ibid., p. 591.

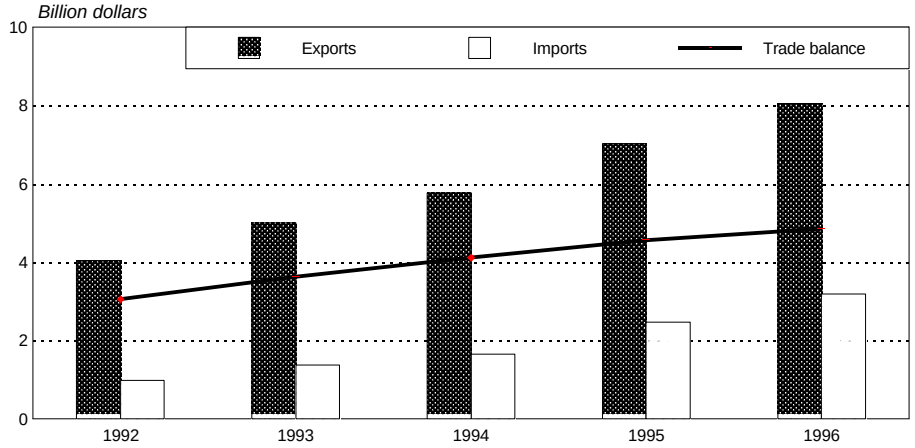
[71] A securities loan is a loan made by broker-dealers, banks, or other organizations to finance the purchase of securities. Ibid., p. 552.

[72] A private placement is the sale of an entire issue of securities to a small group of investors. Ibid., pp. 481-482.

[73] In 1996, BEA completed its first Benchmark Survey of Financial Services Transactions Between U.S. Financial Services Providers and Unaffiliated Foreign Persons. The survey enabled BEA to improve its measurement of financial services transactions, which resulted in some significant revisions of previously reported data. Due to limitations in source data and methodology, BEA's revisions could only provide reasonable estimates for cross-border trade dating back to 1992. Consequently, the discussion of cross-border trade in financial services is limited to the time period 1992-96.

[74] Exports grew by 24 percent in 1993, 15 percent in 1994, and 22 percent in 1995, while imports grew by 39 percent in 1993, 21 percent in 1994, and 49 percent in 1995. These variations loosely reflect growth in global market capitalization of 29 percent in 1993, 9 percent in 1994, and 17 percent in 1995. BEA, *Survey of Current Business*, Oct. 1997, pp. 120-127, and International Finance Corporation (IFC), *Emerging Stock Markets Factbook 1996* (Washington: IFC, 1996), p. 17.

Figure 3-7
Banking and securities services: U.S. cross-border exports, imports, and trade balance, 1992-96[1]



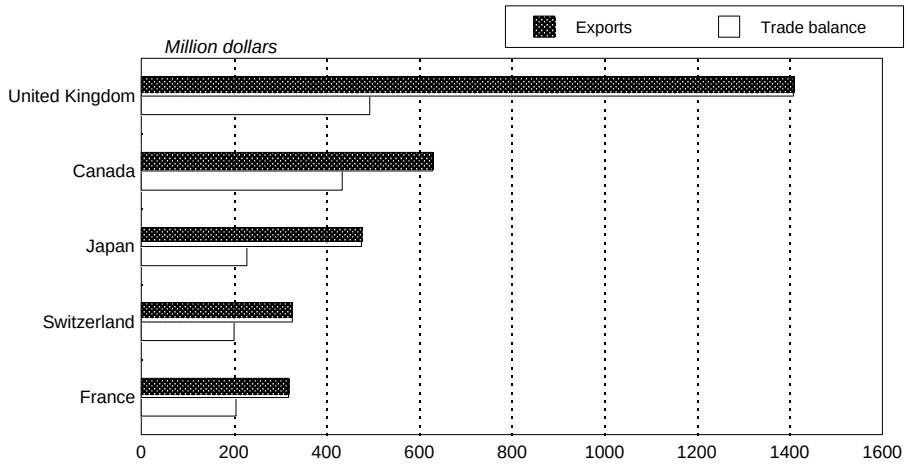
[1] Improvements in BEA's coverage of financial services in 1996 led to significant revisions of cross-border data reported previously. However, these revisions could only be carried back to 1992 due to limitations in the source data.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

On a bilateral basis, the United States maintained a surplus with its five leading trading partners in cross-border financial services transactions in 1996 (figure 3-8). U.S. financial services exports to the United Kingdom amounted to $1.4 billion, while imports were $913 million, resulting in the largest U.S. bilateral trade surplus in financial services. These values accounted for 18 percent and 29 percent of U.S. cross-border financial services exports and imports, respectively. The $494-million surplus with the United Kingdom contributed 10 percent of the overall U.S. surplus in cross-border financial services transactions. Other significant trading partners include Canada and Japan, which accounted for 8 percent and 6 percent of U.S. exports, respectively.

Bilateral trade patterns indicate that the United States derives its exports from a wide range of countries, while imports tend to be more concentrated in the major developed markets. In 1996, the top 5 U.S. export markets accounted for only 39 percent of U.S. exports, while these same countries accounted for 50 percent of imports. Outside of the top 5 export markets, no market accounted for more than 3 percent of total U.S. exports of banking and securities services.

Figure 3-8
Banking and securities services: U.S. cross-border exports and trade balance, by major trading partners, 1996



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 126-127.

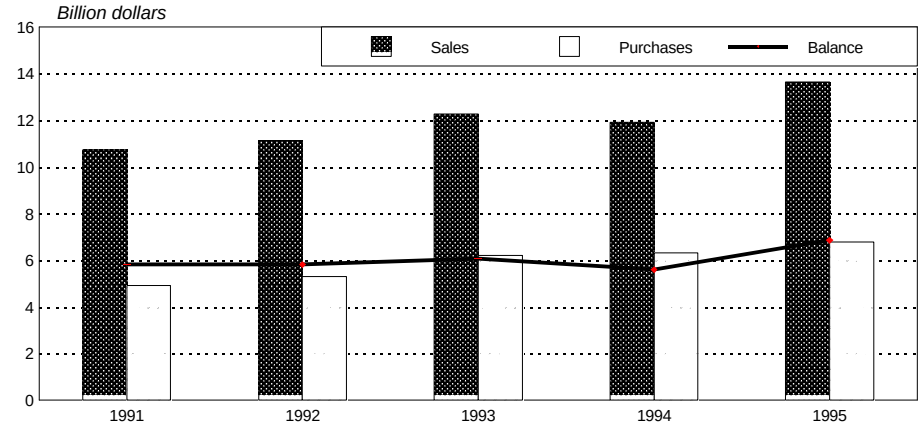
Affiliate Transactions, 1991-95

As with cross-border trade, U.S. affiliate transactions in financial services consistently result in a strong U.S. surplus (figure 3-9), valued at $6.9 billion in 1995 .[75] Sales by foreign affiliates of U.S. firms amounted to $13.6 billion, as compared to purchases from U.S. affiliates of foreign firms, which amounted to $6.8 billion. These values represent 7 percent and 4 percent of total affiliate sales and purchases, respectively. Sales through foreign affiliates of U.S. firms grew by 14 percent in 1995, faster than the average annual growth rate of 3 percent recorded during 1991-94 (despite a slight decrease in 1994). Purchases through U.S. affiliates of foreign firms grew by 7 percent in 1995, slightly slower than the average annual growth rate of 9 percent recorded during 1991-94. The strong increase in sales in 1995 reflects an 11-percent increase in the level of U.S. direct investment abroad in the financial sector as U.S. firms continued to expand their already formidable international operation.[76]

[75] BEA data on sales transactions between majority-owned affiliates of U.S. financial service firms (except banking and insurance) and non-affiliated firms are somewhat limited in order to avoid disclosing confidential, proprietary information pertaining to individual firms. Consequently, the data reported for U.S. sales and the U.S. trade surplus are believed to understate U.S. sales and surpluses during 1991-95. Growth rates have been estimated by USITC staff.

[76] USDOC, BEA, *Survey of Current Business,* Sept. 1996, p. 127.

Figure 3-9
Banking and securities services transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95[1]

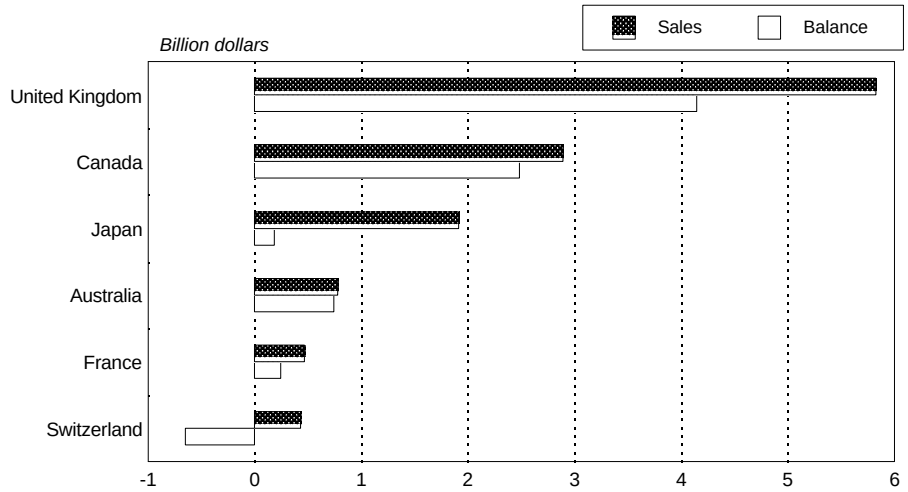


[1] Data understate U.S. sales and surpluses, as selected U.S. sales data were suppressed in order to avoid disclosing information about the operations of individual firms.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138; and estimated by USITC staff.

On a bilateral basis, the largest trading partners were those countries where U.S. firms have established a substantial commercial presence in order to participate in the local market. These include the United Kingdom and Japan (figure 3-10), which host the largest financial markets outside the United States, as well as Canada, which figures prominently due to its geographic proximity and strong commercial ties with the United States. In the United Kingdom, sales through foreign affiliates of U.S. firms were $5.8 billion in 1995, or 43 percent of total U.S. sales of financial services through affiliates. Corresponding purchases through British affiliates operating in the United States were $1.7 billion, accounting for 25 percent of total U.S. purchases. The $4.1-billion surplus represented 61 percent of the total U.S. surplus in financial services transactions through affiliates. The very strong role of the United Kingdom in financial services trade through affiliates reflects the global importance of the British financial markets and the level of involvement by U.S. firms. Relative to the United Kingdom, affiliate trade with Canada ranks a distant second in terms of U.S. sales. Sales by foreign affiliates of U.S. firms operating in Canada amounted to $2.9 billion in 1995, or 21 percent of U.S. financial services sales. Purchases of $408 million were only 6 percent of total purchases, and the surplus of $2.5 billion contributed 36 percent of the U.S. surplus on affiliate transactions in financial services. The small level of purchases suggests that Canada has relatively few firms participating in U.S. financial markets, while U.S. firms are well established within Canada. As for Japan, sales of $1.9 billion contributed 14 percent of total sales, while purchases of $1.7 billion accounted for 26 percent of purchases. The small surplus of $183 million contributed only 3 percent to the overall surplus.

Figure 3-10
Banking and securities services transactions by majority-owned affiliates: U.S. sales and balance, by major trading partners, 1995



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 137-138.

Summary and Outlook

U.S. banks and securities firms are highly competitive internationally, as reflected by the strong, sustained surplus in both cross-border and affiliate transactions. The strength of U.S. firms was recognized in an annual survey of international bank performance in which U.S. financial service firms placed at or near the top in most major categories. For banking services, Citibank was ranked a close second in the category for the world's best bank in 1996 in terms of profitability and global reach.[77] As for securities services, Merrill Lynch was rated best global investment bank, followed by Morgan Stanley. On a regional basis, Citibank was considered the best bank in Latin America, Africa, and the Middle East, while J.P. Morgan was rated the best securities firm in Latin America.[78]

The international strength of U.S. financial service firms stems from the highly competitive domestic market. Intensely competitive conditions in the home market have led to declining profit margins in traditional lines of business, which in turn encourages consolidation in pursuit of greater scale economies. Industry consolidation in the United States has also been spurred by trends toward retail banking deregulation, the increased provision of financial services by nonbanks, and the electronic delivery of financial services through the telephone and personal computer. These factors have

[77] "Awards for Excellence 1997," *Euromoney*, July 1997, pp. 70-94.

[78] U.S. financial service firms also scored high in individual product areas, as Goldman Sachs, Morgan Stanley, and Merrill Lynch were rated best international equity underwriters; Bankers Trust and J.P. Morgan, the best in risk advisory services; Citibank, the best in foreign exchange services; Chase Manhattan, the best in syndicated loan services; and Morgan Stanley, the best for mergers and acquisitions advice. Ibid.

led to a 36-percent reduction in the number of U.S. banks during 1985-95.[79] Merger announcements in 1998 among large financial firms Citicorp and Travelers, NationsBank and Bank America, and Banc One and First Chicago indicate that momentum to consolidate remains strong. These same trends, however, have also forced U.S. firms to innovate and embrace new technologies to improve efficiency and capture additional revenue.

Similar consolidation patterns have been observed in France and Sweden, where the number of banks declined by 43 percent and 81 percent during 1985-95, respectively. Consolidation is also taking place in the developing regions of Latin America and Southeast Asia. For example, Brazil has established a program called Proer that offers subsidized loans and tax benefits as incentives for banking acquisitions, and Singapore projected a 50-percent decline in the number of banks due to recent legislation permitting larger bank-equity holdings.[80] In 1997, consolidation appeared to spread into the securities business, as evidenced by the mergers of Travelers Group/Smith Barney with Salomon, Inc., and Morgan Stanley with Dean Witter, Discover.[81] Industry consolidation suggests that in the future there will be fewer financial institutions, and that those remaining will be larger and offer a broader range of services. Since major U.S. financial service firms tend to be on the forefront in terms of cost control, technological adaptation, and new product development, they appear to be well positioned to compete in developing international markets.

Another factor influencing international financial services trade is the trend toward privatization of government entities. For example, in 1997, Peru privatized the Lima airport, Brazil continued to sell government-owned electricity distribution companies, and France followed through with its sale of a significant stake in France Telecom.[82] In addition, governments, particularly in Latin America, are increasingly privatizing aspects of social security programs. Capitalizing on such policies, Citibank has become the largest administrator of private pension-fund accounts in Latin America, holding 17 percent of all pension fund assets despite limitations on cross-selling and the use of its name.[83] U.S. securities firms are also likely to benefit from economic stability in much of Latin America and Eastern Europe, which is leading more companies based in those regions to raise capital through public offerings. Also, Western Europe appears to be experiencing an increase in merger and acquisition activity that is benefitting U.S. securities firms. In 1997, Morgan Stanley advised in European deals worth $59.1 billion, more than any other firm, while Goldman Sachs and J.P. Morgan also were among the top 5 firms in Europe.[84]

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[79] Jane Lucien-Scholle, Jay Norman, and Nick Perch, "Global trends in retail banking," *Banking Strategies*, Nov./Dec. 1996, pp. 18-19.

[80] Ibid.

[81] Fred R. Bleakley, "New global financial firms stir debate," *The Wall Street Journal*, Oct. 9, 1997, p. A12.

[82] Paul J. Deveney, "Lima airport to be privatized," and Matt Moffett, "Brazil gets rich in sell-offs," *The Wall Street Journal*, Oct. 22, 1997, p. A16, and Paul J. Deveney, "France Telecom begins trading," *The Wall Street Journal*, Oct. 20, 1997, p. A18.

[83] Jonathan Friedland, "Citibank dives into Latin pensions," *The Wall Street Journal*, Sept. 25, 1997, p. A16.

[84] Sara Calian and Nicholas Bray, "Investment banks near M&A record in Europe," *The Wall Street Journal*, Oct. 14, 1997, p. A16.

As for international banking services, the continued growth of global business transactions is likely to lead to steady growth in the commercial banking functions of trade finance, cash management, foreign exchange, and risk management services. Additionally, one of the most promising opportunities lies in the development of retail banking markets. Traditionally, international banks focused on the commercial banking sector, because economic instability and low levels of disposable income made consumer markets less attractive in much of the world. Because of sustained economic growth in Southeast Asia and parts of Latin America, there has been a corresponding increase in the size of the middle class and in consumer spending.[85] As a result, retail banking is becoming a more significant source of revenue for banks. For example, credit cards are becoming increasingly popular in Asia. Citibank, a major issuer of cards, saw revenue increase by an estimated 150 percent in the region over two years with a loss rate half that of the U.S. industry average of 4 percent.[86] In India, Citibank accounts for 70 percent of the 1.5 million cards issued. With only 1 percent of adults carrying a credit card and only 1 percent of transactions executed with credit cards in Asia, excluding Japan, the credit card business appears to offer significant growth opportunities. Other forms of consumer lending also seem promising, such as tax loans that allow customers to borrow up to 200 percent of their tax obligation, and personal loans for expenses related to education, home improvements, and weddings.[87] Similar conditions are arising in Latin America, where interest rate margins for consumer lending are double those in developed markets and where declining inflation in many countries has made it easier for banks to offer mortgages and car loans.[88] Citibank, BankBoston, and Banco Santander of Spain are the three major foreign banks competing in the Latin American retail market. As in Asia, Citibank has been particularly strong in the credit card sector, using credit cards as an entry product into retail banking. In Brazil, Citibank owns one-third of the largest credit card issuer, Credicard, offering its own branded card as well as a cobranded card with American Airlines.[89]

While the ongoing discussion suggests a favorable outlook, some factors pose significant obstacles to U.S. financial service providers. For example, the 1997 currency crisis in Southeast Asia has forced a reevaluation of these economies and of the strategies of U.S. financial services firms holding or contemplating partitions in the region. In the short term, the weakened currencies and government efforts to curb spending could lead to a drop in consumption that would adversely affect the income of U.S. firms. This could be exacerbated in the longer term should these economies not return to previous levels of strong growth. Another challenge to U.S. financial service firms could be tied to the performance of the capital markets. While U.S. capital markets continue to rise to new highs, increased volatility in 1997 is a reminder that continued growth is not assured. A significant correction or even a period of slow growth could have significant effects on the revenue of U.S. firms involved in underwriting and trading securities.

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[85] Brian Garrity, "Bank lending to Latin America is still alive and well, again," *Investment Dealers Digest*, vol. 63, Iss. 22, June 2, 1997, pp. 20-21.

[86] Andrew Tanzer, "Citibank blitzes Asia," *Forbes*, May 6, 1996.

[87] "Battle of the banks," *Asian Business*, Mar. 1997, p. 41.

[88] Thomas T. Vogel, Jr., "Foreign banks target the little guy in Latin America," *The Wall Street Journal*, Oct. 9, 1997, p. A15.

[89] Sam Zuckerman, "Patience pays off in Latin America," *USBanker*, Apr. 1997, p. 48.

Despite these cautionary factors, international economic conditions suggest that U.S. financial service firms will continue to grow and remain highly competitive. Latin America is enjoying a sustained period of reduced inflation and economic growth, China is experimenting with easing its restrictions on the activities of foreign banks, Japan is planning major financial sector deregulation in 1998, parts of Eastern Europe are stabilizing and beginning to prosper, and Western Europe is moving toward monetary unification.

In addition, the United States was party to an agreement among WTO member countries that successfully concluded negotiations on financial services in December 1997. The agreement would bring more than 95 percent of world trade in banking and securities, insurance, and financial information under the WTO's multilateral, legally enforceable rules on a permanent and most-favored-nation basis when the agreement enters into force by March 1, 1999.[90] Previous negotiations through 1995 had elicited offers on financial services from 97 countries, many of which were deemed insufficient by the United States. By the conclusion of negotiations in 1997, however, 102 WTO members had made commitments to accord market access and national treatment to foreign financial service firms. Overall, it is likely that these commitments will open more financial services markets to U.S. firms, especially in developing countries that are beginning to liberalize their financial sectors and poised for substantial growth.[91]

Insurance Services

Introduction

The traditional core business of the insurance industry is the transfer of risk. The business includes the underwriting of financial risk for life and non-life (both property and casualty) products, as well as many specialty insurance products. The latter include reinsurance (further transferring of risk between insurance companies), marine and transportation insurance (hulls, cargoes, off-shore oil rigs), and insurance brokerage (specialists who package policies from several insurance underwriters to cover a given risk). In addition to risk transfer, insurance also is an important individual savings device in most countries.[92] Insurance companies may also be important to the functioning of national economies because of their ability to provide relatively large amounts of long-term investment capital. International trade in insurance takes place both on a cross-border and affiliate basis. Because insurance

[90] World Trade Organization, "Successful Conclusion of the WTO's Financial Services Negotiations," press release, found at Internet address http://www.wto.org/, posted Dec. 15, 1997, retrieved Dec. 17, 1997.

[91] Office of the United States Trade Representative, "Statement by Secretary Rubin and Ambassador Barshefsky Regarding the Successful Conclusion of WTO Financial Services Negotiations," press release, found at Internet address http://www.ustr.gov/, posted Dec. 13, 1997, retrieved Dec. 17, 1997.

[92] This is often due to favorable tax treatment received. Japan is the largest insurance market in the world, largely because insurance companies are one of the few financial savings mechanisms that are widely understood and available in that country. See *Sigma*, Swiss Reinsurance Company, No. 4, 1997, table I, p. 19.

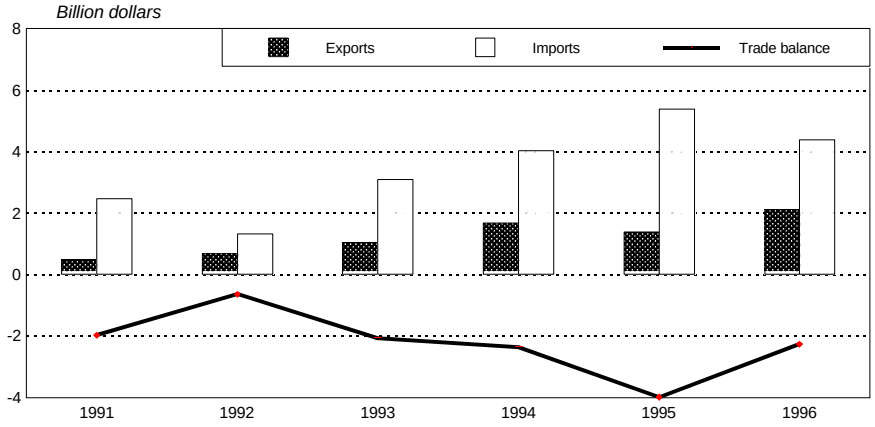
sales often demand knowledge of, and proximity to, consumers of insurance, international affiliate transactions are considerably larger than cross-border trade.[93]

Recent Trends

Cross-Border Trade, 1991-96

In 1996, U.S. cross-border exports[94] amounted to $2.1 billion and imports totaled $4.4 billion. The resulting negative trade balance of $2.3 billion decreased by 43 percent from a deficit of $4.0 billion in 1995. The difference was due largely to a leveling off of claims paid by U.S. insurers to insurance clients abroad, while foreign companies selling insurance into the United States found their claims increase by 13 percent.[95] U.S. cross-border insurance trade in 1996 reflected the trade patterns experienced since 1991, with imports exceeding exports by between $1 billion and $4 billion annually (figure 3-11).[96]

Figure 3-11
Insurance services: U.S. cross-border exports, imports, and trade balance, 1991-96[1]



[1] All figures are provided on a net basis; i.e., insurance premiums received minus insurance claims paid. Includes primary insurance and reinsurance. Cross-border trade data are not comparable with affiliate trade data.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

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[93] Judging insurance premiums only (without the cost of claims paid against them), U.S. cross-border trade had $15 billion in imports and $6 billion in exports in 1996, while U.S. affiliate transactions for 1995 (latest available) experienced $57 billion in purchases and $35 billion in sales. USDOC, BEA, *Survey of Current Business*, Oct. 1997, pp. 131, 137-138.

[94] All cross-border trade figures for insurance services are presented on a net basis, i.e., imports comprise premiums paid for foreign insurance coverage, minus claims received from foreign insurers. Exports comprise premiums received from foreign policyholders, minus payments for claims.

[95] USDOC, BEA, *Survey of Current Business*, Oct. 1997, p. 102.

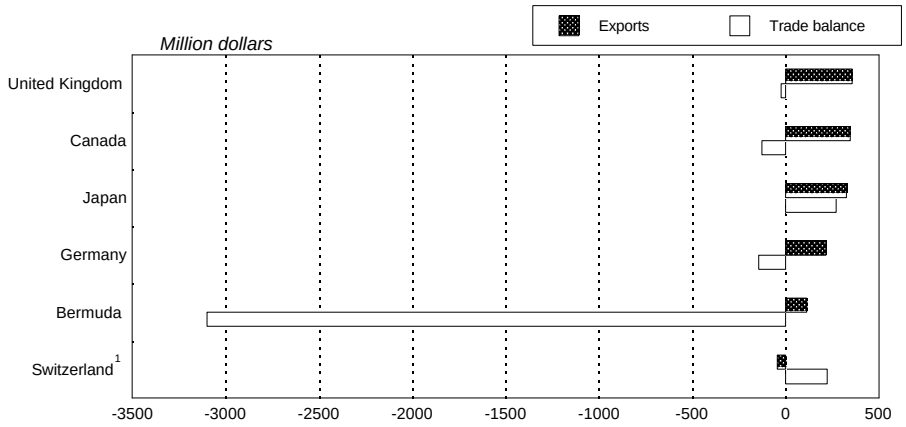
[96] The 1992 decline in the insurance trade deficit almost entirely reflects reinsurance reimbursement claims paid by non-U.S. reinsurers for damage caused by Hurricane Andrew in South Florida.

In terms of premiums, the largest markets for U.S. primary insurance and reinsurance combined in 1996 included the United Kingdom, with 27 percent of inbound premiums; Canada, with 18 percent; Japan, with 9 percent; and Germany, with 7 percent (figure 3-12). The largest suppliers to U.S. insurance consumers included Bermuda,[97] with 33 percent of outbound premiums; the United Kingdom, with 22 percent; Germany, with 9 percent; Canada, with 7 percent; and Switzerland, with 4 percent.

Affiliate Transactions, 1991-95

In 1995, U.S.-owned affiliates' sales abroad totaled $35 billion, while foreign insurers in the United States generated $57 billion through their U.S. affiliates, resulting in a negative U.S. balance on affiliate transactions of $22 billion (figure 3-13). Sales by insurance affiliates of U.S. firms grew by 12 percent in 1995, slightly faster than the 10-percent average annual growth rate during 1991-94. However, U.S. purchases generated by U.S. insurance affiliates of foreign firms grew even faster, at 18 percent in 1995. This high growth rate in U.S. purchases far exceeded the 1-percent average annual growth rate during 1991-94 (despite declining purchases in 1992 and 1993). U.S. affiliates of foreign-owned insurance firms accounted for a very large 36 percent of total purchases of services through U.S. affiliates of foreign parents in 1995. The increase in foreign-owned insurance affiliate sales in the United States is accounted

Figure 3-12
Insurance services: U.S. cross-border exports and trade balance, by major trading partners, 1996

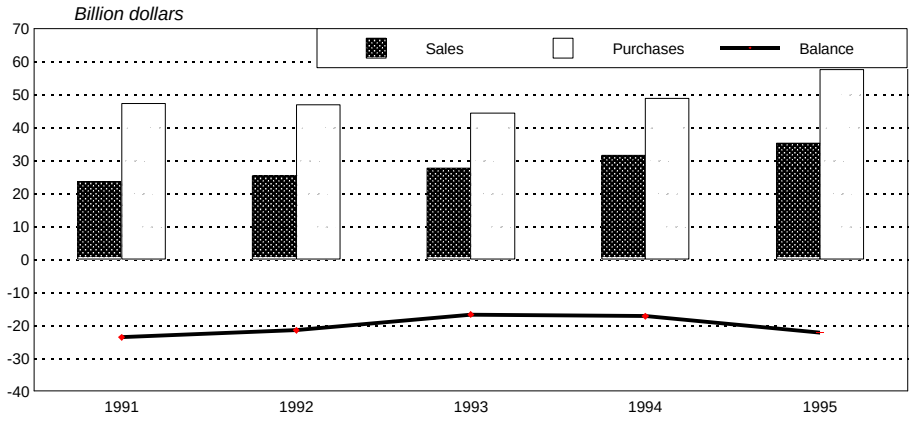


[1] U.S. exports are depicted as negative values because claims paid to policyholders in Switzerland exceeded premiums collected from them by U.S. insurers. The U.S. trade balance with Switzerland is positive because claims received by U.S. policyholders from Swiss companies exceeded claims received by Swiss policyholders from U.S. companies.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 126-127.

[97] Over the past 5 years, Bermuda has become a reinsurance center, specializing especially in large catastrophe insurance and reinsurance. Favorable business and tax laws have promoted this growth.

Figure 3-13
Insurance services transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95[1]



[1] Data reflect premiums for primary insurance and reinsurance only. Affiliate trade data are not comparable with cross-border insurance trade data because cross-border data are net of claims paid.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138, and USITC staff estimates.

for largely by increases in U.S. sales by affiliates of Swiss insurers and reinsurers.[98] By comparison, foreign insurance affiliates of U.S. parent firms accounted for 18 percent of all foreign affiliates' sales of services to foreign consumers.[99] Such transactions are partially explained by local foreign exchange rates against the U.S. dollar. In 1995, U.S. insurers commercially established abroad did the most business in Japan, which accounted for 21 percent of sales; the United Kingdom, 20 percent; Canada, 14 percent; and Germany, 10 percent (figure 3-14).

Conversely, foreign companies selling insurance from affiliates established in the U.S. market originated principally in Switzerland and the United Kingdom, each accounting for 22 percent of U.S. purchases; Canada, 20 percent; and France and Germany, each at 9 percent. The largest U.S. surplus on affiliate transactions was with Japan, at $6.7 billion. Large negative balances for affiliate insurance transactions occurred with Switzerland, at $12.4 billion; Canada, $7 billion; the United Kingdom, $5.3 billion; France, $4.4 billion; and Germany, $1.7 billion.

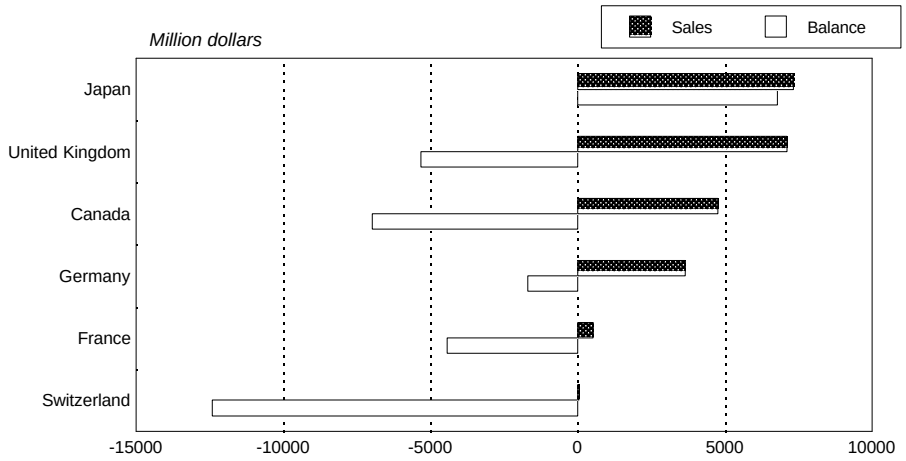
Summary and Outlook

The large imbalances in both cross-border trade and affiliate transactions reflect the ability of European and Canadian firms to compete in the large, diverse U.S. insurance

[98] USDOC, BEA, *Survey of Current Business*, Oct. 1997, pp. 105-107.
[99] Ibid.

market and their long establishment in the United States. More than 10 percent of all U.S. premiums are collected by foreign-based insurance firms.[100]

Figure 3-14
Insurance services transactions by majority-owned affiliates: U.S. sales and balance, by major trading partners, 1995



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 137-138.

Broadly, the current U.S. insurance market is facing the integration of the financial services market at home while dealing with the globalization of markets everywhere. Older questions of market consolidation, alternative risk-transfer mechanisms, and technological change also remain. The only constant is a static domestic regulatory mechanism, based on an overlapping but long-standing 50-state system. However, this system, too, is increasingly under pressure to harmonize, simplify, and deregulate in some major insurance areas.[101]

Integration of Financial Services

The newest, and in some ways most challenging, development in the U.S. insurance markets is the entry of banking, securities, and related financial service firms. A series

[100] See the U.S. National Association of Insurance Commissioners' annual reports on foreign penetration of the U.S. market, beginning in 1992.

[101] In 1997, the 50-state system of regulation was under considerably increased political and industry pressure, due especially to financial services reforms proposed in the U.S. Congress, to streamline state procedures, reduce regulatory costs, and improve, enhance, or maintain its communication with the U.S. Congress. See, for example, *Insurance Regulator*, 1997 editions, and "State Regulations Supporters Warned They are Too Silent," *National Underwriter*, Nov. 24, 1997, p. 24. Also, although there is broad consensus that insurance regulators are far behind their banking and securities colleagues in cooperative efforts regarding international regulation, some improvements to international regulatory mechanisms are evident. See, for example, "Changing the Rules," *ReActions*, Mar. 1997, p. 67ff.

of U.S. Supreme Court decisions in 1995 and 1996 has permitted banks to begin distributing insurance in major sectors, and perhaps underwrite such policies.[102] An axiom of insurance is that much of it is sold, rather than bought, meaning that sales and marketing are key. Depending on the insurance product and local market tradition, perhaps 30 or more cents of every premium dollar is directed toward sales and marketing.[103] However, customers frequently transact business at their banks, many of which have absorbed establishment costs and can thus extend into new business lines with minimal expense.[104] Most insurance companies and their agents do not have this advantage, and thus have contested banks' entry to the insurance market, with little consequence. Although some insurers are buying banks,[105] it appears likely that banks will increasingly take over several important lines of insurance distribution.

Globalization and Consolidation

Insurance markets in many developed countries are mature. Between 1994 and 1995 (latest available figures) the overall U.S. insurance market grew by only 1.1 percent. For the G7 countries,[106] the figure was 3.3 percent.[107] Conversely, the insurance markets of the five original members[108] of the Association of South East Asian Nations (ASEAN), grew by 12.8 percent in real terms during the same period.[109] In order to grow, insurers in developed countries must either undertake mergers and acquisitions (M&A), or expand into foreign markets. Both are happening, with mergers and acquisitions being the favored approach in both the United States and Europe. In the United States alone, as of mid-December 1997, some 264 M&A deals had been completed, worth $27 billion. This compares to $23.2 billion the previous year.[110] The global insurance brokerage market has now consolidated to perhaps four major brokers[111] and significant M&A activity has taken place in the insurance markets of

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[102] The U.S. Office of the Comptroller of the Currency (OCC), the regulator of banks holding a national license, issued guidelines on November 4, 1996, clarifying the conditions under which national banks could sell insurance. The U.S. Supreme Court concurred with the OCC's interpretation of Section 92 of the Bank Holding Company Act (12 U.S.C. 92). The U.S. Supreme Court decision on Barnett v. Nelson et al. (116 S.Ct. 1103, (1996)) widened significantly the ability of banks in towns with population of less than 5,000 to distribute insurance, while the decision on NationsBank v. Valic (513 U.S. 251, (1995)) widened the ability of banks to offer annuities, declaring that they were primarily investment rather than insurance mechanisms.

[103] Bernard Fink, *Global Marketing: An Alternative or Necessity?* Paper delivered to the International Insurance Seminar of the International Insurance Society, San Francisco, CA, June 16-20, 1991.

[104] The U.S. Treasury generally favors this expansion of banking powers. See "Treasury Report: Time is Right to Break With Past In Financial Services Regulation," *National Underwriter*, Dec. 15, 1997, p. 40.

[105] Large insurers such as the Principal Mutual Life Insurance Company of Des Moines, Iowa, and the Travelers, New York, for example, have thrift banking charters. See *National Underwriter*, Dec. 1, 1997, p. 3.

[106] United States, Canada, Germany, United Kingdom, France, Italy, and Japan.

[107] *Sigma*, Swiss Reinsurance Company, Number 4, p. 26, 1997.

[108] Indonesia, Malaysia, Philippines, Thailand, and Singapore.

[109] *Sigma*, Swiss Reinsurance Company, Number 4, p. 26, 1997.

[110] "Year in Review," *Insurance Finance & Investment*, Dec. 29, 1997, p. 8.

[111] "An uphill struggle," *ReActions*, Feb. 1997, pp. 10-14.

Switzerland, Germany, the United Kingdom, and France.[112] For quite different reasons, i.e., those of financial solvency brought on by regulatory lapses, over-extended property investments, and depreciating currencies, the insurance markets of Japan, Korea, and the ASEAN countries are also expected to experience considerably increased merger and acquisition activity, including foreign investment in those markets.

The successful completion of the Financial Services negotiations for the World Trade Organization on December 13, 1997, will likely lead to expanded entry of developed countries' insurance firms in developing country markets. The agreement codifies liberalized guarantees of market access and national treatment for foreign trading partners among 102 trading partners.[113]

Changing Market and Technological Changes

The advent of new risk transfer mechanisms and changing technology are challenges to the global insurance industry. New risk-transfer mechanisms may reduce insurance firms' business opportunities. For instance, most large companies outside the insurance industry now have specialists who prepare advice on the mitigation and reduction of costs associated with risk. "Captive" insurance companies, wherein groups of companies, like airlines, self-insure, are now common. In addition, traditional insurance products like annuities are sold by banks as much as by life insurance companies. Such practices place considerable pressure on the global insurance industry to create new products and to reduce costs, especially since these alternative risk-transfer devices tend to focus on lower cost and lower risk areas, thus leaving greater and/or costlier risks for traditional underwriters.

Similarly, technological advances are necessary in order to reduce distribution and administrative costs, but require expensive training and large capital expenditures. Commerce Department data indicate that U.S. insurance companies spend about 83 percent of all equipment investment on information technology improvements, well above the norm of 49 percent.[114] In 1994 (latest available), this information technology expenditure alone amounted to $14.5 billion.

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[112] Despite the European Union's Third Insurance Directives on market openings, much of the European M&A activity remains confined to EU member states. There are significant exceptions, however, and the introduction of the unitary monetary system would presumably speed further intra-European insurance integration.

[113] Office of the United States Trade Representative, press release on WTO financial services negotiation, Dec. 13, 1997.

[114] DRI/McGraw-Hill, Standard & Poor's, U.S. Department of Commerce, *U.S. Industry and Trade Outlook '98* (New York: McGraw-Hill, 1998), p. 47-14.

Intellectual Property-Related Services

Introduction

Trade in intellectual property encompasses sales of the rights to, or the use of, intangible property such as industrial processes, techniques, formulas, and designs; copyrights, trademarks, and patents; business format franchising;[115] and management services.[116] Intellectual property embodied in merchandise lies outside the scope of this discussion.

Recent Trends

Cross-Border Trade, 1991-96

Cross-border trade in intellectual property is captured under the entry for royalties and license fees in the balance of payments, and includes transactions between unaffiliated U.S. and foreign entities and intra-corporate trade between parent companies and their foreign affiliates.[117] Intracorporate trade accounts for close to 80 percent of cross-border trade in intangible intellectual property.

In 1996, U.S. cross-border exports and imports of intellectual property accounted for 14 percent and 5 percent, respectively, of such trade recorded for all private services. U.S. cross-border exports of intellectual property increased by 9 percent, to $30 billion (figure 3-15).[118] Export growth during 1996 was lower than the annual growth rate recorded during 1991-95, which averaged 11 percent. U.S. imports increased by 13 percent, to $7.3 billion, continuing the average annual growth rate established during 1991-95 (despite the slight decline in 1993).[119] Payments to the International Olympic Committee for broadcast rights during the 1996 Summer Olympics in Atlanta propelled

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[115] Business format franchising entails selling rights to use a franchisor's entire business concept, from business plans to training materials. A franchisor's business concept, trademark, and brand name determine in large part the value of a franchise and are recognized as intellectual property by the U.S. Department of Commerce (USDOC) and the franchising industry. See Ralph Kroman, "International Intellectual Property Aspects of Franchising" ch. in *International Franchising: An In-Depth Treatment of Business and Legal Techniques,* pp. 88-89. For a comprehensive discussion of trade in business format franchising, see USITC, *Industry and Trade Summary: Franchising*, USITC publication 2921, Sept. 1995.

[116] For instance, one company that provides blueprints and technical advice to its affiliate may classify the associated charges as a licensing fee for providing know-how, whereas another company may classify these charges as management fees. For a discussion of the USDOC survey of trade in intellectual property, see USDOC, BEA, "U.S. International Transactions in Royalties and Licensing Fees: Their Relationship to the Transfer of Technology," *Survey of Current Business*, Dec. 1973, p. 15.

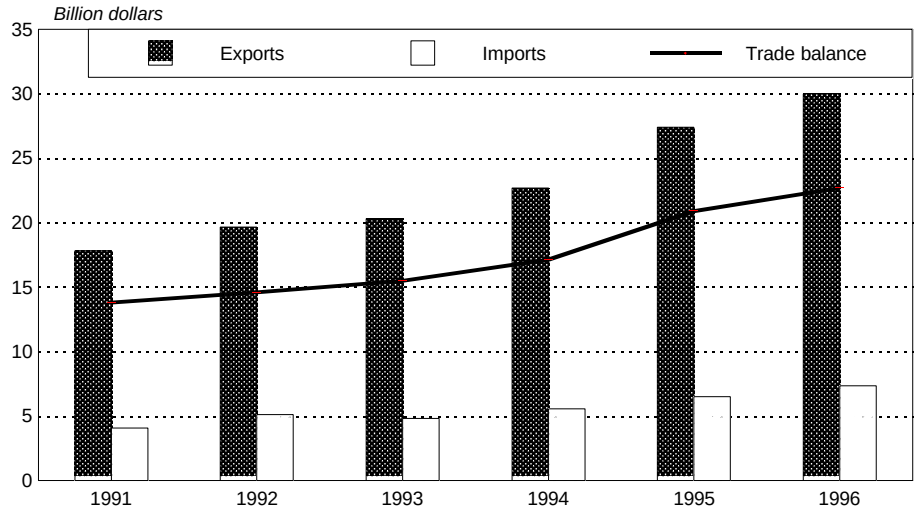
[117] In the context of this discussion, foreign-based affiliates of U.S. firms are those at least 10 percent owned directly or indirectly by U.S. parent firms. Similarly, U.S.-based affiliates of foreign-owned firms are those that are at least 10 percent owned by foreign parents.

[118] USDOC, BEA, " International Sales and Purchases of Private Services," *Survey of Current Business*, Oct. 1997, pp. 101-102.

[119] Ibid., pp. 108-109.

U.S. imports.[120] On balance, the United States registered a $22.6-billion surplus on trade in intellectual property in 1996, representing 8-percent growth from the previous year, which is lower than the 11-percent average annual growth rate in 1991-95.

Figure 3-15
Intellectual property-related services: U.S. cross-border exports, imports, and trade balance, 1991-96



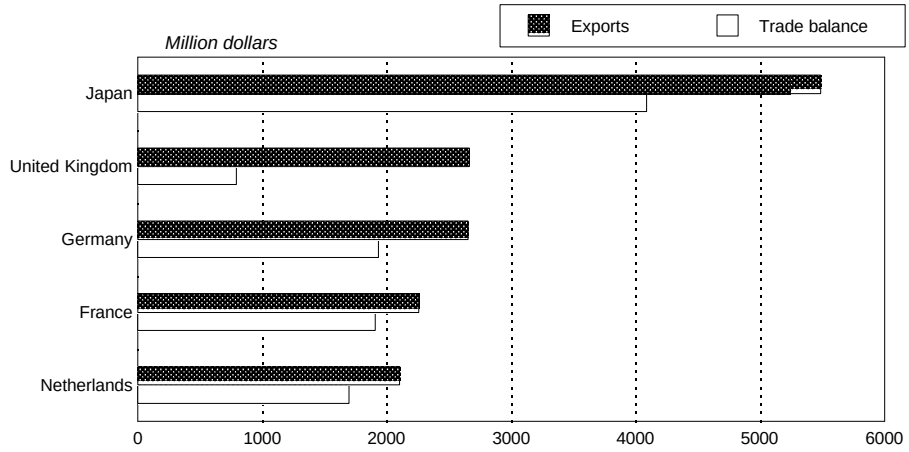
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

In 1996, U.S. parent companies' receipts from foreign-based affiliates totaled $22 billion, approximately 12 times higher than U.S.-based affiliates' total receipts from foreign parents, which totaled $1.8 billion. The growth in intra-corporate trade reflects the continuing globalization of manufacturing and service industries, manifested in rapidly growing inbound and outbound direct investment. Intellectual property holders who desire to sell such property in foreign markets usually first sell intellectual property rights to their foreign affiliates, who subsequently transact the sale of intellectual property on behalf of the parent firm. Intellectual property holders prefer to sell this property through foreign affiliates, as it provides property holders with more effective means of distributing and monitoring the use of their property.

The major U.S. export markets for intellectual property were Japan, the United Kingdom, Germany, France, and the Netherlands in 1996 (figure 3-16). Japan remained the largest single export market, accounting for sales of $5.5 billion, while the United Kingdom and Germany tied for second, with exports of $2.7 billion .[121]

[120] Ibid., p. 102.
[121] Ibid., pp. 137-138.

Figure 3-16
Intellectual property-related services: U.S. cross-border exports and trade balance, by major trading partners, 1996



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 119.

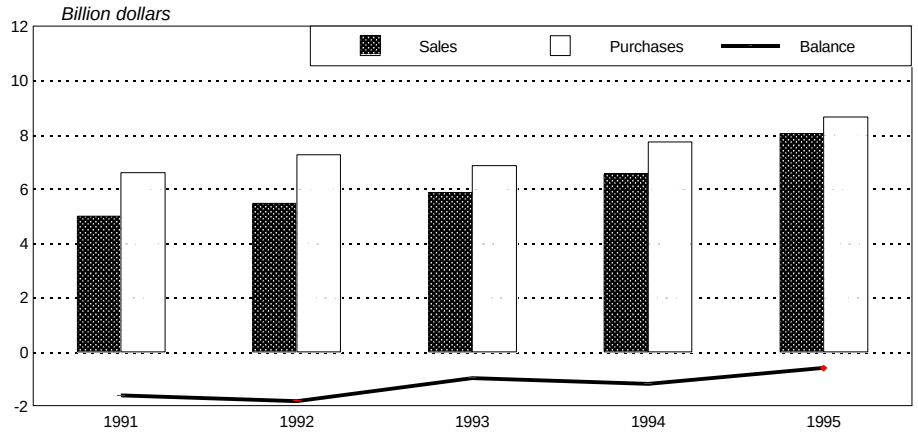
Affiliate Transactions, 1991-95

Data on majority-owned affiliate transactions in intellectual property are limited in scope, reflecting sales of motion pictures and television tape and film only. Foreign-based affiliates of major U.S. motion picture studios generated sales of $8 billion in 1995 (figure 3-17), primarily in Western Europe. This reflected a 23-percent increase in affiliate sales from 1994, substantially above the 9-percent average annual rate of increase during 1991-94. Meanwhile, U.S. purchases of such services from U.S.-based affiliates of foreign firms grew by 12 percent to $8.7 billion in 1995 from $7.7 billion in 1994.[122] Consequently, the United States posted a deficit of $610 million on affiliate transactions in motion pictures in 1995. This deficit, which continued a pattern that began in 1991 following several foreign acquisitions of large Hollywood studios, narrowed in 1995 due to sharply increased sales of U.S. motion pictures in Japan and major European markets, including France and the United Kingdom. The United Kingdom continued to provide U.S.-owned affiliates with the largest market for motion pictures, accounting for $1.2 billion in sales in 1995.[123]

It appears that U.S. affiliates of Canadian and European parent firms continued to be the largest foreign-owned suppliers of motion pictures to the U.S. market in 1995, accounting for 33 percent and 25 percent of purchases, respectively, by U.S. customers.[124]

[122] Ibid.
[123] Ibid.
[124] Ibid.

Figure 3-17
Intellectual property-related services transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138.

Summary and Outlook

In 1996, U.S. cross-border exports of intellectual property-related services increased at a pace slightly below the annual average rate during 1991-95, increasing the trade surplus on this account to nearly $22.6 billion. In 1995, sales by foreign-based U.S.-owned affiliates increased markedly, and helped to reduce the longstanding deficit on affiliate transactions from $1.2 billion in 1994 to $610 million in 1995.

The U.S. direct investment position abroad in manufacturing industries will likely continue to influence the volume of affiliate sales of intellectual property. In 1996, the U.S. direct investment position abroad increased by 12 percent in the chemical manufacturing industry and by 4 percent in the machinery manufacturing industry, both of which produce goods with high intellectual property content.[125] In addition, several events took place in the U.S. audiovisual industry in 1995-96 which could further influence affiliate sales. In April 1995, Matsushita of Japan sold 80 percent of its stake in Universal Studios to Seagram, a Canadian company. In 1996, a U.S. holding company bought Metro-Goldwyn-Mayer/United Artists (MGM/UA) from Credit Lyonnais, a French bank.[126] However, MGM reported a 44-percent decrease in film revenues in the year following the purchase, mainly due to a significant drop in the

[125] USDOC, BEA, "U.S. Direct Investment Abroad: Detail for Historical-Cost Position and Related Capital and Income Flows, 1996," *Survey of Current Business*, Sept. 1997, pp. 127-128.

[126] For more information, see "U.S. film industry: How mergers and acquisitions are reshaping distribution patterns worldwide," *Industry, Trade, and Technology Review*, USITC, Jan. 1997.

number of new movie releases.[127] Although the transfer of Universal Studios between two foreign entities should not change total U.S. purchases from affiliates of foreign firms, future trade data will likely show an increase in Canadian affiliates' sales and a decrease in Japanese affiliates' sales.

Recent developments in digital technology are also expected to have a significant impact on trade in audiovisual services. The Internet, which reached 47 million people worldwide in 1997,[128] is expected to provide a faster, less expensive, and more reliable medium for audiovisual products. The U.S. audiovisual industry is expected to benefit from use of this technology. However, the technology also increases the potential for piracy. To combat piracy, the U.S. audiovisual industry has endorsed World Intellectual Property Organization treaties which aim to extend the protection of intellectual property rights to the digital environment.[129]

Professional Services

Professional service industries treated in this report include accounting and management consulting; architecture, engineering, and construction; computer and data processing; health care; legal; and maintenance and repair services. Firms in these industries provide professional and technical expertise, information, and counsel to individuals, private-sector businesses, and government institutions.

Accounting and Management Consulting Services

Introduction

Trade data on accounting and management consulting services also include revenues for closely related services, such as auditing, bookkeeping, and public relations.[130] International trade in accounting and management consulting services takes place on both a cross-border and an affiliate basis. Affiliate transactions of accounting and management consulting services far exceed cross-border transactions due to the

[127] Metro-Goldwyn-Mayer, Inc., Form S-1, Registration Statement Under The Securities Act of 1933, found at Internet address http://www.sec.gov/archive/edgar/, posted Sept. 11, 1997, retrieved Oct. 20, 1997.

[128] Mary Meeker and Chris DePuy, *The Internet Retailing Report*, p. 2-6, Morgan Stanley, found at Internet address http://www.ms.com/, posted May 28, 1997, retrieved Aug. 28, 1997.

[129] Motion Picture Association of America, "Congress should ratify the new World Intellectual Property Organization (WIPO) copyright treaties without concurrently considering the issue of OSP (online service provider) liability," facsimile, June 24, 1997. For further information, see USITC, "Electronic Trade Transforms Delivery of Audiovisual Services," *Industry, Trade and Technology Review*, Oct. 1997.

[130] For this analysis, cross-border trade data on accounting and management consulting services are the sum of such data on accounting, auditing, and bookkeeping services, and management, consulting, and public relations services. Affiliate trade data include accounting, research, management, and related services. See USDOC, BEA, *Survey of Current Business*.

difficulty of providing such services across borders,[131] and the purported advantage of establishing permanent overseas operations in order to better evaluate local market conditions.

Recent Trends

Cross-Border Trade, 1991-96

Cross-border trade of accounting and management consulting services generated a U.S. surplus of $969 million in 1996, compared to a surplus of just over $1 billion in 1995. U.S. cross-border exports of such services totaled $1.7 billion in 1996, whereas imports totaled $742 million (figure 3-18). U.S. cross-border exports of accounting and management consulting services increased by 3 percent in 1996, slower than the 13-percent average annual increase during 1991-95 (despite a decline in 1992). U.S. cross-border imports increased by 15 percent in 1996, only slightly below the 16-percent average annual increase during 1991-95.

Cross-border trade data in management consulting services[132] indicate that Europe accounted for 40 percent of U.S. exports in 1996. The United Kingdom was the largest single export market for U.S. services, accounting for 10 percent of U.S. cross-border sales (figure 3-19). European nations were also the predominant suppliers of cross-border imports of management consulting services, accounting for 44 percent of all such imports. In 1996, the United Kingdom was also the largest single supplier of management consulting services to the U.S. market, accounting for 24 percent of U.S. imports.

Affiliate Transactions, 1991-95

In 1995, U.S. affiliate transactions in accounting and management consulting services generated a trade surplus of $3.4 billion, unchanged from the surplus generated in 1994 (figure 3-20). U.S. sales of such services by foreign affiliates of U.S. companies totaled $6 billion, or 3 percent of total sales of all services by foreign-based affiliates of U.S. firms. Sales by foreign-based affiliates of U.S. companies rose by 5 percent in 1995, up from the average increase of 3 percent per year during 1991-94 (despite the decline experienced in 1993). Purchases from U.S.-based affiliates of foreign companies totaled $2.7 billion, or 2 percent of total purchases of services from such affiliates. Purchases from U.S.-based affiliates of foreign companies rose by 14 percent in 1995, substantially slower than the 54-percent average annual rate of increase during 1991-94.

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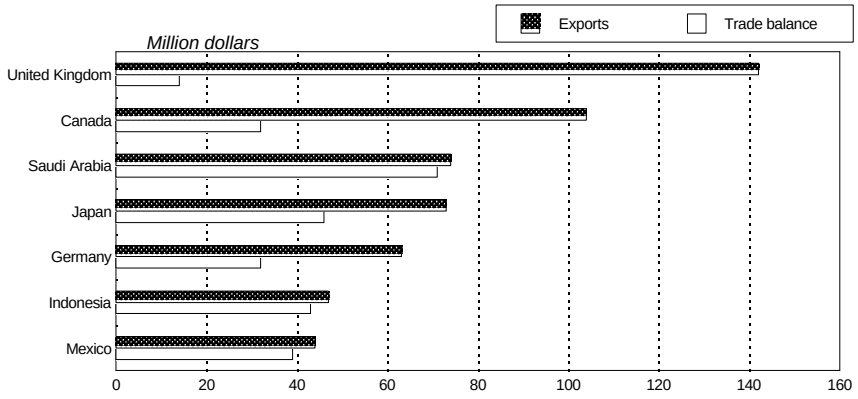
[131] Typically, there are fewer legal restrictions on servicing clients through affiliates, than providing such services across borders. Industry representatives, interviews by USITC staff, Washington, DC, May 1995.

[132] Although cross-border export data by individual foreign markets are not available for accounting services, the data reported for management consulting services are believed to identify principal export markets for the combined accounting and management consulting service industry.

Figure 3-18
Accounting and management consulting services: U.S. cross-border exports, imports, and trade balance, 1991-96

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

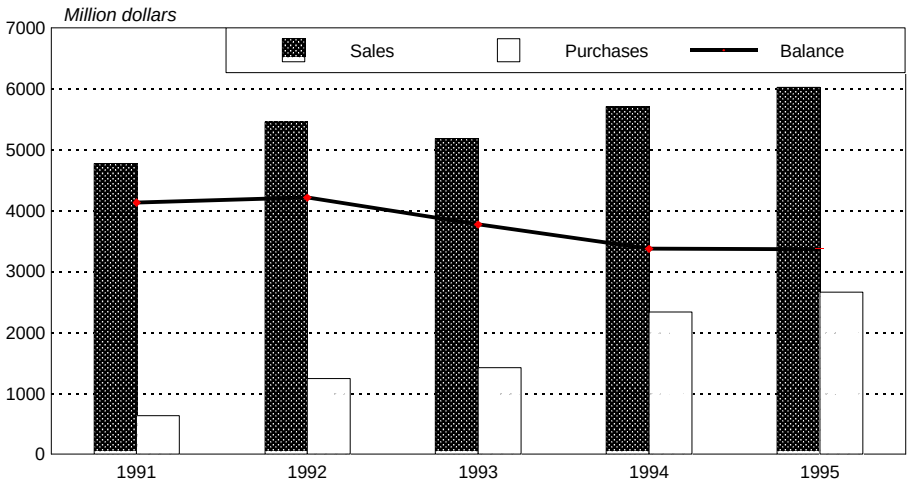
Figure 3-19
Accounting and management consulting services: U.S. cross-border exports and trade balance, by major trading partners, 1996[1]



[1] Country-specific trade data are unavailable for accounting services. Data in this figure represent management consulting services only, and consequently understate trade volume in the accounting and management consulting industry overall.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 135.

Figure 3-20
Accounting and management consulting service transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138.

European nations were the largest foreign markets for accounting and management consulting services provided through foreign-based affiliates of U.S. companies, absorbing 66 percent of sales. The United Kingdom was the largest single foreign market for these services, accounting for 21 percent of U.S.-owned affiliate sales, which amounted to $1.2 billion (figure 3-21). Similarly, U.S. purchases of accounting and management consulting services from U.S.-based affiliates of foreign companies were dominated by European firms, which accounted for 87 percent of such purchases in 1995. Affiliates with corporate parents in the United Kingdom supplied 57 percent of U.S. purchases.

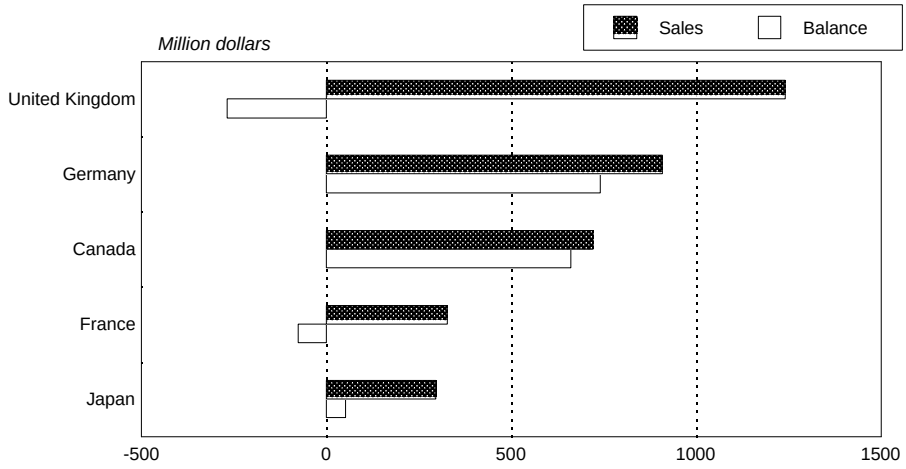
Summary and Outlook

U.S. accounting and management consulting firms are highly competitive in world markets. In 1996, U.S. accounting and management consulting firms accounted for an estimated 60 percent of the global industry's worldwide revenue.[133] Total revenue at the 100 leading U.S. firms stood at $21.2 billion, having risen by 14 percent in 1996.[134] The strength of the U.S. industry is due largely to its expertise in certain market sectors, such as corporate restructuring and information technology management. This expertise has resulted in large trade surpluses, especially on an affiliate basis. U.S.

[133] Estimated by USITC staff and based on data for North American management consulting revenue provided by *Consultants News*, Kennedy Information Publications, Fitzwilliam, NH.

[134] The Big Six accounting firms (Arthur Andersen, Ernst & Young, Deloitte & Touche, KPMG Peat Marwick, Coopers & Lybrand, and Price Waterhouse) were responsible for 83 percent of revenue generated by the largest 100 U.S. tax and accounting firms in 1996. Rick Telberg, "*Accounting Today's* Top 100 Tax and Accounting Firms," *Accounting Today*, Mar. 17-Apr. 6, 1997, pp. 22-34.

Figure 3-21
Accounting and management consulting service transactions by majority-owned affiliates: U.S. sales and balance, by major trading partners, 1995



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 137-138.

exports of accounting and management consulting services are presently concentrated in Western European nations, although growing markets for these services include Asia, Eastern Europe, and Latin America.

U.S. firms' competitive position in accounting and management consulting services also stems from the global expansion and influence of their U.S. multinational client firms. As clients expand geographically, they typically continue to use the same accounting or consulting firms that they use in their home market. To maintain business relationships which began in the home market, accounting and management consulting firms have followed their clients overseas, largely through mergers and acquisitions. In September 1997, two of the Big Six firms, Coopers Lybrand and Price Waterhouse, announced plans to merge operations. According to industry representatives, the proposed merger was undertaken to expand the firms' global coverage. By uniting Coopers' strong presence in Europe with Price Waterhouse's presence in Asia and South America, the new entity would be better able to provide integrated multinational business services across many regions and business cultures.[135] The merger would also reportedly combine Coopers' strengths in business strategy and human resource consulting with Price Waterhouse's strengths in the implementation of packaged software and global information technology.[136]

For many large U.S. accounting firms, management consulting has displaced accounting and accounting-related activities (e.g., auditing and tax services) as the principal engine for revenue growth. At the 100 leading U.S. firms, management consulting and other management services represented the largest single source of total revenue ($8.3 billion, or 39 percent) and the business area with the highest annual growth (24 percent) in 1996. By comparison, accounting and auditing generated

[135] Jim Kelly, "Accountants Plan Global Merger," *Financial Times*, Sept. 19, 1997, p. 1.
[136] Tony Jackson, "The Growth of Monsters," *Financial Times*, Sept. 22, 1997, p. 17.

$7.9 billion and grew by 6 percent, while tax services provided $5 billion and increased by 12 percent. The relatively faster rate of growth in management consulting services has also been evident among the Big Six firms, for which revenue derived from management consulting grew at an annual rate of nearly 20 percent over the past decade, exceeding single-digit annual growth rates for accounting-related activities.[137] Among these largest firms, revenue from management consulting activities accounted for 43 percent of total revenue in 1996, whereas accounting-related activities represented 38 percent.[138] There are several reasons for more rapid growth in management consulting revenue:

- *Corporate Outsourcing and the Pressures on Accounting Fee Income*.—Many corporations now focus managerial resources on their core business, while contracting with management consultants to oversee auxiliary activities, such as information technology and personnel management.[139] Typically, these specialty functions are not competitively bid and, consequently, profit margins are higher than for accounting functions, where contracts generally are awarded on a competitive-fee basis.[140] At the same time, downward pressure on accounting fee income has occurred in two ways. Large firms that once employed external accounting firms are now managing more of their accounting functions, such as auditing. In addition, because accounting services provided by one firm are similar to services provided by a competitor, firms have had difficulty in raising their accounting fees on the basis of product differentiation. However, in management consulting, individual firms have been able to differentiate their services, and raise fee income, by specializing in particular market niches.

- *Corporate Expansion and Restructuring*.—Many U.S. corporations have begun to shift from restructuring their companies and cutting operating costs to expanding their businesses. This shift has required management and planning skills that firms often lack after a decade focused on reducing costs. Increasingly, consultants are being asked to develop strategic plans for expanding these businesses. In contrast, a significant number of European corporations are presently beginning to close inefficient facilities and reduce employment, echoing U.S. corporate practice of the last decade and creating a niche for U.S. consultants to market the cost-reduction skills that they gained during this recent period.

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[137] "Management Consultancy: The Advice Business," *Survey of Management Consultancy, The Economist*, Mar. 22, 1997, p. 3.

[138] Rick Telberg, "*Accounting Today's* Top 100 Tax and Accounting Firms," *Accounting Today*, Mar. 17-Apr. 6, 1997, pp. 22-34.

[139] Robert W. Scott, "CPA Firms are not Just for Accounting Anymore," *Accounting Today*, Mar. 17-Apr. 6, 1997, p. 24.

[140] Ibid.

- *Corporate Globalization and Privatization*.—Strategies prepared by global management consulting firms have been critical elements in the expansion of private economic activity into markets having little private sector tradition, such as Eastern Europe and China. At the same time, a wave of privatization of formerly government-owned enterprises, either in formerly socialist economies or in market economies, has created a need for new corporate strategies, prepared by management consultants, to allow these firms to compete within new, more competitive, business environments.[141]

Continued strong growth is anticipated during the next decade, with growth in revenue and profit derived from management consulting expected to exceed that derived from accounting. Growth will likely be driven by strong global economic growth, the spread of free markets, continued privatization of formerly government-owned companies, and corporate expansion into rapidly growing developing markets. These global economic forces are expected to engender strong growth in U.S. exports of accounting and management consulting services, given the present dominance of U.S. multinational firms in such key areas as corporate restructuring and information technology. An important element in this growth may be the progress achieved by the Working Party on Professional Services (WPPS), functioning under the umbrella of the World Trade Organization (WTO). The WPPS is working toward a multilateral understanding on rules and principles applicable to the accounting sector. These would take the form of legally binding obligations under the GATS in such areas as transparency, licensing requirements and procedures, qualification requirements and procedures, and technical standards. Thus far, the WPPS has agreed to a set of nonbinding guidelines for mutual recognition agreements in accounting.

Architectural, Engineering, and Construction Services

Introduction

Architectural, engineering, and construction (AEC) services comprise interrelated service activities. Architectural firms provide blueprint designs for buildings and public works and may oversee the construction of projects.[142] Engineering firms provide planning, design, construction, and management services for projects such as civil engineering works and residential, commercial, industrial, and institutional buildings.[143] Construction services include pre-erection work; new construction and repair; and alteration, restoration, and maintenance work. Such services may be provided by general contractors, who complete all construction work for those

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[141] Despite the increasing globalization of the accounting and management consulting industry, foreign revenue, as a percentage of worldwide revenue, declined at Big Six firms from 63 percent in 1992 to 60 percent in 1996. This was the first period in nearly a decade that U.S. revenue growth exceeded foreign growth and was largely the result of more robust economic growth in the United States. *Bowman's Accounting Report*, Dec. 1996, p. 9.

[142] Architectural services also include preliminary site study, schematic design, design development, final design, contract administration, and post-construction services.

[143] Engineering services also include undertaking preparatory technical feasibility studies and project impact studies; preparing preliminary and final plans, specifications, and cost estimates; and delivering various services during the construction phase.

awarding the contract, or specialty subcontractors who perform discrete sections of the construction.

Trade in architectural, engineering, and construction services is predominantly undertaken by affiliates in foreign markets.[144] U.S. firms that engage in international trade in architectural, engineering, and construction services generally establish some type of subsidiary, joint venture, or representative office in important foreign markets as local presence is often a determining factor in contract awards. Cross-border trade in AEC services is generally limited to transporting items such as blueprints and designs via mail, telecommunication networks, or other means across national boundaries.

Recent Trends in Cross-Border Trade, 1991-96

In 1996, U.S. exports of architectural, engineering, and construction services measured $3 billion, an increase of 5 percent from 1995 (figure 3-22). This growth rate was substantially slower than the 18-percent average annual growth rate recorded during 1991-95.[145] By contrast, U.S. cross-border imports of AEC services rose by 44 percent to $489 million in 1996. This rate of increase was significantly higher than the 2-percent average annual growth rate in 1991-95 (despite declines experienced in 1992 and 1994), reflecting the record performance of the U.S. construction market in 1996. The resulting $2.5-billion surplus in cross-border AEC services trade remained unchanged from 1995, in sharp contrast to the 21-percent average annual growth rate of the surplus during 1991-95. This surplus represented 3 percent of the total U.S. cross-border services trade surplus in 1996.

Asia-Pacific nations remained the largest export markets for U.S. cross-border architectural, engineering, and construction services in 1996, although exports of such services to the region declined by 2 percent (figure 3-23). Exports to Indonesia and China continued to lead all other markets, despite falling 5 percent and 19 percent, respectively. Exports to Malaysia rose more rapidly than those to any major partner both by proportion and value (334 percent), placing Malaysia among the leading markets for U.S. exports of AEC services for the first time during 1991-96. Malaysia has undertaken numerous infrastructure and commercial projects in anticipation of the Commonwealth Games in 1998, and U.S. firms are involved in major works such as the Petronas Twin Towers and LRT transport system. Exports to Japan grew by 70 percent, which may reflect both an acceleration of activity in the construction and

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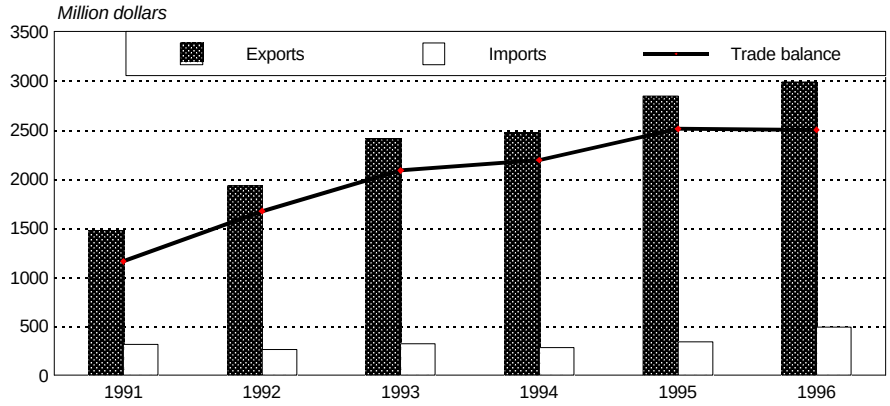
[144] BEA data on transactions between majority-owned affiliates of U.S. AEC firms and nonaffiliated firms are limited, in order to avoid disclosing confidential, proprietary information pertaining to individual firms. Nevertheless, in 1995, BEA estimated that sales of engineering, architectural, and surveying services solely by European affiliates of U.S. parents amounted to $5.2 billion surpassing U.S. cross-border exports to all foreign markets combined, which totaled $2.8 billion in the same year. USDOC, BEA, *Survey of Current Business*, Oct. 1997, pp. 108 and 137.

[145] Data pertaining to cross-border trade in architectural, engineering, and construction services reflect certain limitations. Data on U.S. exports are reported on a net basis (i.e., U.S. contractors' expenditures on merchandise and labor are excluded), whereas data on U.S. imports are reported on a gross basis. As a result, the U.S. surplus on the architectural, engineering, and construction services account is understated. In addition, data pertaining to architectural, engineering, and construction services also reflect trade in mining and surveying services, which inflates estimated trade volumes.

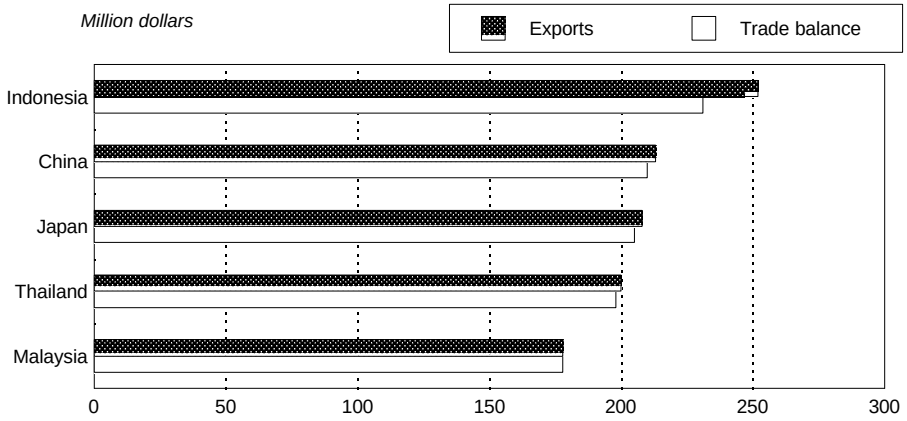
Figure 3-22
Architectural, engineering, and construction services:[1] U.S. cross-border exports, imports, and trade balance, 1991-96



[1] Data on U.S. exports are reported on a net basis (i.e., U.S. contractors' expenditures on merchandise and labor are excluded), whereas data on U.S. imports are reported on a gross basis. In addition, data pertaining to architectural, engineering, and construction services also reflect trade in mining and surveying services.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

Figure 3-23
Architectural, engineering, and construction services:[1] U.S. cross-border exports and trade balance, by major trading partners, 1996



[1] Data on U.S. exports are reported on a net basis (i.e., U.S. contractors' expenditures on merchandise and labor are excluded), whereas data on U.S. imports are reported on a gross basis. In addition, data pertaining to architectural, engineering, and construction services also reflect trade in mining and surveying services.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 135.

design services market and a realization of the expected benefits of Japan's "Action Plan on Reform of the Bidding and Contracting Procedures for Public Works," promulgated in 1994 to increase transparency and foreign access to Japan's public works industry.[146] By contrast, exports to Korea fell sharply, by 46 percent, to the lowest level since 1993. Given that the Korean construction market and related demand for U.S. technical design expertise have grown steadily,[147] the decline in cross-border exports may reflect increased sales of architectural, engineering, and construction services by U.S. affiliates,[148] as Korea fully opened its construction market to wholly-owned foreign commercial enterprises on January 1, 1996. Based on available data, Canada and the United Kingdom remained the top suppliers of U.S. cross-border imports of AEC services in 1996, followed by Australia and Indonesia.

Summary and Outlook

U.S. architectural, engineering, and construction firms are highly competitive and maintain a strong presence in the global marketplace. Data pertaining to the total value of contracts secured by AEC enterprises indicate that in 1996 U.S. firms' total foreign billings grew by nearly 20 percent to $23.8 billion, and 5 of the top 10 U.S. contractors received over 50 percent of their revenues from international work.[149] In addition, between 1995 and 1996, the number of U.S. contractors operating in overseas markets grew to 616 firms, an increase of 10 percent.[150] Growth in developing nations, U.S. firms' established record overseas, and the high level of demand for U.S. engineering, design, and technical skills are among the factors contributing to continued U.S. strength in international trade in architectural, engineering, and construction services.

U.S. firms face dynamic opportunities in the global market for AEC services. In some instances, restrictions on the participation of non-domestic firms in foreign construction markets are being lifted. For example, in 1996 Indonesia revoked the regulation which banned foreign contractors from operating without a local partner in Indonesia.[151] In early 1997, India announced automatic approval for joint ventures with up to 74-

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[146] "American Look Producing Work," *Engineering News-Record*, Dec. 2, 1996, p. 20, and USDOC, ITA, National Trade Data Bank, "Japan—Action Plan Construction Projects," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted July 1, 1997, retrieved Nov. 18, 1997.

[147] USDOC, ITA, National Trade Data Bank, "Korea—Architectural Services," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted Jan. 1, 1996, retrieved Dec. 10, 1997; and industry representative, interview by USITC staff, Seoul, Jan. 27, 1997.

[148] While recent data on the investment activities of U.S. architectural, engineering, and construction firms are not available, figures pertaining to total U.S. direct investment abroad in service industries as a whole show a 57-percent increase in investment in Korea between 1995-96. USDOC, BEA, *Survey of Current Business*, July 1997, p. 36.

[149] U.S. firms are most active in the markets of Europe, Asia, and the Middle East with international revenues of approximately $6.6 billion, $5.5 billion, $4.2 billion, respectively. "The Top 400 Contractors," *Engineering News-Record*, May 26, 1997, pp. 54 and 64.

[150] "The Top 400 Contractors," *Engineering News-Record*, May 26, 1997, p. 101, and "The Top 400 Contractors," *Engineering News-Record*, May 20, 1996, p. 87.

[151] USDOC, ITA, National Trade Data Bank, "Indonesia-Construction Industry Trends," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted Aug. 20, 1997, retrieved Oct. 15, 1997.

percent foreign equity in the field of construction in response to that nation's extensive building needs.[152] In addition, the AEC services industry has seen progress on mutual recognition agreements and multinational accords that will make it easier for U.S. architects and engineers to operate in foreign countries with their U.S.-based credentials. Increased global foreign direct investment flows[153] benefit U.S. contractors as well, as international corporations tend to hire experienced multinational firms to design and construct their overseas operations. Finally, the tradition of financing from international institutions such as the World Bank ensures that large scale development projects are subject to nondiscriminatory international bidding procedures, a concern for international contractors who find that preferential treatment and local influence are often determinants in public procurement.[154]

U.S. AEC firms confront myriad challenges as well, including persistent restrictions on market access and commercial presence in many nations. Several countries continue to limit foreign equity participation in joint ventures to less than 50 percent, leaving foreign partners with limited control over such enterprises. China in particular, with projections of 10- to 13-percent growth in the construction industry for the next 3 to 5 years, has designated the construction sector a "pillar industry" in the hopes of building up national firms' strengths in this sector. For purposes of technology transfer, foreign providers of AEC services are required to establish joint ventures with Chinese partners, and foreign firms are permitted to bid only on a small percentage of China's numerous construction projects.[155] Currency fluctuations and financial policies also concern U.S. firms seeking international tender. For example, the devaluation of the Thai baht caused construction costs to rise for certain companies operating in Thailand and spurred subsequent currency depreciations and reduced bank lending in some neighboring nations.[156] Such financial disturbances, coupled with certain foreign governments' contractionary fiscal policies, have led to the postponement or delay of projects, as in Indonesia, where a number of national infrastructure projects, several with U.S. participation, were put on hold to reduce Indonesia's current account deficit.[157]

A new trend in the AEC services industry involves competitive financing, as AEC firms are discovering that to procure work, a company must first secure the necessary capital to bring projects to fruition. An increasing number of firms have turned to the build operate transfer (BOT) method of finance as a competitive tool in international bidding. Under such arrangements, a developer builds and operates a project long enough to

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[152] "Indian Government Plans to Deepen Economic Reforms," Comtex Scientific Corp., received by NewsEDGE/Lan, Jan. 15, 1997.

[153] "The Top 225 International Contractors," *Engineering News-Record*, Aug. 25, 1997, p. 38.

[154] Industry representatives, interviews by USITC staff, Kuala Lumpur, Malaysia and Jakarta, Indonesia, Feb. 19-21, 1997.

[155] USDOC, ITA, National Trade Data Bank, "China-Construction & Engineering Services," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted July 1, 1997, retrieved Oct. 15, 1997.

[156] "Hopewell Warns on Rising Costs of Bangkok Project," Financial Times Limited, found at Internet address http://www.newsedge/, posted and retrieved July 21, 1997, and "The Top 225 International Contractors," *Engineering News-Record*, Aug. 25, 1997, p. 40.

[157] U.S. Department of State telegrams, No. 5699, "Indonesia Announces Project Delays in Effort to Improve Current Account Deficit," prepared by U.S. Embassy, Jakarta, Sept. 26, 1997, and No. 5706, "Indonesian Power Projects Facing Review," Sept. 26, 1997.

regain construction costs and turn a profit before transferring the operation to state ownership. For developing nations such as Zimbabwe, whose government recently announced that it will increase the number of BOT projects, and Turkey, where legislation was passed to encourage the use of BOT financing, such arrangements help to attract the necessary private funds for infrastructure projects.[158] BOT funding, already established in many Asian countries, is in the early stages in China, which began construction of its first BOT-funded project in September 1997.[159] An additional example of building financial strength to generate projects is seen in the formation of a global energy infrastructure fund by Bechtel Inc. and M.W. Kellogg, along with two other major investors. Each participant will contribute $200 million to the fund, which is expected to grow to $1 billion in assets for investment in energy, petrochemical, and related infrastructure projects in Asia and Latin America.[160]

Competition in the global AEC services industry is fierce, with the emergence of new sources of competition from developing nations eager to extend their domestic experience to the international level. China, for example, has found success in Africa, having procured the $526-million rehabilitation project for the Nigerian railway, in addition to participation in that country's housing sector.[161] China has also signed letters of intent for the construction of industrial plants in Argentina.[162] Malaysian firms, in addition to forming partnerships in South Africa and the Middle East, have created a 12-member consortium to take part in rebuilding Bosnia-Herzegovina.[163] Similarly, Indonesian and Brazilian firms are active in providing AEC services in neighboring countries. It is in the home markets, however, where locally-owned firms pose a far greater challenge to U.S. service providers. In China, 11,000 local design firms and over 94,000 experienced construction enterprises compete against U.S. and other non-Chinese interests, which are allowed access to a limited number of internationally funded projects or projects for which the domestic industry lacks technology, experience, or personnel.[164] In Indonesia, Malaysia, and Thailand, U.S. firms find that local companies often have the upper hand in winning large contracts

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[158] "Zimbabwe Construction Boom Expected," Comtex Scientific Corp., found at Internet address http://www.newsedge/, posted Sept. 11, 1997, retrieved Sept. 16, 1997, and "Turkey Power Plant Go-ahead," Financial Times Limited, found at Internet address http://www.newsedge/, posted July 21, 1997, retrieved July 24, 1997.

[159] "Reform in China," *Infrastructure Finance*, May 1997, p. 93, and "China: Domestic Digest," Chamber World Network, found at Internet address http://www.newsedge/, posted Sept. 8, 1997, retrieved Sept. 10, 1997.

[160] "BE&K and Bechtel Team Up to Hunt International Jobs," *Engineering News-Record*, Feb. 10, 1997, p. 7, and "The Top 400 Contractors," *Engineering News-Record*, May 26, 1997, p. 104.

[161] "Chinese Start Full-Scale Repair of Nigerian Railway," Comtex Scientific Corp., found at Internet address http://www.newsedge/, posted June 26, 1997, retrieved June 27, 1997, and "Li Peng's Visit Spotlights Burgeoning Sino-Nigerian Friendship," Comtex Scientific Corporation, received by NewsEDGE/Lan, May 10, 1997.

[162] "Chinese, Argentine Firms Sign Agreements," Comtex Scientific Corp., received by NewsEDGE/Lan, May 16, 1997.

[163] "Consortium to Help Rebuild Bosnia," New Straits Times Press, Chamber World Network, found at Internet address http://www.newsedge/, posted Aug. 13, 1997, retrieved Aug. 14, 1997.

[164] USDOC, ITA, National Trade Data Base, "China-Construction & Engineering Services," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted July 1, 1997, retrieved Oct. 15, 1997.

and public works.[165] However, U.S. firms enjoy an excellent reputation in these markets and large U.S. enterprises such as Bechtel, Fluor Daniel, Brown & Root, and Black & Veatch have captured a substantial share of the available market.[166]

As in the past, U.S. service providers can expect the strongest competition from Europe, especially Germany, whose construction market, where one-third of total European construction occurs,[167] has been in a persistent recession. In Asia, U.S. providers of architectural, engineering, and construction services face an increasing competitive challenge from Japanese and Korean firms who enjoy the advantages of proximity and familiarity with the local business environment.[168] In 1996, international billings in Asia totaled $42.5 billion. Of this figure, Japan captured 40 percent or $17 billion in contracting revenues, followed by the United States and Korea with 13 percent or $5.5 billion, and 10 percent or $4.1 billion, respectively.[169] Japan has also demonstrated the ability to provide substantial loans and aid to Asian nations including the Philippines, Indonesia, and Thailand through agents such as the Overseas Economic Cooperation Fund (OECF) and private banks. Japanese engineering firms and contractors have participated in many of the infrastructure projects funded by these agencies.

Despite the challenges faced by architectural, engineering, and construction firms abroad, the massive power, infrastructure, and industrial demands of developing nations present U.S. firms with a wealth of export potential. Asia, traditionally the largest foreign market for AEC services, demonstrates the greatest need particularly in the power sector as the Asia-Pacific region is expected to add more than 1.5 million megawatts in capacity by 2020.[170] China, Indonesia, and Malaysia require an estimated $1 trillion in infrastructure, and China alone has indicated plans for the construction of 200 new airports, 230 new cities, 110,000 km of highways, and an annual $25 billion in housing by 2000.[171] At present, however, U.S. design and construction firms face an immediate challenge with Asia's recent economic crisis. Currency devaluations have led to a drop in selective Asian economies' construction

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[165] Industry representatives, interviews by USITC staff, Malaysia, Indonesia, and Singapore, Feb. 19-21, and Feb. 24, 1997.

[166] Ibid.; "Architects or Growth," *Export Today*, Mar. 1997, pp. 62-65; and USDOC, ITA, National Trade Data Base, "China-Construction & Engineering Services," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted July 1, 1997, retrieved Oct. 15, 1997.

[167] "Germany Predicts Construction Upturn," *International Construction*, Aug. 1997, p. 45.

[168] Industry representative, interview with USITC staff, Jakarta, Indonesia, Feb. 20, 1997, and USDOC, ITA, National Trade Data Base, "China-Construction & Engineering Services," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted July 1, 1997, retrieved Oct. 15, 1997.

[169] "The Top 225 International Contractors," *Engineering News-Record*, Aug. 25, 1997, pp. 38-39.

[170] "U.S. Market Dips, Global Grows," *Engineering News-Record*, Apr. 14, 1997, p. 32.

[171] USDOC, ITA, National Trade Data Base, "China-Construction & Engineering Services," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted July 1, 1997, retrieved Oct. 15, 1997; "China: More Foreign Capital Used to Speed Up Highway Construction," *Beijing Review*, Chamber World Network, found at Internet address http://www.newsedge/, posted July 22, 1997, retrieved July 24, 1997; and "Airport Construction Flies High Worldwide," *Engineering News-Record*, p. H-23.

lending and increased prices of imported building materials and other inputs. More important, the Asian economies hit hardest by the crisis, including Thailand, Indonesia, and Korea, have been forced to postpone or cancel significant public works projects, some with U.S. participation, and U.S. firms anticipate future delays in many Asian infrastructure projects.[172] At the same time, projects with foreign funding are proceeding,[173] and many firms are optimistic that in the next 1 to 3 years many of the canceled projects will resurface as the region's financial difficulties subside.[174] In addition, weakened Asian AEC firms may seek foreign partners for financial and technical assistance,[175] thus giving U.S. firms an expanded opportunity to participate in future overseas projects.

The Latin American region has drawn renewed interest from U.S. design and construction firms. Bechtel, for example, hopes to increase its Latin American business from 7 percent to 25 percent of revenues,[176] and has established a new office in Sao Paulo with the intent of making Brazil its largest market in Latin America.[177] Other U.S.-based AEC firms have won power and industrial contracts in the region and see further opportunities, particularly in Argentina, Brazil, and Chile.[178] With respect to Europe, the size of the total market means that even a low percentage of overall growth translates into several new projects.[179] The European construction industry is expected to grow by 1.5 percent in 1998, with best opportunities in the private and non-residential markets. In addition, Germany plans to boost economic activity with nearly $15 billion in subsidized loans available for infrastructure-related construction work.[180] In short, U.S. architectural, engineering, and construction firms face promising opportunities in most overseas markets, and the level of U.S. exports of AEC services should continue to rise. This, in conjunction with the tradition of relatively low imports and expectations of slow growth in the U.S. construction market in the ensuing years, should perpetuate the favorable U.S. balance of trade in AEC services.

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[172] Gary Tulacz, "Construction Firms Squeezed by Asian Economic Meltdown," *Engineering-News Record*, Oct. 20, 1997, p. 16, and Don Lee, "Asia's Economic Crisis Expected to Curb State Growth," *Los Angeles Times*, Dec. 17, 1997, p. A36.

[173] "Some Big Projects Continue Skyward in Thai Capital," Knight-Ridder/Tribune Business News, found at Internet address http://www.newsedge.co, posted Jan. 25, 1998, retrieved Feb. 2, 1998.

[174] Tulacz, "Construction Firms Squeezed," p. 16.

[175] "Impact of the Economic Downturn on Major Projects in Korea," U.S. Department of State, unclassified cable 000329, Seoul, Korea, Jan. 1998.

[176] "Bumpy Start for Market Giant," *Engineering News-Record*, Dec. 15, 1997, p. 32.

[177] "Bechtel Opens up Office at Sao Paulo," Comtex Scientific Corporation, received by NewsEDGE/Lan, Apr. 23, 1997.

[178] "South America: Inflation Scourge Cured," *Engineering News-Record*, Dec. 22, 1997, pp. 44-45; and "It's High-Level Growth for Chile," *Engineering News-Record*, Dec. 15, 1997, pp. 26-29.

[179] "The Top 400 Contractors," *Engineering News-Record*, May 26, 1997, p. 104.

[180] "European Upturn Predicted," *International Construction*, Aug. 1997, p. 6, and "Germany Revs Up Loan Activity," *Engineering News-Record*, Mar. 31, 1997, p. 9.

Computer and Data Processing Services

Introduction

Computer and data processing services include computer systems analysis, design, and engineering; custom software and programming services; rights to use, reproduce, or distribute customized and prepackaged computer software, including master copies and electronically transmitted software; computer leasing;[181] systems integration services; data entry, processing, and tabulation; and other computer-related services such as computer timesharing, maintenance, and repair.[182]

In 1996, the U.S. computer and data processing industry experienced continued revenue growth, aided by a steadily expanding domestic economy and a growing international market for services relating to information technology (IT).[183] U.S. firms sell computer and data processing services in foreign markets primarily through foreign-based affiliates. However, cross-border trade is increasing as advances in electronic transmission technologies enable firms to provide computer and data processing services from remote locations.[184] Computer and data processing services most often delivered to foreign clients include systems integration,[185] outsourcing,[186] and custom programming.[187]

Recent Trends

Cross-Border Trade, 1991-96

U.S. cross-border trade in computer and data processing services reversed direction and recorded declines in both exports and imports in 1996. U.S. exports decreased by approximately 2 percent to $3.1 billion, well below the 17-percent average annual growth rate experienced during 1991-95 (figure 3-24). A slow fourth quarter 1996 for

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[181] Data pertaining to computer leasing do not reflect financing fees.

[182] This service category excludes prepackaged software shipped to or from the United States and included in U.S. merchandise trade statistics. USDOC, BEA, *Instructions to BE-22 Survey*, OMB form No. 0608-0060, July 20, 1995.

[183] IT services involve a broad scope of activities related to the design, installation, and operation of business information, computer, and communications systems.

[184] Computer and data processing services are well suited for cross-border trade as network transmission is often an integral part of their design and implementation. As global networks continue to improve, telecommunication traffic is increasingly distance-insensitive, meaning that a deliverable may be transmitted across the Atlantic as easily as across the office.

[185] Systems integration comprises the development, operation, training, and maintenance of seamless companywide computer networks. Tasks are wide-ranging and involve all phases of systems design, including planning, coordinating, testing, and scheduling of projects; analysis and recommendation of hardware and software; system installation; software customization; and end-user training.

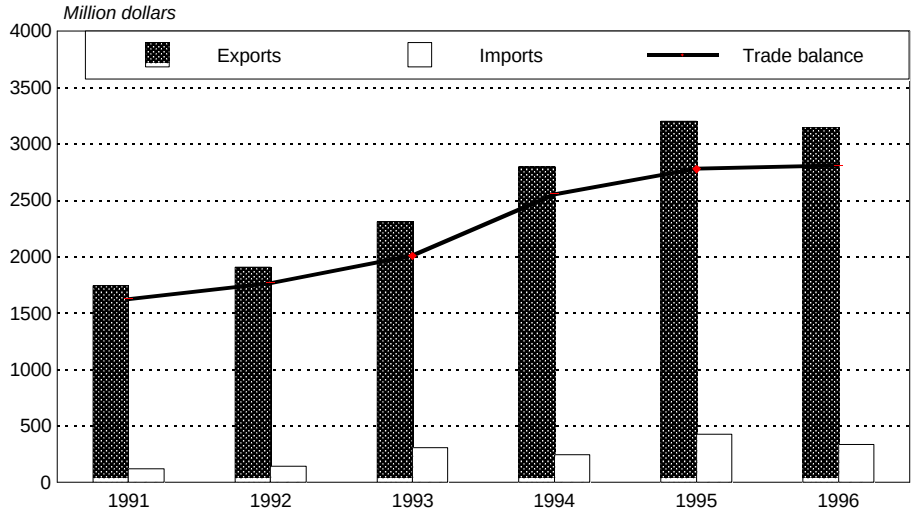
[186] Outsourcing describes the practice of contracting out internal functions, ranging from low-skill services such as data entry to more important functions such as managing a company's telecommunication and computer networks.

[187] Custom programmers create or modify software to perform tasks that are unique to client companies.

Electronic Data Systems (EDS), a leading provider of computer and data processing services,[188] may have contributed to the overall decline in U.S. exports.[189] U.S. imports fell by 21 percent to $334 million, sharply below the 38-percent average annual increase during 1991-95 (despite the decline experienced in 1994). The steeper rate of decline in imports relative to exports in 1996 produced a slight 1-percent increase in the computer and data processing services trade surplus. This was significantly slower than the 14-percent average annual growth rate seen during 1991-95.

With regard to computer and data processing services, Japan, the United Kingdom, Canada, and Germany were the leading cross-border trading partners of the United States in 1996 (figure 3-25). Exports to these four countries accounted for 46 percent of total U.S. exports of computer and data processing services. Japan, the largest market for such services, accounted for 16 percent of U.S. exports. Available data suggest that Japan, the United Kingdom, Canada, and Germany were also the predominant suppliers of computer and data processing services to the United States in 1996. These trade patterns are very similar to those experienced in 1995, when the four economies accounted for more than one-third of U.S. imports.

Figure 3-24
Computer and data processing services: U.S. cross-border exports, imports, and trade balance, 1991-96

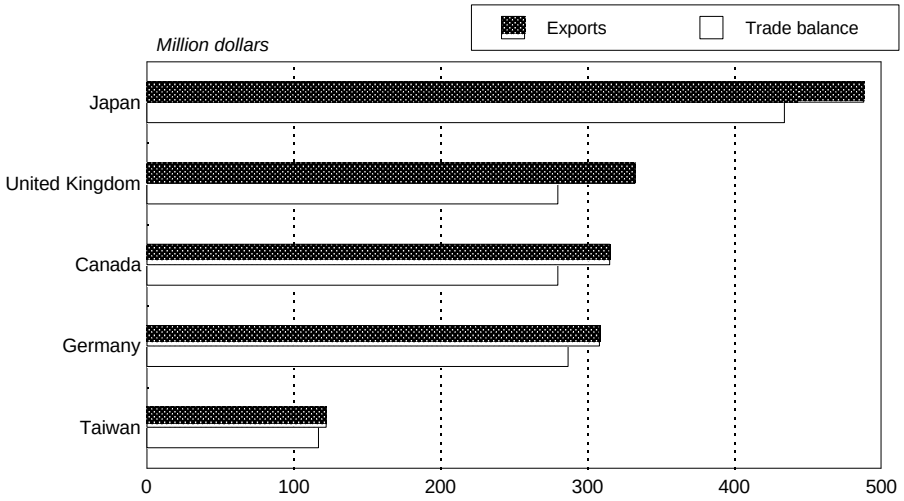


Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

[188] EDS is reportedly the largest company listed under SIC 7374 (data processing and preparation), having revenue of approximately $12 billion in 1996. Second largest is First Data Corp. with 1996 revenues of $4.2 billion. Automatic Data Processing Inc. (ADP) ranks third in this listing, with revenue totaling $3.6 billion. Computer Sciences Corp. (CSC) is the largest vendor listed under SIC 7373 (computer integrated systems design), with about $4 billion in revenue in 1996. *Wards Business Directory of U.S. Private and Public Companies — Vol. 5: Ranked by Sales within 4-digit SIC* (Detroit, MI: Gale Research, 1997), pp. 907 and 912.

[189] Electronic Data Systems Corp., *Form 10-K: Annual Report*, filed Mar. 6, 1997, found at Internet address http://www.sec.gov/, retrieved Nov. 6, 1997.

Figure 3-25
Computer and data processing services: U.S. cross-border exports and trade balance, by major trading partners, 1996



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 135.

Affiliate Transactions, 1991-95

In 1995, U.S. sales of computer and data processing services through foreign-based affiliates totaled $22.7 billion, accounting for 12 percent of total U.S. sales through foreign affiliates. U.S. sales rose by 21 percent, slightly below the 24-percent average annual growth rate during 1991-94 (figure 3-26). U.S. purchases of such services from U.S.-based affiliates of foreign firms increased by 11 percent, to $3.5 billion. During 1991-94, U.S. purchases had increased much faster, at an average annual growth rate of 22 percent. Yet, U.S. demand for certain computer services was strong enough to lure vendors based overseas, such as Cap Gemini, Logica, Origin, and Sema, to establish additional operations in the U.S. market.[190] As the growth rate of U.S. sales of computer and data processing services nearly doubled that of purchases in 1995, the U.S. surplus on affiliate transactions continued to widen, reaching $19.2 billion. Data limitations preclude a meaningful discussion of country-specific affiliate activity.[191]

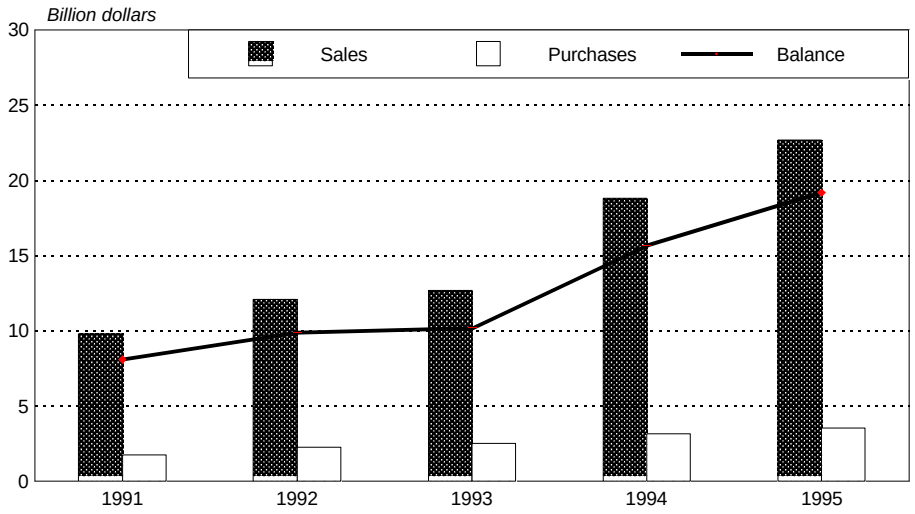
U.S. firms believe that the European market is set for expansion and have increasingly devoted resources to tap the market. Overall, the investments have paid off, due in part to a strong demand for outsourcing and systems integration — two service segments

[190] Bruce Caldwell and Marianne K. McGee, "Surge In Services -- Year 2000, Labor Shortages, and Profitability Goals Drive Services Demand," *InformationWeek,* Jan. 5, 1998, Issue: 663, found at Internet address http://www.techweb.com/, retrieved Jan. 7, 1998.

[191] To avoid disclosing the operations of individual companies, BEA suppressed much of the country-specific data regarding affiliate transactions.

dominated by the U.S. industry.[192] In fiscal years 1995 and 1996, CSC's U.S. commercial revenue,[193] as a percentage of the company's global commercial revenue, decreased from 60 percent to 56 percent, while European commercial revenue increased from 29 percent to 35 percent.[194] In 1996, EDS's European revenue increased by 34 percent, while U.S. revenue increased by 14 percent.[195] ADP has also targeted its European operations for expansion either through acquisitions, alliances, or commercial presence.

Figure 3-26
Computer and data processing services transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138.

Summary and Outlook

Although U.S. cross-border exports of computer and data processing services slowed in 1996, sales by foreign-based affiliates of U.S. firms, which account for the bulk of U.S. exports, recorded strong gains as many U.S. affiliates continued to generate revenue at near record levels. At the end of March 1996, revenue from services

[192] In 1996, outsourcing services and systems integration services grew across Europe by 22 and 13 percent, respectively, out pacing growth registered by sales of software and related computer-based products. Douglas Hayward, "Euro Service Sales Boom, Software Lags," *TechWire*, Mar. 3, 1997, found at Internet address http://www.techwire.com/, retrieved Nov. 20, 1997.

[193] Revenue derived from the U.S. Federal Government is excluded.

[194] Computer Sciences Corp., *Form 10-K/A: Annual Report*, filed June 26, 1997, found at Internet address http://www.sec.gov/, retrieved Nov. 6, 1997.

[195] *1996 EDS Annual Report*.

surpassed revenue from software for the first time in IBM's history, reflecting strong growth in the outsourcing and systems integration markets.[196] In recent years, expanding economies throughout the world have generated demand for U.S. data processing services such as payroll processing and human resource services, as well as for specialized services such as those needed by the banking and insurance industries. Also, the continued rise of multinational corporations has made global integration of computer systems and operations a growth area for U.S. computer and data processing firms. For example, CSC, a major systems integrator and outsourcing vendor, saw its international revenue rise from 25 percent to 30 percent of total company revenue in 1996. The growth was primarily due to acquisition activity in France, where the company is establishing a wider presence.[197] During 1996, EDS's non-General Motors (GM) international revenue, excluding Europe, increased by 22 percent, due to new contracts in the Asia-Pacific region and Canada, and higher income from business acquisitions in New Zealand.[198]

The United States leads the world in the provision and consumption of computer and data processing services.[199] Although the U.S. market for computer and data processing services is the world's largest, it is also fiercely competitive and, therefore, major overseas business markets such as Europe often offer greater expansion opportunities. Success in the global computer services industry is primarily based on a firm's ability to deliver a competitively priced product, on time, that incorporates superior strategic concepts and technical ability. U.S. service providers are well positioned to compete effectively in the global marketplace due to their broad international market presence, which places them in proximity to clients and enhances their on-time performance, and substantial and diverse technical expertise. Furthermore, a significant portion of the hardware and software used in business applications worldwide originates in the United States, often from the same firms that provide computer and data processing services. Such proximity to rapidly changing developments in the hardware and software industries permits U.S. service vendors to respond quickly to clients' demands and anticipate future needs in both the domestic and foreign markets. Priorities of the newest technologies include integrating disparate systems, streamlining business processes, reducing costs, or improving network connectivity.

U.S. providers of computer and data processing services believe international revenues will increase significantly in the coming years, spurred by the global demand for company-wide information systems, implementation support, and outsourced business functions.[200] The U.S. industry, generally regarded as the leader in supplying

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[196] Cheryl Gerber, "Why is IBM First in Services?" *Datamation* (Newton, MA: Cahners Publishing Co., July 1996), p. 37.

[197] In 1996, CSC's international revenue grew at a faster rate than the healthy rise in domestic revenue. The international increase also came from acquisition of majority equity interests of Danish IT service providers, growth in Australian affiliate operations, and growth in the firm's international outsourcing and systems integration activities, especially in Germany. *CSC Annual Report*.

[198] *1996 EDS Annual Report.*

[199] A recent worldwide survey indicates that 8 of the top 10 information technology companies are U.S.-owned firms. *Datamation*, July 1997, p. 73.

[200] Industry representative, interview by USITC staff, Washington, DC, Nov. 4, 1997.

multinational computer and data processing applications, will also benefit from the increasing need for services and systems that provide global integration. Currently, important industry issues and opportunities include the "Year 2000 Problem" (Y2K)[201] and the proliferation of intranets and the Internet.[202] Also, a significant industry trend is the convergence of complementary market segments such as computer hardware, software, and telecommunications. Such alliances allow companies to integrate previously disparate technologies, thereby increasing the depth and breadth of the firms' delivery of products and services.[203]

Europe likely will continue to be a major source of opportunity for U.S. firms, as European businesses have traditionally relied heavily upon U.S.-owned computer and data processing services.[204] Where European information technology vendors have made gains, the U.S. industry is reportedly likely to respond by acquiring the competitors or by quickly developing expertise in the discipline and then adding it to their service portfolio.[205]

Health Care Services

Introduction

For the purposes of this report, health care services include those performed by hospitals and hospital chains; offices and clinics of medical doctors and other health care professionals; nursing homes and other long-term health care providers; rehabilitation facilities; home health care providers; certain health maintenance organizations (HMOs);[206] medical and dental laboratories; kidney dialysis centers; and

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[201] Y2K is a legacy of a widely practiced computer programming shortcut. Many date-dependent applications use only the last two digits of the year and therefore will not be able to distinguish between, for example, the year 2001 and 1901. Although a potentially massive problem for computer users, the Y2K presents computer software and services vendors with significant opportunity — worldwide repair estimates range from $200 billion to more than $500 billion. A specific example is the U.S. Office of Management and Budget's (OMB) plan to make government systems year 2000-compliant by January 1999 at an estimated cost of $2.3 billion. Bob Violino, "Federal Government Estimates Year 2000 Effort To Cost $2.3 Billion," *InformationWeek*, Feb. 10, 1997, TechWeb News, found at Internet address http://www.techweb.com/, retrieved Nov. 19, 1997.

[202] Projects related to networks, including network outsourcing and value-added network (VAN) services, provide the U.S. industry with significant opportunity. Furthermore, as Internet and intranet development continues, new needs are realized, such as the need for security products including firewalls, authentication, and encryption.

[203] *U.S. Industry and Trade Outlook '98*, chapter on information services.

[204] IBM is the largest supplier of information technology services in Europe and one of the 20 U.S.-owned firms included in the market's top 50 IT suppliers. In 1992, only 12 of the top 50 suppliers were U.S.-owned. Douglas Hayward, "Euro Service Sales Boom, Software Lags," *TechWire, TechWeb News*, Mar. 10, 1997, found at Internet address http://www.techweb.com/, retrieved on Nov. 14, 1997.

[205] ADP has developed a lucrative practice area that provides expertise in the German SAP database system.

[206] Includes health maintenance organizations (HMOs) and similar organizations engaged in providing medical or other health care services to members. However, health care

(continued...)

specialty outpatient facilities. U.S. health professionals provide services to foreign patients through cross-border transactions and affiliates established in foreign markets. Cross-border trade in this sector primarily consists of the treatment of citizens of one country by health care providers in another country.[207] Trade through affiliates includes health care services provided to persons in their home countries by affiliates of foreign-based health care companies.[208] In recent years, cross-border transactions have accounted for the greatest portion of U.S. exports of health care services, while affiliate transactions have accounted for most U.S. purchases.

Recent Trends

Cross-Border Trade, 1991-96

In 1996, U.S. cross-border exports of health care services amounted to $872 million, representing a 4-percent increase over the previous year's exports. Such growth was 2 percentage points less than the average annual export growth rate of nearly 6 percent for health care services during 1991-95 (figure 3-27). U.S. cross-border imports of health care services amounted to an estimated $550 million in 1996,[209] representing a 5-percent increase from 1995, compared to the 8-percent average annual rate of increase of cross-border imports during 1991-95. U.S. exports and imports of health care services accounted for less than 1 percent of such cross-border trade in all service industries in 1996. The U.S. cross-border trade surplus in health care services amounted to $322 million in 1996, increasing at the same 2-percent rate over the previous year as was recorded on average during 1991-95.

Canada remained the leading export market for U.S. health care services in 1996, accounting for an estimated one-half of the total.[210] Other leading markets for U.S. cross-border exports of health care services were the United Kingdom, Germany, Mexico, Australia, and Japan.[211]

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[206] (...continued)
services do not include HMOs that limit services to the provision of insurance for hospitalization or medical costs.

[207] Cross-border exports largely consist of the treatment of foreign persons in the United States by hospitals, clinics, medical doctors, and other health care service professionals. Cross-border imports comprise the treatment of U.S. citizens overseas by foreign health care service providers.

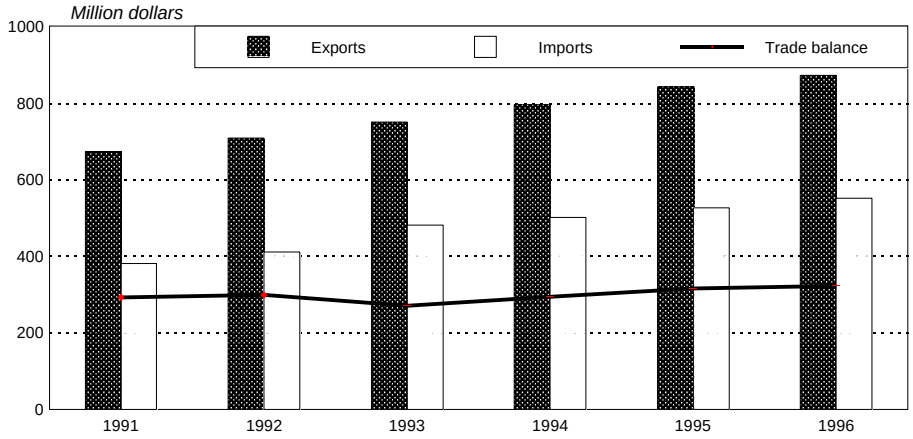
[208] Trade through affiliates includes health care services provided to foreign persons by majority-owned, foreign-based affiliates of U.S. health care service providers, and to U.S. persons by majority-owned, U.S.-based affiliates of foreign health care service providers.

[209] USITC staff estimate, based on information provided by U.S. industry representatives and BEA official, telephone interviews by USITC staff, Nov. 12-18, 1997.

[210] U.S. hospital officials, telephone interviews by USITC staff, Oct. 27-29, 1997.

[211] Ibid.

Figure 3-27
Health care services: U.S. cross-border exports, imports, and trade balance, 1991-96



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 108 for U.S. exports; and USITC staff estimates for imports and trade balance.

Affiliate Transactions, 1991-95

Sales by foreign-based affiliates of U.S. health care service companies amounted to $469 million in 1995 (figure 3-28). This represented a 1-percent decrease in such sales from 1994, contrasting with 17-percent average annual growth during 1991-94. Much of the decline in 1995 reflected the sale by a major U.S.-based hospital chain of a group of hospitals it owned in Singapore and Malaysia.[212] However, foreign-based affilate sales of U.S. firms increased in some overseas markets. For example, British-based affiliate sales of U.S. health care firms almost doubled with the acquisition of additional hospitals in the United Kingdom by a major U.S. psychiatric hospital company.[213] U.S. purchases through U.S.-based affiliates of foreign health care companies amounted to $1.8 billion in 1995, representing a 10-percent increase over the previous year. This contrasted with a 7-percent average annual rate of decline during 1991-94, but closely mirrored the most recent upward trend.[214] The German-owned hospital company, Paracelsus, continued to increase its U.S. market share with the acquisition of several hospitals on the West Coast. Meanwhile, revenue increased for a chain of outpatient medical and surgical care facilities purchased by a French

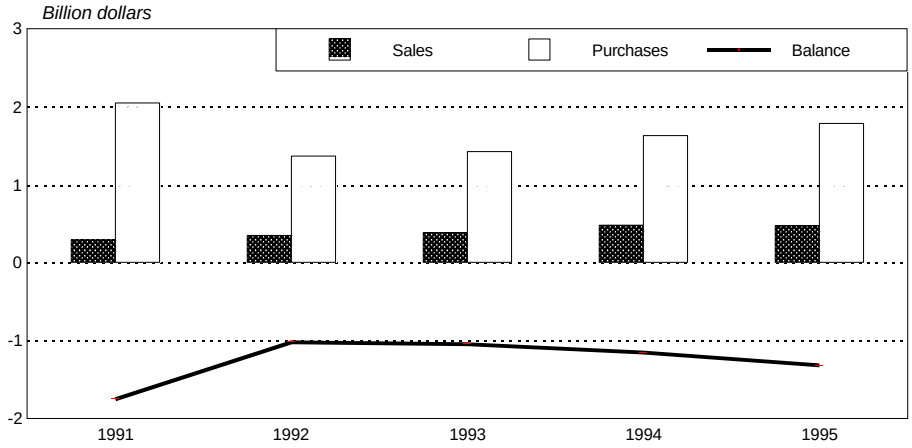
[212] U.S. hospital company, telephone interview by USITC staff, Nov. 18, 1997.

[213] These U.S.-owned affiliates were subsequently sold in 1996, as the U.S. hospital company exited the foreign market to focus on restructuring of its operations in the U.S. market. Community Psychiatric Centers, "Third Quarter Results Reflect Gain on Sale of UK Operations," press release, Oct. 1, 1996.

[214] Following a sharp 33-percent decline in U.S. purchases in 1992 from 1991, U.S. purchases increased by an average annual rate of 9 percent during 1992-94.

company in the Midwest.[215] Increased U.S. purchases through U.S.-based affiliates in the health care services industry were also attributed to Japanese and Australian investments in the U.S. hospital and nursing care sectors.[216] Affiliate transactions in health care services in 1995, both sales and purchases, accounted for less than 1 percent of such transactions in all service industries.

Figure 3-28
Health care services transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138.

Summary and Outlook

The decline in growth rates in both U.S. cross-border exports and imports of health care services in 1996 reflected efforts in the United States and its major trading partners to contain rapidly escalating health care costs. In the United States, these efforts were about equally divided between U.S. Government administrators of health care programs such as Medicare and Medicaid, and private-sector insurers. Similar factors were at play in major foreign markets; however, cost-containment efforts abroad were primarily undertaken by governments attempting to gain control over rapidly increasing public-sector expenditures.[217]

Although sales by foreign-based affiliates of U.S. companies decreased in 1995, there was an increase in U.S. health care purchases from U.S.-based affiliates of foreign firms. However, the increase in U.S. purchases was at least partly attributable to increased revenue resulting from the foreign acquisition of U.S. health care facilities

[215] U.S. health care investment analysts, interviews by USITC staff, New York, NY, Sept. 25-26, 1997.
[216] Ibid.
[217] European health care industry representatives, telephone interviews by USITC staff, Oct. 15-16, 1997.

in the outpatient medical and surgical care segment of the market.[218] The outpatient care sector is currently in favor among health insurance firms and major employers that pay most health care costs, due to its proven ability to reduce costs of treatments traditionally performed in more expensive hospital inpatient settings.

Historically, health care services in most foreign countries have largely been the responsibility of the public sector. This has made it difficult for U.S. private-sector health care providers to market in foreign countries many of the innovative concepts developed in the U.S. market in recent years, such as for-profit hospital and nursing home chains, outpatient surgery centers, free-standing diagnostic centers, health-maintenance-organizations, and other managed care delivery systems.[219] This difficulty has occurred despite the fact that the competition and innovation engendered in the more dynamic U.S. health care system is recognized as having slowed the rate of growth in health care costs[220] in the United States, especially in the past several years.

However, there are several emerging global trends that could benefit U.S. health care service suppliers in overseas markets. One of these is the rapid growth in health care expenditures in a large number of countries. Rapidly expanding health care expenditures in many developed countries, such as Canada, Germany, and Japan, are due to an increase in their aged populations, the demographic segment that uses health care services most intensively. Meanwhile, increased health expenditures in rapidly developing economies such as Singapore, Thailand, Malaysia, Argentina, and Brazil are occurring as newly emerging middle classes demand the levels of health care previously enjoyed only in more developed economies, such as the United States and Western Europe. These increasing health care demands are occurring at the same time that many of these countries are attempting to gain control over rising health care expenditures, another major global trend.

To contend with these conflicting demands, a number of countries are either undertaking or contemplating reform of their health care systems. Many of these reform efforts include privatization of public health care systems, or some level of private sector financing and supply of health care services. In Japan, for instance, aging of the population is proceeding faster than in other countries and, consequently, the government has recognized the need for cost-containment measures.[221] Although profit-making companies may still encounter significant legal obstacles to establishing and providing medical treatment in Japan, government promotion of deregulation, health care reform, and planned introduction of social insurance for long-term care in

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[218] U.S. health care investment analysts, interviews by USITC staff, New York, NY, Sept. 25-26, 1997.

[219] U.S. health care industry representatives, personal and telephone interviews by USITC staff, May-July 1996 and Oct.-Nov. 1997.

[220] In 1993, the United States spent $884.2 billion on health care, an 8-percent increase from 1992. This spending growth was among the lowest rates of growth recorded since 1960. Similar growth rates were recorded in both 1994-96. Katherine R. Levit, Cathy A. Cowan, Helen C. Lasenby, Patricia A. McDonnell, Arthur L. Sensenig, Jean M. Stiller, and Darleen K. Won, "National Health Spending Trends, 1960-1993," *Health Affairs*, Winter 1994; and Chief, National Health Expenditures Branch, Office of National Health Statistics, Health Care Financing Administration, telephone interview by USITC staff, Dec. 3, 1996.

[221] Saburo Kimura, Japan Health Care Services, *Market Research Reports*, USDOC, Apr. 1, 1997, pp. 1-12.

the year 2000, should accelerate expansion of the Japanese health care services market and business opportunities for U.S. companies to participate.[222] One U.S. company that has already had a measure of success in Japan is Beverly Enterprises, the largest nursing home chain in the United States. Beverly operates Japanese nursing care facilities through joint ventures and contractual relationships with Japanese private-sector and government social welfare organizations.[223] Other U.S. health care service companies recently initiating Japanese ventures include Caremark, Inc., ServiceMaster, and Marriott Corp.

In Germany, the increasing impact of health care costs on federal and state budgets has, thus far, led to enactment of cost-containment measures in public-owned hospitals. However, a debate about the privatization of health care continues.[224] The effectiveness of the U.S. private-sector model with regard to cost-cutting is widely recognized even by its critics in Germany. However, opposition is strong, especially from the political left, which fears that purely economic considerations might conflict with the best interests of patients.[225] However, total expenditures on health care costs have reached over 10 percent of German GDP, and are rising three times faster than general wages, increasing pressure from workers and their employers for the government to consider more private-sector involvement in organizing, financing, and delivering health care services in that country.[226]

Private-sector HMOs and other managed care plans, outpatient surgical care, and even assisted living[227] for the aged are also gaining acceptance in less developed countries, such as Argentina, Romania, and Malaysia. In Argentina, private prepaid medical care plans (known as PREPAGAS) have appeared in recent years.[228] Similar to HMOs in the United States, prepaid plans provide a full range of hospital and outpatient services. The coverage and quality of care provided through these plans are often superior to that provided by the public-sector health benefit programs known as "obras sociales," which have been synonymous with Argentine health care since the Peron period (1945-

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[222] The Japanese Medical Services Law limits the establishment, management, or operation of hospitals and clinics to licensed physicians and physician groups. It also does not allow for-profit companies to provide health care services generally provided by physicians and nurses. However, under recent deregulation initiatives of the Japanese Government, operation of hospitals by for-profit companies is being discussed. Saburo Kimura, Japan Health Care Services, *Market Research Reports*, USDOC, Apr. 1, 1997, p. 7.

[223] Ibid.; and U.S. health care representative, telephone interview by USITC staff, Oct. 22, 1997.

[224] USDOC, ITA, National Trade Data Bank, "The German Health Care System," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted Sept. 1, 1997, retrieved Sept. 18, 1997, pp. 1-12.

[225] Ibid.

[226] Health care investment analyst, interview by USITC staff, New York, NY, Sept. 26, 1997.

[227] Assisted living services include a variety of residential, health care, and other social services for elderly persons who are not ready for custodial nursing care. Karen Pallarito, "Assisted Living Leads Growth," *Modern Health Care*, May 20, 1996, p. 96.

[228] USDOC, ITA, National Trade Data Bank, "Argentina Health Care Systems, Privatization," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted Sept. 1, 1995, retrieved Sept. 18, 1997, pp. 1-2.

55). Managed care is now estimated to account for approximately 10 percent of the Argentine health care market.[229]

In Romania, more than 90 percent of hospitals are still state-owned. However, the privatization of hospitals and of the health care system has been explored by the government.[230] In fact, there has been strong growth in the establishment of private outpatient surgery clinics and medical testing laboratories during the past several years. Romanian authorities state that reform of the national health care system will continue to be one of its top priorities and will likely include some type of health insurance plan providing coverage for private- and state-run clinics and hospitals.[231] Similarly, in an effort to reduce public expenditures in Malaysia, the government has adopted a policy of corporatization and privatization of health facilities and services.[232] A second purpose of the privatization effort is to promote further economic efficiency. Because of the expertise developed by private-sector health care service companies in the extremely competitive U.S. market, many analysts believe that the U.S. industry will be in the best position to profit from the emergence of privatized and managed health care in overseas markets. [233]

Legal Services

Introduction

Legal services include legal advisory and representation services in various fields of law (e.g., criminal or corporate law), advisory and representation services in statutory procedures of quasi-judicial bodies, and legal documentation and certification services. Legal services are traded both on an affiliate and cross-border basis, although trade data are available only for the latter. Cross-border trade in this service industry occurs when legal professionals travel abroad to provide services to clients, when clients travel abroad to engage the services of foreign attorneys, or when legal documents or advice are transmitted via telecommunication devices, postal delivery, or other forms of correspondence. Trade through affiliates occurs when foreign affiliates of legal service providers engage in commercial activity.

In limited instances, legal service providers may become members of foreign bars, conferring on them the right to appear in foreign courts and prepare advice on foreign law. However, most U.S. lawyers operating in foreign markets are not fully accredited by authorities overseas and, therefore, function more narrowly as foreign legal

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[229] Ibid.

[230] USDOC, ITA, National Trade Data Bank, "Romania: Medical Equipment," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted May 1, 1997, retrieved Sept. 18, 1997, pp. 1-8.

[231] Ibid.

[232] USDOC, ITA, National Trade Data Bank, "Malaysia Health Care Services," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted Mar. 1, 1997, retrieved Sept. 18, 1997, p. 2.

[233] Health care investment analyst, interview by USITC staff, New York, NY, Sept. 26, 1997.

consultants.[234] Typically, foreign legal consultants may provide advice regarding U.S. law, international law, and third-country law, but are precluded from appearing in foreign courts or giving advice on foreign law, unless that advice is based on the specific advice of a member of the foreign bar.

Recent Trends in Cross-Border Trade, 1991-96

In 1996, U.S. cross-border exports of legal services totaled $1.9 billion (figure 3-29), up nearly 15 percent over the previous year. This increase exceeded the 6-percent average annual increase achieved during 1991-95. U.S. imports of legal services increased by 10 percent to $516 million in 1996, slower than the 18-percent average annual growth rate realized during the preceding 5 years. Consequently, the U.S. cross-border trade surplus in this sector widened to approximately $1.4 billion in 1996. Legal services trade accounted for about 1 percent of total U.S. cross-border exports of services, but less than one-half of 1 percent of imports in 1996.

Japan and the United Kingdom remained the largest foreign markets for U.S. legal services in 1996, absorbing 19 percent and 17 percent, respectively, of total U.S. exports of legal services (figure 3-30). Other significant cross-border export markets for U.S. legal services included France, Germany, and Canada. Import patterns were similar, with U.S. residents purchasing approximately 21 percent of foreign-provided legal services from the United Kingdom and 13 percent from Japan. The United States recorded a surplus on legal services trade with each of the aforementioned countries.

Summary and Outlook

The increases in both U.S. cross-border exports and imports of legal services in 1996 extended previous trends of year-to-year increases during 1991-95. The rise in cross-border exports in 1996 is notable, as it represented the largest yearly increase in U.S. legal firms' sales in foreign markets within the period of review. New York-based Shearman & Sterling, for example, saw sales increase markedly and profits increase 25 percent in 1996, as the firm's long-term investment in financial and human capital in Europe and Asia continued to generate strong returns.[235] Global demand for U.S. legal services is expected to grow at a rate of 6 percent to 7 percent per year into the next century,[236] as the industry builds on its worldwide reputation for expertise in

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[234] Although the term 'foreign legal consultant' (FLC) is widely used throughout the international legal community, the specific definition may differ among jurisdictions. In an effort to reduce ambiguity, the American Bar Association (ABA) and the Brussels Bar jointly proposed a common approach to foreign legal consultancy. The Brussels Accord recognizes the ability of foreign lawyers to enter a country so as to qualify as a FLC, to hire local lawyers as partners, and, although restrictions would apply, to participate fully with local lawyers in providing a wide variety of legal services.

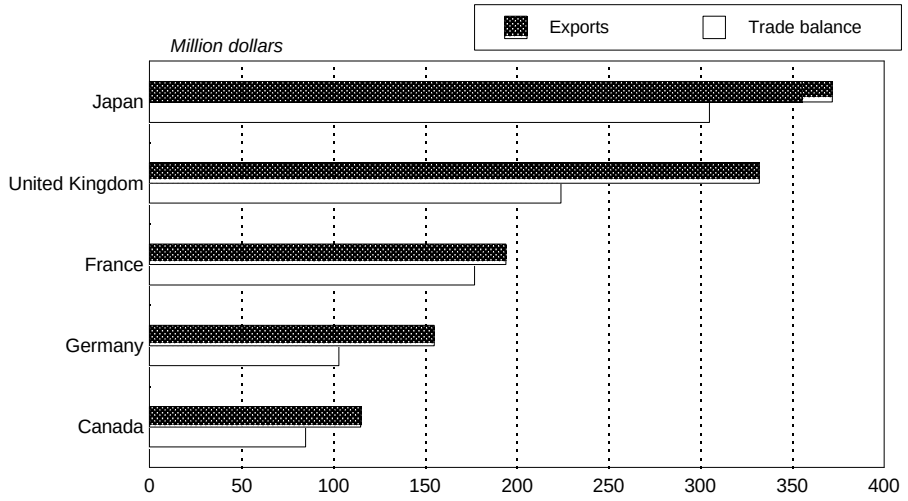
[235] Paul Barrett, "Law Firms Say Profits Reach All-Time Highs," *The Wall Street Journal*, July 1, 1997.

[236] "Professional Business Services," *U.S. Industry and Trade Outlook '98*, p. 49-2.

Figure 3-29
Legal services: U.S. cross-border exports, imports, and trade balance, 1991-96

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

Figure 3-30
Legal services: U.S. cross-border exports and trade balance, by major trading partners, 1996



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 135.

areas such as international finance, telecommunications, and entertainment, and as New York law increasingly becomes the standard for legal language in agreements undertaken by parties from different countries.[237] In addition, U.S. legal practitioners' use of high-technology tools including the Internet, information retrieval tools such as LEXIS-NEXIS, and simple IT applications such as Email is expected to lower research and operational costs, and allow attorneys to interact more extensively and efficiently with clients both globally and locally.

Generating revenue and profits from foreign operations is increasingly important to U.S. legal service providers as the U.S. market shows signs of saturation. Consequently, U.S. law firms have moved to improve their ability to provide services associated with international joint ventures, project finance, privatization, and mergers and acquisitions. These firms have increasingly recruited lawyers admitted to bars outside the United States and established foreign affiliates, particularly in regions undergoing rapid economic growth or market liberalization. For instance, multinational law firms have recently moved into markets in Eastern Europe and the countries of the former Soviet Union. The People's Republic of China and Taiwan also appear to be potential markets of significant opportunity. In China, a number of U.S. law firms have recently established operations or increased their market presence, encouraged by the country's economic growth in recent years.[238]

Overseas expansion by U.S. law firms has not been without challenges, as formal and informal trade barriers continue to exist worldwide. Principal barriers include those which limit U.S. legal firms' ability to establish foreign legal consultancies, or which limit the recruitment or hiring of members of foreign bars.[239] The American Bar Association (ABA) continues to work with associations of legal professionals in other countries to eliminate conditions that impede trade in legal services. For example, the ABA and the Paris Order of Advocates recently signed an agreement to work towards greater cooperation and reciprocity, especially regarding the establishment of commercial presences. Work in conjunction with the International Bar Association (IBA) has not been as successful. A recent ABA report notes that the IBA has not made significant progress in efforts to promulgate proposed *Guidelines for Foreign Legal Consultants*. Objections ranged from concerns of bars in developing countries that the *Guidelines* would expose them to excessive competition, to contentions by the Council of the Bars and Law Societies of the European Communities that pan-European rules must be established before international standards can be created.[240]

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[237] For further background on New York law's ascendancy, see USITC, *Recent Trends in U.S. Services Trade*, USITC publication 3041, 1997, pp. 3-51 and 3-53.

[238] In 1994, China required two large U.S. law firms with offices in Beijing to close their offices in Shanghai in order to comply with the country's policy restricting foreign law firms to registration in one city. Shortly thereafter, the Chinese Government approved 16 foreign law firms, indicating that although the Government has no solid objections to the presence of foreign law firms, it does believe in maintaining control over the operations. J. Reif, J. Whittle, A. Woznick, M. Thurmond, J. Kelly, *Services: The Export of the 21st Century* (San Rafael, CA: World Trade Press, 1997), p. 111.

[239] Peter D. Ehrenhaft, Esquire, testimony before USITC, Feb. 4, 1997.

[240] Donald Rivkin and Michael Sandler, "International Legal Developments in Review — Transnational Legal Practice," *International Lawyer*, summer 1997, p. 31.

Maintenance and Repair,[241] Installation, Alteration, and Training Services

Introduction

Trade in maintenance and repair, installation, alteration, and training services (hereafter, maintenance and repair services) encompasses a broad range of services and activities. Such trade entails the maintenance and repair of machinery and equipment, as well as the maintenance and repair of buildings, structures, dams, highways, and other construction works. Further, this trade includes "such services as the periodic overhaul of turbines or locomotives, the extinguishing of natural gas well fires, and refinery maintenance."[242] Installation and training services include installation, startup, and training services provided by a manufacturer only in connection with the sale of goods.[243] This category excludes services provided with the sale of integrated computer hardware and software systems; maintenance and repair of telecommunications equipment; [244] oil and gas field maintenance and repair services, when performed on a contract basis; [245] and most maintenance and repair services of U.S. and foreign airline and ocean carriers.[246] Maintenance and repair services related to aircraft are generally limited to aircraft engine overhaul, where the engine is removed from the aircraft and

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[241] The data analyzed and presented in this writeup are derived from BEA's Form BE-22, *Annual Survey of Selected Services Transactions with Unaffiliated Foreign Persons* and include repairs performed on a contract basis, but not under warranty. In BEA's Form BE-20, *Benchmark Survey of Selected Services Transactions with Unaffiliated Foreign Persons*, BEA eliminated repairs in order to improve the quality of the data. Repairs are now considered as trade in merchandise. Data collected and compiled from Form BE-20 were used in BEA's "U.S. International Transactions, Revised Estimates for 1974-96," *Survey of Current Business*, July 1997.

[242] Excluded are services where the cost is included in the price of the goods and not separately billed or is declared as part of the price of the goods on the import or export declaration filed with the U.S. Customs Service. USDOC, BEA, instructions to Form BE-22, *Annual Survey of Selected Services Transactions with Unaffiliated Foreign Persons—1995*, OMB Form No. 0608-0060.

[243] Training services not connected with the sale of goods, for example, are classified under educational services.

[244] Services provided with the sale of integrated computer hardware and software systems are classified under computer and data processing services. Similarly, services related to the maintenance and repair of telecommunications equipment are classified under telecommunication services. USDOC, BEA, instructions to Form BE-22, *Annual Survey of Selected Services Transactions with Unaffiliated Foreign Persons—1995*, OMB Form No. 0608-0060.

[245] Oil and gas field maintenance and repair services, such as cleaning lease tanks, or repairing derricks or gas well rigs and performed on a contract basis, are classified under construction, engineering, architectural, and mining services. The USDOC, BEA, instructions to Form BE-47, *Annual Survey of Construction, Engineering, Architectural, and Mining Services Provided by U.S. Firms to Unaffiliated Foreign Persons*, OMB Form No. 0608-0015, p. 1.

[246] See instructions to BEA Form BE-36, *Foreign Airline Operators' Revenues and Expenses in the United States*; Form BE-37, *U.S. Airline Operators' Foreign Revenues and Expenses*; Form BE-29, *Foreign Ocean Carriers' Expenses in the United States*; and Form BE-30, *Ocean Freight Revenues and Foreign Expenses of United States Carriers*.

transported to a different repair site, and training in connection with the sale of aircraft. Maintenance and repair services on projects arranged through the Foreign Military Sales program of the U.S. Department of Defense are also excluded for this category.[247] In 1996, U.S. exports of maintenance and repair services were concentrated in transportation machinery; measurement, testing, and medical equipment; and a wide variety of other industrial machinery.[248] U.S. imports were concentrated in transportation machinery. Although maintenance and repair services are traded on both a cross-border and affiliate basis, official trade data track only cross-border trade.

Recent Trends in Cross-Border Trade, 1991-96

As the result of changes to BEA's survey methodology for gathering data on maintenance and repair services, as well as other selected services,[249] U.S. export data for maintenance and repair services for 1994 and 1995, and U.S. import data for 1992-95, were revised. U.S. exports rose slightly as a result of the revisions, but U.S. imports were revised downward to a significant degree. The lack of revisions to U.S. exports for 1991-93 does not appear to appreciably change export trends. Consequently, the discussion of exports found below spans all the years of interest to this study, 1991 through 1996. However, as U.S. import data were revised significantly, the following discussion of import trends focuses on revised data for the period 1992-96 only; import data for 1991, which were not revised, are not referenced.

U.S. exports of maintenance and repair services grew by an average annual rate of 5 percent during 1991-95 (despite experiencing a decline in 1995), then rose by 17 percent in 1996, to $3.7 billion (figure 3-31). Based upon revised data, U.S. imports of maintenance and repair services rose by an average annual rate of 2 percent during 1992-95 (despite registering declines during 1993-94), then increased substantially, by 54 percent, to $315 million in 1996.

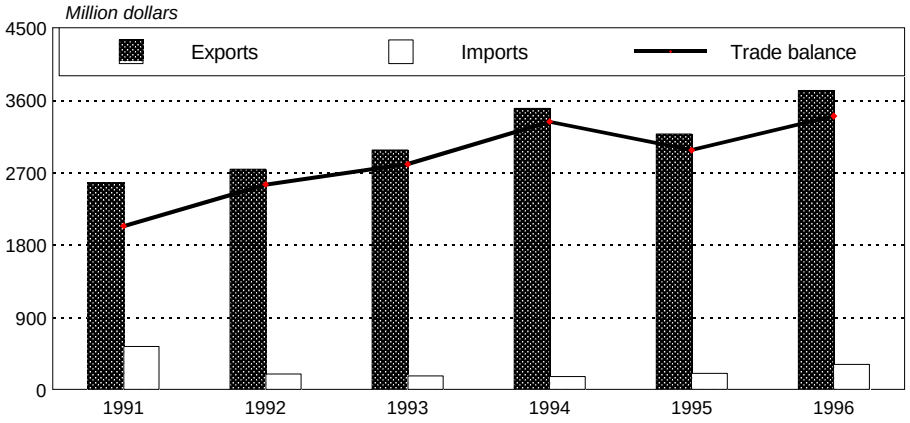
In 1996, the principal U.S. export markets for maintenance and repair services were Japan, Saudi Arabia, the United Kingdom, Canada, and Korea (figure 3-32). Japan, the leading destination for U.S. maintenance and repair services, accounted for $449 million, or 12 percent, of U.S. exports. Exports to Japan likely were attributable to aircraft engine overhaul operations, resulting from the large installed base of U.S.-built aircraft engines in Japan's aircraft fleet; and installation, maintenance, and repair of nuclear and conventional electric power generation equipment and semiconductor manufacturing and testing equipment. Saudi Arabia, which held second place as a U.S. export destination of maintenance and repair services, accounted for almost 10 percent of exports in 1996. Exports of maintenance and repair services to Saudi Arabia were likely related to the Saudi Government's efforts to promote growth in the private

[247] USDOC, BEA, *Benchmark Survey of Selected Services Transactions with Unaffiliated Foreign Persons 1996*, Form BE-20, item 9, "Projects with U.S. Government nonmilitary agencies," p. 4.

[248] Officials of BEA, interview by USITC staff, Nov. 14, 1997.

[249] BEA,"U.S. International Sales and Purchases of Private Services," *Survey of Current Business*, Oct. 1997, p. 100.

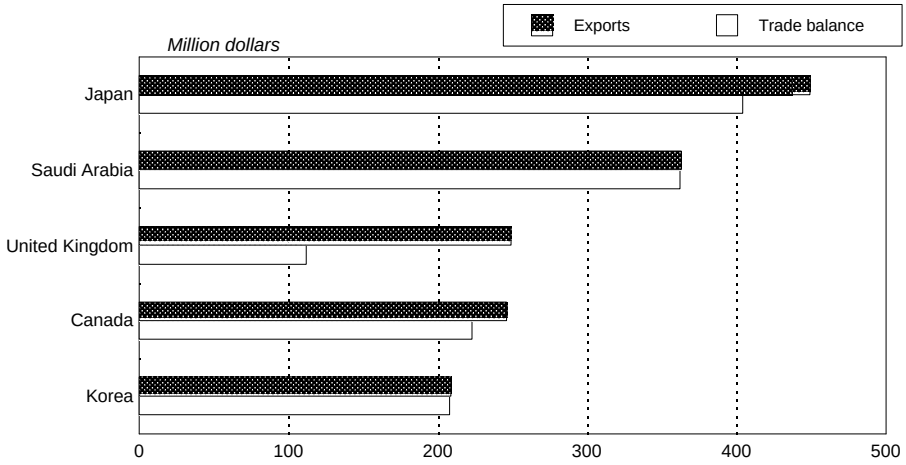
Figure 3-31
Maintenance and repair, installation, alteration, and training services: U.S. cross-border exports, imports, and trade balance, 1991-96[1]



[1] U.S. import data for 1992-95 and U.S. export data for 1994-95 reflect revisions necessitated by recent changes in BEA's estimation methodology. Import data for 1991 were not revised and, therefore, may be overstated significantly.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

Figure 3-32
Maintenance and repair, installation, alteration, and training services: U.S. cross-border exports and trade balance, by major trading partners, 1996



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 135.

sector and to reduce the country's dependence on petroleum and petrochemical industries. U.S. exports of such services appear to have been related to installation of new power plants, air-conditioning and refrigeration equipment, oil refinery upgrades, petrochemical production machinery, medical equipment, industrial safety and security equipment, and aircraft engine overhaul. U.S. exports to the United Kingdom were likely related to aircraft training and aircraft engine overhaul, while exports to Canada seem to have been related to aircraft training, aircraft engine overhaul, motor vehicle manufacturing machinery**,** and locomotive repair.

In 1996, Korea became the fifth largest market for U.S. exports of maintenance and repair services, while Mexico, which ranked fifth in 1995, fell to sixth place. Exports to Korea likely related to power generation projects, semiconductor manufacturing and testing equipment, and aircraft engine overhaul. Exports to Mexico declined during 1994-96, from $241 million to $174 million, as a likely consequence of declining U.S. direct investment in Mexico.[250]

In 1996, U.S. imports of maintenance and repair services were principally supplied by the United Kingdom, Japan, and Canada, which together accounted for 65 percent of U.S. imports of maintenance and repair services. Imports from the United Kingdom accounted for 43 percent, or $137 million, and appear to have been related to aircraft training and aircraft engine overhaul. Imports from Japan accounted for 14 percent and were probably related to a wide variety of production machinery installed and serviced in U.S. manufacturing plants. Imports from Canada accounted for 7 percent. Overall, the EU accounted for 62 percent of U.S. imports of maintenance and repair services.

Japan, Saudi Arabia, and Canada were the largest contributors to the U.S. trade surplus in maintenance and repair services in 1996. The U.S. trade surplus with Japan alone totaled $404 million and accounted for 12 percent of the $3.4-billion trade surplus in maintenance and repair services. The trade surplus with Saudi Arabia totaled $362 million, or 11 percent of the trade surplus; and with Canada, $223 million, or 7 percent.

Summary and outlook

The ability to maintain a trade surplus in maintenance and repair services is largely dependent on U.S. producers' ability to export aircraft, aircraft engines, and aircraft parts; power generation machinery; semiconductor manufacturing and testing equipment; petroleum refinery and petrochemical production machinery; and other industrial products. The value of repairs or alterations probably accounted for less than half of the category of maintenance and repair services.[251] Such services are dependent upon a large overseas base of installed U.S.-origin machinery and equipment and the repair cycle of such items.

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[250] Census data indicate that U.S. exports of repaired articles also declined, from $150 million in 1994 to $113 million in 1996.

[251] The value of U.S. exports of repaired or altered articles, as reported for Schedule B subheading 9801.10.000 by the U.S. Department of Commerce, Bureau of the Census, totaled $1.8 billion in 1995 and 1996. These Census data would include repairs of computers, telecommunications equipment, ships, and airline aircraft, which are excluded in BEA export estimates for the category maintenance and repair services.

Future prospects for the U.S. export of maintenance and repair services appear to be related to U.S. exports of power generation machinery, semiconductor manufacturing and testing machinery, and aircraft engines. Power generation machinery is required worldwide, by mature markets in North America and Western Europe and by more dynamic markets in Asia, the Middle East, Eastern Europe, and the former Soviet Union.[252] U.S. exports of power generation equipment, and concomitant installation services, will likely experience significant increases in China and Latin America. Growth in China will be driven by the continually increasing demand for energy as economic development continues. However, further growth of nuclear power equipment and related services to China depends on the easing of U.S. export restraints on nuclear technology to China.[253] Privatization of some electric power generation operations, as well as increased access by foreign firms in Latin America, will help spur the export of installation, maintenance, and repair services there. Installation of U.S. nuclear power equipment is largely complete at power plants in Japan, Korea, and Taiwan, with increasing U.S. exports of maintenance and repair services related to nuclear power equipment likely to follow.

Continued growth of U.S. exports of semiconductor manufacturing and testing equipment is likely to result in strong U.S. exports of maintenance and repair services. However, export of semiconductor manufacturing and testing equipment declined slightly in 1997, because significantly lower prices for memory devices and excess production capacity in Asia caused semiconductor manufacturers there to postpone new orders for equipment and to delay the delivery of systems already ordered.[254] Over the longer term, as demand for cutting-edge semiconductor manufacturing and testing equipment continues, installation and maintenance revenue should grow as foreign semiconductor factories will seek to maximize equipment reliability and machine operating time.[255] Global demand for U.S. equipment is likely to increase further as the global semiconductor industry continues to move from using 200mm semiconductor wafers to 300mm wafers in 1998. Worldwide, new semiconductor fabrication equipment spending was forecast to rise by 26 percent, from $14.5 billion in 1995 to $18.0 billion in 1997.[256]

Exports of maintenance and repair services related to aircraft are dependent on the ability of U.S. aircraft engine producers to maintain and expand their market share of engines installed in both U.S.- and foreign-built aircraft. Continued strong U.S. exports of maintenance and repair services may also result from the building and upgrading of petroleum refining and petrochemical production facilities in response to growth in worldwide demand for petroleum and petrochemicals, and from strong exports of medical equipment.

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[252] General Electric Co., 10-K405, Mar. 24, 1997.

[253] Dan Morgan and David B. Ottaway, "U.S. Reactor Firms Maneuvering to Tap China's Vast Market," *Washington Post*, Oct. 21, 1997, p. A1.

[254] Applied Materials, Inc., 10-Q, Sept. 12, 1997.

[255] Applied Materials, Inc., 10-K, Jan. 27, 1997. KLA Tenecor Corp., 10-K, June 29, 1997.

[256] George Burns, "The Next Fab Building Boom: Breaking Ground," *Channel*, Oct. 1997, table 1, p. 11

Saudi Arabia is likely to remain a significant destination for U.S. exports of maintenance and repair services as that nation's economy continues to grow. Additional opportunities for U.S. exports of maintenance and repair services are likely to develop in China as that nation's economy continues to industrialize. U.S. imports of maintenance and repair services are not expected to increase substantially, because the United States is a mature market for new industrial machinery, with many foreign machinery and service providers having established U.S. subsidiaries to perform installation, training, maintenance, and repair operations. U.S. imports of maintenance and repair services are likely to remain concentrated in the transportation machinery industry.

Telecommunication Services

Introduction

Telecommunication services trade encompasses both basic[257] and value-added[258] services, which can be exchanged across national borders and through foreign-based affiliates. Cross-border trade, which involves the placement of a call in the home market and the termination of the call in a foreign market, is the dominant mode of trade. However, affiliate trade is increasing in importance as U.S. trading partners privatize state-owned monopolies and liberalize foreign ownership restrictions, allowing for greater overseas participation by U.S. carriers. Both cross-border and affiliate trade are evolving to keep pace with the globally mobile customer, and developing new telecommunication services such as call-back[259] and country direct services.[260] In addition, trade has been facilitated by the distribution of calling cards[261] and international toll-free phone numbers,[262] and by the completion of roaming agreements.[263] Related services, such as telecommunications training, consultancy, and

[257] Basic services entail the transmission of voice and data without change in form or content.

[258] Value-added services include computer processing, electronic mail, electronic data interchange, electronic funds transfer, enhanced facsimile, and on-line database access.

[259] Call-back services require a customer outside the United States to call an assigned U.S. telephone number and hang up; the caller will then receive a computer-driven, return call with a U.S. dial tone from a U.S. call-back firm. The customer may then place a call to the desired destination at a rate substantially less than that charged for calling directly. These calls appear as outbound U.S. calls for accounting purposes.

[260] Country direct services provide a customer in a foreign location with access to a U.S. carrier for the purpose of placing calls to the United States or foreign destinations. These calls also appear as outbound U.S. calls for accounting purposes.

[261] Calling cards are pre-paid telephone cards that are frequently distributed abroad through U.S. multinational corporations. David Molony, "Callback operators diversify to survive," *Communications Week*, issue 171, Sept. 23, 1996.

[262] Toll-free phone numbers are those in which the receiver of the connection pays for the call (e.g., 800 and 888 numbers).

[263] Cellular and mobile satellite service providers must secure the proper licensing requirements or "roaming agreements" from foreign governments in order for their

(continued...)

build-operate-transfer programs,[264] constitute a relatively minor portion of telecommunication services trade.

Recent Trends

Cross-Border Trade, 1991-96

U.S. carriers collect fees from domestic customers for outbound calls and periodically make settlement payments to foreign carriers according to bilaterally negotiated settlement rates, which are prices charged by carriers for terminating international calls. U.S. settlement payments to foreign carriers are recorded as imports in the U.S. balance of payments, whereas settlement payments collected from foreign carriers are recorded as exports. The United States consistently recorded a trade deficit in cross-border telecommunication services during 1991-96 (figure 3-33), principally because most calls between the United States and foreign countries originate in the United States. Other factors that affect the U.S. cross-border trade balance include the average length of calls, which tends to be longer for calls originating in the United States; relatively low U.S. international calling prices, which promote outbound calls; the exchange rate of the dollar, which may increase or decrease the size of settlement payments;[265] the relative wealth of the United States, which increases the volume of outbound calls; and the magnitude of foreign direct investment abroad, which promotes outbound calls from U.S.-based parent companies to foreign affiliates. Telecommunication services trade accounted for 2 percent of total U.S. cross-border exports of services and 6 percent of imports in 1996.

U.S. cross-border exports in telecommunication services were valued at $3.4 billion in 1996, an increase of 7 percent over the 1995 level. Corresponding telecommunication service imports measured $8.4 billion in 1996, reflecting an increase of 8 percent from the previous year.[266] The U.S. deficit in telecommunication services increased by 9 percent in 1996, to nearly $5 billion, despite more favorable settlement rates negotiated with major U.S. trading partners during 1994-95. The growth in U.S. exports of telecommunication services in 1996 contrasted with the overall 1-percent average annual rate of decline during 1991-95. By comparison, the 8-percent increase in U.S. imports in 1996 doubled the average annual increase of 4 percent recorded during 1991-95 (despite the decline experienced in 1992). This import growth reflected 15-percent annual growth in outgoing call volume and indicates that, while prices charged by foreign carriers declined somewhat, these declines only partially offset growth in outbound call volume.

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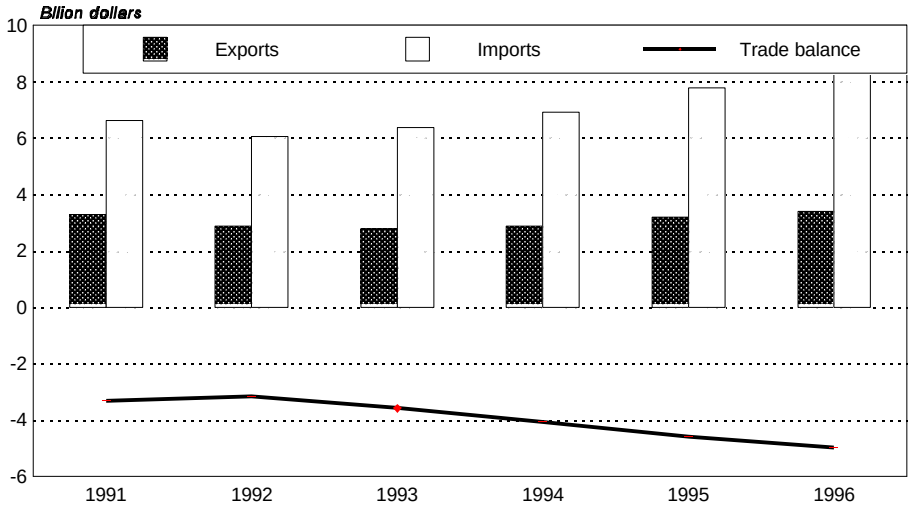
[263] (...continued)
customers to utilize their services when resident in foreign countries.

[264] Build-operate-transfer (BOT) programs describe a growing range of projects in which a private company is awarded a concession to build a telecommunication network or to provide telecommunication services for a specified period of time. Once the time has expired, ownership is transferred to a designated telecommunication operator in that country. International Telecommunication Union (ITU), *World Telecommunication Development Report*, 1994, p. 106.

[265] ITU, *World Telecommunication Development Report*, 1994, pp. 27-29.

[266] USDOC, BEA, *Survey of Current Business*, Oct. 1997, pp. 124-127.

Figure 3-33
Telecommunication services: U.S. cross-border exports, imports, and trade balance, 1991-96

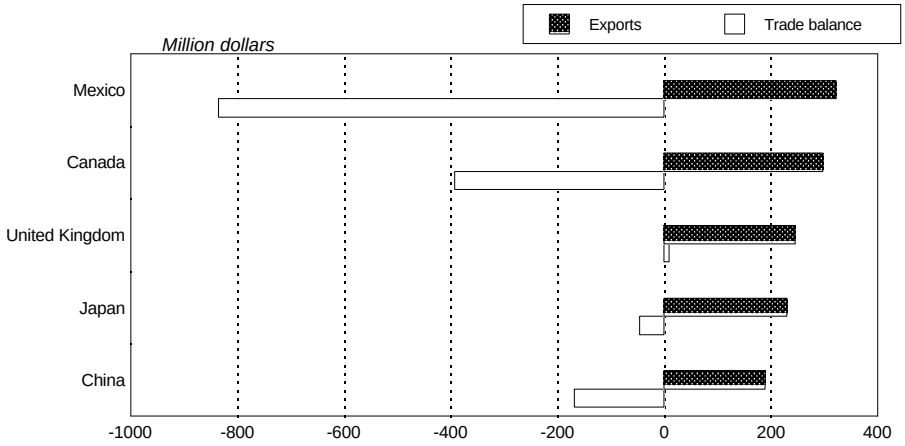


Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

Mexico, Canada, the United Kingdom, and Japan constituted the largest U.S. cross-border telecommunication export markets, although of these countries, the United States posted a bilateral trade surplus only with the United Kingdom (figure 3-34). In 1996, these four countries accounted for 32 percent of U.S. cross-border telecommunication services exports and 28 percent of U.S. imports, reflecting little change from previous years. Although U.S customers called Canada the most among the four markets, the United States recorded the largest bilateral deficit with Mexico because the U.S.-Mexico accounting rate is much higher than the U.S.-Canada rate. The $835-million trade deficit with Mexico in 1996 represented 17 percent of the U.S. cross-border trade deficit in telecommunication services. One of the significant developments in U.S. bilateral telecommunication services trade in 1996 was the growth in transactions with China. In 1996, U.S. telecommunication exports to China increased by 152 percent over the previous year, following mostly modest growth since the early 1990s. The surge in exports to China was due in part to major payments for U.S. satellite launch services, which are classified under telecommunication support services.[267] U.S. imports from China also increased in 1996, by 45 percent, reflecting continued growth in the volume of U.S. outbound calls terminating in China.

[267] BEA representative, telephone interview by USITC staff, Dec. 3, 1997.

Figure 3-34
Telecommunication services: U.S. cross-border exports and trade balance, by major trading partners, 1996



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 126-127.

Affiliate Transactions, 1991-95

As noted, trade in telecommunication services through foreign-based affiliates is dramatically increasing in importance due to liberalization of market access and foreign-ownership restrictions undertaken unilaterally or through multilateral agreements such as the General Agreement on Trade in Services (GATS). In 1995, sales of telecommunication services by foreign affiliates of U.S. firms substantially outpaced those by U.S. affiliates of foreign firms. Sales by foreign affiliates of U.S. firms amounted to $3.7 billion, while corresponding purchases from U.S. affiliates of foreign firms totaled $941 million.[268] Sales to the United Kingdom amounting to $1.1 billion in 1995 stood out markedly, both by growing 68 percent above sales in 1994 and by accounting for 29 percent of all telecommunication sales by foreign affiliates of U.S. firms.[269] The large growth in U.S. affiliate sales in the United Kingdom is likely related to the liberalization of foreign ownership restrictions in the United Kingdom's telecommunication market.

[268] Data on telecommunication service sales through affiliates are bundled with other services, such as radio and broadcasting services. Telephone and telegraph sales constitute an estimated 80 percent of "communications" sales. In addition, the data on affiliate transactions of communication services are not available in certain years and in sufficient detail to identify all major trading partners. USDOC representative, interview by USITC staff, Washington, DC, Nov. 25, 1996.

[269] USDOC, BEA, *Survey of Current Business*, Oct. 1997.

Summary and Outlook

The preceding discussion reveals that both cross-border exports and imports of telecommunication services increased relatively strongly in 1996, although imports grew more than exports in absolute terms. The increase in cross-border transactions reflects growth in international calling volume, which may have been fostered by U.S. Government efforts to reduce settlement rates and promote liberalization.[270] Additional rate reductions are expected to result from the successful conclusion of the World Trade Organization (WTO) negotiations on basic telecommunications trade. Signatories to the agreement include the United States and 68 of its leading trading partners, together representing over 90 percent of global telecommunication service revenues. Subject to explicit exceptions listed by trading partners, the agreement provides foreign telecommunication carriers with access to local, long-distance, and international service markets through all means of network technology (e.g., wireline, cellular, microwave, and satellite technology), either on a facilities basis[271] or through resale.[272] The agreement also ensures that foreign investors can acquire, establish, or hold a significant stake in many foreign telecommunication companies, and obligates most U.S. trading partners to maintain or implement largely new pro-competitive telecommunication regulations. Commitments made through this agreement entered into force in early 1998 when supplementary telecommunication schedules became part of the GATS.[273]

As a result of this agreement, competition is being introduced into telecommunication markets around the world that should lead to decreases in rates paid by consumers for both domestic and international services. Charges for international calls are expected to be reduced by 70 to 80 percent over 5 years from the present average of 88 cents per minute paid by U.S. callers.[274] As rates decline, consumers will be more likely to originate calls, resulting in growth of U.S. cross-border transactions, both outgoing and incoming. Since collection charges, consisting of the fees collected from consumers by telecommunication carriers, are likely to decline more sharply in foreign markets than in the United States where prices are already relatively low, the U.S. cross-border trade deficit may improve. However, the fact that the United States tends to make more calls than it receives suggests that the United States will continue to post deficits even as global prices converge.

Another major achievement of the WTO basic telecommunications agreement is the progress it makes with respect to foreign participation in domestic telephone markets. The agreement's provisions on foreign direct investment will provide greater

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[270] FCC, *Statistics of Communications Common Carriers*, 1995.

[271] Facilities-based services are those provided using transmission facilities owned in whole or in part by the carrier providing the service.

[272] There are two types of resale services. A carrier provides pure resale services by switching traffic to another carrier, which subsequently transmits the originating carriers' traffic over its network. A carrier provides facilities resale services by sending traffic over transmission facilities leased from other carriers.

[273] See Chapter 4 for further information concerning the WTO agreement and individual country commitments.

[274] Roger Fillion, "U.S. FCC Adopts Rules for Telecom Trade Pact," Reuters, through the PointCast Network, Nov. 25, 1997.

opportunities for U.S. carriers to establish or acquire a foreign commercial presence. As U.S. firms increase their presence abroad, corresponding sales through affiliates will increase. While foreign firms may similarly invest in the United States,[275] increasing U.S. purchases, it is likely that the balance of such investment will flow out of the United States, leading to strong growth in the existing U.S. surplus in affiliate transactions. In addition to increasing affiliate transactions, U.S. firms participating in foreign markets are likely to become more competitive by acquiring multinational expertise and a broader base of sales and assets.

Another factor that may affect the balance of trade in telecommunication services is the unilateral action taken by the FCC to reduce imbalances in settlement rates paid between U.S. and foreign carriers. Existing settlement rates are substantially larger than the actual costs incurred by foreign carriers for terminating calls that originate in the United States.[276] According to the FCC, nearly 70 percent of U.S. settlement payments are not justified by the cost of service, meaning U.S. consumers are in effect subsidizing foreign telecommunication carriers.[277] In an effort to bring these settlement rates closer to actual costs, the FCC adopted the International Settlement Rate Benchmarks order on August 7, 1997. The order, which went into effect on January 1, 1998, requires U.S.-licensed carriers to negotiate new settlement rates that fall within a benchmark range of 15 cents per minute for upper income countries and 23 cents per minute for lower income countries. These benchmarks must be reached at the end of a 5-year transition period. Through this order, the FCC has essentially declared that U.S. carriers will no longer pay settlement rates that are not substantially based on the cost of service.

If the FCC Order succeeds in reducing settlement rates, the cost of international calls originating in the United States may decline significantly. However, the effects of lower settlement rates on the U.S. deficit in cross-border telecommunication services is less clear. For example, lower settlement rates could encourage U.S. consumers to make more calls of longer duration, and the resulting increase in call volume could mitigate the price effect on the balance of trade. Also, if settlement rates are only reduced for calls between the United States and other countries, consumers from countries that are still paying higher rates may have an incentive to route their calls through the United States using call-back services, which could further increase the volume of calls categorized as originating in the United States. In the end, increases

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[275] To comply with U.S. commitments under the WTO agreement, the FCC adopted the Foreign Carrier Entry Order on November 25, 1997. This Order opens the U.S. market to more competition from foreign telecommunication carriers. Prior to the FCC action, foreign carriers wishing to enter the U.S. market had to demonstrate that U.S. carriers had effective competitive opportunities in the foreign market. This reciprocity provision has been replaced by an open entry standard, under which the FCC presumes that foreign entry is procompetitive and, therefore, applies streamlined procedures for granting applications. FCC, "Commission Liberalizes Foreign Participation in the U.S. Telecommunications Market," FCC News Release, found at Internet address http://www.fcc.gov/, posted Nov. 25, 1997, retrieved Dec. 2, 1997.

[276] FCC, “Commission Adopts International Settlement Rate Benchmarks,” FCC News Release, found at Internet address http://www.fcc.gov/, posted Aug. 7, 1997, retrieved Nov. 11, 1997.

[277] Ibid.

in U.S. call volume could compensate for the reduction in settlement rates, leaving the United States with a sustained deficit in cross-border telecommunication trade.

Transportation Services

Introduction

For the purpose of this discussion, transportation service receipts include passenger fares, freight transportation receipts, and receipts for port services and other transportation services. Trade data pertaining to transportation services are available for both cross-border and majority-owned affiliate transactions. Although cross-border trade predominates, the relative importance of cross-border delivery and affiliate transactions varies substantially depending upon both the type of transportation service provided and the geographic location of the countries involved. For example, trade in airline transportation services is inherently a cross-border transaction, whereas sales by affiliates play a large role in freight transportation in countries where regulatory barriers prohibit cross-border trade.

Recent Trends

Cross-Border Trade, 1991-96

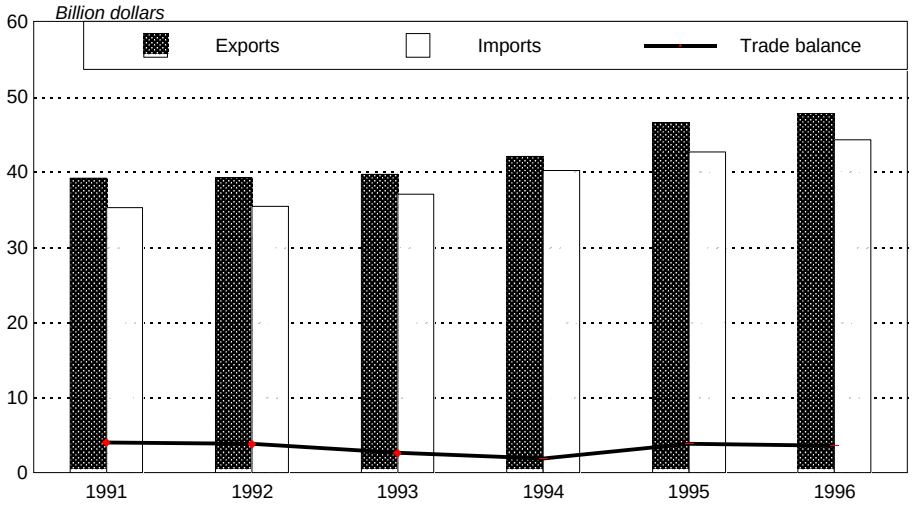
Transportation services contribute significantly to overall U.S. cross-border trade in services. In 1996, exports and imports of transportation services accounted for 22 percent and 31 percent of all cross-border service exports and imports, respectively. U.S. cross-border exports of transportation services totaled $47.8 billion, up from the previous year's level by 3 percent (figure 3-35). Such growth was slower than the 4-percent average annual increase recorded during 1991-95. Cross-border imports of transportation services, amounting to $44.2 billion in 1996, increased by approximately 4 percent. This, too, was slower than the average annual increase of 5 percent recorded during 1991-95. As the $1.5-billion increase in imports surpassed the $1.2-billion gain in exports in 1996, the U.S. cross-border trade surplus in transportation services decreased by 5 percent, from $3.8 billion in 1995 to $3.6 billion in 1996. The slower growth of cross-border exports of transportation services was due principally to a decrease in exports of ocean freight and port services.[278] A decrease in exports of ocean freight services may have been due to a reduction of freight rates per ton attributable to overcapacity in the ocean freight market.[279] A decrease in exports of ocean port services may have been due to a decline in the volume of foreign vessels handled in U.S. ports and lower costs of goods and services in U.S. ports.[280] The lower growth rate of imports of transportation services was due primarily to a lower growth rate in imports of ocean freight and port services.

[278] This category mainly covers transactions for freight and port services for the transportation of goods by ocean, air, and truck to and from the United States.

[279] USDOC, BEA, *Survey of Current Business*, Oct. 1997.

[280] Ibid.

Figure 3-35
Transportation services: U.S. cross-border exports, imports, and trade balance, 1991-96



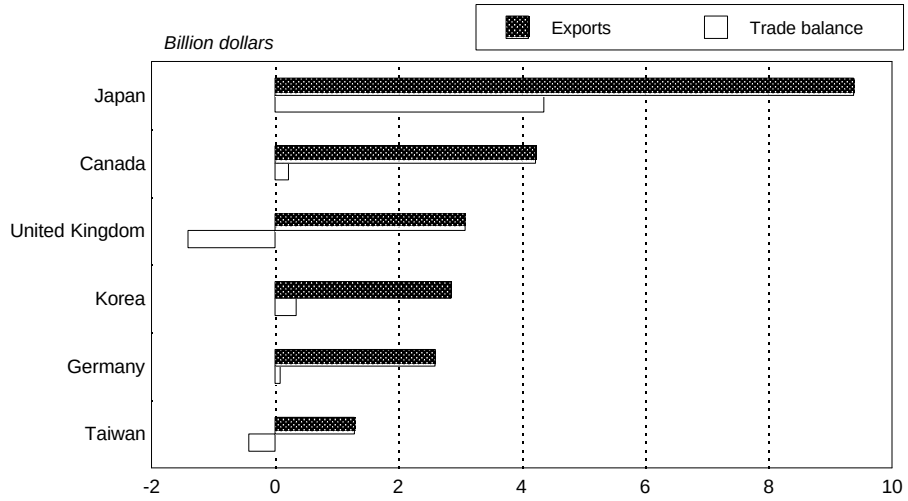
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 108-109.

Major U.S. trading partners in transportation services in 1996, as in previous years under review, included Japan, Canada, the United Kingdom, Korea, Germany, and Taiwan (figure 3-36). Both exports and imports of transportation services between the United States and trading partners Canada, the United Kingdom, and Korea continued to rise in 1996. However, imports of transportation services from both Japan and Taiwan decreased as a result of decreased imports of freight and port services, which dominate imports from these countries. Imports of ocean freight services experienced the most significant decline in both countries, reflecting the general trend mentioned above. Exports of transportation services to Germany decreased mainly as a result of decreased exports of ocean port services provided to German freighters. During 1991-96, the United States posted a persistent trade surplus with Japan, primarily stemming from substantial airline passenger fare exports. However, the United States posted chronic deficits on trade in transportation services with the United Kingdom. This deficit, principally the result of U.S. residents' trips aboard British airlines, has remained above $1 billion per year since 1993.

Affiliate Transactions, 1991-95

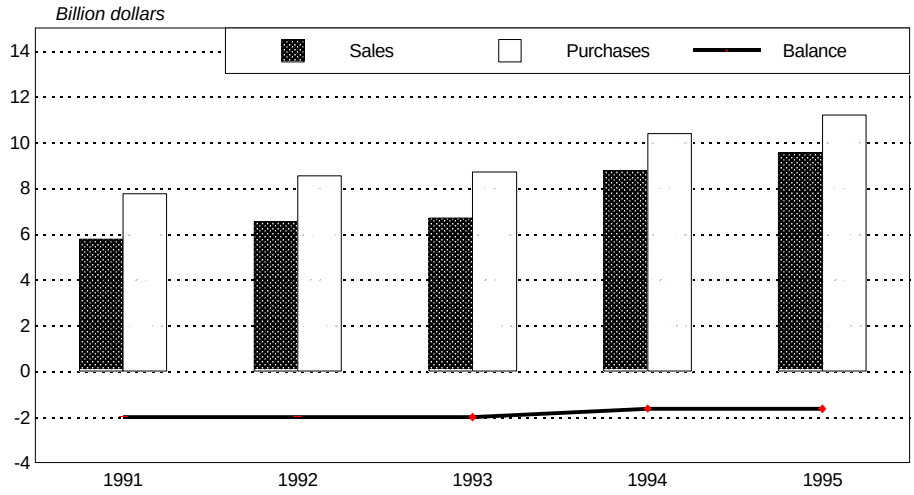
Sales by foreign-based affiliates of U.S. firms rose from $8.8 billion in 1994 to $9.5 billion in 1995, or by 9 percent, which was slower than the average annual growth rate of 15 percent recorded during 1991-94 (figure 3-37). Purchases from U.S.-based affiliates of foreign firms grew by 8 percent, from $10.4 billion in 1994 to $11.2 billion in 1995. This was slower than the average annual growth rate of 10 percent recorded during 1991-94. The resulting deficit of $1.6 billion principally reflected foreign firms' strong presence in the United States, primarily attributable to the size and openness of the U.S. market. The deficit did not change significantly in 1995.

Figure 3-36
Transportation services: U.S. cross-border exports and trade balance, by major trading partners, 1996



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 115.

Figure 3-37
Transportation service transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138.

Although much of the country-specific data on transactions by majority-owned affiliates of transportation services are unavailable, to prevent disclosing information on the operation of individual firms, available data indicate that Europe is the largest trading partner of the United States, accounting for 47 percent of U.S. sales and 59 percent of U.S. purchases through affiliates in 1995. Individual country data indicate that Canadian affiliates of U.S. firms accounted for 18 percent of U.S. sales of transportation services in 1995, followed by British affiliates, with 17 percent, and German affiliates, with 14 percent. U.S. purchases from U.S.-based affiliates of foreign firms appear to be dominated by British- and Japanese-owned affiliates, which accounted for 26 percent and 21 percent of U.S. purchases, respectively.

Summary and Outlook

Cross-border transactions continue to dominate trade in transportation services. This relationship is likely to continue because of the global expansion of trade and increased air transport liberalization. Air, rail, and maritime transportation continue to experience growth as a consequence of deregulation and consolidation. The implementation of NAFTA and increasing intermodal transportation[281] will likely contribute to increased trucking freight traffic with Canada and Mexico. Overall, worldwide intermodal traffic is expected to continue strong growth relative to other modes in 1997.

The U.S. airline industry experienced strong growth in 1996 after achieving an industry net profit in 1995 for the first time since 1989.[282] The industry experienced huge net losses in the early 1990s due to overcapacity, the U.S. recession, the Gulf War, and rising fuel prices. U.S. carriers were obliged to cut operating costs in order to regain profitability. In 1996, a number of airlines were able to pay a portion of their outstanding debt, lowering their debt to equity ratios and reducing interest expenses.[283] Airlines are likely to continue attempting to control labor costs, which are their highest operating expense, with low-cost airlines driving the cost-cutting trend.

Air traffic, both passenger and freight, continues to grow strongly. The International Air Transport Association predicts an increase in air travel by an average of 6.6 percent worldwide, between 1997 and 2001.[284] The highest growth is expected to be found in Northeast and Southeast Asia, followed by the southern cone of South America. The APEC Transportation Committee predicted that international air traffic between Pacific Rim nations would continue to grow by approximately 7.4 percent annually until 2010.[285] The growing number of bilateral "Open Skies" treaties will likely increase passenger and freight traffic as countries liberalize their air service agreements. "Open Skies" treaties lift curbs on flights between countries and allow the continuation of foreign-originated flights to third countries. The United States is pursuing bilateral "Open Skies" treaties in several regions. The U.S. Government seeks full liberalization

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[281] Intermodal transportation is the conveyance of freight by at least two modes of transport, i.e., rail, maritime, and trucking.

[282] "Transportation," *U.S. Industry & Trade Outlook '98*, p. 43-13.

[283] Ibid., p. 43-10.

[284] "Passenger Traffic Forecast," International Air Transport Association, 1997.

[285] Leo Quigley, "Asia-Pacific Business Booming," *Traffic World*, July 14, 1997.

with each treaty, but certain countries are resisting immediate liberalization in favor of gradual liberalization over several years.

"Open Skies" treaties are also encouraging the formation of international passenger airline alliances. The U.S. Government has offered antitrust immunity to signatory countries for airline alliances. Alliances extend the reach and scope of services offered by airlines, as carriers jointly market their flights through code-sharing[286] and revenue pooling. Alliances allow airlines to extend their route systems without adding the costs of new aircraft and crew. Code-sharing alliances between pairs of airlines, and strategic alliances that create global networks will likely reduce costs and increase passenger traffic. Alliances in air freight are less prevalent, and have not had much success. Nevertheless, freight traffic is also expected to grow, possibly due to the increasing importance of just-in-time shipping and a strong U.S. economy.

The maritime industry is experiencing consolidation in the form of ocean carrier mergers and multi-carrier alliances. Mergers that create economies of scale and enable rigorous cost reduction programs have freed the capital necessary to invest in larger, cost-efficient containerships.[287] While the trend towards building larger containerships will likely continue,[288] smaller ports may be unable to handle the larger containerships and the resulting increase of intermodal traffic. Consequently, larger ports will likely become hub ports, or load center ports, that feed smaller ports. Increased traffic will challenge port capacity and intermodal connections while shipping rates continue to decrease, due largely to increased competition and overcapacity in the industry.[289] Pacific Rim trade is expected to increase, with much of the growth coming from U.S. trade with China. Traffic with Latin America is expected to grow due in part to increased political stability.

The Association of American Port Authorities expects U.S. legislation to continue the deregulation of ocean shipping. Legislation that increases the amount of confidentiality between shippers and carriers is expected to increase price competition if it is passed. U.S. carriers, which are required to file their shipping rates while foreign carriers are not, suffer from a competitive disadvantage in negotiating shipping contracts.[290]

U.S. rail firms are changing from conveyors of bulk commodities, such as coal and grain, to conveyors of intermodal freight. Intermodal traffic is the second-largest source of revenue for railroad transportation, and is expected to supplant coal as the largest source of revenue in the next several years.[291] Rail intermodal traffic[292] increased by 6 percent to 7 percent annually during 1991-96.[293] The Association of

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[286] Code-sharing is the practice of marketing two or more airlines' flights under a single code in computer reservation systems, giving greater priority on reservation screens to the joint flights.

[287] Terry Brennan, "Mergers Reshaping Maritime," *Traffic World*, June 9, 1997.

[288] Industry representative, telephone interview by USITC staff, Oct. 14, 1997.

[289] David Biederman, "Waiting for Deregulation," *Traffic World*, June 9, 1997.

[290] Industry representative, telephone interview by USITC staff, Oct. 14, 1997.

[291] Ibid.

[292] Rail intermodal traffic is the rail component of intermodal shipping.

[293] Industry representative, telephone interview by USITC staff, Oct. 9, 1997.

American Railroads projects 3- to 5-percent growth of intermodal shipping in 1997. Strong 8-percent growth was recorded in the first three quarters of 1997.[294]

U.S. rail firms are consolidating domestically in order to enhance their competitive posture and improve operating margins, while looking to generate revenue through participation in newly privatized Mexican railroads. U.S. acquisitions in Mexico are consistent with the pattern of consolidation in the U.S. rail industry, which has been driven by the need to reduce costs in an increasingly competitive environment. U.S. railroad companies have purchased minority stakes in the busiest Mexican railroad, and another U.S. company is in the process of acquiring a stake in the second busiest Mexican railroad. In both cases, Mexican groups maintain the controlling interest. Private investment in Mexico's railway system may boost rail utilization, encourage the modernization of existing routes, and motivate creation of new connections between the United States and Mexico.[295]

The trucking industry has experienced increased traffic with Mexico since NAFTA was enacted. Truck traffic with Canada also increased during 1991-96, and will likely continue to do so. Spurred by cost-containment measures in the manufacturing industry, many large manufacturers are locating their facilities within a 1-day haul of their suppliers in order to take advantage of just-in-time inventory systems.[296] Such strategies are boosting freight volumes, and the trucking industry expects continued high growth in intermodal traffic spurred by increased freight volumes.

Travel and Tourism Services

Introduction

Trade in travel and tourism services encompasses expenditures made by travelers while in another country, such as for lodging and meals. U.S. exports are inbound travelers' expenditures in the United States, whereas U.S. imports are U.S. travelers' expenditures abroad. Although passenger fares may be considered a component of travel and tourism revenues, such fares fall outside the scope of this discussion. Passenger fares are addressed in the previous discussion of transportation services. Travel and tourism services are traded mainly through cross-border channels, although affiliate trade also takes place.

[294] Pradnya Joshi, "As U.S. Economy Soars, Shipping Delays Grow," *Newsday*, Los Angeles Times - Washington Post News Service, Oct. 2, 1997.

[295] "Transportation," *U.S. Industry & Trade Outlook '98*, p. 43-19.

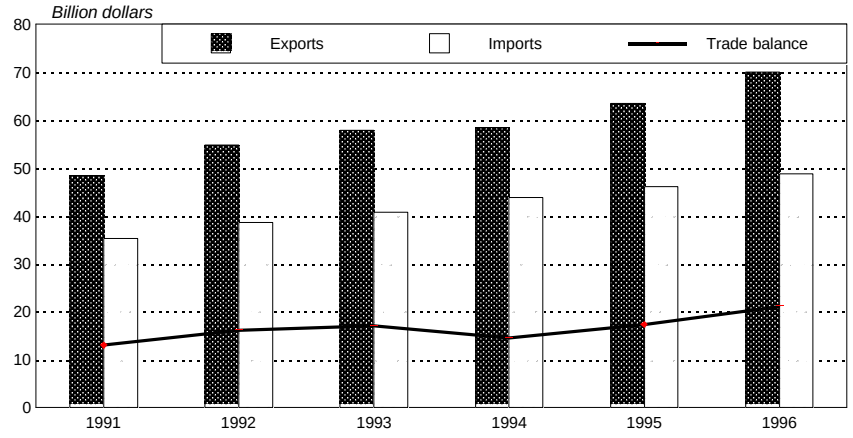
[296] Ibid., p. 43-20.

Recent Trends

Cross-Border Trade, 1991-96

In 1996, the United States earned $69.9 billion from cross-border travel and tourism exports (figure 3-38), representing 32 percent of total U.S. service exports. Cross-border exports increased by 10 percent in 1996, faster than the average annual growth rate of 7 percent during 1991-95. Cross-border imports of $48.7 billion in 1996 reflected 6-percent growth, slightly below the average annual growth rate of 7 percent during 1991-95. The resulting U.S. surplus of $21.2 billion in 1996 grew by 22 percent, triple the average annual growth rate of 7 percent during 1991-95 (despite a decline in the surplus in 1994). Much of the increase in exports and the surplus could be attributed to the 1996 Olympic Games in Atlanta. Expenditures by visitors to the United States increased significantly before and during the Olympics.

Figure 3-38
Travel and tourism services: U.S. cross-border exports, imports, and trade balance, 1991-96

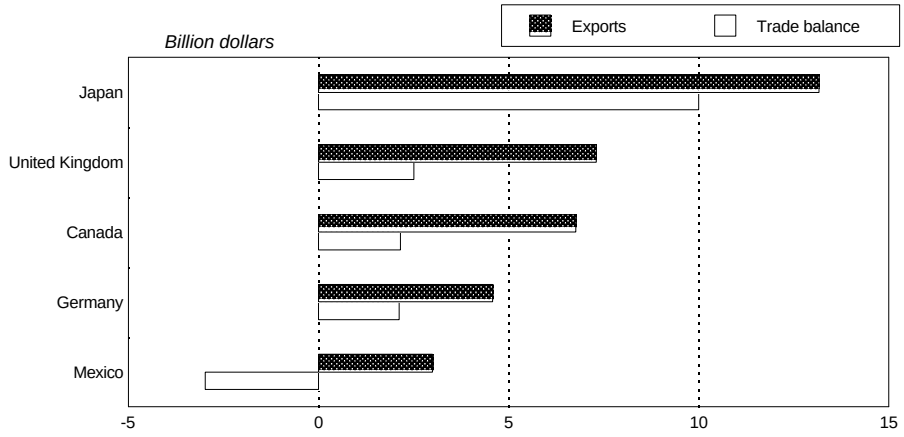


Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 108-109.

Visitors from Japan, the United Kingdom, Canada, Germany, and Mexico, ranked by expenditures in the United States, accounted for one-half of U.S. cross-border travel and tourism exports in 1996 (figure 3-39). The United States recorded a travel and tourism trade surplus with all these countries except Mexico, with which it recorded a deficit amounting to $3 billion. The peso devaluation in late 1994 adversely affected cross-border travel and tourism trade with Mexico. Thereafter, U.S. exports to Mexico plummeted by 41 percent in 1995, and recovered by only 5 percent in 1996. Meanwhile, U.S. imports from Mexico continued to grow during 1991-96, by 12 percent in 1996 alone, and contributed to a widening U.S. deficit in travel and tourism trade with Mexico. Of the countries with which the United States experienced a surplus in 1996, Japan accounted for the largest share of U.S. travel and tourism exports, 19 percent, and the largest trade surplus, at $10 billion. Japanese travelers' expenditures in the United States grew by 12 percent in 1996.

Receipts from other Asia-Pacific nations combined also posted a strong increase, growing by 17 percent in 1996 and generating a $3-billion surplus. This made 1996 the only year during 1991-96 in which U.S. receipts from Asia-Pacific countries ($23.3 billion) exceeded those from Europe ($23.0 billion). It is also the only year in which expenditures of Canadian visitors to the United States increased. U.S. travel and tourism services exports to Canada grew by 9 percent in 1996 after experiencing an average annual decline of 8 percent during 1991-95. As measured by imports, the leading foreign destinations for U.S. travelers during 1991-96 were Mexico, the United Kingdom, Canada, and Japan, which collected $6 billion, $4.8 billion, $4.6 billion, and $3.2 billion, respectively, from these travelers in 1996.

Figure 3-39
Travel and tourism services: U.S. cross-border exports and trade balance, by major trading partners, 1996



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, p. 115.

Affiliate Transactions, 1991-95

As noted, travel and tourism services are also sold through majority-owned affiliates. However, data on affiliate transactions in such services are available only for the lodging industry, comprising hotels, motels, and similar establishments. Foreign-based lodging affiliates of U.S. firms generated sales estimated at $2.8 billion in 1995, up by 26 percent from 1994 (figure 3-40). Such growth was six times greater than the 4-percent average annual growth rate recorded during 1991-94. U.S. purchases from foreign-owned lodging affiliates in the United States increased by 12 percent, to $7.5 million, in 1995. This was slightly above the average annual increase of 10 percent during 1991-94. The resulting $4.7-billion U.S. deficit in affiliate transactions, while larger by 5 percent than the 1994 deficit, was far less than that which would have resulted had it increased at the average annual rate of 14 percent experienced during 1991-94. Available data on U.S.-owned affiliates' transactions indicate that sales were largest in Canada, which accounted for 14 percent, followed by the United Kingdom, Australia, and France (figure 3-41). Conversely, Japanese-owned affiliates accounted for the largest single share, 37 percent, of total U.S. purchases of travel and tourism services, as well as the largest U.S. deficit in such services. British-owned affiliates placed second, accounting for 14 percent of U.S. purchases.

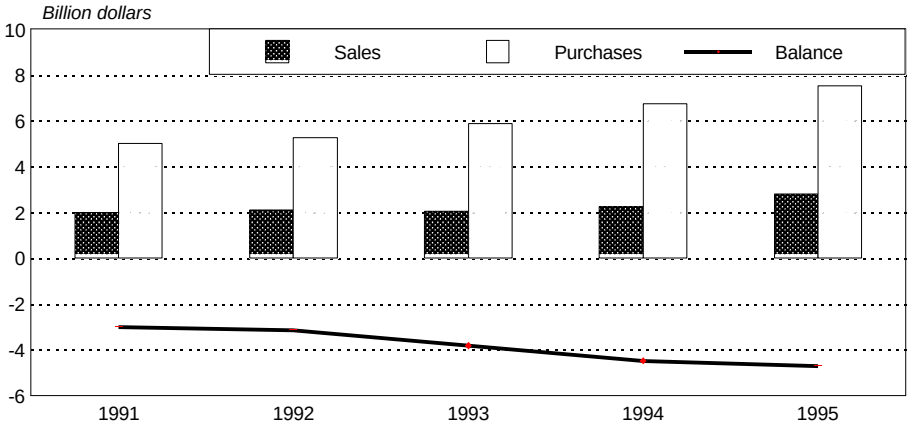
Summary and Outlook

The 46 million visitors arriving in the United States in 1996 surpassed arrivals in all other countries except France, which attracted 62 million. Travelers to the United States accounted for 8 percent of arrivals anywhere in the world. Moreover, the United States accounted for 16 percent of worldwide expenditures by international travelers.[297] These data indicate that foreign travelers tend to spend substantially more when visiting the United States than when visiting other countries, in the aggregate.

Although Canada and Mexico accounted for nearly half of the foreign tourist arrivals in the United States in 1996, these two countries ranked behind Japan and the United Kingdom as sources of U.S. travel and tourism revenue. In part, this reflects the shorter duration of stays by Canadian and Mexican travelers. Nonetheless, recent improvements in the Canadian economy could enable Canadians to spend higher amounts in the United States in 1997 and may even enable their spending to approach levels attained in the early 1990s. Expenditures by Mexico's visitors to the United States likewise may be expected to rebound further as the adverse consequences of the 1994 peso devaluation dissipate.

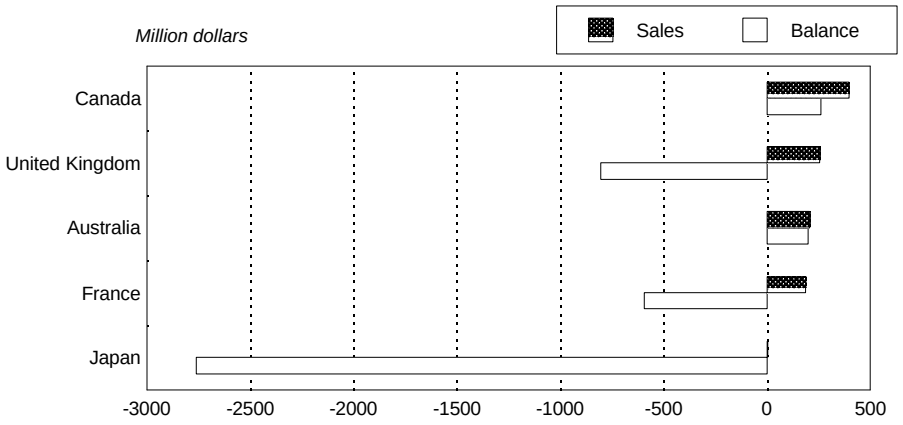
[297] *U.S. Industry & Trade Outlook '98*, pp. 44-1, 44-2.

Figure 3-40
Travel and tourism services transactions by majority-owned affiliates: U.S. sales, purchases, and balance, 1991-95



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Sept. 1994, Sept. 1995, Nov. 1996, and Oct. 1997, pp. 137-138.

Figure 3-41
Travel and tourism services transactions by majority-owned affiliates: U.S. sales and balance, by major trading partners, 1995



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 1997, pp. 137-138.

The outlook for U.S. travel and tourism revenue generated from European countries is also positive and may ease expected weakness in U.S. exports derived from anticipated decreases in Asia-Pacific travelers to the United States. Moreover, Europe is likely to remain the dominant beneficiary of U.S. travel expenditures. It is believed that, in the long run, a single European currency, once implemented, may simplify travel and reduce consumer prices. However, in the short run, costs of conversion to a single currency could exert upward pressure on prices, and consumers could delay discretionary travel until assured about use of the new currency.[298]

The outlook for exports derived from visitors to the United States from the Asia-Pacific region was believed to be positive prior to declines in several Asian currencies and stock markets beginning in mid-1997. Currently, arrivals and expenditures in the United States, Europe, and within the Asia-Pacific region by travelers from Asian countries are expected to be negatively affected by these events, as potential travelers from Indonesia, Malaysia, South Korea, and Thailand lost substantial savings and income that would have enabled or motivated travel abroad. Such travel may fall below 1996 levels for some time.

With respect to prospective U.S. imports, a number of Asia-Pacific countries reportedly fear declines in U.S. travelers in reaction to recent events. Hong Kong's return to China[299] and public health concerns over the avian flu in Hong Kong,[300] as well as forest fire-bred smog that spread over much of Southeast Asia may have dampened normally strong tourism growth.[301]

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[298] Marion Bywater, "The Impact of the Single European Currency on the Travel and Tourism Market," *Travel and Tourism Intelligence*, No. 5, 1997 (Oct. 1997), pp. 99-100.

[299] Michael Mackey, "Where Have All the Tourists Gone?" *Air Transport World*, vol. 34 (Dec. 1997), p. 22.

[300] Carrie Lee, *HK Poultry Dealers Denounce Compensation Offer*, Reuters News Service, found at Internet address http://www.yahoo.com/headlines/, posted Jan. 6, 1997, 5:17 p.m., retrieved Jan. 7, 1998.

[301] *ASEAN Ministers Begin Two-Day Smog Meeting*, Reuters News Service, found at Internet address http://www.pathfinder.com/, posted Dec. 22, 1997, 8:22 EST, retrieved Jan. 7, 1998, and Nisid Hajari, "Dark Cloud of Death," *Time Asia*, Oct. 6, 1997.

CHAPTER 4
Examination of WTO Agreement on Basic Telecommunications

Introduction

On February 15, 1997, the World Trade Organization (WTO) concluded nearly 3 years of extended negotiations on the $512-billion global market for basic telecommunication services.[1] Signatories to the agreement include the United States and 68 of its trading partners, which together represent over 90 percent of global telecommunication service revenues. Subject to explicit exceptions listed by trading partners, the agreement provides U.S. telecommunication carriers with access to local, long-distance, and international service markets through all means of network technology (e.g., wireline, cellular, and satellite technology), either on a facilities basis[2] or through resale.[3] The agreement also ensures that U.S. investors can acquire or establish telecommunication companies in many countries, and obligates most U.S. trading partners to maintain or implement largely new, procompetitive telecommunication regulations. Parties to the agreement have predominantly scheduled binding commitments regarding market access, investment, and regulatory principles on a most-favored-nation basis.[4] Signatories' commitments became operative on February 5, 1998,[5] when supplementary telecommunication schedules were folded into the General Agreement on Trade in Services (GATS).[6]

[1] In 1995, the global market for all telecommunication services was valued at $602 billion, reflecting average annual growth of 9.8 percent since 1990. Basic telecommunication services are generally assumed to account for about 85 percent of this figure, or $512 billion. See International Telecommunication Union (ITU), *World Telecommunication Development Report 1996-97* (Geneva: ITU, 1997), p. 29; and Ambassador Jeffrey M. Lang, testimony before the House Subcommittee on Commerce, Trade, and Hazardous Materials, May 9, 1996.

[2] Facilities-based services are those provided using transmission facilities owned in whole or in part by the carrier providing the service.

[3] There are two types of resale services. A carrier provides pure resale services by switching traffic to another carrier, which subsequently transmits the originating carriers' traffic over its network. A carrier provides facilities resale services by sending traffic over transmission facilities leased from other carriers.

[4] Most-favored-nation (MFN) status accords to one trading partner terms and conditions of trade that are no less favorable than those accorded to any other trading partner.

[5] Certain schedules indicate that commitments will be phased in. In these instances, the schedules will enter into force on February 5, 1998, but the actual implementation date of the subject commitments will be the date specified in the national schedules.

[6] The GATS entered into force on January 1, 1995.

This chapter examines commitments scheduled by the 20 largest foreign signatories to the agreement for the purposes of identifying the benefits conferred, and restrictions imposed, on U.S. service providers. The 20 largest foreign signatories, which account for 60 percent of global telecommunication service revenues, include, in descending order, the European Union (EU), Japan, Australia, Canada, Switzerland, Korea, Brazil, Mexico, Argentina, Hong Kong,[7] India, South Africa, Norway, Indonesia, Singapore, Israel, Poland, Malaysia, New Zealand, and Thailand. Basic telecommunication services, as delineated in the GATT Secretariat's Services Sectoral Classification List,[8] include voice, packet-switched data transmission,[9] circuit-switched data transmission, telex,[10] telegraph, facsimile, and private leased circuit services.[11]

Methodology

For the purposes of this examination, USITC staff have gathered information by conducting in-person and telephone interviews with domestic and foreign firms, telecommunication regulators, and other government authorities. In addition, USITC staff have drawn information from secondary sources, specifically trade journals and industry reports.

Examinations of foreign telecommunication commitments are qualitative in nature; USITC staff have made no attempt to quantify the benefits of this agreement. Examinations of the schedules proceed on a country-by-country basis, with the exception of the examination of the EU schedule, which inscribes the commitments of the 15 EU Member States.

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[7] Hong Kong's commitments under the GATS remain in effect for 50 years following its restoration to China, which occurred July 1, 1997. Hong Kong's trade obligations were grandfathered by the Sino-British Joint Declaration on the Question of Hong Kong, ratified on May 27, 1985.

[8] The GATT Secretariat's Services Sectoral Classification List (MTN.GNS/W/120) specified 155 distinct services over which negotiations were to be conducted during the Uruguay Round of the GATT, now replaced by the WTO. Basic telecommunication services account for 7 of the 155 services listed by the Secretariat.

[9] Packet-switched services entail dividing data messages into discrete units called packets, which are then routed individually over telecommunication networks. Packet-switching provides for more efficient use of telecommunication networks for interactive data communications because shorter packets may be routed through momentarily unutilized transmission equipment. By contrast, circuit-switching establishes an end-to-end circuit for the duration of interactive data transmissions, prohibiting use of the circuit for other purposes until the connection is closed. Harry Newton, *Newton's Telecom Dictionary, 11th ed.* (New York: Flatiron Publishing, 1996), p. 129.

[10] Telex is a global messaging system that, while popular and sometimes faster and more reliable than voice and data telephony in some foreign countries, is being replaced by faster and more reliable electronic mail and facsimile services. Ibid., p. 601.

[11] Private leased line services range from providing users with a leased line or circuit, which is dedicated solely to use by that customer, to establishing dedicated networks for the provision of voice, data, and value-added (e.g., electronic mail) services.

Each examination begins by identifying the scope of services covered by the commitments and summarizing the extent to which the commitments broadly permit foreign carriers to enter local, long-distance, and international markets; to access wireline, cellular, and satellite networks; to provide facilities-based and resale services; and to invest in telecommunication carriers. In addition, the discussion specifies the procompetitive regulatory principles adopted by each subject trading partner. The examinations predominantly identify the terms and conditions under which foreign firms may provide basic telecommunication services. However, because commitments on regulatory principles will affect foreign provision of enhanced, as well as basic, telecommunication services, each examination briefly notes the extent to which the inscribed commitments promote or impede trade in enhanced services.

Where possible, the examinations identify rollback commitments, which liberalize trade and investment policies; standstill commitments, which bind current policies; and regressive commitments, which add further restrictions on trade and investment. USITC staff have identified rollback, standstill, and regressive commitments by comparing the commitments scheduled in February 1997 with questionnaire responses that summarize pre-existing regulatory policies and practices in foreign markets. Most parties to the WTO Negotiating Group on Basic Telecommunications (NGBT) completed these questionnaires in September-October 1994 to facilitate negotiations.[12] The inscription of rollback commitments is one of the distinguishing achievements of the WTO basic telecommunication agreement, as commitments scheduled for other services during the Uruguay Round are overwhelmingly standstill commitments. Standstill commitments establish benchmarks and enhance regulatory transparency, but do not achieve actual trade liberalization.

Summary tables following the text provide readers with a quick reference to key elements of the subject countries' commitments. The first summarizes key elements of signatories' commitments on basic telecommunication services. The second summarizes commitments on enhanced telecommunication services, scheduled in April 1994.

WTO Agreement on Basic Telecommunication Services

Before proceeding to the examination of foreign schedules, it is appropriate to describe briefly the elements of the WTO agreement on basic telecommunication services, the nature of trade in telecommunication services, and the variance of the subject trading partners in terms of market size, firm size, and investment. There is no single document which embodies the basic telecommunication agreement. Rather, the agreement comprises several documents, the content and interrelationships of which set forth the agreement, and consequently influence the content and interpretation of basic

[12] Indonesia and Malaysia declined to submit questionnaires to the NGBT. To characterize the nature of commitments scheduled by these countries, USITC staff draw from information gathered through interviews with telecommunication regulators conducted in these countries in February 1997. Certain other parties to the WTO agreement, such as Brazil, India, Israel, Poland, Singapore, South Africa, and Thailand, did not submit responses to the NGBT questionnaire until 1995-96.

telecommunication commitments. At a minimum, the agreement comprises the Fourth Protocol to the GATS, 55 supplementary schedules of commitments,[13] 9 lists of most-favored-nation (MFN) exemptions, a reference paper on procompetitive regulatory principles, and 2 notes on scheduling methodology from the Chairman of the WTO's Group on Basic Telecommunications (GBT) (figure 4-1). The text below discusses these documents, as well as documents that shaped negotiations and the ultimate agreement (table 4-1).

The General Agreement on Trade in Services

The principal document shaping the telecommunication agreement is the GATS, which is an annex to the Agreement Establishing the World Trade Organization signed in Marrakesh, Morocco, on April 15, 1994.[14] The GATS is the first multilateral, legally enforceable agreement[15] covering trade and investment in services.[16] The GATS comprises three elements: (1) a framework of general obligations and disciplines for government regulation of trade and investment in services; (2) a series of annexes and ministerial decisions that supplement rules found in the framework and provide for follow-on activities or additional negotiations; and (3) national schedules wherein countries inscribe commitments to accord foreign service providers market access and national treatment, subject to defined exceptions (figure 4-2).

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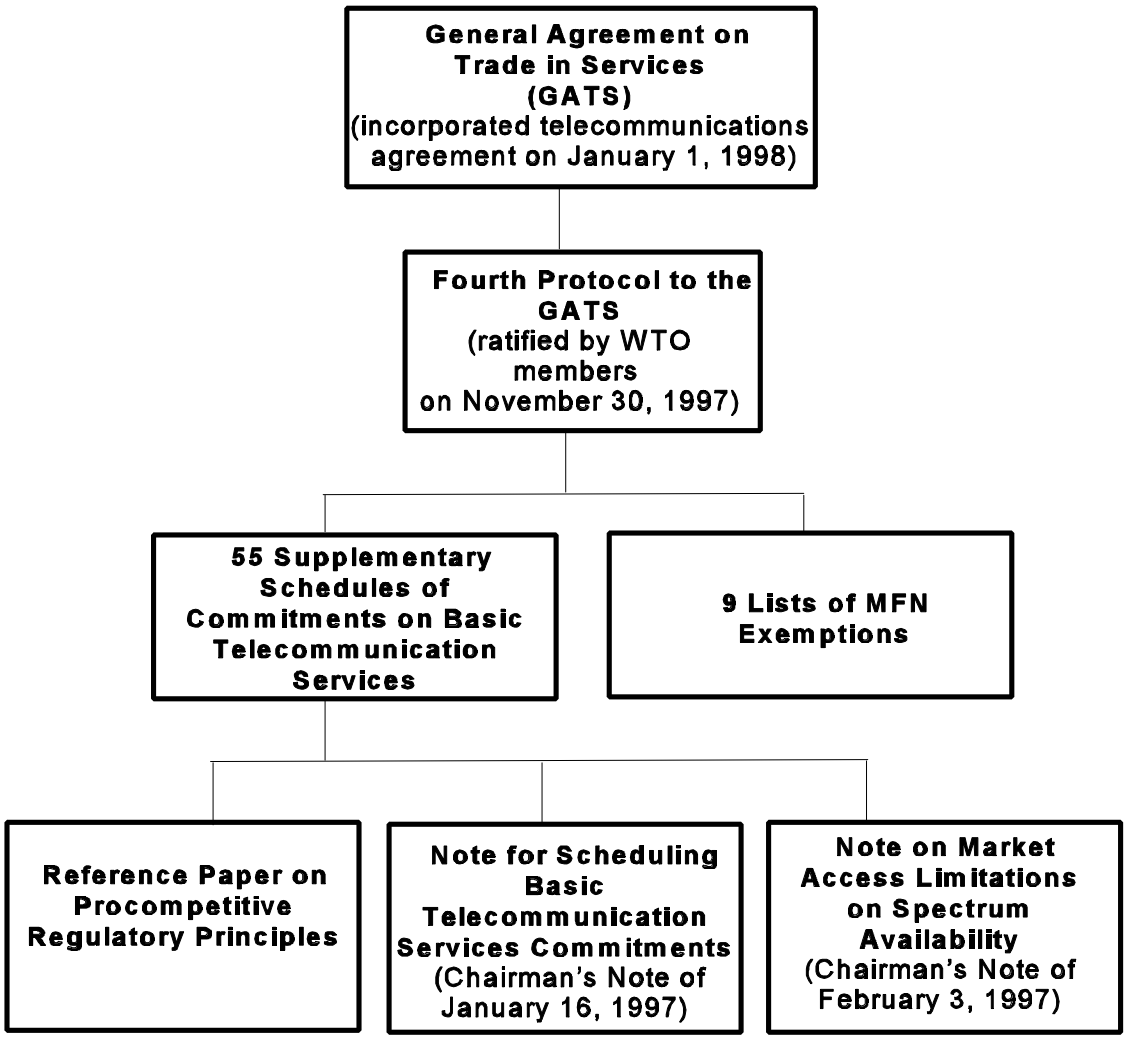
[13] Although there are 69 signatories to the agreement, the schedules number 55 as the EU submitted a unified schedule that inscribes the commitments of all 15 member states.

[14] The U.S. International Trade Commission has published several reports that examine in detail the commitments scheduled by GATS signatories. See USITC, *General Agreement on Trade in Services: Examination of Major Trading Partners' Schedules of Commitments*, USITC publication 2940, 1995; USITC, *General Agreement on Trade In Services: Examination of South American Trading Partners' Schedules of Commitments*, USITC publication 3007, 1996; USITC, *U.S. Trade Shifts in Selected Industries: Services*, USITC publication 2969, 1996; USITC, *Recent Trends in U.S. Services Trade*, USITC publication 3041, 1997; and USITC, *General Agreement on Trade in Services: Examination of Schedules of Commitments Submitted by Asia/Pacific Trading Partners*, USITC publication 3053, 1997.

[15] The legal enforceability of the GATS offers service providers a predictable avenue for redress if their exports or sales are impaired by trade barriers erected by other WTO members. GATS signatories are entitled to consultations with trading partners and access to the formal dispute settlement mechanism available under the WTO.

[16] Uruguay Round Agreements Act (URAA) Statement of Administrative Action (SAA), published in H. Doc. 103-316, 103d Cong., 2d Session, 1994. The Statement of Administrative Action was submitted to the Congress on September 27, 1994, in compliance with section 1103 of the Omnibus Trade and Competitiveness Act of 1988, and accompanied the implementing bill for the Agreement Establishing the World Trade Organization and the agreements annexed to that Agreement (the Uruguay Round Agreements). In enacting the URAA, Congress approved the Statement of Administrative Action (see URAA, sec. 101(a)(2), approved Dec. 8, 1994; Pub. Law 103-465, 108 Stat. 4809; hereafter URAA documents). SAA, p. 297; URAA documents, p. 966.

Figure 4-1
Components of the WTO agreement on basic telecommunication services



Source: Compiled by USITC staff from World Trade Organization, found at Internet address http://www.wto.org, and Chairman's Notes (S/GBT/W/2/Rev. 1 of Jan. 16, 1997) and (S/GBT/W/3 of Feb. 3, 1997).

Table 4-1
Elements of the WTO agreement on basic telecommunication services

Document	Highlights
General Agreement on Trade in Services (GATS) (Apr. 15, 1994)	• Calls on WTO members to observe 14 general obligations conducive to trade and investment in services (e.g., MFN treatment, regulatory transparency, domestic regulations, monopolies and exclusive service providers) • Calls on WTO members to schedule market access, national treatment, and additional (optional) commitments specific to certain industries, including basic telecommunications and enhanced telecommunications, in national schedules of commitments • Calls on WTO members to observe eight annexes, two of which pertain to telecommunications (Annex on Telecommunications and Annex on Negotiations on Basic Telecommunications)
Ministerial Decision on Negotiations on Basic Telecommunications (Dec. 15, 1993)	• Specifies that WTO members would participate in negotiations pertaining to basic telecommunication services on a voluntary basis • Specifies that negotiations should be comprehensive in scope • Establishes Negotiating Group on Basic Telecommunications (NGBT) to carry out negotiations • Specifies that negotiations should commence no later than May 16, 1994, and conclude by April 30, 1996 • Prohibits implementation of measures that would improve negotiating position and leverage
Annex on Telecommunications (Apr. 15, 1994)	• Requires WTO members to allow service providers access to and use of public telecommunication transport networks and services (PTTNS) • Requires WTO members to interconnect private leased or owned circuits with PTTNS or with circuits leased or owned by another service supplier • Requires WTO members to allow the use of protocols of the service supplier's choice in the supply of any service • Requires WTO members to allow service suppliers use of PTTNS for the movement of information within and across borders, including for intra-corporate communications of such service suppliers • Provides for technical cooperation through bodies such as the International Telecommunication Union (ITU) and International Organization for Standardization (IOS) • Excludes cable and broadcast distribution of radio and television programming from scope of the negotiations
Annex on Negotiations on Basic Telecommunications (Apr. 15, 1994)	• Requires WTO members to accord MFN treatment by agreed date if negotiations succeed, or by April 30, 1996, if negotiations do not succeed

Table 4-1—*Continued*
Elements of the WTO agreement on basic telecommunication services

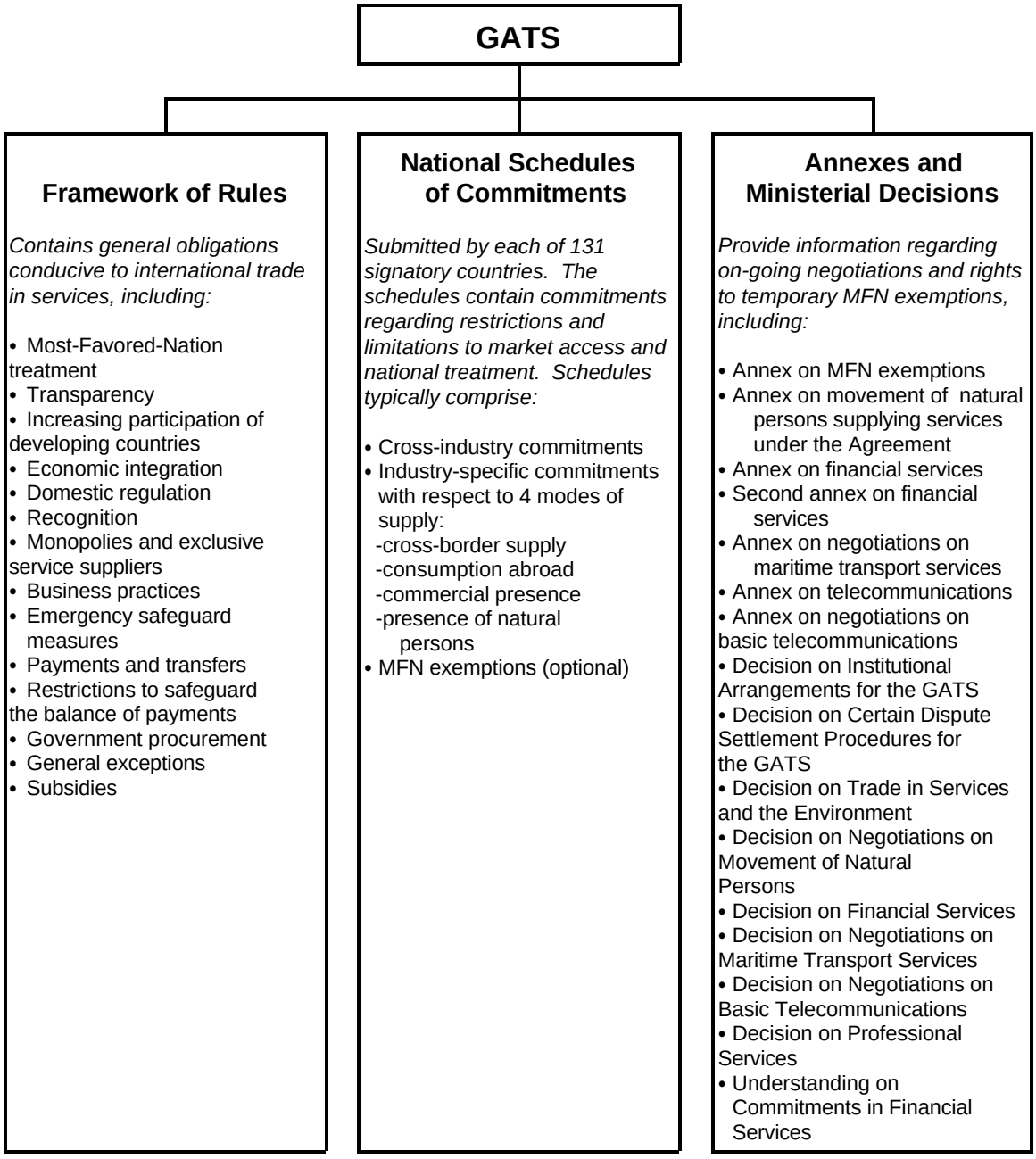
Document	Highlights
Decision on Commitments in Basic Telecommunications (Apr. 30, 1996)	• Council for Trade in Services adopts the "Fourth Protocol to the General Agreement on Trade in Services" • Establishes period from January 15, 1997 to February 15, 1997, during which WTO members with schedules attached to the Fourth Protocol may supplement or modify national schedules and lists of MFN exemptions • Establishes the Group on Basic Telecommunications (GBT) to carry negotiations forward to February 15, 1997 • Allows WTO members which have not attached national schedules or lists of MFN exemptions to the Fourth Protocol to submit such documents by January 1, 1998
Fourth Protocol to the General Agreement on Trade in Services (Apr. 30, 1996)	• Annexes national schedules and lists of MFN exemptions to the GATS • Establishes November 30, 1997 as date for acceptance of protocol (and thus final national schedules and lists of MFN exemptions) • Indicates that the Protocol will enter into force on January 1, 1998
Chairman's Note of January 16, 1997	• Outlines assumptions underlying scheduled commitments on basic telecommunication services • Unless explicitly exempted in the schedules, basic telecommunication services: (i) encompass local, long-distance, and international services for public and non-public use; (ii) may be provided on a facilities basis or by resale; and (iii) may be provided through any means of network technology (e.g., wireline, terrestrial wireless (cellular), or satellite) • Indicates private leased circuit services involve the ability to sell or lease any type of network capacity (e.g., that on wireline, cellular, or satellite networks) for the provision of any type of basic telecommunication services, unless explicitly exempted • WTO members may maintain separate entries for cellular or mobile services
Chairman's Note of February 3, 1997	• WTO members do not need to list frequency/spectrum management policies, including the ability to allocate frequency bands taking into account existing and future needs, as market access restrictions

Table 4-1—*Continued*
Elements of the WTO agreement on basic telecommunication services

Document	Highlights
Report of the Group on Basic Telecommunications (Feb. 15, 1997)	• Summarizes issues addressed since April 30, 1996 • Indicates that 55 schedules (submitted by 69 countries) and 9 lists of MFN exemptions had been submitted by February 15, 1997 (Note: The European Union (EU-15) submitted a joint schedule.) • Indicates agreement among WTO members that differential accounting rates applied to international traffic should not give rise to dispute settlement procedures as MFN violations, yet indicates this understanding will be reviewed no later than January 1, 2000 • Notes further national schedules and lists of MFN exemptions may be submitted prior to January 1, 1998
55 Schedules of Commitments and 9 Lists of MFN Exemptions (Feb. 15, 1997)	• List market access and national treatment commitments on basic telecommunication services in 69 countries, abiding by Chairman's notes • List commitments on procompetitive regulatory principles found in the Reference Paper, whether in part or in entirety • List exemptions to MFN treatment by 9 WTO members
Reference Paper on Procompetitive Regulatory Principles (Feb. 15, 1997)	Provides for: (i) safeguards to protect against anticompetitive practices by major suppliers; (ii) interconnection to PTTNS under nondiscriminatory terms and conditions; (iii) nondiscriminatory and competitively neutral universal service requirements; (iv) transparent licensing criteria; (v) independent regulators; and (vi) nondiscriminatory allocation of scarce resources, including frequencies, numbers, and rights of way

Source: Compiled by USITC staff from World Trade Organization, found at Internet address http://www.wto.org/, and Chairman's Notes (S/GBT/W/2/Rev. 1 of Jan. 16, 1997) and (S/GBT/W/3 of Feb. 3, 1997).

Figure 4-2
Structure of the General Agreement on Trade in Services



Source: Compiled by USITC staff from World Trade Organization, legal texts, found at Internet address http://www.wto.org/wto/legal/.

The GATS Framework

The GATS framework lists 14 obligations and disciplines intended to facilitate international trade and investment in services. The telecommunication agreement incorporates the obligations set forth in the framework and, in some instances, fleshes out certain obligations, making them directly applicable to basic telecommunication services. For instance, the telecommunication agreement incorporates Article II of the framework, which generally obligates WTO members to accord other members MFN treatment.[17] The WTO members' interest in achieving an MFN-based telecommunication agreement motivated them to extend talks past December 1993, when most other GATS negotiations concluded. Prior to December 1993, some members expressed concern that trade liberalizing commitments scheduled on an MFN basis would disadvantage firms from open markets. Specifically, the concern was that firms from restrictive markets, "free-riding" on the MFN principle, would be able to enter relatively liberal markets, while firms from liberal markets could still be prohibited from entering restrictive markets, and left with little leverage to negotiate future entry. While this concern existed in other service industries, too, it was particularly acute in so-called "infrastructure services" — telecommunication, financial, and transportation services — the vitality and efficiency of which exert a strong economy-wide influence. The interest in negotiating MFN-based, trade-liberalizing commitments on basic telecommunication services led to a delay in negotiations until such a time as negotiators and regulators could focus a large share of their energies on these talks.

Other key framework obligations reflected in the telecommunication agreement include those on regulatory transparency (article III), domestic regulation (article VI), and monopolies and exclusive service providers (article VIII). Article III requires prompt publication of measures relevant to trade and investment in services, and notification of changes to these measures. Article VI requires that all measures affecting trade in services be administered in a reasonable, objective, and impartial manner. Article VIII requires WTO members to ensure that monopoly service providers in their markets observe MFN obligations and that monopolies and other firms with market power do not act in a manner inconsistent with scheduled commitments. The telecommunication agreement fleshes out certain of these obligations in the reference paper on pro-competitive regulatory principles, which is discussed below.

The Annex on Telecommunications

The Annex on Telecommunications influenced the scope of negotiations and ensured that all firms requiring the use of telecommunication networks would be provided with adequate access. To set the scope, the annex stipulates that negotiations would focus on "public telecommunication transport networks and services," thereby signaling that WTO members would negotiate conditions of access to and use of telecommunication facilities as well as the provision of services. The annex also stipulates that cable and broadcast distribution of radio and television programming would be outside the scope

[17] Despite the general obligation to observe the most-favored-nation principle, signatories to the agreement could register narrowly defined exceptions. Nine WTO members submitted Lists of Article II (MFN) Exemptions in February 1997. These members were Antigua and Barbados, Argentina, Bangladesh, Brazil, India, Pakistan, Sri Lanka, Turkey, and the United States.

of negotiations.[18] This was significant as it placed the provision of audiovisual services through satellite networks outside the scope of the telecommunication agreement. With respect to establishing an acceptable degree of network access, the annex stipulates that foreign firms requiring the use of telecommunication facilities would be accorded access to and use of public telecommunication networks on reasonable and nondiscriminatory terms and conditions.[19] Thus, providers of enhanced telecommunication services, financial services, and computer services, among others, obtained some degree of certainty that they would not be disadvantaged in performing their core businesses due to adverse terms and conditions of accessing telecommunication services and facilities.

Ministerial Decisions and the Fourth Protocol

Two ministerial decisions also shaped the telecommunication agreement. The Ministerial Decision on Negotiations on Basic Telecommunications, issued December 15, 1993, indicated that negotiations on basic telecommunication services would be undertaken on a voluntary basis and would be comprehensive in scope, with no basic telecommunication service excluded in the absence of a thorough examination and agreement among negotiators. It also established the NGBT to undertake negotiations; indicated that the NGBT should make its final report no later than April 30, 1996; and proscribed for the duration of the talks the implementation of measures that would improve negotiating position and leverage.[20]

When WTO members agreed to extend talks past the April 1996 deadline, the Council for Trade in Services adopted the Decision on Commitments in Basic Telecommunications.[21] The decision, issued April 30, replaced the NGBT with the GBT; established January 15 to February 15, 1997, as the period during which WTO members could modify or supplement schedules and MFN exemption lists; adopted the Fourth Protocol in order to preserve the best offers to date, and to incorporate finalized schedules and MFN exemptions in the GATS; and invited WTO members who had not participated in the negotiations to submit commitments and MFN exemptions for approval by January 1, 1998.[22]

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[18] Cable and broadcast distribution of radio and television programming reside within the scope of the GATS, but are treated as audiovisual services rather than basic telecommunication services.

[19] WTO, *The Results of the Uruguay Round of Multilateral Trade Negotiations* (Geneva: WTO, 1995), p. 359.

[20] WTO, *The Results of the Uruguay Round*, p. 461.

[21] WTO members continued talks principally at the insistence of U.S. negotiators, who considered the commitments submitted by most other trading partners to be insufficiently trade-liberalizing.

[22] WTO, "Trade in Services: Decision on Commitments in Basic Telecommunications," found at Internet address http://www.wto.org/, retrieved Feb. 20, 1997.

Supplementary Schedules on Basic Telecommunication Services

Scheduling Methodology

Most of the detail of the GATS appears in national schedules of commitments. To date, 131 countries have specified commitments on trade and investment in services,[23] predominantly on a sector-by-sector basis.[24] GATS signatories schedule commitments on both market access and national treatment with respect to four distinct modes of supply (i.e., cross-border supply, consumption abroad, commercial presence, and presence of natural persons), meaning that eight explicit or implicit schedule entries are recorded for each of the industries currently covered under the GATS.

Within national schedules, trading partners have in many cases inscribed "full" market access and/or national treatment commitments, which indicate that no sector-specific restrictions exist, or "partial" commitments, which describe existing restrictions. In other cases, trading partners have indicated that trade and investment restrictions remain "unbound." Importantly, full and partial commitments are "binding" under the terms of the GATS, meaning that they prevent countries from becoming more restrictive in the future, unless those countries that regress are willing to compensate aggrieved parties. Where countries have indicated that limitations remain unbound, they have preserved the right to impose additional restrictions on market access and/or national treatment in the future without penalty.[25]

Telecommunication Schedules

Commitments on basic telecommunication services appear in supplementary schedules of commitments and constitute the bulk of the telecommunication agreement. Basic telecommunication schedules are especially complex because they not only delineate market access and national treatment commitments regarding the seven basic telecommunication services, but communicate commitments regarding distinct geographic telecommunication markets (e.g., local, long-distance, and international markets), distinct network technologies (e.g., wireline, cellular, and satellite networks), and facilities-based and resale services. Further, the supplementary schedules delineate commitments regarding regulatory principles.

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[23] In addition, 29 countries have submitted applications to join the WTO. Schedules submitted by these countries are under review by accession working parties. WTO, WTO Membership, found at Internet address, http://www.wto.org/, retrieved May 22, 1997.

[24] In addition, most GATS signatories have scheduled cross-industry (horizontal) commitments to market access and national treatment that pertain to all service industries listed in their schedules.

[25] For a fuller discussion of the GATS and scheduling methodologies, see USITC, *General Agreement on Trade in Services: Examination of Major Trading Partners' Schedules of Commitments*, USITC publication 2940, 1995; USITC, *General Agreement on Trade In Services: Examination of South American Trading Partners' Schedules of Commitments*, USITC publication 3007, 1996; USITC, *U.S. Trade Shifts in Selected Industries: Services*, USITC publication 2969, 1996; USITC, *Recent Trends in U.S. Services Trade*, USITC publication 3041, 1997; and USITC, *General Agreement on Trade in Services: Examination of Schedules of Commitments Submitted by Asia/Pacific Trading Partners*, USITC publication 3053, 1997.

Chairman's Notes

To facilitate the scheduling of commitments on geographic markets, network technologies, and facilities-based and resale services, the Chairman of the GBT issued a note to WTO members on January 16, 1997. The note indicated that unless otherwise specified in the schedule, commitments pertaining to basic telecommunication services would apply to (1) local, long-distance, and international services for public and non-public use;[26] (2) networks based on all transmission technologies (e.g., wireline, cellular, and satellite networks); and (3) facilities-based and resale services.[27] The note also indicated that unless otherwise specified, private leased circuit services encompass telecommunication carriers' ability to sell or lease capacity on wireline or wireless networks for the supply of any of the other basic telecommunication services.

Thus, each supplementary telecommunication schedule implicitly or explicitly indicates through its market access and national treatment commitments the extent to which foreign telecommunication firms may gain access to local, long-distance, and international service markets through all means of network technologies, on a facilities basis or through resale. Additionally, each supplementary schedule indicates the extent to which foreign firms may acquire, establish, or hold significant shares in other telecommunication firms.

To further clarify schedules, the Chairman issued another note on February 3, 1997. This note recognized the legitimacy of domestic frequency and spectrum management, and indicated that GBT members need not identify frequency and spectrum policies as market access restrictions so long as members comply with article VI of the GATS.[28] As noted, article VI requires that regulations pertaining to trade and investment in services be reasonable, impartial, and objective.

Reference Paper

Supplementary schedules also delineate GBT members' commitments on procompetitive regulatory principles. During the course of negotiations, GBT members developed a reference paper listing these principles as means to safeguard the value of market access commitments. These procompetitive principles include:

- Safeguards against anticompetitive practices, including cross-subsidization, among monopolies or other firms with market power;

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[26] The term "non-public use" covers services provided over private networks, such as those used for intracorporate communications.

[27] The Chairman's note of January 16, 1997, obviated the need to explicitly schedule commitments specific to cellular and satellite services. However, many GBT members opted to schedule commitments on these services apart from those on wireline services. WTO, Group on Basic Telecommunications, Report of the Group on Basic Telecommunications, p. 1-2, found at Internet address http://www.wto.org/, retrieved Feb. 20, 1997.

[28] Ibid., p. 1-3.

- Timely and cost-based interconnection under nondiscriminatory terms, conditions, rates, and quality;
- Transparent and nondiscriminatory universal service requirements[29] that are no more burdensome than necessary;
- Transparent and publicly available licensing criteria and reasons for denial;
- Independence of regulators and suppliers of basic telecommunication services; and
- Objective, timely, transparent, and nondiscriminatory allocation of scarce resources, including frequencies, numbers, and rights of way.[30]

In February 1997, 57 of the 69 governments negotiating the agreement scheduled commitments on the procompetitive principles contained in the reference paper in whole or in part. Six other countries scheduled commitments that bind them to observe regulatory principles of their own creation.[31]

International Trade in Basic Telecommunication Services

Cross-Border Supply

Data regarding international trade in telecommunication services are incomplete, as data exist for only one of the four modes of trade referenced in the GATS: cross-border supply. Among all modes, cross-border supply predominates (table 4-2). This mode principally comprises international calling, which in 1995 generated $53 billion in global retail revenues and $28 billion in international net settlement payments (see box 4-1).[32]

International calls cross international gateways in the originating and terminating countries and are predominantly transmitted through undersea cables or satellite systems (figure 4-3). To date, satellite telecommunications have been provided by international satellite organizations such as INTELSAT and INMARSAT, regional organizations such as EUTELSAT and ARABSAT, and private firms, such as PanAmSat. Soon, however, mobile satellite systems such as Iridium, Globalstar, Odyssey, and ICO will provide international calling services using mobile handsets, similar to cellular phones.[33] Impediments to international calling include restricted

[29] Universal service requirements generally specify that every citizen should have access to basic telecommunication services at affordable prices.

[30] WTO, Group on Basic Telecommunications, Reference Paper, found at Internet address http://www.wto.org/, retrieved Feb. 20, 1997.

[31] WTO, The WTO Negotiations on Basic Telecommunications found at Internet address http://www.wto.org/, retrieved June 11, 1997.

[32] ITU, *World Telecommunication Development Report 1996-97*, p. 2.

[33] For a fuller discussion of mobile satellite systems, see USITC, "Mobile Satellite Services," *Industry, Trade, and Technology Review (ITTR)*, USITC publication 3054, July 1997.

Table 4-2
The four modes of supplying telecommunication services

Mode of delivery	Cross-border	Commercial presence	Consumption abroad	Presence of natural persons
Example	International telephone calls.	Foreign-owned company offering telecommunication services.	Roaming between cellular or satellite systems.	Consulting services.
Significance for telecommunication trade	Predominant mode of trade in telecommunication services.	Second most common mode of trade in telecommunication services. Significance is growing in light of the privatization trend.	Growing due to popularity and penetration of wireless systems.	Growing due to demand for advice in area of network development and privatization.
Examples of existing trade barriers	Restrictions on cable landing rights and satellite gateway.	Foreign investment limitations and licensing restrictions.	Incompatible technical standards, lack of roaming agreements, and discriminatory spectrum allocation.	Restrictions on working permits.

Source: International Telecommunication Union, *World Telecommunication Development Report 1996-97*; World Trade Organization; and USITC staff.

cable landing rights, restricted access to satellite gateways, and especially with respect to mobile satellite systems, restricted interconnection with the public switched network and discriminatory allocation of radio frequencies.

Commercial Presence

The second most common mode of supply is commercial presence, although comprehensive data on sales through such establishments do not exist. Commercial presences include representative offices, joint ventures, strategic partnerships, and subsidiaries. This form of trade has grown as countries have privatized state-owned carriers, a trend which began when the United Kingdom privatized Cable and Wireless in 1981. By year-end 1996, 44 public telecommunication operators had been partially or wholly privatized worldwide. Privatizations of public telecommunication operators have attracted investment valued at $159 billion, one-third of which has been provided by investors outside the country undertaking privatization.[34]

Commercial presences provide local, long-distance, and international calling through wireline, cellular, and satellite networks. Foreign operators have been most successful in establishing cellular systems for local calling purposes, in part because many countries have allowed competition in the wireless market since its inception.

[34] ITU, *World Telecommunication Development Report 1996-97*, p. 45.

Box 4-1
International settlement payments

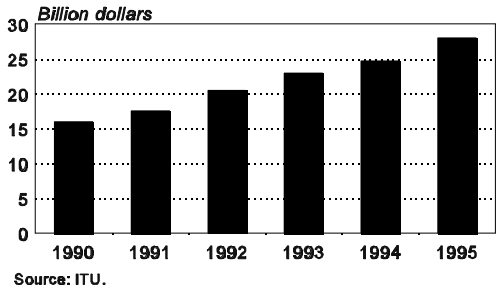
Settlement payments are made in accordance with the "accounting rate system," fashioned by European carriers in the latter half of the nineteenth century. This system has been updated progressively since, with the most recent changes promulgated in 1988, but the basic elements of the system remain unchanged. Under the accounting rate system, telecommunication carriers bilaterally negotiate fees, called accounting rates, for carrying international traffic, measured in calling minutes. Each carrier's portion of the accounting rate is referred to as the settlement rate, which in almost all cases is equal to one-half of the negotiated accounting rate. As imbalances in traffic flows occur, the carrier whose outbound calling minutes exceed its inbound calling minutes makes a net settlement payment to its foreign counterpart. The net settlement payment is essentially calculated by multiplying the settlement rate by the number of imbalanced calling minutes.[1] Net settlement payments register as imports on the balance of payments, whereas net settlement receipts register as exports. This system worked well as long as:

- collection charges (i.e., the fee collected by the originating carrier from the business or residential caller) were equivalent between countries, so that there was no trade-distorting incentive for callers in low-cost countries to originate a disproportionate share of international calls;
- the volume of incoming and outgoing traffic was comparable, so that net settlement payments were not too large; and
- originating and terminating carriers were monopolies, capable of unilaterally setting and maintaining collection charges.[2]

These conditions, present at the inception of the accounting rate system, no longer exist due to regulatory and technological developments over the past 15 years. For instance, many countries have introduced competition in the international calling market, which has driven collection charges downward in these countries, and outbound calling volume upward. The resulting tendency toward greater traffic imbalances, and thus larger settlement payments (figure A), has been exacerbated by technological developments that enable, for example, the provision of country-direct and call-back services, which allow callers in high-cost markets to directly access carriers in low-cost markets, and dial out at cheaper rates. These calls appear as outbound calls in the low-cost country, and consequently require

[1] Settlement payments may also reflect surcharges that some countries impose on collect and country-direct calls.
[2] ITU, *World Telecommunication Development Report, 1996-97*, p. 91.

Figure A
International net settlement payments, 1990-95



Source: ITU.

Table A
Accounting rates negotiated by the United States and the subject countries, 1990 and 1997

Country	1990	1997	Change[1]
Argentina	$1.65	$0.92	-44.2%
Australia	0.8 SDR[2]	0.308 SDR	-62.3%
Brazil	$2.50	$1.03	-58.8%
Canada	$0.28	$0.22	-21.4%
EU[3]	1.18 SDR	0.31 SDR	-74.4%
Hong Kong	$2.20	0.58 SDR	-63.2%
India	$2.25	$1.58	-29.8%
Indonesia	$2.00	$1.30	-35.0%
Israel	$2.40	$0.96	-60.0%
Japan	1.34 SDR	0.63 SDR	-53.9%
Korea Rep.	$2.10	0.72 SDR	-52.4%
Malaysia	$2.00	$0.89	-55.5%
Mexico	$1.32	$0.70	-47.0%
New Zealand	1.80 SDR	0.20 SDR	-89.1%
Norway	1.00 SDR	0.20 SDR	-80.3%
Poland	$1.50	$0.70	-53.3%
Singapore	0.84 SDR	0.62 SDR	-28.3%
South Africa	$2.00	$1.00	-50.0%
Switzerland	1.12 SDR	0.255 SDR	-78.0%
Thailand	$2.30	$1.50	-34.8%
Average	$1.80	$0.78	-56.7%

[1] Percentage changes reflect change in dollar-denominated accounting rates.
[2] A SDR is a special drawing right from the International Monetary Fund. SDRs were valued at $1.42266 in 1990, and at $1.39180 on June 1, 1997.
[3] Figures reflect the average accounting rate among the 15 Member States of the European Union.

Source: FCC

Box 4-1—*Continued*
International settlement payments

settlement payments by the most-efficient, low-cost carriers.[3]

There is also sentiment among low-cost countries that accounting rates are too high, in part because monopoly providers in many countries have little incentive to negotiate these fees downward. High-cost countries are often the beneficiaries of the accounting rate system because high prices discourage outbound international calls, leaving them with calling imbalances in their favor and net settlement receipts with which to improve telecommunication networks and fund other government programs. Although accounting rates have declined in the past several years (table A), these rates remain far above the incremental cost of carrying international traffic, estimated by the Federal Communications Commission to be between $0.12 and $0.18 per minute.[4]

In this light, the ITU and other multilateral bodies have explored options for modifying the accounting rate system, or replacing it altogether. Proposals include the imposition of call termination charges, which are fixed fees that are more transparent and less discriminatory than bilaterally negotiated accounting rates; facilities-based interconnection charges, which would tie fees to the incremental cost of carrying inbound traffic; and a sender-keeps-all system, which would allow originating carriers to keep all the revenues they collect.[5] In addition, some countries have taken unilateral action. The United States, for example, adopted international settlement rate benchmarks on August 7, 1997. Under this system, the FCC established settlement rates that vary by the national income of U.S. trading partners: $0.15 per minute for upper income countries, $0.19 per minute for upper middle countries, and $0.23 per minute for lower income countries. The United States and its trading partners will move to these rates over a 5-year transition period.[6]

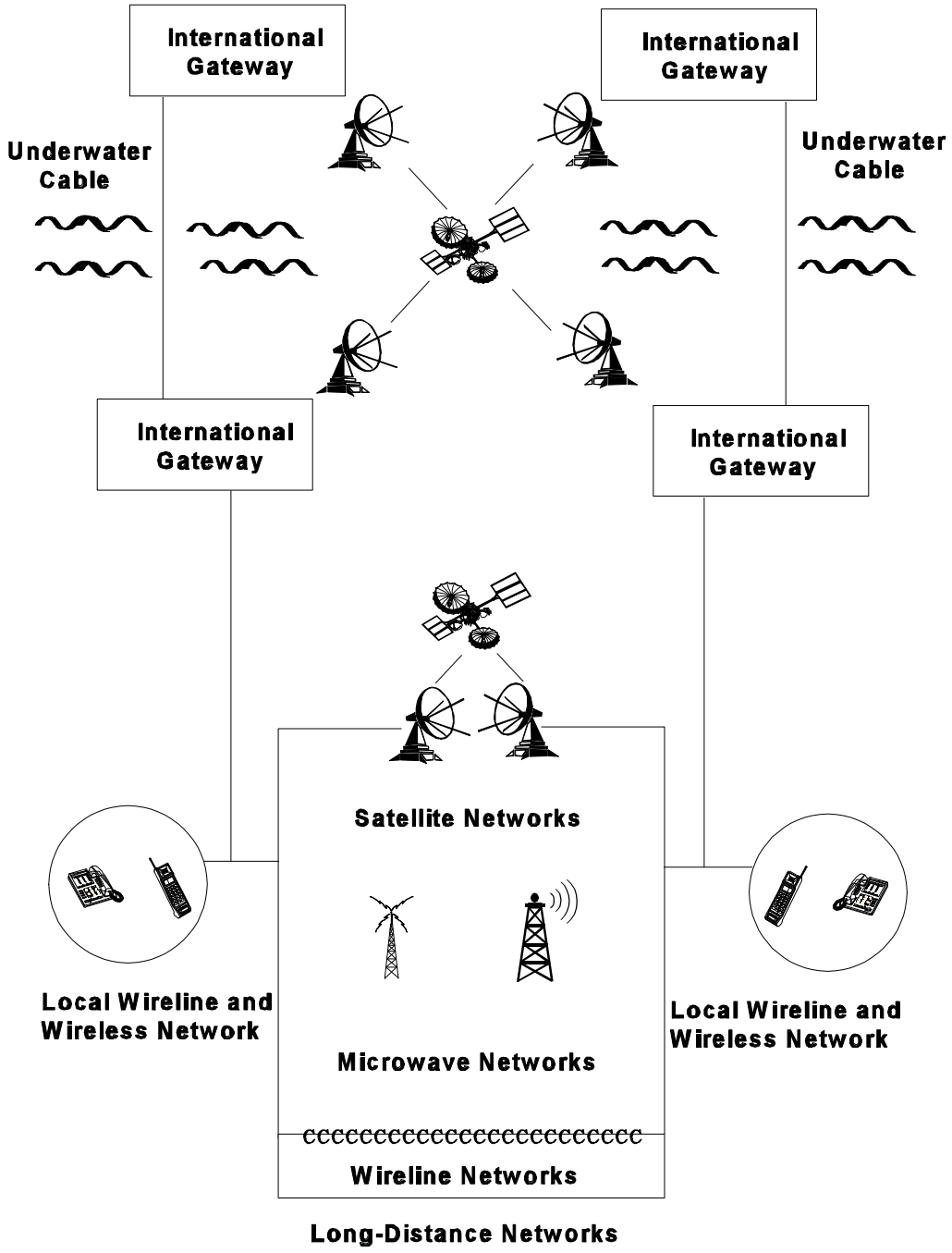
[3] Refile practices, which route international telecommunication traffic through the least-cost path, thereby taking advantage of third countries with low accounting rates, also inflate net settlement payments by carriers in low-cost countries.

[4] Federal Communications Commission (FCC), *In the Matter of International Settlement Rates: Notice of Proposed Rulemaking*, IB Docket No. 96-261, Dec. 19, 1996, pp. 14-15. The average accounting rate between the United States and all trading partners, weighted by minutes of U.S. outbound traffic, is $0.73 per minute, which translates into a settlement rate of approximately $0.36 per minute.

[5] ITU, pp. 95-96.

[6] FCC, *News Release: Commission Adopts International Settlement Rates*.

Figure 4-3
Telecommunication architecture



Source: Australian Productivity Commission, *Telecommunications Economics and Policy Issues* (Canberra: Australian Government Publishing Services, 1997), p. 2; and USITC staff.

Impediments to this mode of trade include foreign investment ceilings and licensing restrictions.

Other Modes

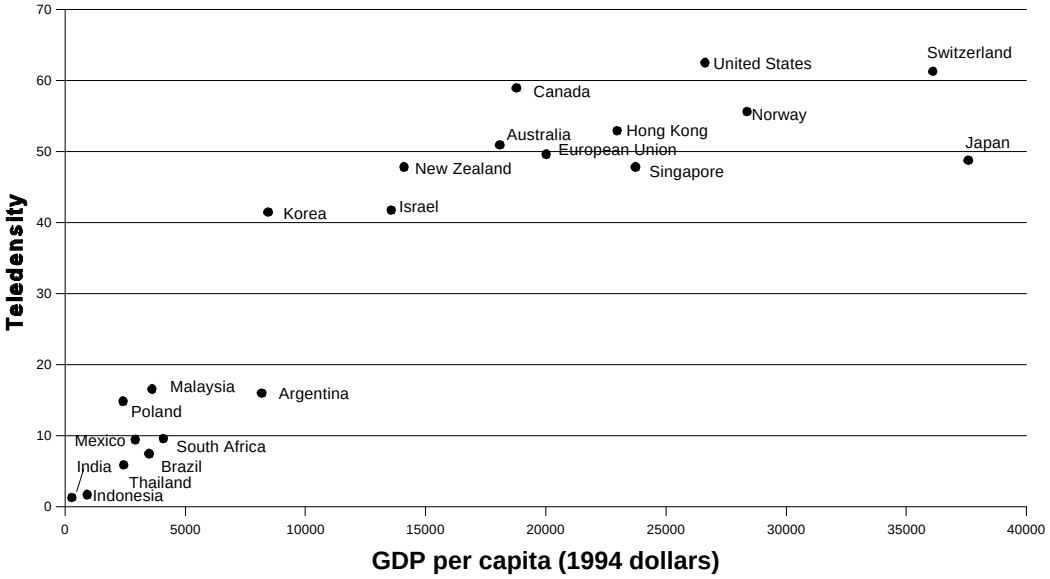
Less common forms of trade in telecommunication services include consumption abroad, principally international roaming between wireless (i.e., cellular and satellite) networks, and presence of natural persons, principally the provision of technical or financial consultancy. Yet, these forms of trade will likely grow in light of the popularity of cellular systems, the advent of mobile satellite systems, and the demand for technical and financial expertise among entities attempting to construct and upgrade networks, fund modernization programs, and privatize state-owned operators. Historically, impediments to these forms of trade have included incompatible technical standards and restrictions on obtaining business visas.

Overview of Subject Countries

The largest 20 foreign signatories to the WTO basic telecommunication agreement are disparate in terms of market size and infrastructure development, with wealthier nations, mostly member countries of the Organization for Economic Cooperation and Development (OECD), constituting one distinct group, and developing nations, many in East Asia, constituting the other (figure 4-4). The European Union and Japan, with revenues of $170 billion and $94 billion, respectively, were the largest foreign markets by a significant margin in 1995, and accounted for 74 percent of the revenue generated in the subject markets (table 4-3).[35] Other developed trading partners, with revenues of $9 to $11 billion, rounded out the top five in terms of market size. By comparison, Thailand, the smallest of the subject markets, generated revenues of $2 billion in 1995. Differences in firm size are similarly pronounced. NTT (Japan), Deutsche Telekom (Germany), France Telecom, British Telecom, Telecom Italia, Telefonica (Spain), and Telstra (Australia) generated revenues exceeding $10 billion in 1995 (table 4-4). The Telephone Organization of Thailand (TOT), at the other extreme, generated $1.3 billion in revenues.[36]

[35] Ibid., pp. A-57 through A-59.
[36] Ibid., p. A-84.

Figure 4-4
Teledensity[1] and GDP in largest 20 foreign telecommunication service markets, 1995



[1] Teledensity is a basic indicator of the development of telecommunication infrastructure, reporting the number of main telephone lines in a country for each 100 inhabitants.

Source: USITC staff.

Table 4-3
Largest 20 foreign telecommunication markets measured by revenue, 1995

Rank	Country	Revenue
		Million dollars
1	European Union	170,458.6
2	Japan	93,562.0
3	Australia	11,493.3
4	Canada	10,274.2
5	Switzerland	8,889.2
6	Korea	8,727.8
7	Brazil	8,622.2
8	Mexico	6,509.1
9	Argentina	6,183.0
10	Hong Kong	5,112.7
11	South Africa	3,674.7
12	India[1]	3,253.2
13	Norway	3,234.3
14	Indonesia	2,735.0
15	Singapore	2,539.9
16	Israel	2,248.9
17	Poland	2,161.5
18	Malaysia	2,097.5
19	New Zealand	2,091.1
20	Thailand	2,040.6

[1] Estimates by ITU.

Source: International Telecommunication Union, *World Telecommunication Development Report 1996-97.*

Table 4-4
Largest public telecommunication operators in largest 20 foreign markets, 1995

Country/Company	Total revenue
	Million dollars
European Union	
Belgacom (Belgium)	4,309.8
BT (United Kingdom)	22,785.5
Deutsche Telekom (Germany)	46,151.4
France Télécom (France)	29,610.3
Mercury (United Kingdom)	2,690.7
OTE (Greece)	2,559.9
Portugal Télécom (Portugal)	2,145.1
PTA (Austria)	4,306.0
PTT Telecom (Netherlands)	8,487.9
Tele Danmark (Denmark)	3,363.0
Telecom Italia (Italy)	18,463.4
Telefónica (Spain)	11,007.8
Telia (Sweden)	5,755.5
Vodafone (United Kingdom)	2,211.7
Japan	
DDI	7,119.0
JT	3,567.8
KDD	2,640.2
NTT	84,080.1
Australia	
Telstra	10,430.7
Brazil	
Telebras	9,387.5
Switzerland	
Swisscom	8,747.0
Korea	
KT	8,464.5
Mexico	
Telmex	6,509.0
Canada	
Bell Canada	5,960.2
Argentina	
Telefónica	2,732.4
Telecom	1,980.7
Hong Kong	
Hong Kong Telecom	3,818.9
South Africa	
Telkom	3,674.7
Norway	
Telenor	3,133.8
Singapore	
Singapore Telecom	2,627.3
India	
DOT	2,439.6
Indonesia	
PT Telkom	2,270.3
Israel	
Bezeq	2,248.9
Malaysia	
TM	2,097.5
New Zealand	
TCNZ	2,091.1
Poland	
TP	2,036.0
Thailand	
TOT	1,259.2
CAT	664.7

Source: International Telecommunication Union, *World Telecommunication Development Report 1996-97.*

The EU and Japan also lead in terms of investment in telecommunication infrastructure, accounting for 72 percent of the investment undertaken in the subject markets. Yet, two developing countries, Brazil and Korea, place among the top five in terms of investment, reflecting the relatively significant sums developing countries are channeling into telecommunications (table 4-5). In fact, when countries are ranked according to the share of their telecommunication revenues channeled into constructing network infrastructure, the developing countries of East Asia, Latin America, and East Europe place highest (figure 4-5). Indonesia, Malaysia, and India lead the list, investing between 55 percent and 60 percent of telecommunication revenues in improving telecommunication infrastructure.[37] Thus, a significant number of developing countries appear committed to the construction of advanced telecommunication networks that may one day rival the best seen in OECD countries.

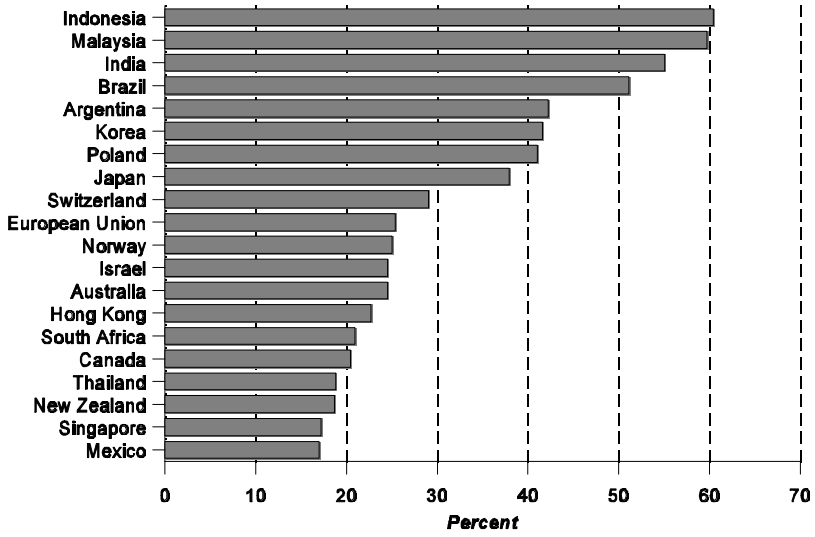
Table 4-5
Investment in largest 20 foreign telecommunication markets, 1995

Total Rank	Country	Investment
		Million dollars
1	European Union	41,007.3
2	Japan	35,442.3
3	Brazil	4,404.1
4	Korea[1]	3,634.2
5	Australia	2,818.8
6	Argentina	2,609.4
7	Switzerland	2,580.5
8	Canada	2,096.1
9	India	1,793.5
10	Indonesia	1,650.6
11	Malaysia	1,252.0
12	Hong Kong	1,163.1
13	Mexico	1,106.9
14	Poland	886.2
15	Norway	809.4
16	South Africa	768.0
17	Israel	551.0
18	Singapore	435.9
19	New Zealand	391.1
20	Thailand	384.5
	Total	105,784.9

[1] Estimates by ITU.
Source: International Telecommunication Union, *World Telecommunication Development Report 1996-97.*

[37] Ibid., pp. A-60 through A-63.

Figure 4-5
Telecommunication investment as a share of revenue in largest 20 foreign markets, 1995



Source: International Telecommunication Union, *World Telecommunication Development Report 1996-97*.

Argentina

Argentina's commitments apply to all basic telecommunication services found in the GATT Secretariat's classification list, except telegraph services (table 4-6).[38] In addition, Argentina's commitments address mobile telephone (MTS), personal communication, paging, special mobile radio (SMR) trunking, and mobile data services. The commitments will allow foreign firms nearly unrestricted access to Argentina's telecommunication services markets on November 8, 2000. Until then, foreign firms may provide local and long-distance services only in cooperation with two regional monopolies, Telecom Argentina in northern Argentina and Telefonica de Argentina in southern Argentina. International services may be provided solely through the carrier TELINTAR, which is jointly owned by Argentina's same two regional monopolies. The commitments obligate Argentina to observe all of the procompetitive regulatory principles outlined in the GBT reference paper.

[38] WTO, GATS, Argentina: Schedule of Specific Commitments, supp. 2 (GATS/SC/4/Suppl.2), Apr. 1997.

Table 4-6
Highlights of Argentina's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services b. domestic packet-switched data CPC 7523[2] c. domestic circuit-switched data CPC 7523[2] d. domestic telex CPC 7523[2] f. domestic facsimile CPC 7521/29[2] o. other *No CPC* • paging • SMR trunking • mobile data services	Allows 100% in 1998.	Allows in 1998.	Adopted reference paper on regulatory principles, with a few omissions and modifications with regard to interconnection provisions. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	MFN exemption for DTH, DBS, and digital audio transmission through geostationary satellites
a. domestic and international voice services CPC 7521 b. international packet-switched data CPC 7523[2] c. international circuit-switched data CPC 7523[2] d. international telex CPC 7523[2] f. international facsimile CPC 7521/29[2] g. domestic and international leased circuits CPC 7522/23[2]	Will allow 100% on Nov. 8, 2000. Links used to provide international facsimile services must be owned by TELINTAR until Nov. 8, 2000. Current providers of leased circuit services have a preferential installation period until Nov. 8, 2000.	Will allow on Nov. 8, 2000.		
2.C. o. other *No CPC* • mobile telephone services (MTS) • personal communications services (PCS)	Allows 100% in 1998.	• MTS are supplied under a duopolistic regime. • The number of PCS service suppliers will be decided by the administrative authority in light of present and future needs.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Argentina: Schedule of Specific Commitments, supp. 2 (GATS/SC/4/Suppl.2), Apr. 1997.

Foreign Investment

Argentina's schedule appears to feature standstill commitments,[39] allowing foreign investors to acquire or establish significant stakes in telecommunication carriers and facilities, but also imposing significant restrictions. Argentina does not impose foreign equity limits, and appears to accord foreign investors national treatment.[40] Foreign investors may presently build and operate facilities, or establish resale operations, that provide data transmission, telex, facsimile, paging, special mobile radio, and mobile data services in the domestic market. However, by virtue of the exclusive rights granted Telefonica de Argentina and Telecom Argentina, foreign investors may not presently establish firms that provide voice service in the domestic market.

Further, in accordance with the monopoly granted TELINTAR, foreign investors may not presently build facilities to provide international voice, data transmission, telex, or leased circuit services, and may not control international facilities that carry enhanced telecommunication services. Yet it appears that opportunities for foreign investors will expand significantly on November 8, 2000, when most existing restrictions on foreign provision of basic telecommunication services through independently established carriers and facilities are scheduled to be terminated.

Market Access

Argentina's schedule generally binds through November 8, 2000, measures that were in force upon the resumption of basic telecommunication negotiations in 1994, although it makes significant departures from this approach in certain areas. Until year 2000, Telefonica de Argentina and Telecom Argentina retain their regional monopolies over the provision of local and long-distance voice service. TELINTAR similarly retains its monopoly over international voice, data transmission, telex, and leased circuit services, and links used for supplying international facility-based facsimile

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[39] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Argentina's supplementary telecommunication schedule with questionnaire responses provided by Argentina in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunication market.

[40] Decree 1853, of Sept. 8, 1993, governs foreign investment in Argentina, by which foreign companies may invest without registration or prior government approval on the same terms as investors domiciled in Argentina. Additionally, in 1991, the Governments of the United States and Argentina signed an agreement for reciprocal promotion and protection of investments. The agreement was amended, ratified by the Congresses of both countries, and implemented on Oct. 20, 1994. In that year, the two countries also signed a memorandum of understanding regarding cooperation in developing a global information infrastructure, which, among other provisions, recognizes the principles of competition and promotion of private investment. Government of Argentina, Ministry of Economy, "Investment Law: Argentine Foreign Investment Act," Sept. 8, 1993, found at Internet address http://www.mecon.ar/, retrieved Aug. 18, 1997; U.S. Department of State telegram, No. 1915, "Argentina Investment Climate Statement 1997," prepared by U.S. Embassy, Buenos Aires, Apr. 15, 1997; and USDOC, ITA, "Argentina - Telecom. Equip. and Services - ISA9507," Stat-USA Database, found at Internet address http://www.stat-usa.gov/, posted Apr. 1, 1997, retrieved Aug. 19, 1997.

services must belong to TELINTAR. Argentina also indicates that mobile telephone services will be supplied through a system of regional duopolies, and that the National Communications Commission (CNC) will decide on the number of personal communication suppliers in each region. In all these respects, Argentina appears to have scheduled standstill commitments. However, it appears that Argentina scheduled rollback commitments that permit foreign firms to provide international basic services via resale, which was formerly prohibited.

At present, foreign firms may use all means of network technology in order to provide those services subject to competition, with the exception of services using geostationary satellites, for which Argentina took an MFN exemption. This exemption limits all countries' access to satellite services for one-way satellite transmissions of Direct to Home (DTH), Direct Broadcast Service (DBS) television, and Digital Audio Service (DAS), citing the need to develop domestic satellite systems. This limit on market access did not exist upon resumption of telecommunication negotiations in 1994.

Regulatory Principles

Argentina scheduled commitments to abide by the GBT reference paper on procompetitive principles. However, the Argentine annex on regulatory practices differs somewhat from the GBT reference paper with regard to interconnection. Argentina omits reference paper language which indicates that interconnection will be "provided, upon request, at points in addition to the network termination points offered to the majority of users, subject to charges that reflect construction costs of necessary additional facilities."[41] Further, the Argentine annex, unlike the GBT reference paper, provides neither that interconnection be economically feasible[42] nor that interconnection disputes be settled by an independent regulator.[43]

Argentina's commitments on procompetitive regulatory principles roll back, or liberalize, its previous regulatory regime[44] by binding universal service and public availability of licensing criteria. Additionally, Argentina's annex on procompetitive regulatory principles significantly strengthens the country's previously scheduled commitments on enhanced telecommunication services (table 4-7).[45] Argentina's 1994 GATS commitments place no restrictions on the foreign provision of enhanced telecommunication services, whether provided on a cross-border basis or through an Argentine affiliate.

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[41] Argentina Reference Paper annex, paragraph 2.2(c).

[42] Reference Paper, paragraph 2.2(b).

[43] Reference Paper, paragraphs 2.5 and 5.

[44] Argentina, *Response to Questionnaire on Basic Telecommunications.*

[45] USITC, *General Agreement on Trade in Services: Examination of South American Trading Partners' Schedules of Commitments* (Investigation No. 332-367), USITC publication 3007, Dec. 1996, p. 4-9.

Table 4-7
Highlights of Argentina's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and data base retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced facsimile (including store and forward) CPC 7523[2] m. code and protocol conversion *No CPC* n. on-line information and/or data processing (including transaction processing) CPC 843[2] o. other *No CPC*	Allows 100% foreign ownership in all services.	Allows for all services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Argentina: Schedule of Specific Commitments (GATS/SC/4), Apr. 1994.

Australia

Australia's commitments cover all basic telecommunication services as well as digital cellular, paging, personal communication, trunked radio, and mobile data services (table 4-8).[46] The Australian Competition and Consumer Commission (ACCC) allows the foreign provision of local, long-distance, and international services, on a facilities basis or by resale and through any means of technology, including wireline, cellular, and satellite networks. Australia maintains certain restrictions on foreign investment in existing telecommunication service providers, but will allow up to 100 percent foreign investment in new carrier licenses. Further, Australia scheduled commitments to observe procompetitive regulatory principles, as outlined in the GBT reference paper.

[46] WTO, GATS, Australia: Schedule of Specific Commitments, supp. 2 (GATS/SC/6/Suppl.2), Apr. 1997.

Table 4-8
Highlights of Australia's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] d. telex CPC 7523[2] e. telegraph CPC 7522 f. facsimile CPC 7521/29[2] g. private leased circuit CPC 7522/23[2] o. other *No CPC* • digital cellular • paging • personal communi-cations services • trunked radio system • mobile data	Allows 100% foreign ownership in new carriers in 1998. Limits foreign equity ownership in Telstra to 11.7%, with no single foreign investor allowed greater than 1.7% individual equity. Limits individual foreign equity to an unspecified amount in Optus and limits total foreign equity in Vodafone to an unspecified minority share. Places nationality requirements on the board of directors at Optus.	Allows in 1998. Services covered by the Broadcasting Act of 1992 are excluded from the basic telecommunication sector.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – Australia scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Australia: Schedule of Specific Commitments, supp. 2 (GATS/SC/6/Suppl.2), Apr. 1997.

Foreign Investment

Australia places no limits on foreign investment in new telecommunication carriers, except that the carriers must be incorporated under Australian law, which represents a significant rollback since the commencement of negotiations in 1994.[47] However, restrictions on foreign holdings in preexisting carriers Telstra, Optus, and Vodafone remain in place. In November 1997, Australia privatized one-third of Telstra, of which only 35 percent (about 11.7 percent of total equity) could be sold to foreign interests. Individual foreign investors' stakes were limited to about 1.7 percent of total equity. This represents a modest foreign-ownership rollback from Telstra's former wholly government-owned status. By contrast, Australia scheduled standstill commitments regarding foreign investment in Optus and Vodafone.[48] Although there are no limits on total foreign equity in Optus, investment by any single foreign investor is limited to 24.5 percent, unless a waiver is obtained.[49] However, discussions are reportedly underway to remove restrictions on foreign investment in Optus. With respect to Vodafone, Australia scheduled a commitment that will limit total foreign investment to a minority stake. Vodafone was 100 percent foreign-owned in 1994, but its license required foreign divestiture to a minority equity holding by 2003. Concerning foreign investment in resale services, Australia scheduled a standstill commitment that permits 100 percent foreign ownership.

Market Access

Australia places no market access restrictions on the foreign provision of basic telecommunication services. In accordance with the Trade Practices Amendment (Telecommunications) Act 1997 (the Act), Australia terminated quantitative limits on the issuance of carrier licenses for facilities-based providers of basic telecommunication services. This represents a significant rollback, as provision of facilities-based basic services was previously limited to a duopoly. The Australian schedule indicates that foreign firms remain free to provide voice, packet- and circuit-switched data transmission, and facsimile services on a resale basis, resulting in a standstill commitment with respect to these services.

Australia's schedule also provides for foreign carriers' use of all network technologies on a facilities basis, representing a significant rollback. Foreign carriers, once required to obtain capacity from other facilities-based wireline, cellular, and satellite carriers,[50] may now use their own networks for the provision of basic telecommunication services.

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[47] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Australia's supplementary telecommunication schedule with questionnaire responses provided by Australia in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

[48] There are also citizenship requirements placed on members of the board of directors at Optus.

[49] Cable and Wireless (U.K.) obtained a waiver and currently owns 49 percent of Optus.

[50] Australia, *Response to Questionnaire on Basic Telecommunications*.

Regulatory Principles

Australia adopted the GBT reference paper on procompetitive principles in its entirety. To this end, the 1997 Act has established an independent regulatory body and has facilitated the provision of telecommunication services by giving telecommunication firms special rights, such as immunity from local planning laws and infrastructure controls. Australia's adoption of the reference paper greatly increases the transparency of competitive safeguards, interconnection, universal service, licensing criteria, and the allocation of scarce resources. Australia also indicates that interconnection fees are determined by negotiation, and both negotiating parties have recourse to an independent arbitrator to settle disputes and ensure that fees are fair and reasonable. Australia's binding with respect to regulatory principles increases the value of its commitments on value-added services (table 4-9) as well as those on basic services.

Table 4-9
Highlights of Australia's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and data base retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced facsimile (including store and forward) CPC 7523[2] m. code and protocol conversion *No CPC*	Allows 100% foreign ownership in all services.	Allows for all services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Australia: Schedule of Specific Commitments (GATS/SC/6), Apr. 1994.

Brazil

Brazil's commitments apply to all basic telecommunication services, as well as cellular, paging, and satellite services (table 4-10).[51] In addition, Brazil's schedule lists commitments that apply to all value-added telecommunication services (table 4-11). Brazil declined to schedule commitments on value-added services only three years prior, at the conclusion of the Uruguay Round in 1994. In general, foreign firms may provide local, long-distance, and international basic services using wireline, cellular, or satellite technology. However, they may do so only on a facilities basis, and only in cooperation with government-owned monopoly providers, most of which are held by TELEBRAS.[52] Brazil allows substantial foreign ownership in closed user groups and value-added service providers, but continues to restrict substantial foreign ownership of facilities-based services. Brazil declined to adopt the procompetitive regulatory principles outlined in the GBT reference paper, but indicated it would adopt similar principles of its own.

Foreign Investment

In light of the enactment of the General Telecommunications Law of July 1997, Brazil's regulation of foreign investment in telecommunication carriers is changing. In its schedule dated April 11, 1997, Brazil indicates that it does not restrict foreign investment in facilities-based closed user groups,[53] facilities-based providers of paging services, and providers of value-added services. Brazil also indicates that it will impose no limits on foreign investors in cellular and satellite service providers from July 20, 1999 onward, although it will limit direct and indirect foreign equity in such providers to 49 percent until then. However, Brazil imposes unbound restrictions on foreign investment in facilities-based providers of basic telecommunication services over the public network. These commitments appear to bind the status quo in most cases, although the relaxation of investment restrictions on cellular services in 1999 represents a rollback.[54]

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[51] WTO, GATS, Brazil: Schedule of Specific Commitments, supp. 2 (GATS/SC/13/Suppl.2), Apr. 1997.

[52] Only one small regional provider, Companhia Riograndense de Telecommunicacoes (CRT), resides outside the TELEBRAS system. CRT is majority owned by the state of Rio Grande do Sul.

[53] A closed user group utilizes data networks for a common purpose, such as airline bookings or check-clearing systems, but proscribes use of the network by persons outside the group, such as the general public.

[54] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Brazil's supplementary telecommunication schedule with questionnaire responses provided by Brazil in 1995. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-10
Highlights of Brazil's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C.Telecommunication services (facilities-based) a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] d. telex CPC 7523[2] e. telegraph CPC 7522 f. facsimile CPC 7521/29[2]	Limitations currently unbound. Brazil commits to bind the relevant portions of its General Telecommunications Law by July 1998.	Limitations currently unbound. Brazil commits to bind the relevant market access portions of its General Telecommunications Law by July 1998.	Did not adopt GBT reference paper on regulatory principles, but committed to bind relevant regulatory portions of its General Telecommunications Law by July 1998. Regulatory principles that may be included are: • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	MFN exemption for DTH and DBS.
2.C.Telecommunication services (facilities-based closed user groups) a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] d. telex CPC 7523[2] e. telegraph CPC 7522 f. facsimile CPC 7521/29[2] g. private leased circuit CPC 7522/23[2]	Allows 100% foreign ownership in 1998.	Allows in 1998.		
2.C. o. other: *No CPC* • analog/digital cellular	Limited to 49% foreign ownership in regional duopolies until July 20, 1999, when it will allow 100% foreign ownership in additional licenses.	Allows foreign provision only through the regional duopolies until July 20, 1999. Brazil may issue new licenses after 1999.		
2.C. o. other: *No CPC* • paging	Allows 100% foreign ownership in 1998.	Allows in 1998.		
2.C. o. other: *No CPC* • satellite	Limited to 49% foreign ownership until July 20, 1999, when it will allow 100% foreign ownership.	Allows in 1998. EMBRATEL has exclusive links with Intelsat and Inmarsat.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Brazil: Schedule of Specific Commitments, supp. 2 (GATS/SC/13/Suppl.2), Apr. 1997.

Table 4-11
Highlights of Brazil's commitments on enhanced telecommunication services[1]

Coverage of Commitments[2]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[3] i. voice mail CPC 7523[3] j. on-line information and database retrieval CPC 7523[3] k. electronic data interchange CPC 7523[3] l. enhanced facsimile (including store-and-forward, store-and-retrieve) CPC 7523[3] m. code and protocol conversion *No CPC* n. on-line information and/or data processing (including transaction processing) CPC 843[3]	Allows 100% foreign ownership in 1998.	Allows in 1998.

[1] Although other parties to the WTO agreement on basic telecommunication services submitted commitments on enhanced telecommunication services in April 1994, Brazil scheduled commitments on both enhanced and basic telecommunication services in 1997.

[2] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.

[3] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Brazil: Schedule of Specific Commitments (GATS/SC/13/Suppl. 2), Apr. 1997.

Brazil's schedule also indicates that by July 1998 the President of Brazil will introduce a revised schedule of commitments that reflect enactment of the General Telecommunications Law. As noted, this law empowers the Brazilian president to establish foreign investment limitations by decree, thereby reducing the certainty and transparency that the scheduling process was intended, in part, to foster.

Market Access

In its schedule dated April 11, 1997, Brazil indicates that foreign firms may currently operate closed user group networks and supply paging, satellite, and value-added services to the general public. Foreign suppliers may also provide cellular services, although they must do so as investors in preexisting duopoly providers until July 20, 1999, after which additional licenses may be granted. Brazil imposes unbound restrictions on foreign provision of facilities-based services to the general public. Brazil's commitments on market access generally appear to be standstills, although the indication that additional cellular service licenses may become available in 1999 represents a rollback.

Regulatory Principles

Brazil did not adopt the GBT reference paper on procompetitive regulatory principles. However, Brazil specifies that it will adopt principles pertaining to competitive safeguards, interconnection, universal service, licensing criteria, regulatory independence, and allocation of scarce resources by July 1998. Beyond this, Brazil provides no further information, making unclear the degree to which Brazil's regulatory principles will promote competition and liberalize trade.

Canada

Canada's commitments under the WTO agreement apply to all basic telecommunication services, as well as mobile services (table 4-12).[55] Canada's commitments permit foreign firms to provide local, long-distance, and international services through any means of technology, on a facilities or resale basis. However, Canada continues to limit foreign investment in facilities-based carriers to a minority share. Canada agrees to abide by the procompetitive principles in the GBT reference paper.

Foreign Investment

Canada limits foreign investment in facilities-based telecommunication service providers to 20 percent direct investment and 33.3 percent indirect investment, with the cumulative foreign investment not to exceed 46.7 percent. The same restrictions apply to international carrier Teleglobe after October 1, 1998, which is a rollback from Canada's earlier prohibition on foreign equity in the firm.[56] Canada continues to allow 100 percent foreign ownership of telecommunication resale providers in the long-distance and international markets, and further scheduled a commitment to allow 100 percent foreign ownership of resale providers in the local exchange market. Further, Canada allows 100 percent foreign ownership in mobile satellite services. However, GTE's 51 percent ownership of domestic carriers BC Telecom and Quebec-Telephone, which was allowed to stand under the 1993 Telecommunications Act, may be subject to unspecified restrictions.

[55] WTO, GATS, Canada: Schedule of Specific Commitments, supp. 2 (GATS/SC/16/Suppl.2), Apr. 1997.

[56] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Canada's supplementary telecommunication schedule with questionnaire responses provided by Canada in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-12
Highlights of Canada's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] d. telex CPC 7523[2] e. telegraph CPC 7522[2] f. facsimile CPC 7521/29[2] g. private leased circuit CPC 7522/23[2] o. other *No CPC* • mobile services	Limited to 46.7% foreign ownership in facilities-based carriers in 1998, based on 20% direct and 33 1/3% indirect investment, but will allow 100% investment in resale services and mobile satellite systems in 1998. Will allow 46.7% foreign ownership of Teleglobe Canada in Oct. 1998. Will allow 100% foreign ownership of international submarine cable operators in Oct. 1998. Will allow 100% foreign ownership of fixed satellite operators providing services between points in Canada and all points outside Canada (except the United States) on Dec. 31, 1999, and will allow 100% foreign ownership of fixed satellite operators providing services between points in Canada and between points in Canada and the United States on Mar. 1, 2000. At least 80% of the members of the board of directors must be Canadian.	Will allow in 1998, except: • Mobile satellite services will be unrestricted between points in Canada and between Canada and points in the United States on Jan. 1, 1998; • Mobile satellite services will be fully unrestricted on Oct. 1, 1998; • All international services will be unrestricted on Jan. 1, 2000, except for fixed satellite services between Canada and points in the United States; • Satellite services will be fully unrestricted on Mar. 1, 2000. Teleglobe Canada will no longer be the sole overseas facilities-based provider on Oct. 1, 1998. Restrictions on foreign access to submarine cable landing licenses will be terminated Oct. 1, 1998.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – Canada scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.

See footnotes at end of table.

Table 4-12—*Continued*
Highlights of Canada's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services—(*continued*)	GTE's 51% ownership of BC Tel and Quebec-Telephone may be subject to restrictions.	Foreign shares in Maritime Telephone and Telegraph and Manitoba Telecom services are limited to 1,000 shares per person and 10% per person (or affiliate), respectively. Telesat loses its monopoly on fixed satellite services used to provide national and U.S.-Canada services on Mar. 1, 2000. Licenses to operate earth stations for the provision of Canada-U.S. fixed satellite services may be limited until Mar. 1, 2000. Competition over the local wireline network may be limited in the areas served by Northwestel, Inc., Ontario Northland Transportation Commission, Prince Rupert City Telephones, Telus Communications (Edmonton) Inc., and the other independent telephone companies listed in CRTC Telecom Public Notice 95-15. Competition in the long-distance service market may be limited in the areas served by Northwestel, Ontario Northland, and Prince Rupert.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on other telecommunication services, under "other" services, at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Canada: Schedule of Specific Commitments, supp. 2 (GATS/SC/16/Suppl.2), Apr. 1997.

Canada requires that at least 80 percent of the members of the board of directors of facilities-based carriers be Canadian citizens. Foreign investment restrictions pertaining to international submarine cable operators and fixed satellite service providers will be terminated in October 1998 and March 2000, respectively. With respect to foreign investment, Canada's commitments are generally a mix of standstills and rollbacks. However, the 46.7-percent limit, if employed to force disinvestment by GTE, would constitute a significant regressive measure. At a minimum, it limits the transparency of the Canadian schedule and leaves regulatory bodies with broad discretionary authority.

Market Access

Under its WTO commitments, competition in the local exchange market is allowed throughout most of Canada. This represents a significant rollback of market access restrictions.[57] Further, Teleglobe will no longer be the sole international service supplier after October 1, 1998, and licenses to land submarine cables will no longer be limited as of that date. Telesat Canada will relinquish its monopoly control of fixed satellite space segment facilities used to provide national and U.S.-Canada telecommunication services on March 1, 2000. However, licenses to operate earth stations for these services may be limited until March 2000. In sum, Canada's market access commitments represent further rollbacks.

Regulatory Principles

Canada scheduled commitments to abide by the GBT reference paper on procompetitive principles in its entirety. Many of these commitments are consistent with earlier Canadian regulatory decisions, such as Telecom Decision 94-19, by the Canadian Radio-television Telecommunications Commission (CRTC), that laid out much of the framework for increased competition in the local exchange market. Nonetheless, Canada's commitment to provide the interconnection of competing carriers in the local exchange market on a nondiscriminatory basis represents a noteworthy rollback. In addition, Canada's prohibition of cross-subsidization, in tandem with nondiscriminatory interconnection provisions, strengthens Canada's liberal bindings on enhanced telecommunication services (table 4-13) scheduled at the conclusion of the Uruguay Round.

[57] Competition in the local exchange will continue to be limited in the territories of 48 independent (non-Stentor) carriers, accounting for 7 percent of total Canadian telecommunication service revenues. Competition in the local market may be limited in the territories served by Northwestel, Ontario Northland Transportation, Prince Rupert City Telephones, Telus Communications, and the other independent carriers listed in CRTC Telecom Public Notice 95-15. Likewise, competition may be limited in the long-distance service markets served by Northwestel, Ontario Northland Transportation, and Prince Rupert City Telephones. Industry Canada, *The Telecommunications Service Industry: Trend Analysis Canada-United States 1980-95,* Jan. 1996, p. 3.

Table 4-13
Highlights of Canada's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and database retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced facsimile (including store and forward) CPC 7523[2] m. code and protocol conversion *No CPC* n. on-line information and/or data processing (including transaction processing) CPC 843[2]	Allows 100% foreign ownership in all services.	Allows in all services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.

[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Canada: Schedule of Specific Commitments (GATS/SC/16), Apr. 1994.

European Union

The EU's commitments cover the entire range of basic telecommunication services, as well as mobile and personal communication services (table 4-14).[58] Foreign firms are granted access to local, long-distance, and international service markets and they may provide these services through any means of technology, including wireline, cellular, and satellite technology, on both a facilities and resale basis. The commitments guarantee a relatively liberal foreign investment environment, thereby allowing foreign firms to acquire, establish, or hold significant stakes in telecommunication carriers. In addition, the commitments obligate EU members to observe procompetitive principles, which include implementing safeguards on anticompetitive practices, providing unretricted interconnection, and maintaining independent regulatory bodies.

[58] WTO, GATS, European Union: Schedule of Specific Commitments, supp. 2 (GATS/SC/31/Suppl.2), Apr. 1997.

Table 4-14
Highlights of the European Union's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
All sectors	Allows 100% foreign ownership in 1998, except: • Finland specifies that, in order to establish a legal entity, half the founders, half the board of directors, and the managing director must have permanent residence in the European Economic Area (EEA). If the founder is a legal person, it must have residence in the EEA. • France allows 100% indirect foreign investment, but limits non-EC natural or juridical persons to no more than 20% direct holdings of the shares or voting rights of companies authorized to establish and operate radio-based infrastructure for the provision of services to the general public. However, companies or firms legally established according to the laws of a Member State of the EC are considered EC juridical persons. • Portugal limits direct or indirect participation of natural persons, who are non-nationals of EC Member States, or non-EC companies or firms, to 25% foreign investment.	Allows in 1998, except: • Greece limits market access to companies established as an S.A. that are exclusively engaged in the supply of telecommunication services. • Portugal requires establishment in order to provide basic services.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – The European Union scheduled MFN-based commitments, according all WTO members access to its markets on the same terms and conditions.

See footnotes at end of table.

Table 4-14—*Continued*
Highlights of the European Union's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] d. telex CPC 7523[2] e. telegraph CPC 7522 f. facsimile CPC 7521/29[2] g. private leased circuit CPC 7522/23[2]		Greece delays liberalization of public voice and facilities-based services until Jan. 1, 2003. Ireland delays liberalization of public voice and facilities-based services until Jan. 1, 2000. Luxembourg requested a delayed date for liberalization of Jan. 1, 2000. EC decision pending. Portugal delays liberalization of public voice, telex, and telegraph until Jan. 1, 2000, and facilities-based services until July 1, 1999. Spain will offer one additional nation-wide license in January 1998, with full liberalization to follow beginning Nov. 30, 1998.		
o. other *No CPC* • mobile services • personal communication services		Ireland and Portugal delay interconnection of mobile networks with other mobile or fixed networks until Jan. 1, 1999.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, European Union: Schedule of Specific Commitments, supp. 2 (GATS/SC/31/Suppl.2), Apr. 1997.

Foreign Investment

The EU as a whole imposes no limitations on direct or indirect investment in telecommunication service providers, but Finland, France, and Portugal maintain some broad limitations on foreign ownership. In Finland, half the founders, half the board of directors, and the managing director of all foreign service providers, including providers of telecommunication services, must have permanent residence in the European Economic Area (EEA).[59] In Portugal, non-EU natural persons or entities may not directly or indirectly hold more than 25 percent of the capital of companies supplying basic telecommunication services. Similarly, in France, while 100 percent indirect investment is permitted, non-EU entities or individuals may not directly hold more than 20 percent of the shares or voting rights of companies that operate radio-based infrastructure for the provision of services to the public. However, France defines foreign companies that establish a legal entity anywhere within the EU to be EU entities, and therefore does not subject them to the 20-percent direct-equity limitation.

Commitments scheduled by the EU concerning foreign investment represent significant rollbacks.[60] As of October 19, 1994, Belgium, Portugal, and Spain limited non-EU participation to 25 percent; France, Greece, and Ireland did not permit any foreign equity participation; and Italy permitted only minority foreign equity participation.[61] Under the EU schedule dated April 11, 1997, most of these investment limitations were rolled back, with only Portugal and France still maintaining foreign equity ceilings. As noted, France's remaining restrictions have been scaled back to permit 100 percent indirect participation, limiting only direct holdings of radio-based infrastructure.

Market Access

The EU provides favorable market access conditions to foreign service providers, as foreign firms are generally guaranteed the ability to enter local, long-distance, and international service markets, using any means of network technology, on a facilities or resale basis. However, Greece and Portugal restrict cross-border supply of all services, including telecommunication services, by requiring foreign service providers to establish a locally incorporated commercial presence. In addition, Greece, Ireland, Portugal, and Spain list some market access limitations that affect certain telecommunication services delivered on a cross-border basis or through a commercial presence. Greece states that, except when provided through mobile and PCS, provision of public voice telephony and facilities-based services may be restricted until

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[59] The European Economic Area includes the 15 EU Member States plus Iceland and Norway.

[60] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in the EU's supplementary telecommunication schedule with questionnaire responses provided by the EU in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

[61] European Community, *Response to Questionnaire on Basic Telecommunications*, pp. 7-11.

January 1, 2003.[62] Similarly, Ireland may restrict public voice and facilities-based services until January 1, 2000. Portugal states that public voice, telex, and telegraph services may be restricted until January 1, 2000, and facilities-based services until July 1, 1999. In addition, both Ireland and Portugal note that international interconnection of mobile networks with other mobile or fixed networks may be restricted until January 1, 1999. Spain states that full liberalization will take place on November 30, 1998.

As of October 1994, basic telecommunication services were not open to competition within the EU. These services included public voice, telegraph, telex, mobile, paging, and satellite services. With respect to these services, most of which were still provided by monopolies, a timetable was established to introduce competition and remove intra-EU restrictions by January 1, 1998.[63] However, EU members were under no obligation to extend market access privileges to non-EU members, nor were they subject to any penalty should they treat non-EU carriers in a discriminatory manner. Through the 1997 WTO commitments, the EU made a binding commitment to extend its current internal level of market access to non-EU service providers. In addition, the European Union scheduled commitments to provide full market access on a national treatment basis by specified dates. These commitments reflect a significant rollback from previous conditions.

Regulatory Principles

The EU scheduled a commitment to uphold the procompetitive principles contained in the GBT reference paper in their entirety. As discussed previously, the EU has progressively developed a competitive regulatory framework through a series of Commmission Directives. Full implementation was scheduled for January 1, 1998, although certain EU members have been granted transition periods. The principles contained in the Commission Directives are comparable with those expressed in the WTO reference paper on procompetitive regulatory principles. These principles include competitive safeguards such as those prohibiting cross-subsidization, full interconnection on nondiscriminatory terms, public presentation of licensing criteria, and the independence of regulators. Since all EU members scheduled commitments to abide by the principles listed in the WTO reference paper, they have effectively rolled back the regulatory framework to permit greater competition among both EU and non-EU firms. The European Union's commitments on procompetitive regulatory principles also improve the value of previously bound commitments regarding enhanced telecommunication services. While the EU's commitments on enhanced

[62] The European Union refused to extend Greece's transition period beyond Jan. 1, 2001, meaning that Greece will be required to open its market for public voice and facilities-based services provided by EU firms. However, since the date recorded in the WTO commitments is Jan. 1, 2003, Greece is not obligated to provide the same level of treatment to non-EU members until 2003.

[63] European Community, *Response to Questionnaire on Basic Telecommunications*, pp. 3, 4, and 14.

telecommunication services (table 4-15) were fairly comprehensive,[64] in the absence of a procompetitive regulatory environment, foreign firms could still have been subject to discriminatory or exclusionary practices. Thus the principles espoused by the reference paper strengthen previously scheduled commitments by improving the competitive and regulatory environment.

Table 4-15
Highlights of the European Union's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and database retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced facsimile (including store and forward) CPC 7523[2] m. code and protocol conversion *No CPC* n. on-line information and/or data processing (including transaction processing) CPC 843[2] o. other *No CPC*	Allows 100% foreign ownership in all services, except: • Portugal limits capital holdings of telecommunications infrastructure by non-EU companies to 25%.	Allows in all services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, European Union: Schedule of Specific Commitments (GATS/SC/31), Apr. 1994.

[64] For additional information on the EU's commitments on enhanced telecommunication services, see USITC, *General Agreement on Trade in Services: Examination of Major Trading Partner's Schedules of Commitments,* Inv. No. 332-358, publication No. 2940, Dec. 1995.

Hong Kong

Hong Kong's commitments apply to all basic telecommunication services except for telex, telegraph, and international private leased circuit services (table 4-16).[65] The commitments also cover cellular, paging, and mobile data services provided domestically, and call-back, satellite, virtual private network, and mobile services provided internationally on a resale basis. Foreign firms have access to the local market on both a facilities and resale basis, although only four licenses have been issued for local wireline network services. Hong Kong's commitments guarantee foreign firms access to the international market only on a resale basis or through equity ownership of Hong Kong Telecom, the area's dominant carrier. Hong Kong's commitments allow foreign firms to provide local services and to control necessary facilities based on wireline and cellular network technology. Use of satellite technology is permitted only for intracorporate and closed user group communications. Provision of satellite services over the public network is prohibited. Hong Kong's commitments impose no limitations on foreign investment, thereby guaranteeing foreign firms the right to acquire, establish, or hold significant stakes in telecommunication carriers. In addition, Hong Kong scheduled a commitment to observe procompetitive regulatory principles.

Foreign Investment

Hong Kong's commitments accord national treatment to foreign investors. As a result, foreign firms have the same rights and privileges as domestic firms with respect to establishment of, or investment in, facilities- or resale-based enterprises. According to Hong Kong's commitments, foreign firms may acquire 100 percent of existing providers of domestic and international telecommunication services, including Hong Kong Telecom.[66] Investment through the establishment of a new commercial presence is technically not restricted for either domestic or international services. However, since Hong Kong Telecom retained exclusive rights to provide all facilities-based international services until March 1998, foreign firms have been effectively prevented from establishing new facilities. Since Hong Kong has traditionally maintained liberal policies toward foreign investment, the commitments guaranteeing national treatment with no investment limitations represent a standstill position.[67]

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[65] WTO, GATS, Hong Kong: Schedule of Specific Commitments, supp. 2 (GATS/SC/39/Suppl.2), Apr. 1997.

[66] Although Hong Kong's commitments under the GATS remain in effect for 50 years under the terms of the Sino-British Joint Declaration, the practicality of acquiring full ownership of Hong Kong Telecom is dubious in light of China Telecom's purchase of half of the shares owned by Cable & Wireless, as agreed in June 1997.

[67] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Hong Kong's supplementary telecommunication schedule with questionnaire responses provided by Hong Kong in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-16
Highlights of Hong Kong's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Domestic services a. voice — CPC 7521 b. packet-switched data — CPC 7523[2] c. circuit-switched data — CPC 7523[2] f. facsimile — CPC 7521/29[2] g. private leased circuit — CPC 7522/23[2] o. other — *No CPC* • cellular • paging • mobile data	Allows 100% foreign ownership for domestic services in 1998.	None, except: • Chubb Electronics has the exclusive right to provide a fire alarm transmission system connecting the Fire Services Department and public buildings. • New licenses for facilities will not be considered before June 1998.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – Hong Kong scheduled MFN-based commitments, according all WTO members access to its markets on the same terms and conditions.
2.C. International services (resale based only) a. voice — CPC 7521 b. packet-switched data — CPC 7523[2] c. circuit-switched data — CPC 7523[2] f. facsimile — CPC 7521/29[2] o. other — *No CPC* • call-back services or alternative calling procedures • self-provision of external satellite circuits for intra-corporate and closed user group communications • virtual private network • mobile satellite	Allows 100% foreign ownership for international resale services in 1998. Market access limitations effectively preclude establishment of facilities for the provision of international services.	All international services, except for mobile satellite services, may be provided only on a resale basis. Public external telephone service, defined as person-to-person voice communications with places outside of Hong Kong, is not allowed. For intra-corporate and closed user group satellite links and virtual private network services, connection to Hong Kong's public-switched telephone network (PSTN) may be restricted. For mobile satellite services, establishing gateway stations for mobile satellite traffic is not allowed.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.

[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Hong Kong: Schedule of Specific Commitments, supp. 2 (GATS/SC/39/Suppl.2), Apr. 1997.

Market Access

As noted above, Hong Kong's commitments treat domestic and international services separately. Commitments on domestic services cover facilities- and resale-based provision of voice, packet- and circuit-switched data transmission, facsimile, private leased circuit, and mobile services. Mobile services specifically include cellular and personal communication services, mobile data services, and radio paging services. Telex and telegraph services are not covered by Hong Kong's commitments on domestic services.

For the domestic services delineated in its schedule, Hong Kong accords full market access to foreign firms providing services through cross-border supply and consumption abroad. With respect to foreign firms establishing a commercial presence, market access is limited, as only four licenses for domestic wireline network services have been issued. Issuance of additional licenses will not be considered until June 1998. Market access for local services is also limited in regards to fire alarm transmission systems, as the Government has indefinitely granted exclusive rights to Chubb Electronics of Hong Kong to provide the transmission systems between the fire department and public buildings. Hong Kong's mobile services market is completely open to foreign participation.

Hong Kong's commitments on international services apply predominately to services provided through resale. Hong Kong's supplementary schedule indicates that foreign firms may provide resale of international voice, packet- and circuit-switched data transmission, facsimile, and other services. The latter include call-back, virtual private network services, and self-provision of satellite links for intracorporate and closed user group communications. However, Hong Kong places a number of significant restrictions on provision of these services, diminishing the value of its commitments. Specifically, public external telephone service, defined as person-to-person voice communication to locations outside Hong Kong, is not allowed. In addition, connection to Hong Kong's public-switched telephone network may be restricted for intracorporate satellite links and for virtual private network service. Hong Kong's schedule also indicates that foreign firms may provide mobile satellite services on a facilities basis, but may not establish their own gateway stations. The March 1998 termination of Hong Kong Telecom's exclusive rights over international facilities-based services may result in more liberal market access conditions than those currently reflected in Hong Kong's commitments. However, since these changes are not reflected in the commitments, foreign firms presently have no guarantee that new rights will be extended to them.

In 1994, Hong Kong had only one licensed provider of telecommunication services that enjoyed a full monopoly over domestic and international services, except for local mobile services. By 1997, Hong Kong had opened the domestic market to competition by issuing three new licenses to provide facilities-based or resale services and liberalized the international market by permitting resale of international services. Thus, Hong Kong's schedule contains binding commitments to maintain more liberal market access conditions than were available in 1994. However, since Hong Kong had planned the local service liberalization in 1992, and as these measures were merely implemented in 1995, Hong Kong's bindings on domestic services constitute standstill commitments. Regarding international services, Hong Kong had provided no indication

prior to February 1997 that market access for services provided on a resale basis would be guaranteed. For international resale services, therefore, Hong Kong rolled back limitations on foreign firms, although the degree of liberalization is modest in light of the restrictions specified above.

Regulatory Principles

Hong Kong scheduled a commitment to uphold the procompetitive principles contained in the GBT reference paper. In so doing, Hong Kong implemented safeguards to prevent anticompetitive practices, to ensure interconnection with the major supplier on nondiscriminatory terms, to provide licensing criteria publicly, and to maintain an independent regulator. These commitments reflect a standstill position from that taken in 1994. Nevertheless, the binding of these commitments increases the value of Hong Kong's commitments on basic and enhanced telecommunication services (table 4-17), the latter of which guaranteed full market access and national treatment for the provision of services through a commercial presence from 1995 onward. Without such a guarantee, foreign firms could still have been subject to discriminatory or exclusionary practices.

Table 4-17
Highlights of Hong Kong's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and data base retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced facsimile (including store and forward) CPC 7523[2] m. code and protocol conversion No CPC n. on-line information and/or data processing (including transaction processing) CPC 843[2]	No limitations except that a commercial presence must be incorporated in Hong Kong or be registered as a foreign company under the Companies Ordinance.	Limitations on market access under cross-border supply remain unbound. Limitations on market access under the presence of natural persons remain unbound except for measures permitting the intracorporate transfer of general managers, senior managers, and specialists.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Hong Kong: Schedule of Specific Commitments (GATS/SC/39), Apr. 1994.

India

India's schedule covers local voice services, both cellular and wireline; circuit-switched data transmission; facsimile; and private leased circuit services (table 4-18).[68] The schedule excludes long-distance[69] and international voice services, packet-switched data transmission, telex, and telegraph services. India has scheduled modest commitments regarding market access, and its commitments regarding foreign investment appear to be regressive.[70] Further, India has accepted only limited sections of the GBT reference paper on procompetitive principles, and has either significantly altered or deleted most principles found in the reference paper.

Foreign Investment

India's WTO commitments fall well short of present government policy regarding the allowable level of foreign ownership of telecommunication service providers. India's commitments limit foreign investment in local wireline and cellular voice service providers to 25 percent. India's foreign investment commitment is regressive as current government policy allows foreign investors up to 49 percent ownership of such carriers. Although the potential for sizable returns in the Indian telecommunications market will continue to attract foreign investment, regressive commitments could create sufficient uncertainty, deterring many other investors, and thereby delaying infrastructure development. India makes no commitments regarding foreign investment limits for monopoly international carrier Videsh Sanchar Nigam Ltd. (VSNL). Foreign investment in VSNL is presently negligible.

Market Access

India grants licenses for the provision of local wireline voice telecommunication service only if a "designated authority" determines that a need exists for such services. India neither identifies the designated authority nor requires that such authority be independent from any telecommunication service provider. Further, carriers that receive licenses to provide telecommunication services are subject to unspecified terms and conditions laid down by the designated authority, the government, or the prevailing laws, resulting in a lack of transparency and certainty.

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[68] WTO, GATS, India: Schedule of Specific Commitments, supp. 2 (GATS/SC/42/Suppl.2), Apr. 1997.

[69] India indicates that its commitments pertain to long-distance services, but has delayed an examination of whether to open this market until 1999.

[70] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in India's supplementary telecommunication schedule with questionnaire responses provided by India in 1995. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-18
Highlights of India's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investments	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication Services a. local voice CPC 7521[2] c. circuit-switched data CPC 7523[2] f. facsimile CPC 7521[2] g. private leased circuit CPC 7522[2]	Limited to 25% foreign ownership in one additional carrier in each local service area in 1998.	Allows one carrier per "service area" to compete with DoT/MTNL for 10 years if it has been determined by the authorities that a need exists. Terms and conditions are not defined. Does not allow access in the long-distance and international market. Resale of voice services is not permitted.	India has accepted only limited portions of the reference paper. • Interconnection subject to restrictions and non-transparent procedures. • The regulator is not required to be independent of any telecommunication service provider. • Cross-subsidization is not prohibited.	India has listed an MFN exemption for the different accounting rates that VSNL has negotiated with various foreign carriers.
o. other *No CPC* • cellular	Limited to 25% foreign ownership in regional duopoly, except in MTNL[3] in 1998.	Allows two cellular service operators each service area for 10 years if it has been determined by the authorities that a need exists. DoT/MTNL may enter these markets at any time. Terms and conditions are not defined. Only GSM technology is allowed for cellular service providers.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.
[3] India reserves the right for DoT/MTNL to enter each service area.

Source: Compiled by USITC staff from WTO, GATS, India: Schedule of Specific Commitments, supp. 2 (GATS/SC/42/Suppl.2), Apr. 1997.

If the designated authority determines that a need exists, India will allow one additional carrier to provide local wireline services in competition with the Department of Telecommunications (DoT) or Mahanagar Telephone Nigam Ltd. (MTNL) within each service area for at least 10 years.[71] The carriers that receive licenses in each service area may provide voice, facsimile, and data transmission services using circuit-switched technology. Further, licensees may provide leased circuits to their customers within their service area, but may not sell excess capacity over these circuits. Licensees may, however, grant franchises on a commission basis for providing payphone services. India makes no commitments with respect to long-distance and international telecommunication services other than to review the status of each of these markets in 1999 and 2004, respectively. Although the introduction of competition into the Indian local exchange market per India's commitments constitutes a rollback, Indian regulators retain broad discretion in determining the conditions of market entry, making the value of the commitment difficult to discern.

Foreign carriers' access to India's cellular service market is also subject to the requirement that a designated authority determine the need for such service; thereby India preserves broad discretion in this area, as well. Where there is a perceived need for cellular service, India allows two cellular operators in each service area for 10 years and these operators are restricted to the use of terrestrial-based GSM technology. However, India reserves the right to allow DoT and/or MTNL to enter each service area, which could substantially alter competitive conditions within a given service area. India's commitments regarding market access for cellular services appear to constitute rollbacks, although the value of the rollbacks will be determined by regulatory practice.

India has taken an MFN exemption that is reportedly intended to preserve its right to apply different accounting rates to foreign operators. India has listed this exemption despite the WTO's understanding that practices consistent with the international accounting rates system are not actionable under the WTO dispute settlement process.[72]

Regulatory Principles

India scheduled no commitment preventing cross-subsidization, thus allowing DoT and MTNL to subsidize competitive local exchange operations with monopoly revenues from long-distance operations. India's commitments with regard to interconnection provide that interconnection with a major supplier be ensured at points "specified in the license," rather than at "any technically feasible point" per the GBT reference paper. Significantly, India does not bind sections of the reference paper that ensure interconnection in a timely fashion under terms, conditions, or rates that are transparent, reasonable, economically feasible, nondiscriminatory, or unbundled. India's interconnection commitments appear to constitute a standstill.

[71] India's policy on market access for each service area will be reviewed 10 years after the license to determine whether competition is permitted.

[72] WTO, GBT, *"Report of the Group on Basic Telecommunications,"* Feb. 15, 1997.

India accepts the reference paper's requirement that universal service be defined in a transparent and nondiscriminatory manner, but not the obligation to make it competitively neutral or no more burdensome than necessary. Finally, India scheduled no commitments to make publicly available the normal time period for reaching a decision on license applications, to conduct its procedures for the allocation and use of scarce resources in a transparent and nondiscriminatory manner, or to make publicly available the current state of allocated frequency bands. In the absence of stronger commitments on procompetitive regulatory principles, it is not clear that market access and investment commitments pertaining to either basic (see table 4-18) or enhanced telecommunication services (table 4-19) will materially increase opportunities for U.S. participants in India's market.

Table 4-19
Highlights of India's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and database retrieval CPC 7523[2] l. enhanced facsimile (including store and forward) CPC 7523[2] n. on-line information and/or data processing CPC 843[2]	Limited to 51% foreign ownership.	Allows for all services except electronic data interchange and code and protocol conversion.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, India: Schedule of Specific Commitments (GATS/SC/42), Apr. 1994.

Indonesia

Indonesia scheduled commitments that allow limited foreign participation in the provision of voice, packet- and circuit-switched data transmission, telex, and telegraph services (table 4-20).[73] In addition, Indonesia scheduled commitments regarding teleconferencing, cellular, Internet, paging, and public pay phone services. Indonesia scheduled no commitments regarding facsimile and private leased line services. Indonesia permits foreign participation in the local, long-distance, and international service markets, through wireline, cellular, and satellite networks, on both a facilities and resale basis. However, foreign carriers may participate in the Indonesian market only through joint ventures or operations with Indonesia's incumbent carriers. Indonesia scheduled binding commitments to observe most of the procompetitive principles outlined in the GBT reference paper.

[73] WTO, GATS, Indonesia: Schedule of Specific Commitments, supp. 2 (GATS/SC/43/Suppl.2), Apr. 1997.

Table 4-20
Highlights of Indonesia's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services *Local* a. voice CPC 7521 b. circuit-switched data CPC 7523[2] o. other • teleconferencing	Allows 35% foreign ownership in 1998.	Local services are provided exclusively by PT Telkom and 5 regional joint operations. Market participation requires joint venture, joint operation, or contract management arrangement. Foreign management and technical expert personnel are limited to 20 natural persons.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Scarce resource allocation Regulator is not necessarily separate from any supplier of basic telecommunication services.	None – Indonesia scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.
Long-distance a. voice CPC 7521 b. circuit-switched data CPC 7523[2] o. other • teleconferencing	Allows 35% foreign ownership in 1998.	Long-distance services are provided exclusively by PT Telkom. Market participation requires joint venture, joint operation, or contract management arrangement. Foreign management and technical expert personnel are limited to 20 natural persons.		

See footnotes at end of table.

Table 4-20—*Continued*
Highlights of Indonesia's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
International a. voice — CPC 7521 b. circuit-switched data — CPC 7523[2] c. packet-switched data — CPC 7523[2] d. telex — CPC 7523[2] e. telegraph — CPC 7522 o. other — *No CPC* • teleconferencing	Allows 35% foreign ownership in 1998.	Cross-border supply of international services is allowed only through networks of PT Indosat and PT Satelindo. Callback is not permitted. When originating within Indonesia, international services are provided exclusively by PT Indosat and PT Satelindo. Market participation requires joint venture, joint operation, or, for voice, circuit- and packet-switched data transmission services, contract management arrangement. Foreign management and technical expert personnel are limited to 20 natural persons.		

See footnotes at end of table.

Table 4-20—*Continued*
Highlights of Indonesia's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
Domestic a. voice (cellular) CPC 7521/3 o. other • PCS • paging • Internet access • public pay phone	Allows 35% foreign ownership in 1998.	Cross-border supply of Internet access is allowed only through networks of PT Indosat and PT Satelindo until 2005. Market participation requires: joint venture for cellular; joint venture with state-owned company for PCS; joint venture or joint operation for Internet access and paging; and joint venture, joint operation, or contract management for pay phone services. Foreign management and technical expert personnel are limited to 20 natural persons.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Indonesia: Schedule of Specific Commitments, supp. 2 (GATS/SC/43/Suppl.2), Apr. 1997.

Foreign Investment

Indonesia scheduled a commitment that limits foreign equity participation to 35 percent. In addition, foreign investors may acquire stakes only in certain companies. In terms of local service, foreign investors may acquire equity only in the five joint ventures that have been granted regional monopolies until 2011. Foreign investment in long-distance services is limited to PT Telekomunikasi Indonesia (Telkom) until 2006, and in international services, to PT Indonesian Satellite Corporation (Indosat) and PT Satelit Palapa Indonesia (Satelindo) until 2005. Also, foreign investors in local cellular service may acquire stakes only in seven operators. Although foreign investment in PCS services is limited, Indonesia places no quantitative limit on the number of operators. Foreign investment in Internet, paging, and public pay phone services is also limited to 35 percent, and subject to vague quantitative licensing restrictions. Indonesia's commitments on foreign investment appear to represent a slight improvement over conditions prevalent in 1994.[74]

Market Access

Indonesia's commitments on voice, circuit-switched data transmission, and teleconferencing services vary according to whether they are provided over local, long-distance, or international networks. Through 2011, these services may be provided over local networks only by Telkom and five regional joint venture partners. Through 2006, these services may be provided over long-distance networks exclusively by Telkom. Through 2005, these services may be provided over international networks exclusively by Indosat and Satelindo. Commercial presences[75] established to provide such services must take the form of joint ventures,[76] joint operations,[77] or contract management arrangements[78] with Indonesian companies.

Indonesia's schedule also lists commitments on international packet-switched data transmission,[79] telex, and telegraph services. Commercial presences established to provide these services must take the form of joint ventures or joint operations with Indonesian companies and cross-border traffic must pass through the networks of Indosat or Satelindo. In addition, Indonesia scheduled commitments regarding

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[74] Indonesia did not submit a response to the WTO questionnaire regarding the structure and regulation of its telecommunication market. Consequently, it is not possible to characterize Indonesia's commitments as rollback, standstill, or regressive measures.

[75] A foreign supplier of any classification of telecommunication service to Indonesia must be a world-class operator with extensive international experience.

[76] A joint venture is a legal entity organized under Indonesian law and having its domicile in Indonesia. It is funded by both foreign and Indonesian capital. WTO, *Indonesia: Schedule of Specific Commitments*, Apr. 1997.

[77] A joint operation is an undertaking between one or several foreign and Indonesian enterprises of temporary nature, to handle one or several projects/businesses without establishing a new statutory body according to Indonesian laws. WTO, *Indonesia: Schedule of Specific Commitments*, Apr. 1997.

[78] Contract management is a contract organized under Indonesian law to provide temporary management of telecommunication facilities. WTO, *Indonesia: Schedule of Specific Commitments*, Apr. 1997.

[79] Three such service suppliers are currently operating on a nonexclusive basis.

cellular,[80] PCS, Internet access,[81] paging,[82] and public pay phone services. Foreign provision of these services is subject to restrictions on forms of establishment. Cellular services may be provided only through a joint venture; PCS, through a joint venture with a state-owned company; Internet access[83] and paging, through a joint venture or joint operation; and public pay phone services,[84] through a joint venture, joint operation, or contract management arrangement.

Indonesia's commitments on market access appear to represent a standstill. Telkom and Indosat remain the primary providers of domestic and international basic telecommunication services, and have been granted exclusive concessions that will endure for several years. The joint ventures, which allow limited foreign participation, were being organized in 1994, and therefore their presence does not reflect a significant liberalization of market access.

Regulatory Principles

Indonesia adopted most of the procompetitive regulatory principles listed in the GBT reference paper. However, the language in Indonesia's schedule indicates that Indonesia does not necessarily commit to a regulatory body that is separate from suppliers of basic telecommunication services. Consequently, the degree to which foreign providers of basic and value-added services (table 4-21) will receive nondiscriminatory treatment remains unclear.

Israel

Israel's commitments apply to all basic telecommunication services except telex and telegraph services (table 4-22).[85] In addition, Israel's commitments apply to paging and satellite services. With the exception of local and long-distance public voice services, which remain under monopoly control for both facilities- and resale-based services, the commitments allow foreign firms to provide services and control facilities based on all means of network technology. Israel's investment provisions permit foreign firms to acquire and hold a significant stake in all existing providers and to establish a commercial presence subject to the availability of licenses. Finally, the commitments obligate Israel to uphold procompetitive regulatory principles outlined in the GBT reference paper.

[80] Seven operators are currently providing mobile cellular telephone services.

[81] More than 30 licenses have been issued to Internet access service providers.

[82] Currently there are 10 national paging operators and over 70 local paging operators.

[83] Cross-border supply of international Internet access service is allowed only through networks of Indosat and Satelindo.

[84] Several local companies provide pay phone services. The division of revenue between a pay phone operator and Telkom is determined by the government.

[85] WTO, GATS, Israel: Schedule of Specific Commitments, supp. 2 (GATS/SC/44/Suppl.2), Apr. 1997.

Table 4-21
Highlights of Indonesia's commitments on enhanced telecommunication services

Coverage of Commitments[1]		Foreign Investment	Market Access
2.C. Telecommunication services		Foreign service suppliers must pay higher paid-up capital compared to domestics. This measure will be eliminated in the year 2020.	Five foreign service suppliers can establish a commercial presence.
c. voice mail	CPC 7523[2]		
h. electronic mail	CPC 75232[2]		
o. other			
• comp. time sharing	CPC 843[2]		
• videotex	CPC 7527/29[2]		
• electronic mail box	CPC 75232		
• file transfer	CPC 75299		
• home telemet. alarm	CPC 75299		
• entertainment	CPC 75299		
• MIS	CPC 75299		

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Indonesia: Schedule of Specific Commitments (GATS/SC/43), Apr. 1994.

Foreign Investment

Israel's commitments regarding foreign investment vary by service. For international services, foreign investment in any of three licensed providers, domestic carrier Bezeq Telecom, and international carriers Barak Ltd. and Golden Lines Ltd., may not exceed 74 percent. For wireless services, foreign ownership is limited to 80 percent. Foreign investors may acquire a stake in Bezeq, although Israel does not specify the level of foreign ownership allowed. The Israeli Government remains the majority shareholder of Bezeq, effectively controlling the level of private participation.

Prior to negotiations, the Israeli Government permitted foreign investment in Bezeq and imposed no formal limit on foreign participation in the firm. Until then, Bezeq was the sole supplier of domestic and international voice services. Subsequent to negotiations, Israel preserved Bezeq's monopoly on domestic voice services, but licensed two additional providers of international voice services, Barak and Golden Lines, and permitted majority foreign investment in both. Thus, Israel's *de jure* position regarding foreign investment has not changed; it was open to substantial foreign investment before negotiations, and remained so afterward. In this sense, Israel's commitment on foreign investment may be viewed as a standstill. However, by allowing foreign investors to establish majority ownership of the new licensees, it appears that Israel's *de facto* position regarding foreign investment became more open. Thus, in sum, Israel's commitment on foreign investment may be viewed as a modest rollback.[86]

[86] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Israel's supplementary telecommunication schedule with questionnaire responses provided by Israel in 1995. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-22
Highlights of Israel's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services *Domestic* a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] d. facsimile CPC 7521/29[2] g. private-leased circuit CPC 7522/23[2]	Unspecified amount of foreign ownership in exclusive monopoly provider, Bezeq.	Bezeq is the exclusive provider until 2002.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – Israel scheduled MFN-based commitments, according all WTO members access to its markets on the same terms and conditions.
International a. voice CPC 7521 c. circuit-switched data CPC 7523[2] g. private-leased circuit CPC 7522/23[2]	Limited to 74% foreign ownership in 3 licensed international service providers in 1998.	Exclusive rights reserved to three licensed operators until 2002.		
Domestic wireless a. voice CPC 7521	Limited to 80% foreign ownership in 1998.	Local partner required.		
f. international facsimile CPC 7521/29[2] o. other *No CPC* • paging • satellite	Allows 100% foreign ownership in 1998.	Allows in 1998.		
o. other *No CPC* • domestic closed user groups • domestic private networks	Allows 100% foreign ownership in 1998.	Allows in 1998, however, resale of excess capacity and transmission to third parties not permitted.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.

[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Israel: Schedule of Specific Commitments, supp. 2 (GATS/SC/44/Suppl.2), Apr. 1997.

Market Access

Israel's schedule indicates that Bezeq's monopoly provision of domestic facilities-based voice services over the public network will continue until 2002. In addition, until 2002, foreign firms wishing to provide most other basic telecommunication services over the domestic public network must do so on a resale basis using Bezeq's facilities. This restriction extends to radio-based, packet- and circuit-switched data transmission, and facsimile services. Private networks and closed user groups must also use Bezeq's network until 2002. Although Bezeq maintains these exclusive rights until 2002, Israel's indication that Bezeq's historical privileges will be terminated qualifies as a rollback commitment.

Bezeq International, Barak, and Golden Lines, which hold the only licenses to provide international services in Israel, will also continue to hold exclusive privileges until 2002. Only these three carriers may provide international facilities-based voice services over the wireline network, and firms wishing to provide international circuit-switched services and international private leased circuit services must do so through the networks of one of these carriers. As before, Israel's indication that these privileges will expire by 2002 qualifies as a rollback commitment.

Segments of the Israeli telecommunication service market that remain free of restrictions as of 1998 include international facsimile services, paging services, and satellite voice and data services. Israel's commitments in these areas appear to be standstills.

Regulatory Principles

Israel scheduled a commitment to uphold the obligations contained in the GBT reference paper on procompetitive principles in their entirety. These obligations include implementing competitive safeguards, providing for interconnection with the public network, and guaranteeing universal service. In addition, the procompetitive principles require Israel to maintain an independent regulator and make licensing criteria publicly available. Since Israel's regulatory environment had generally been operating under similar principles, this commitment qualifies as a standstill. However, by making a binding commitment to uphold these principles, Israel strengthened its new commitments on basic services as well as those previously scheduled on enhanced telecommunication services (table 4-23). Israel's commitment to abide by procompetitive regulatory principles provides greater regulatory transparency and greater certainty for all foreign telecommunication providers.

Table 4-23
Highlights of Israel's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services Data and message transmission only. CPC 7523[2] Presumably, this includes: h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and data base retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced facsimile (including store and forward) CPC 7523[2]	Allows 100 % foreign ownership.	Data and messages must be transmitted via the infrastructure of a local licensee.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Israel: Schedule of Specific Commitments (GATS/SC/44), Apr. 1994.

Japan

Japan's commitments under the WTO agreement apply to all basic telecommunication services, except for telegraph services (table 4-24),[87] over which dominant carriers Nippon Telegraph and Telephone (NTT) and Kokusai Denshin Denwa (KDD) will continue to exercise domestic and international monopolies, respectively. Japan's commitments permit foreign firms to provide local, long-distance, and international services through wireline, cellular, and satellite networks. Foreign firms are allowed 100 percent ownership of both facilities-based telecommunication service providers as well as resale providers, with the exception of NTT and KDD. Japan has scheduled a commitment to observe all of the procompetitive regulatory principles outlined in the GBT reference paper.

Foreign Investment

Under its WTO commitments, Japan permits 100 percent foreign ownership of all telecommunication service providers except NTT and KDD. Foreign ownership of NTT and KDD, either direct or indirect, continues to be limited to 20 percent and Japanese nationality is required for NTT and KDD board members and auditors. Japan's investment commitments, with the exception of those pertaining to NTT and

[87] WTO, GATS, Japan: Schedule of Specific Commitments, supp. 2 (GATS/SC/46/Suppl.2), Apr. 1997.

Table 4-24
Highlights of Japan's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services[2] a. voice CPC 7521 b. packet-switched data CPC 7523[3] c. circuit-switched data CPC 7523[3] d. telex CPC 7523[3] f. facsimile CPC 7521/29[3] g. private leased circuit CPC 7522/23[3] o. other *No CPC*	Allows 100% foreign ownership with the exception of NTT and KDD in 1998. Limited to 20% in NTT and KDD.	Allows in 1998.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None) Japan scheduled an MFN-based commitments, according all WTO members access to its markets on the same terms and conditions.

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Japan did not schedule commitments with respect to telegraph services.
[3] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Japan: Schedule of Specific Commitments, supp. 2 (GATS/SC/46/Suppl.2), Apr. 1997.

KDD, represent a modest rollback[88] of the restrictions that were in force prior to negotiations, as Japan's Telecommunications Business Law restricted foreign ownership of facilities-based carriers to one-third of total capital.[89] Japan's foreign investment commitments pertaining to NTT and KDD represent a standstill.

Market Access

With the exception of telegraph services, Japan places no restrictions on the foreign provision of basic telecommunication services. Japan has scheduled significant rollback commitments, which provide for international resale of private leased circuit capacity for the provision of all basic telecommunication services (except telegraph services).[90] Prior to the WTO agreement, Japan prohibited international resale of private leased circuit capacity. In addition, Japan terminated restrictions on the construction and operation of new telecommunication networks, thereby registering an additional rollback.

Regulatory Principles

Japan scheduled a commitment to abide by the GBT reference paper on procompetitive principles in its entirety. When WTO negotiations on basic telecommunication services commenced, facilities-based suppliers were neither required to provide interconnection for other basic telecommunication networks unless ordered to do so by the Ministry of Posts and Telecommunications (MPT), nor to make public the details of such agreements. The terms of the regulatory reference paper therefore represent a modest rollback of interconnection restrictions. Japan's new obligations with respect to interconnection, in conjunction with the commitment to observe other procompetitive principles, strengthen and preserve Japan's commitments pertaining to both basic and enhanced telecommunication services (table 4-25).

[88] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Japan's supplementary telecommunication schedule with questionnaire responses provided by Japan in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

[89] Japan, *Questionnaire on Basic Telecommunications*, p. 4.

[90] These subsectors include voice, packet- and circuit-switched data transmission, telex, telegraph, facsimile, and private leased circuit services.

Table 4-25
Highlights of Japan's commitments on enhanced telecommunication services

Coverage of commitments[1]			Foreign Investment	Market Access
2.C.	Telecommunication services		Allows 100% foreign ownership in all services.	Allows for all services.
h.	electronic mail	CPC 7523[2]		
i.	voice mail	CPC 7523[2]		
j.	on-line information and data base retrieval	CPC 7523[2]		
k.	electronic data interchange	CPC 7523[2]		
l.	enhanced facsimile (including store and forward)	CPC 7523[2]		
m.	code and protocol conversion	*No CPC*		
n.	on-line information and/or data processing (including transaction processing)	CPC 843[2]		
o.	other	*No CPC*		

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Japan: Schedule of Specific Commitments (GATS/SC/46), Apr. 1994.

Korea

Korea scheduled commitments that allow foreign provision of all basic telecommunication services, as well as cellular, personal communication, paging, trunked radio, and mobile data services, on both a facilities and resale basis (table 4-26).[91] Also, Korea's commitments permit foreign firms to provide local, long-distance, and international services through all means of network technology. However, Korea's commitments include significant restrictions on foreign investment and market access, as discussed below. Korea committed to observe the procompetitive regulatory principles found in the GBT reference paper.

Foreign Investment

Korea's commitments presently limit foreign interest in Korea Telecom, the country's largest carrier, to 20 percent, but provide for an increase to 33 percent in 2001. Korea's commitments also stipulate that the ceiling on an individual's ownership of Korea Telecom is 3 percent. With respect to other facilities-based providers of basic

[91] WTO, GATS, Korea: Schedule of Specific Commitments, supp. 2 (GATS/SC/48/Suppl.2), Apr. 1997.

Table 4-26
Highlights of Korea's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C.Telecommunication services a. voice — CPC 7521 b. packet-switched data — CPC 7523[2] c. circuit-switched data — CPC 7523[2] d. telex — CPC 7523[2] e. telegraph — CPC 7523 f. facsimile — CPC 7521/29[2] g. private leased — CPC 7522/23[2] o. other — *No CPC* • digital cellular • paging • PCS • TRS • mobile data	Will allow 33% foreign ownership in most facilities-based service providers until 2001, when it will allow 49% ownership. Will allow 49% foreign ownership in resale voice services beginning 1999, and will allow 100% in 2001. Will allow 20% aggregate foreign ownership of Korean Telecom until 2001, when it will allow 33%.	Foreign provision of international voice resale and domestic voice resale restricted until 2001 and 1999, respectively. Will allow the provision of all services in 2001.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – Korea scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.

[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Korea: Schedule of Specific Commitments, supp. 2 (GATS/SC/48/Suppl.2), Apr. 1997.

services, Korea limits foreign equity participation to 33 percent until 2001, when the limit will increase to 49 percent. Korea will permit foreign equity participation of up to 49 percent in firms operating on a resale basis starting January 1, 1999, and terminate the limit entirely on January 1, 2001.

Korea's bindings on foreign investment in Korea Telecom and other facilities-based providers constitute rollback commitments.[92] In 1994, no foreign equity participation or ownership in general service providers[93] (GSP) was allowed, as stipulated by article 6 of the Korean Telecommunication Business Law. Korea's foreign investment restrictions on specific service providers[94] (SSP) represent standstill commitments as they mirror previous foreign investment limitations.[95]

Market Access

Korea's commitments impose a number of market access restrictions on foreign firms' provision of facilities-based and resale-based telecommunication services. Foreign provision of international voice resale services is restricted through December 31, 2000. The ability to provide such services will require that foreign firms establish operations in Korea. Foreign provision of domestic voice resale services will be opened in 1999.

Since the end of the Uruguay Round, Korea has rolled back many limitations on market access in the provision of local, long-distance, and international services. In 1994, there was virtually no foreign participation in the supply of wireline services. Korea's commitments may improve the negligible rate of market penetration by permitting competition in some telecommunication service sectors for the first time.

Regulatory Principles

Korea adopted the GBT reference paper on procompetitive regulatory principles in its entirety. Korea scheduled commitments to maintain and/or establish competitive safeguards, to provide interconnection in a transparent and timely manner, to make licensing criteria publicly available, and to establish independent regulators. Although these commitments represent a standstill from the situation reported in 1994, they may prove valuable as U.S. telecommunication service providers have reportedly experienced difficulty entering the Korean market. In particular, Korea's obligation

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[92] Measures are characterized as standstill, rollback, or regressive commitments by comparing measures specified in Korea's supplementary telecommunications schedule with questionnaire responses provided by Korea in 1994. The NGBT circulated questionnaires upon the commencement of negotiations to gauge market conditions and regulatory practices. Korea, *Response to Questionnaire on Basic Telecommunications*, Oct. 20, 1994.

[93] GSPs are allowed to provide voice, telegraph, telex, leased line, data communication, facsimile, and other services designated by the Minister of Communications.

[94] SSPs are allowed to provide telecommunication services that are narrowly defined in terms of technology or geography, such as cellular, paging, trunked radio, and other services designated by the Minister of Communications.

[95] In 1994, Korea allowed no foreign investment in the following GSP services: voice, telex, telegraph, facsimile, and private leased circuits. Korea, *Response to Questionnaire on Basic Telecommunications*, Oct. 20, 1994.

to provide interconnection to foreign providers under nondiscriminatory terms and to maintain safeguards on cross-subsidization should improve the ability of U.S. and other non-Korean firms to compete in the Korean market for enhanced telecommunication services. Korea predominantly scheduled full commitments with respect to enhanced services during the Uruguay Round (table 4-27).

Table 4-27
Highlights of Korea's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and database retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced facsimile (including store and forward) CPC 7523[2] m. code and protocol conversion *No CPC* n. on-line information and/or data processing (including transaction processing) CPC 843[2]	Allows 100% foreign ownership in all services.	Allows for all services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Korea: Schedule of Specific Commitments (GATS/SC/48), Apr. 1994.

Malaysia

Malaysia's scheduled commitments address voice, packet- and circuit-switched data transmission, facsimile, and private leased circuit services, as well as cellular, paging, trunked radio, and video transport services (table 4-28).[96] Foreign carriers may provide these services on a facilities basis through local, long-distance, and international networks using wireline, cellular, or satellite technology. However, foreign carriers may only enter the Malaysian market by acquiring shares of Malaysian carriers, subject to a 30-percent foreign equity limit. Malaysia scheduled commitments to observe only certain of the procompetitive principles outlined in the GBT reference paper.

[96] WTO, GATS, Malaysia: Schedule of Specific Commitments, supp. 2 (GATS/SC/52/Suppl.2), Apr. 1997.

Table 4-28
Highlights of Malaysia's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C.Telecommunication services *(Facilities-based only)* a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] f. facsimile CPC 7521/29[2] g. private leased circuits CPC 7522/23[2] o. other • analogue/digital cellular • paging • trunked radio • video transport • satellite earth stations • international switching and gateway facilities	Allows 30% foreign ownership in existing licensed operators**.**	Allowed only through minority ownership of existing licensed operators in 1998. Resale is not permitted.	Adopted regulatory principles of its own creation. Value of regulatory principles unclear.	None – Malaysia scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectorial Classification List. This list defined each service using the United Nations' Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Malaysia: Schedule of Specific Commitments, supp. 2 (GATS/SC/52/Suppl.2), Apr. 1997.

Foreign Investment

Foreign ownership remains limited up to 30 percent in 1998. Also, foreign ownership is only allowed through acquisition of shares of an existing licensed public telecommunication operator (PTO). Malaysia's commitments regarding foreign investment appear to represent a standstill.[97]

Market Access

Malaysia guarantees market access with respect to most facilities-based basic telecommunication services, though only through acquisition of up to 30 percent of existing carriers, as described above. Malaysia makes no commitment regarding resale services. Malaysia's commitments pertaining to market access appear to represent a standstill.

Regulatory Principles

Malaysia scheduled a commitment to observe a list of regulatory principles annexed to its schedule. The value of this commitment is unclear. For instance, Malaysia's annex contains no explicit ban on cross-subsidization as the term is commonly understood. Further, the annex does not specify that universal service obligations should be competitively neutral, that licensing criteria will be publicly available, or that interconnection provisions will be cost-based, transparent, or subject to impartial dispute settlement. In the absence of a binding commitment to explicitly procompetitive regulatory principles, the value of Malaysia's commitments on basic telecommunication services, as well as enhanced telecommunication services (table 4-29), is uncertain.

Table 4-29
Highlights of Malaysia's commitments in enhanced telecommunication services

Coverage of Commitments[1]		Foreign Investment	Market Access
2.C. Telecommunication services		Limited to 30% foreign ownership.	Market access is allowed only through a locally incorporated joint venture with Malaysian individuals, Malaysian-controlled corporations, or through partial purchase of an existing licensed service provider. Simple resale of data and transmission services is not permitted.
h. electronic mail	CPC 7523[2]		
i. voice mail	CPC 7523[2]		
j. on-line retrieval	CPC 7523[2]		
l. enhanced facsimile	CPC 7523[2]		
m. code and protocol conversion	*No CPC*		
o. other			
• mobile data	CPC 7523[2]		
• telex	CPC 7523[2]		

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.
Source: Compiled by USITC staff from WTO, GATS, Malaysia: Schedule of Specific Commitments (GATS/SC/52), Apr. 1994.

[97] Malaysia did not submit a response to the WTO questionnaire regarding the structure and regulation of its telecommunications market. Consequently, USITC staff have consulted secondary sources in order to characterize the nature of Malaysia's commitments.

Mexico

Mexico's commitments apply to all basic telecommunication services except for telex and telegraph services, and also include provisions regarding paging and cellular services (table 4-30).[98] Mexico's commitments allow foreign firms access to local, long-distance, and international service markets through wireline and cellular network technology. The commitments primarily address facilities-based services, although they indicate that resale will be permitted once the necessary regulatory structure is in place. Mexico's commitments allow foreign firms to acquire, establish, and hold a minority stake in telecommunication providers. Finally, Mexico scheduled a commitment to observe the procompetitive regulatory principles outlined in the GBT reference paper.

Foreign Investment

Mexico's commitments permit foreign firms to own or acquire up to 49 percent of all telecommunication service providers and facilities. The 49-percent limit may be exceeded for cellular communication services, provided that the investor receives permission from the Foreign Investment Commission. The only other investment restrictions are that resellers, which Mexico calls commercial agencies, may not be owned by public telecommunication concessionaires or foreign governments. Mexico's broad 49-percent equity limitation reflects the Law on Foreign Investment that was in place before 1994. Consequently, Mexico's commitments regarding investment are generally indicative of a standstill position.[99] However, provisions indicating that foreign investment may exceed 49 percent in cellular services and that foreign firms may provide local resale services may be considered modest rollbacks.

Market Access

Mexico's commitments indicate that cross-border provision of the services addressed in its schedule must be routed through the facilities of an enterprise that has received an operating concession from the Ministry of Communications and Transport (SCT). For services provided through a commercial presence, firms must receive a concession from SCT. Mexico's commitments do not indicate that there is any difference in treatment for local, long-distance, or international service, although the implementation of regulatory reforms begun in the long-distance market has not yet reached the local market. The commitments allow the use of wireline and cellular technology. With respect to satellite technology, Telecomunicaciones de Mexico

[98] WTO, GATS, Mexico: Schedule of Specific Commitments, supp. 2 (GATS/SC/56/Suppl.2), Apr. 1997.

[99] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Mexico's supplementary telecommunication schedule with questionnaire responses provided by Mexico in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-30
Highlights of Mexico's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] f. facsimile CPC 7521/29[2] g. private leased circuit CPC 7522/23 o. other *No CPC* • paging • cellular on the "A" and "B" bands[3] • commercial agencies[3]	Allows up to 49% foreign ownership in 1998. For cellular A and B band frequencies, foreign investment in excess of 49% will be permitted following a favorable decision by the Foreign Investment Commission. For commercial agencies, or resellers, public telecommunication concessionaires may not hold an investment position. Foreign governments may not participate in an enterprise set up in accordance with Mexican law.	Cross-border supply of international services must be routed through the facilities of an enterprise that has a concession granted by the Ministry of Communications and Transport (SCT). A concession is required to provide telecommunication services through a commercial presence. Foreign governments may not provide telecommunication services. Telecomunicaciones de Mexico (Telecomm) has exclusive rights to links with Intelsat and Inmarsat.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – Mexico scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.

See footnotes at end of table.

Table 4-30—*Continued*
Highlights of Mexico's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
		Services other than international services that require the use of satellites must use Mexican satellite infrastructure until the year 2002. A permit issued by the SCT is required in order to provide a public facsimile service. Only enterprises set up in accordance with Mexican law may obtain such a permit. Operators of private networks wishing to exploit services commercially must obtain a concession from the SCT, whereupon such networks assume the character of public networks. For commercial agencies, or resellers, a permit is required and enterprises must be established in accordance with Mexican law. However, the SCT will not issue permits until relevant regulations are issued.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Central Product Classification (CPC) Code, found to the right of the schedule services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Frequencies 825-835/870-880 and 835-845/880-890 MHZ.

Source: Compiled by USITC staff from WTO, GATS, Mexico: Schedule of Specific Commitments, supp. 2 (GATS/SC/56/Suppl.2), Apr. 1997.

(Telecomm) retains exclusive rights to links with Intelsat and Inmarsat, and providers of domestic long-distance satellite services must use the Mexican satellite infrastructure until 2002.[100] Finally, Mexico indicates that resale of telecommunications will be permissible once relevant regulations are in place. However, the Mexican Government reportedly does not have plans to develop such regulations, hence, the provision of resale services appears to be proscribed indefinitely.[101] Despite this weakness in its schedule, Mexico's commitments generally reflect a rollback from previous market access conditions by guaranteeing market access for most basic services and by committing to terminate most restrictions on satellite communications by 2002.

Regulatory Principles

Mexico scheduled a commitment to uphold all of the procompetitive regulatory principles outlined in the GBT reference paper. In so doing Mexico implemented safeguards to prevent anticompetitive practices, to ensure interconnection on nondiscriminatory terms, to provide licensing criteria publicly, and to maintain an independent regulator. These commitments reflect a standstill position. Nevertheless, these safeguards increase the value of Mexico's commitments on basic and enhanced telecommunication services (table 4-31), the latter of which guaranteed market access for the provision of selected services through a commercial presence from 1995 onward. Without such a guarantee, foreign firms could still have been subject to discriminatory or exclusionary practices.

[100] Mexico is delaying full competition in satellite services until 2002 in order to allow the buyer of the newly privatized satellites, the joint venture led by Loral, sufficient time to recoup some of its investment. However, under the recent U.S./ Mexico satellite agreement, U.S. fixed-satellite service companies will be able to offer services in the Mexican domestic market no later than January 1, 1999. FCC, *News*, "International Bureau Announces Signing of Fixed-Satellite Services Protocol with Mexico," Oct. 17, 1997, found at Internet address http://www.fcc.gov/, retrieved Nov. 5, 1997.

[101] Mexican Government representative, interview by USITC staff, Washington, DC, Oct. 24, 1997.

Table 4-31
Highlights of Mexico's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services o. other: value-added services, defined as telecommunication services which utilize computerized processing systems that: • affect the format, content, protocol or similar aspects of the information transmitted to the user; • give the client additional, different or restructured information; or • involve interaction between the user and the information stored.	Limited to 49% foreign ownership of the registered capital of enterprises.[2]	A permit is required in order to provide services using radio-electric space. A permit from the Ministry of Communications and Transport (SCT) is required in order to establish private networks and supply value-added services. The central equipment and systems for providing special telecommunication services must be located in Mexican territory. There is an exclusive provider of computerized airline reservation services. 30% of excess capacity of private circuits may be rented or sold. A permit from the SCT is required for cross-border connections. Long-distance services for third parties are prohibited.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.

[2] Under the NAFTA, U.S. and Canadian firms may invest up to 100% in providers of enhanced telecommunication services.

Source: Compiled by USITC staff from WTO, GATS, Mexico: Schedule of Specific Commitments (GATS/SC/56), Apr. 1994.

New Zealand

New Zealand's commitments cover all basic telecommunication services, plus paging, teleconferencing, personal communication, cellular, trunked radio, and mobile data services (table 4-32).[102] New Zealand's commitments provide foreign carriers with access to local, long-distance, and international service markets through all means of network technology, both on a facilities basis and through resale. With one notable exception, foreign investors face no significant impediments to investing in New Zealand's telecommunication service industry. New Zealand scheduled binding commitments to observe the procompetitive regulatory principles found in the GBT reference paper in their entirety.

Foreign Investment

New Zealand restricts foreign ownership in Telecom New Zealand, the country's largest carrier, to 49.9 percent and requires one-half of the firm's board of directors to be New Zealand citizens. Aside from this limitation, New Zealand permits 100 percent foreign investment in all telecommunication service providers, although acquisitions over NZ$10 million must be approved by the Overseas Investment Commission unless they involve less than 25 percent of an individual company.

New Zealand's commitments generally represent a standstill.[103] The foreign ownership limitation of 49.9 percent in Telecom has been in place since privatization in 1990 and foreign firms were able to construct their own networks, invest in consortia, and operate their own facilities prior to the negotiations in 1994. Likewise, New Zealand did not previously place any restrictions on the provision of resale services, except for measures based on reciprocity with Australia.

Market Access

New Zealand scheduled commitments that allow foreign provision of all telecommunication services, thereby guaranteeing broad market access to foreign firms. New Zealand's market access commitments represent standstill commitments, as they bind New Zealand's already liberal telecommunication market.

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[102] WTO, GATS, New Zealand: Schedule of Specific Commitments, supp. 2 (GATS/SC/62/Suppl.2), Apr. 1997.

[103] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in New Zealand's supplementary telecommunication schedule with questionnaire responses provided by New Zealand in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-32
Highlights of New Zealand's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] d. telex CPC 7523[2] e. telegraph CPC 7522[2] f. facsimile CPC 7521/29[2] g. private leased circuit CPC 7522/23[2] o. other *No CPC* • paging • teleconferencing • personal communication services (PCS) • cellular • trunked radio • mobile data	Allows 100% foreign ownership in 1998, except a 49.9% foreign equity limit in Telecom New Zealand.	Allows for all services in 1998.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – New Zealand scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.

[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, New Zealand: Schedule of Specific Commitments, supp. 2 (GATS/SC/62/Suppl.2), Apr. 1997.

Regulatory Principles

New Zealand has adopted the procompetitive regulatory principles outlined in the GBT reference paper in their entirety. Nevertheless, New Zealand's noninterventionist regulatory approach, while it appears liberal, may actually impede competition.[104] New Zealand's regulatory system requires telecommunication service providers to resolve disputes among themselves, including those pertaining to interconnection. This may require lengthy negotiations. For instance, the interconnection dispute between Clear Communications and Telecom was resolved only after an expensive, 4-year legal battle through several levels of New Zealand's legal system.[105] Thus, the extent to which New Zealand's regulatory approach will promote competition in its basic and enhanced telecommunication service markets (table 4-33) is unclear.

Table 4-33
Highlights of New Zealand's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and data base retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced facsimile CPC 7523[2] m. code and protocol conversion No CPC n. on-line information and/or data processing CPC 843[2]	Allows for 100% foreign ownership in all services.	Allows for all services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.
Source: Compiled by USITC staff from WTO, GATS, New Zealand: Schedule of Specific Commitments (GATS/SC/62), Apr. 1994.

[104] ITU, *Asia-Pacific Telecommunication Indicators*, box 6.2, p. 56.
[105] Ibid.

Norway

Norway allows foreign provision of all basic telecommunication services, including mobile and personal communication systems (PCS). The commitments allow foreign firms to provide local, long-distance, and international services via wireline, cellular and satellite networks. Norway lists no restrictions on foreign ownership of telecommunication carriers and allows foreign firms to provide services on a facilities basis or through resale of existing capacity (table 4-34).[106] Norway also scheduled commitments to observe all of the procompetitive principles outlined in the GBT reference paper.

Foreign Investment

Norway places no limitations on foreign investment in basic telecommunication services. Foreign firms may acquire, establish or hold up to 100 percent equity in telecommunication carriers, which represents a significant rollback.[107] Prior to negotiations, foreign providers had been limited to minority status in Norwegian carriers.

Market Access

Norway grants full market access to foreign providers of basic telecommunication services. The commitments open the entire telecommunication service industry to foreign competition, and lift the restrictions on the facilities-based voice services formerly reserved for Telenor, Norway's dominant carrier. These commitments, too, represent significant rollbacks.

Regulatory Principles

Norway scheduled commitments to adopt the GBT reference paper on procompetitive principles in its entirety. Commitments on these regulatory principles, which provide for interconnection, public disclosure of licensing criteria, independent regulation, and transparent allocation and use of scarce resources, represent significant rollbacks. Prior to negotiations, for example, there was no requirement in Norway to disclose publicly interconnection arrangements.

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[106] WTO, GATS, Norway: Schedule of Specific Commitments, supp. 2 (GATS/SC/66/Suppl.2), Apr. 1997.

[107] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Norway's supplementary telecommunication schedule with questionnaire responses provided by Norway in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-34
Highlights of Norway's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C.Telecommunication services a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] d. telex CPC 7523[2] e. telegraph CPC 7522[2] f. facsimile CPC 75212/29[2] g. private leased circuit CPC 75222/232 o. other *No CPC* • mobile • personal communication services (PCS)	Allows 100% foreign ownership in 1998.	Allows in 1998.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – Norway scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the schedule services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Norway: Schedule of Specific Commitments, supp. 2 (GATS/SC/66/Suppl.2), Apr. 1997.

Adherence to these principles will improve the ability of U.S. firms to provide both basic and enhanced telecommunication services. Commitments for the latter were finalized during the Uruguay Round, and inscribed in national schedules published in April 1994 (table 4-35).

Table 4-35
Highlights of Norway's commitments on enhanced telecommunication services

Coverage of commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and data base retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced facsimile (including store and forward) CPC 7523[2] m. code and protocol conversion *No CPC* n. on-line information and /or data processing (including transactions processing) CPC 843[2] o. other *No CPC* • videotext • enhanced services on licensed wireless networks including paging and excluding voice transmission	Allows 100% foreign ownership in all services.	Allows for all services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.

[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Norway: Schedule of Specific Commitments (GATS/SC/66), Apr. 1994.

Poland

Poland's WTO commitments cover all basic telecommunication services, as well as cable television, radio, cellular, mobile satellite, and paging services (table 4-36).[108] In 2003, Poland will allow foreign firms to provide local, long-distance, and international services on a facilities or resale basis via any means of technology. In 2003, Poland will also loosen restrictions on foreign investment, allowing foreign entities to acquire up to 49 percent of all basic service providers. Poland adopted the procompetitive regulatory principles contained in the GBT reference paper in their entirety.

Foreign Investment

Poland's commitments indicate that foreign investment in telecommunication companies is only permitted in the form of limited liability or joint stock companies established in Poland. Further, the majority of the board of directors must be Polish citizens residing in Poland. Through 2003, Poland's commitments gradually increase the number of market segments open to foreign investors. Poland currently allows 100 percent foreign ownership of paging service providers, and 49 percent foreign ownership of providers of local voice, packet- and circuit-switched data transmission, facsimile, private leased circuit, cable television, radio, and cellular services. In year 2000, Poland will permit 49 percent foreign ownership of domestic telex and telegraph service providers. And in 2003, Poland will allow 49 percent foreign investment in long-distance voice; international voice, telex, and telegraph; and mobile satellite services. Nevertheless, Poland's bindings regarding foreign investment, while progressively liberal, appear to be standstill commitments, reflecting plans laid prior to negotiations.[109]

Market Access

Poland scheduled commitments that gradually improve market access during 1998-2003. Markets for local voice, packet- and circuit-switched data transmission, facsimile, private leased circuits, paging, cable television, radio, and cellular services remain open. Markets for domestic telex and domestic telegraph services, currently provided by Telekomunikacja Polska S.A. (TPSA), Poland's dominant carrier, are scheduled to open in January 2000. Markets for long-distance and international voice, international telex, international telegraph, and mobile satellite services are scheduled

[108] WTO, GATS, Poland: Schedule of Specific Commitments, supp. 2 (GATS/SC/71/Suppl.2), Apr. 1997.

[109] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Poland's supplementary telecommunication schedule with questionnaire responses provided by Poland in 1996. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-36
Highlights of Poland's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C.All sectors	Limited to 49% foreign ownership in all services and networks. Foreign investment must be in the form of a limited liability or a joint stock company established in Poland. The majority of the board of directors must be Polish citizens residing in Poland	A license is required for the provision of all services, and is available only to companies registered in Poland, unless waived by the Minister of Communications. Licensing is subject to publicly available criteria.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None –Poland scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions
a. long-distance and international voice CPC 7521[2] d. international telex CPC 7523[2] e. international telegraph CPC 7522	Allows 49% foreign ownership in 2003.	Will allow in 2003.		
d. domestic telex CPC 7523[2] e. domestic telegraph	Allows 49% foreign ownership in 2000.	Will allow in 2000.		
a. local voice b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] f. facsimile CPC 7521/23[2] g. private leased circuits CPC 7522[2]	Allows 49% foreign ownership in 1998.	Allows in 1998.		
o. other *No CPC* • paging	Allows 100% foreign ownership in 1998.	Allows in 1998. Must use pan-European paging systems.		
o. other *No CPC* • cable tv and radio networks	Limited to 49% foreign ownership in 1998.	Allows in 1998.		

See footnotes at end of table.

Table 4-36—*Continued*
Highlights of Poland's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
o. other *No CPC* • public cellular mobile	Limited to 49% foreign ownership in 1998.	Allows in 1998, requires the use of TPSA's international networks until 2003, but will allow the use of microwave connections if TPSA is unable to offer connections.		
o. other *No CPC* • mobile satellite services and networks	Will allow 100% foreign ownership in 2003.	Allows in 2003.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.

[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Poland: Schedule of Specific Commitments, supp. 2 (GATS/SC/71/Suppl.2), Apr. 1997.

to open in 2003. Poland requires that cellular service providers use TPSA's infrastructure until 2003, unless TPSA is not able to provide network connections. Further, paging service providers are required to use pan-European paging systems. Finally, foreign providers must register in Poland and are subject to publicly available licensing requirements. While most of Poland's commitments on basic telecommunication services are standstills, those allowing eventual foreign provision of long-distance voice, international voice, telegraph, and mobile satellite services appear to constitute significant rollbacks.

Regulatory Principles

Poland scheduled commitments to abide by the GBT reference paper on procompetitive principles in its entirety. Therefore, Poland is obligated to provide safeguards against anticompetitive practices, and measures that provide for interconnection with public networks on nondiscriminatory terms, publicly available licensing criteria, independent regulators, and transparent and nondiscriminatory allocation and use of scarce resources. Poland's commitments regarding procompetitive safeguards and interconnection represent significant rollbacks. Prior to negotiations, Poland had no safeguards in place and interconnection pricing was reportedly arbitrary. Poland's commitments on regulatory principles complement its basic and enhanced telecommunication commitments, although the latter are best characterized as modest (table 4-37).

Table 4-37
Highlights of Poland's commitments on enhanced telecommunication services

Coverage of Commitment[1]	Foreign Investment	Market Access
2.C. Telecommunication services o. other CPC 7522/23[2]	Limited to 49% foreign ownership in inter-town lines. Allows 100% foreign ownership in local services.	Use of public or authorized networks required for cross-border provision of services. No foreign provider or Polish carrier with any foreign investment may provide international services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Poland: Schedule of Specific Commitments (GATS/SC/71), Apr. 1994.

Singapore

Singapore's commitments apply to voice, circuit- and packet-switched data, facsimile, and private leased circuit services, as well as cellular, mobile data, trunked radio, and paging services (table 4-38).[110] Singapore permits foreign firms to provide domestic and international services through wireline, cellular, and satellite networks. Singapore also allows foreign firms to acquire majority interest in telecommunication carriers and facilities, although there may initially be few facilities-based carriers due to licensing restrictions. Foreign firms may also provide resale services, although they may not provide them over the public network. Singapore adopted the GBT reference paper on procompetitive regulatory principles in its entirety.

Foreign Investment

Singapore scheduled a number of rollback commitments[111] regarding foreign investment, although the value of these commitments is adversely affected by the continuation of licensing restrictions until April 2000. Foreign investors may acquire a 49-percent direct stake and an additional 24.99-percent indirect stake in facilities-based carriers, including dominant carrier SingTel, for a cumulative total of 73.99 percent ownership. This represents a rollback from the 40-percent limit on direct investment that was in effect prior to negotiations. Foreign investors may also cumulatively acquire 73.99 percent of firms providing cellular voice, mobile data, trunked radio, and paging services, reflecting a rollback from the 49-percent limitation that pertained to these services prior to negotiations. Finally, foreign investors may establish 100 percent ownership of resale service providers, reflecting another rollback from the preexisting 49-percent foreign ownership limitation regarding resale services.

Market Access

Singapore scheduled a significant rollback commitment to license two additional carriers that will commence services in April 2000, terminating SingTel's monopoly seven years ahead of Singapore's previous schedule. These firms would be able to provide domestic and international voice, packet- and circuit-switched data transmission, facsimile, and leased circuit services. Singapore also scheduled a rollback commitment that permits foreign firms to provide a variety of mobile services in 1998, although additional licenses to provide cellular voice services will not be

[110] WTO, GATS, Singapore: Schedule of Specific Commitments, supp. 2 (GATS/SC/76/Suppl.2), Apr. 1997.

[111] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Singapore's supplementary telecommunication schedule with questionnaire responses provided by Singapore in 1995. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunication market.

Table 4-38
Highlights of Singapore's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication Service (facilities-based) a. voice CPC 7521[2] b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] f. facsimile CPC 7521/29[2] g. private leased circuits CPC 7522/23[2]	Limited to 73.99% foreign ownership, based on 49% direct investment and 24.99% indirect investment.	Two additional operators will be licensed in 1998 for the provision of services on April 1, 2000. An unspecified number of additional licenses will be granted for provision of services thereafter.	Adopts the reference paper on regulatory principles • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – Singapore scheduled MFN-based commitments, according all WTO members access to its markets on the same terms and conditions.
2.C. Telecommunication Service (resale) a. voice CPC 7521[2] b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] f. facsimile CPC 7521/29[2] g. private leased circuits CPC 7522/23[2] o. other • public radio paging • public cellular mobile telephone	Allows 100% foreign ownership.	Allows from Jan. 1, 1998. Resellers of voice, packet- and circuit-switched data, facsimile, and leased circuit services may operate only within closed user groups and private networks.		

See footnotes at end of table.

Table 4-38—*Continued*
Highlights of Singapore's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Mobile Services o. other • public mobile data • public trunked radio • public radio paging • public cellular mobile telephone	Open competition for public switched, leased circuit, and public radio paging from 1998. An unspecified number of additional public cellular voice licenses will be granted from April 1, 2000. Allows 73.99% foreign ownership, based on 49% direct investment and 24.99% indirect investment.	Allows public mobile data trunked radio, and paging in 1998. Allows public cellular mobile from April 1, 2000.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Singapore: Schedule of Specific Commitments, supp. 2 (GATS/SC/76/Suppl.2), Apr. 1997.

granted until April 2000. Singapore's commitment regarding resale services also qualifies as a rollback commitment. Beginning January 1998, Singapore allows foreign resalers to provide voice, packet- and circuit-switched data transmission, and facsimile services over local and international closed user group and private networks, and to provide cellular voice and paging services over the public network. The resale of leased lines, while permitted, is limited by the condition that such lines may not be connected to the public network. Prior to WTO negotiations, Singapore prohibited resale services except in isolated cases over private networks, and reportedly did not envision licensing resale services on a broader scale until April 2002.

Regulatory Principles

By adopting the GBT reference paper in its entirety, Singapore agreed to employ regulations that will protect new operators from anticompetitive behavior by its incumbent telecommunications carrier, SingTel, from 1998 onward. While prior to negotiations the Telecommunication Authority of Singapore (TAS) prohibited SingTel from cross-subsidizing and applying discriminatory interconnection terms and conditions, TAS was not required to do so in the future in the absence of this GBT commitment. Singapore's commitment in this area therefore establishes greater regulatory transparency and certainty for firms wishing to enter Singapore's telecommunications market now and in the future. Singapore's commitment on procompetitive regulatory principles safeguards the benefits of new commitments on basic telecommunications, as well as those on enhanced telecommunication services, finalized in April 1994 (table 4-39).

Table 4-39
Highlights of Singapore's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication Services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and data retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] n. on-line information and/or data processing (including transaction processing) CPC 843	Allows 100% foreign ownership.	Provision of services is subject to license from the Telecommunications Authority of Singapore (TAS). Foreign companies are required to either set up a local branch of their company registered with the Registry of Companies and Businesses in Singapore or grant a power of attorney to a local agent for the provision of VAN services. May not carry traffic which resembles any of the basic telecommunications services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Singapore: Schedule of Specific Commitments (GATS/SC/76), Apr. 1994.

South Africa

South Africa's commitments address the following basic telecommunication services: voice, packet- and circuit-switched data transmission, telex, facsimile, and private leased circuit services (table 4-40).[112] Additionally, South Africa listed commitments for paging, personal radio communication, trunked radio, cellular (including mobile data), and satellite-based services. South Africa makes no commitment to telegraph services. Further, South Africa's commitment on voice services does not apply to value-added networks. At present, South Africa reserves the provision of nearly all basic telecommunication services, and access to all telecommunication facilities, to the state-owned monopoly Telkom S.A. Ltd. However, on January 1, 2004, the country will allow foreign access to the local, long-distance, and international service markets, through all means of network technology. Foreign investors are limited to a minority stake in South African carriers, and South Africa will continue to prohibit foreign provision of resale services until at least year 2000. South Africa adopted most of the GBT reference paper on procompetitive regulatory principles.

Foreign Investment

South Africa currently allows aggregate foreign investment of 30 percent in Telkom, and will permit 30 percent foreign investment in a second provider when one is established. A second carrier will be established no later than December 31, 2003. The 30-percent foreign investment cap also applies to all other telecommunication services listed in the South African schedule. Prior to entering into WTO negotiations on basic telecommunications, South Africa did not permit foreign investment in Telkom. Thus, South Africa's foreign investment commitment on facilities-based providers represents a rollback commitment.[113] South Africa scheduled another rollback commitment that will permit foreign investment in resellers, although it declined to specify the terms and conditions of such investment. The resale market will be liberalized between years 2000 and 2003. However, with regard to cellular, paging, personal radio communication, and trunked radio services, it appears that South Africa scheduled a regressive commitment, as current foreign investment in certain mobile carriers already exceeds the 30-percent limit. Vodafone (U.K.) currently holds a 32-percent stake in Vodacom Ltd., and Cable & Wireless (U.K.) and SBC (U.S.) hold a combined stake of 40.5 percent in Mobile Telephone Networks Ltd. (MTN).

[112] WTO, GATS, South Africa: Schedule of Specific Commitments, supp. 2 (GATS/SC/78/Suppl.2), Apr. 1997.

[113] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in South Africa's supplementary telecommunication schedule with questionnaire responses provided by South Africa in 1995. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-40
Highlights of South Africa's commitments in basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C.Telecommunication services a. voice CPC 7521 b. packet-switched data CPC 7523[2] c. circuit-switched data CPC 7523[2] d. telex CPC 7523[2] f. facsimile CPC 7521/29[2] g. private leased circuit CPC 7522/23[2] o. other *No CPC* • satellite-based	Limited to 30% foreign ownership in Telkom in 1998, and 30% foreign ownership in a second operator in 2004.	Services reserved to Telkom monopoly in 1998. One additional provider will be allowed by 2004. Cross-border supply of services is allowed only through network of Telkom monopoly, or subsequent duopoly. Will allow resale services between 2000 and 2003.	With the exception of not committing to make public the period of time normally required to reach a licensing decision, South Africa adopted the reference paper on pro-competitive regulatory principles. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – South Africa scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.
o. other *No CPC* • paging • personal radio communication • trunked radio	Limited to 30% foreign ownership in 1998.	Cross-border supply of services is allowed only through network of Telkom monopoly, or subsequent duopoly.		
o. other *No CPC* • mobile cellular, including mobile data	Limited to 30% foreign ownership in two existing operators in 1998, and in a third operator in 2000.	Services are reserved for Vodacom and MTN in 1998, and a third operator in 2000. Cross-border supply of services is allowed only through network of Telkom monopoly, or subsequent duopoly.		

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.

[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, South Africa: Schedule of Specific Commitments, supp. 2 (GATS/SC/78/Suppl.2), Apr. 1997.

Market Access

South Africa reserves the provision of voice, packet- and circuit-switched data transmission, telex, facsimile, private leased circuit, and satellite services to the Telkom monopoly, or a subsequent duopoly operator. According to its commitments, South Africa will replace Telkom's monopoly with a duopoly no later than yearend 2003 and will also consider whether it is feasible to allow other facilities-based providers in addition to the duopoly by that time. Further, South Africa commits to examine the feasibility of authorizing additional suppliers of satellite services in 2004. Mobile cellular services currently may be supplied by the existing duopoly only (Vodacom and MTN); however, South Africa will examine the feasibility of additional cellular suppliers by the end of 1998, and it will grant one additional cellular license during the next 2 years. With regard to paging, personal radio communication, and trunked radio services, South Africa lists no limitations on establishing a minority position in a commercial presence. However, in the case of cross-border supply, foreign firms may provide services only through Telkom's networks or those of the subsequent duopoly.

South Africa has scheduled commitments that obligate it to move by 2004 from a monopolistic to a duopolistic market for the provision of all basic telecommunication services, except telegraph services. With respect to cellular services, South Africa has scheduled a commitment to permit the market entry of one additional provider, bringing the number of cellular service providers to three. These commitments may be characterized as modest rollback commitments. South Africa's commitment to liberalize resale services between 2000 and 2003 is also a rollback commitment, as South Africa did not permit resale previously. South Africa appears to have scheduled a standstill commitment with respect to paging, personal radio communication, and trunked radio system services.

Regulatory Principles

South Africa adopted the GBT reference paper on procompetitive regulatory principles, with the exception that it did not undertake an obligation to make public the period of time normally required to reach a licensing decision. South Africa's commitment to the principles outlined in the reference paper constitutes a rollback commitment. South Africa has already taken steps toward the implementation of certain regulatory principles, as exemplified by the Telecommunications Act of 1996 and the creation of an independent regulatory authority for the telecommunication industry, the South African Telecommunications Regulatory Authority (SATRA). South Africa's commitments to procompetitive regulatory principles should prove valuable to foreign entrants as the country gradually liberalizes its telecommunication services market.

With regard to enhanced telecommunication services (table 4-41), South Africa's commitment to observe procompetitive regulatory principles is also significant. Under South Africa's initial commitments, telecommunication carriers could only provide enhanced telecommunication services with the consent and collaboration of Telkom. Now the independent regulator, SATRA, has assumed authority to license providers of enhanced telecommunications. Such services may only be provided through

Telkom's network and facilities,[114] but South Africa's commitments to provide private leased circuit services and to observe procompetitive interconnection policies will likely facilitate the creation of a competitive market for enhanced telecommunication services.

Table 4-41
Highlights of South Africa's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and data base retrieval CPC 7523[2] k. electronic data interchange CPC 7523[2] l. enhanced/value-added facsimile services, including store and forward, store and retrieve CPC 7523[2] m. code and protocol conversion *No CPC* n. on-line information and/or data-processing (including transaction processing) CPC 843[2]	Unclear.	Limitations on bypass of South African facilities for routing of domestic and international traffic. Applications from international VANS providers are dealt with on an ad hoc basis.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, South Africa: Schedule of Specific Commitments (GATS/SC/78), Apr. 1994.

[114] South African Government, *Telecommunications Act, 1996*, Nov. 15, 1997, ch. 5, sec. 40, para. 2.

Switzerland

Anticipating enactment of the Federal Law on Telecommunications in January 1998, the Swiss Government submitted a revised and substantially improved basic telecommunications schedule to the WTO on September 19, 1997. The following discussion examines the revised schedule, which entered into force along with other GBT schedules on February 5, 1998. In this schedule, Switzerland inscribed commitments on all basic telecommunication services (table 4-42).[115] The schedule provides foreign carriers with access to local, long-distance, and international service markets through wireline, cellular, and satellite networks, on both a facilities and resale basis. The schedule also ensures that foreign carriers can acquire or establish significant stakes in Swiss carriers and other firms operating in the Swiss market, and obligates Switzerland to follow the procompetitive regulatory principles found in the GBT reference paper.

Foreign Investment

Switzerland permits 100 percent foreign ownership of all carriers in the Swiss market, irrespective of the services they provide. Switzerland's relaxation of the investment limitation pertaining to its dominant carrier, Swisscom, appears to represent a significant rollback.[116] In addition, Switzerland's provision for 100 percent foreign ownership of carriers that may compete with Swisscom to provide voice services appears to constitute a rollback commitment. Swiss provisions for 100 percent investment in firms providing basic services other than voice telephony register as standstill commitments; these rights existed prior to WTO negotiations.

Market Access

With respect to market access, Switzerland again inscribes significant rollback commitments. Switzerland's commitments allow foreign carriers to provide all basic services on either a facilities or resale basis. Prior to WTO negotiations, carriers other than Swisscom, whether foreign or domestic, could only provide basic services on a resale basis. Such carriers had to obtain leased circuits from Swisscom.

[115] WTO, GATS, Switzerland: Schedule of Specific Commitments, supp. 2 (GATS/SC/83/Suppl.2), Apr. 1997.

[116] USITC staff have attempted to identify rollback, standstill, and regressive commitments by comparing the commitments inscribed in Switzerland's supplementary telecommunication schedule with questionnaire responses provided by Switzerland in 1994. The Negotiating Group on Basic Telecommunications (NGBT) circulated a questionnaire upon the commencement of extended negotiations to gather and share information regarding conditions and regulatory practices in each basic telecommunications market.

Table 4-42
Highlights of Switzerland's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C.Telecommunication services a. voice services CPC 7521[2] b. packet-switched CPC 7523[2] c. circuit-switched CPC 7523[2] d. telex CPC 7523[2] e. telegraph CPC 7522[2] f. facsimile CPC 7521/23[2] g. private leased circuit CPC 7522/23[2]	Allows 100% foreign ownership in all carriers in 1998.	Allows in 1998.	Adopted reference paper on regulatory principles in entirety. • Competitive safeguards • Interconnection • Universal service • Licensing criteria • Independent regulator • Scarce resource allocation	None – Switzerland scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Switzerland: Schedule of Specific Commitments, supp. 2 (GATS/SC/83/Suppl.2), Apr. 1997.

Regulatory Principles

Switzerland scheduled a commitment to observe the GBT reference paper on procompetitive principles. This commitment appears to represent a rollback, as adoption of the reference paper requires Switzerland to direct Swisscom for the foreseeable future to provide interconnection to competitors on nondiscriminatory terms and conditions, in accordance with publicly available and transparent procedures, and to establish an effective and efficient dispute-settlement mechanism. Effective implementation of the competitive safeguards and interconnection mechanisms outlined in the GBT reference paper increase the value of Switzerland's commitments on basic telecommunication services as well as enhanced telecommunication services, the latter of which were finalized in April 1994 (table 4-43).

Table 4-43
Highlights of Switzerland's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services h. electronic mail CPC 7523[2] i. voice mail CPC 7523[2] j. on-line information and data base retrieval CPC 7623[2] k. electronic data interchange CPC 7523[2] l. enhanced/value-added facsimile services CPC 7523[2] m. code and protocol conversion *No CPC* n. on-line information and/or data processing CPC 843[2] o. other *No CPC* • videotext • enhanced/value-added services based on licensed wireless networks including enhanced/ value-added paging services, except for voice transmission	Allows 100% foreign ownership in all services.	Allows for all services.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Switzerland: Schedule of Specific Commitments (GATS/SC/83), Apr. 1994.

Thailand

Thailand's commitments address only four basic telecommunication services: voice, telex, telegraph, and facsimile services (table 4-44).[117] Significantly, Thailand's commitments are conditional upon the passage of current draft legislation, namely the Telecom Master Plan. Thailand's commitments allow foreign firms to provide local, long-distance, and international services on a facilities basis via wireline, cellular, or satellite networks. Thailand makes no commitment on resale services. Further, foreign equity may not exceed 20 percent, and the number of foreign shareholders may not exceed 20 percent of the total number of shareholders in any entity. Finally, Thailand did not adopt the GBT reference paper on procompetitive principles.

Foreign Investment

Thailand's foreign investment commitments are fully contingent upon the enactment and implementation of pending telecommunication legislation and are scheduled to enter into force in 2006. Thailand's conditional commitment to limit foreign investment and foreign shareholders to 20 percent is consistent with limitations on investment that were in place prior to Thailand's entry to negotiations. Thus, Thailand scheduled a conditional standstill commitment regarding foreign investment limitations.[118] Against the backdrop of its commitments on enhanced telecommunication services, Thailand's basic telecommunications commitments seem modest. During the Uruguay Round, Thailand scheduled commitments that allow 40 percent foreign investment in enhanced services (table 4-45). Likewise, Thailand's initial GATS commitments limited the number of foreign shareholders in companies providing enhanced services to 40 percent of the total number of shareholders.

Market Access

Thailand's market access commitments, too, are fully contingent on the enactment and implementation of pending telecommunication legislation and are scheduled to enter into force in 2006. Thailand stipulates several general conditions that present significant limitations on market access. Most significantly, Thailand allows foreign provision of basic telecommunication services on a facilities basis only, prohibiting

[117] WTO, GATS, Thailand: Schedule of Specific Commitments, supp. 2 (GATS/SC/85/Suppl.2), Apr. 1997.

[118] Measures are characterized as standstill, rollback, or regressive commitments by comparing measures specified in Thailand's supplementary telecommunication schedule with questionnaire responses provided by Thailand in 1996. The NGBT circulated questionnaires upon the commencement of negotiations to gauge market conditions and regulatory practices. Thailand, *Response to Questionnaire on Basic Telecommunications*, Apr. 25, 1996.

Table 4-44
Highlights of Thailand's commitments on basic telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access	Regulatory Principles	Article II MFN Exemptions
2.C. Telecommunication services a. voice CPC 7521 d. telex CPC 7523[3] e. telegraph CPC 7522 f. facsimile CPC 7521/29[3]	*Conditional upon the enactment of necessary law*. Will conditionally allow 20% foreign ownership of facilities-based services in 2006 (no resale). The number of foreign shareholders may not exceed 20% of the total number of shareholders. Must be a Thai registered company.	*Conditional upon the enactment of necessary law*. Allowed only in collaboration with Thai firm under a BTO arrangement. Thailand conditionally commits to introduce full market access and national treatment in 2006. CAT has exclusive rights to Intelsat and Inmarsat.	*Conditional upon the enactment of necessary law*. Thailand did not adopt the reference paper. Thailand makes a conditional offer to bind its version of regulatory principles in 2006.	None[2] – Thailand scheduled MFN-based commitments, according all WTO members access to its market on the same terms and conditions.

[1] WTO members were asked to schedule commitments on basic telecommunication services found in the GATT Secretariat's Services Sectoral Classification List. This list defined each service using the United Nations' Provisional Central Product Classification (CPC) Code, found to the right of the scheduled services where applicable. WTO members could schedule commitments on "other" telecommunication services at their discretion.

[2] Previously under the GATS, Thailand took an MFN exemption for service sectors "stipulated in the relevant articles of the Treaty of Amity and Economic Relations." This exemption applies to the United States. Under the terms of the treaty, Thailand may "prohibit aliens from establishing or acquiring interests, or [may] limit the extent to which aliens may establish or acquire interests, in enterprises engaged within its territories in communications. . . ." U.S. Department of State, "Treaty of Amity and Economic Relations Between the United States of America and the Kingdom of Thailand," May 29, 1966, TAIS No. 6540, *United States Treaties and Other International Agreements*, vol. 19, pt. 5.

[3] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Thailand: Schedule of Specific Commitments, supp. 2 (GATS/SC/85/Suppl.2), Apr. 1997..

Table 4-45
Highlights of Thailand's commitments on enhanced telecommunication services

Coverage of Commitments[1]	Foreign Investment	Market Access
2.C. Telecommunication services j. on-line information and data base retrieval CPC 7523 n. on-line information and/or data processing services CPC 843[2] o. other *No CPC* • videotex • teleconference • domestic leased circuits	Must be a BTO arrangement with a Thai registered company. Limited to 40% foreign ownership. The number of foreign shareholders may not exceed 40% of the total number of shareholders.	Permitted in collaboration with Thai firm under the BTO scheme, and must use public telecommunication network under national telecommunication authorities.
o. other *No CPC* • equipment sales services • consulting services	Must be a Thai registered company. Limited to 49% foreign ownership. The number of foreign shareholders must be less than one-half of the total number of shareholders.	Allowed for the provision of sales and consulting services on a commercial presence basis. Cross-border supply of sales and consulting services remain unbound.

[1] WTO members scheduled commitments on enhanced telecommunication services in their initial GATS schedules, adopted in April 1994.
[2] Service is one component of a more aggregated CPC item.

Source: Compiled by USITC staff from WTO, GATS, Thailand: Schedule of Specific Commitments (GATS/SC/85), Apr. 1994.

resale of network capacity.[119] With regard to licensing requirements, service providers must maintain management personnel and a "head office" in Thai territory. Further, service providers must obtain a government license for each service they wish to provide, and the number of licences available may be limited.[120] Two state-owned enterprises continue to control telecommunication services in Thailand. Telephone

[119] Ibid., and APEC Telecommunications Working Group, *Telecommunications Infrastructure and Regulatory Environment*, 1994, p. 150.

[120] Prospective suppliers of global mobile satellite communications, such as Iridium Inc. and ICO Global Communications, have signed up the firms Thai Satellite Telecommunications Co. (TSC) and South East Asia Inridium Co. as investors in their global satellite projects. State-owned enterprises TOT and/or CAT grant these Thai firms the right to provide the services in exchange for a stake in the venture. TOT holds 13 percent in TSC and 11 percent in South East Asia Iridium, whereas, CAT holds 10 percent in TSC and 25 percent in South East Asia Iridium. Suphaphan Plengmaneepun, "Satellite project to break even in 2 yrs: Iridium to start up in September, 1998," *Bangkok Post*, July 8, 1997, found at Internet address http://www.bangkokpost.net/, retrieved July 9, 1997; and industry representative, telephone interview by USITC staff, June 26, 1997.

Organization of Thailand (TOT) provides and regulates service domestically and between Thailand and bordering countries. The Communications Authority of Thailand (CAT) is primarily responsible for international telecommunication services not covered by TOT. Thailand's commitments on market access for facilities-based, resale, local, long-distance, and international services are therefore best characterized as standstill commitments.

Regulatory Principles

Thailand did not adopt the GBT reference paper. Thailand has, however, made a conditional regulatory commitment, pending the enactment of Thailand's telecommunication legislation. Thailand conditionally commits to bind its own set of regulatory principles in the future. These principles, like those in the GBT reference paper, would pertain to competitive safeguards, interconnection, universal service, public availability of licensing criteria, independent regulation, and the allocation of scarce resources. Nonetheless, Thailand essentially scheduled a standstill commitment with respect to regulatory practices, as its regulatory framework remains as it did prior to negotiations. The absence of commitments on regulatory principles leaves Thai regulators with broad discretionary powers, which may adversely affect the value of Thailand's commitments on both basic and value-added telecommunication services.