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Appendix A: Key performance indicators of selected industries and regions

International Trade in Commercial Equipment Leasing Services

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The cross-border commercial equipment leasing industry is founded in part on the ability of both lessors and lessees to benefit from differences in international tax regimes, which often make it more advantageous for firms that acquire commercial equipment to lease new assets rather than to purchase them. Since the passage of the 1984 Tax Reform Act, many cross-border leasing companies have made use of a U.S. tax entity called a foreign sales corporation (FSC) to lower their U.S. tax obligations on exports of leased equipment. A recent decision by the World Trade Organization (WTO) has determined the use of FSCs to be inconsistent with U.S. obligations under international trade agreements. As a result, industry representatives expect a decline in demand for cross-border leasing services originating in the United States. This article examines the current state of the global market for cross-border equipment leasing services by discussing the legal and financial framework of the industry, recent changes in global tax laws related to commercial equipment leasing, the implications of the WTO decision on FSCs, and the outlook for cross-border equipment leasing.

Overview

Commercial equipment leases pertain to movable equipment such as industrial machinery; computers; automobiles, aircraft, ships, and other transportation equipment; and telecommunication, medical, computer, construction, electric power, and agricultural equipment.[2] The legal basis of the leasing industry is on the separation between the legal owner (the lessor) and the day-to-day user (the lessee) of an asset. As a general matter, a lease grants to the lessee all rights and obligations of possession, but the lessor retains legal title to the equipment. Consequently, under U.S. and many other national tax laws, the lessor

[1] With assistance from Caesar Layton. The views expressed in this article are the author's. They are not the views of the U.S. International Trade Commission (USITC) as a whole or of any individual Commissioner.

[2] Various types of leased machinery such as nuclear reactors, electrical turbines, or oil rigs are virtually "immovable" once they begin operating, but because they are machinery equipment and not real estate, these objects are included within equipment leases, in a subcategory known as the leasing of "integral" equipment, or "equipment that cannot be moved without significant cost." Unless otherwise noted, the leasing industry statistics discussed in this article comprise commercial equipment leasing services, and exclude real estate leases and lease contracts involving individual consumers. Real estate leasing pertains to the leasing of property that is defined as immovable, such as buildings, houses, office space, warehouses, and farmland. Andrew Murphy, "Flexible Friend: Synthetic Leases and Project Financing," *Asset Finance International*, Sept. 1999, p. 34; and Chris Boobyer, *Leasing Finance,* 3d ed. (East Rutherford, NJ: Euromoney-World Publications, 1997), p. 20.

often retains the right to deduct the depreciation on the leased asset as a business expense, thereby reducing its tax burden. This may be particularly desirable where the lessee has a taxable income against which to deduct depreciation. Leasing permits a lessee to gain the use of equipment for a limited time period, often at a lower cost than would be required to purchase the equipment outright, and may eliminate certain costs relating to disposal of an asset. Hence, leasing can be a particularly valuable strategy for businesses with limited access to capital. Further, payments for leased equipment are generally not recorded in a company's annual financial accounts in the same way as money borrowed from banks. The latter are considered debts for accounting purposes, whereas the former are considered regularly incurred rental payments. Thus, leasing is often an off-balance-sheet form of financing.[3]

Categories of Leases

In the United States, there are four principal categories of equipment leases. The two most common are operating leases and capital (or finance) leases (table 1). Under the terms of the former, lessors retain ownership rights and grant exclusive user rights to lessees for a specified term. The lessor initially purchases the equipment and retakes possession at the end of the lease term. Operating leases are thus considered "true leases," as defined by U.S. tax authorities. In the United States, the lessor can deduct from taxable income the depreciation on the equipment over the term of the lease. The lessee can deduct rental payments from taxable income as a business expense, and avoid incurring debt or tying up working capital for the initial purchase of equipment, thus minimizing balance sheet debt.[4]

Table 1
Categories of commercial equipment (operating) leases

Category	Description
Operating lease	A lease which covers an asset for a shorter period of time than its useful life. The lessor thus assumes a greater risk but retains a greater residual value in the asset, and may also provide services such as maintenance and insurance for the leased asset. A significant portion of the lessor's profit comes from disposal of the asset at the end of the lease term.
Capital (finance) lease	A lease in which the lessor retains title to an asset, but the lessee retains control over the asset for substantially all of its useful life. The lease payments cover most or all of the lessor's capital outlay. The lessee is responsible for maintenance, insurance, and taxes on the leased asset.
Leveraged lease	A lease in which the lessor finances a substantial part of the cost of the leased asset through one or more investors. In case of nonpayment by the lessor, the investor has legal recourse against the leased asset rather than the lessor.
Synthetic lease	A lease which allows the lessee the benefits of ownership of a leased asset for tax purposes, while maintaining "off-balance-sheet" financing for accounting purposes.

Source: Chris Boobyer, *Leasing Finance,* 3d ed. (East Rutherford, NJ: Euromoney-World Publications, 1997); and Tim Lintott, "Synthetic Leasing," in *World Leasing Yearbook 2002* (Colchester, Essex, United Kingdom: Euromoney Institutional Investor PLC, 2002), pp. 22-25.

[3] However, large leases are included as explanatory footnotes to the balance sheet in company annual reports.

[4] Boobyer, *Leasing Finance,* pp. 185-187.

Under the terms of the capital lease, the lessee assumes the risks and benefits inherent in ownership of the equipment, but not the actual title. The lessee is responsible for maintenance, taxes, and insurance for the leased equipment and may take formal title to the equipment at the end of the lease if a buy option is available**.** In many cases, the lessee may thus deduct equipment depreciation and interest payments for the lease from taxable income, but may not deduct rental payments as a business expense. Lessors profit from the interest payments accrued from the financing portion of the lease.[5] The majority of all leasing contracts, both in the United States and abroad, are structured as capital leases, although the value of operating leases has grown in recent years.[6] Leveraged leases are a specialized type of capital lease in which the lessor finances a large part of its investment through one or more outside investors, which can make a claim against the leased asset in the case of nonpayment by the lessee.[7]

Although operating and capital leases predominate, a new lease structure that recently has been growing in popularity due to changing tax laws is the "synthetic lease."[8] These leases are similar to operating leases in that the lessor owns the equipment whereas the lessee benefits from off-balance-sheet accounting treatment. However, they differ in that the lessee is entitled to tax deductions for both equipment depreciation and certain interest payments related to its financing costs.[9] The lessee has complete control over the equipment being financed and may purchase the equipment after the lease term has expired. Lessors benefit from interest payments they collect from the lessee over the life of the lease. Synthetic leases have been used in real estate for many years, but since 1997 have been increasingly used to finance equipment such as ships, railroad rolling stock, and especially power generators.[10]

Types of Equipment Leasing Companies

The leasing services industry primarily consists of four types of lessors: bank affiliates, industrial affiliates, captive lessors, and independent firms. In 2001, bank affiliates held the largest share of leasing assets in the United States with 32 percent of the market, followed by industrial affiliates with 27 percent and captive firms with 23 percent (table 2).[11]

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[5] Ibid.

[6] *World Leasing Yearbook 2002* (Colchester, Essex, United Kingdom: Euromoney Publications, 2002) p. 30.

[7] H. Franklin Bloomer, Jr., "Cross-Border Equipment Leasing," presented at American Bar Association National Institute conference, "Negotiating and Structuring International Commercial Transactions," June 10-11, 1999, Washington, DC, found at Internet address *http://www.morganlewis.com/spc71399.htm,* retrieved Oct. 15, 2002.

[8] Since the collapse of Enron, which was blamed in part on problems related to off-balance-sheet accounting, some companies have hesitated to make use of synthetic leases, although others continue to find the tax advantages worthwhile. See "'Synthetic-Lease' Arrangement Thrives in U.S. Despite Scrutiny," *Asian Wall Street Journal,* Feb. 22, 2002, found at Internet address *http://bus.colorado.edu/faculty/Buchman/,* retrieved Oct. 15, 2002.

[9] Andrew Murphy and Ian Cuillerier, "Flexible Friend: U.S. Synthetic Leases," *Asset Finance International,* Sept. 2001, found at Internet address *http://proquest.umi.com/,* retrieved Sept. 17, 2002.

[10] Ibid.

[11] "Monitor 100," *Monitor Leasing and Financial Services,* vol. 29, No. 6 (June 2002).

Table 2
U.S. equipment leasing companies, by type, 2001

Type of company	Number of companies	Share of top 100	Total net assets	Asset growth, 2000-2001
		Percent	*Billion dollars*	*Percent*
Bank affiliates	40	31.5	152.1	8.4
Industrial affiliates	7	26.8	129.3	17.3
Captive lessors	22	22.5	108.7	-0.1
Independent firms	19	11.4	55.0	-9.3
Foreign affiliates	10	2.8	13.4	11.5
Other	2	5.0	24.0	13.1
Total	100	100.0	482.5	7.2

Note.–Calculations based on unrounded data.
Source: Monitor Leasing and Financial Services, *Monitor 100,* vol. 29, No. 6 (June 2002).

Bank lessors are commercial banks that offer both direct financing of equipment purchases and financial leasing services. During the early years of the equipment leasing industry, banks tended to view leasing as competing with their primary commercial lending business, so were not closely involved in the industry. More recently, however, as equipment buyers have increasingly sought to reduce their tax liabilities, commercial banks have established leasing subsidiaries to benefit from this growing market. This shift in strategy has resulted in rapid growth for the bank lessor segment of the industry. In 2000, leasing assets of commercial banks grew by 8.4 percent over the previous year, in part due to the creation of new global leasing products and to the increasing expertise of banks in structuring and marketing complicated leasing contracts.[12] CitiCapital, Banc of America Leasing & Capital, Fleet Capital, Wachovia Leasing, and U.S. Bancorp Equipment Finance--all subsidiaries of leading U.S. commercial banks--are the largest U.S. bank lessors.

Industrial affiliates are leasing subsidiaries of larger firms, which do not primarily concentrate on financing their parent company's products. This category includes seven firms, most notably GE Capital, by far the world's largest leasing firm. In 2001, GE Capital reported net assets of $110.2 billion, accounting for 23 percent of the net assets of the entire Monitor 100 list of top leasing companies.[13] Net assets of the industrial affiliate segment of the leasing industry rose by 17.3 percent in 2001, primarily on the strength of GE Capital's 19.3-percent increase. Other industrial affiliates in the Top 100 listing included Philip Morris Capital, with net assets of $8.6 billion; Verizon Capital, with $4.0 billion; and Textron Financial, with $3.8 billion.

[12] Ibid.

[13] In July 2002, General Electric (GE) reorganized GE Capital, its financial services business, into four separate divisions of the company: GE Commercial Finance, GE Insurance, GE Consumer Finance, and GE Equipment Management. The bulk of GE Capital's leasing assets will become part of GE Commercial Finance, which will control the aviation services, commercial equipment financing, commercial finance, and structured finance functions. "GE Announces Reorganization of Financial Services," company press release, July 26, 2002, found at Internet address *http://www.ge.com/company/breakingnews/news_release.htm,* retrieved Sept. 10, 2002.

Captive lessors, also known as vendors, are leasing subsidiaries of equipment manufacturers that finance sales of their parent company's products.[14] IBM Global Financing, Caterpillar Financial, John Deere Credit, and Boeing Capital are all large, U.S.-based captive lessors. These companies are prominent in the leasing market because they tend to represent global firms that offer flexible, competitive leases for their products and services.

Independent lessors have no parent company with majority interest. This is a highly diverse group, ranging from financial service firms to leasing specialists to insurance companies, which offer leases for a wide range of equipment. Table 3 lists the five largest independent lessors based in the United States, ranked by net leasing assets.

Table 3
Five largest independent equipment lessors in the United States, 2001

Company	2001 net leasing assets	Primary equipment leased	Overall rank
	Billion dollars		
CIT	30.2	Manufacturing, construction, commercial aircraft	3
GATX Financial	10.6	Commercial aircraft, information technology, railroad rolling stock	11
Ryder System	4.2	Truck/trailer	22
DVI Inc.	2.0	Medical	43
Financial Federal	1.4	Construction, truck/trailer, machine tools	50

Source: Monitor Leasing and Financial Services, *Monitor 100,* vol. 29, No. 6 (June 2002).

The U.S. Leasing Market

U.S. Market Data

The top 100 U.S. leasing companies accounted for $482.5 billion in net leasing assets in 2001 (table 4), an increase of 0.6 percent over the previous year, following average annual increases of 16.7 percent during 1995-2000. The slowdown corresponded with the broader slowing of the U.S. economy in 2001, after the robust economic growth during the latter half of the 1990s, which reportedly led many firms to cancel or postpone plans for investment in new equipment.[15] New business volume[16] totaled $198.9 billion in 2001. The top 10 U.S. firms accounted for $299.4 billion, or 62 percent of all leasing assets held in the United States.[17] Transportation equipment accounts for the largest share of leased assets in the United States (35 percent), followed by computer hardware and software, construction equipment, and industrial and manufacturing equipment (figure 1).[18] The economic slowdown in the United States during 2000-2001 severely affected the U.S. leasing industry,

[14] Captive lessors usually hold 50 percent of their assets in products that their parent company produces.

[15] "Monitor 100," *Monitor Leasing and Financial Services.*

[16] New business volume refers to the dollar amount of new leasing contracts originating in a given year.

[17] "Monitor 100," *Monitor Leasing and Financial Services.*

[18] Frederick Wolfert, "United States: Market Review," *World Leasing Yearbook 2002* (Colchester, Essex, United Kingdom: Euromoney Publications, 2002), p. 447.

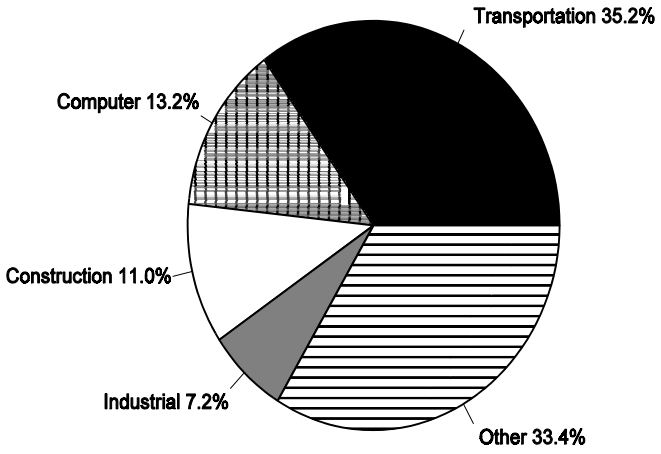
Table 4
Top ten U.S. equipment lessors , 2001

Firm	Type of lessor	Net assets	New business volume	Asset growth rate (2000-2001)
		———*Billion dollars*———		*Percent*
GE Capital	Industrial affiliate	110.2	55.0	19.3
CitiCapital	Bank affiliate	41.4	15.9	7.6
CIT Group (Tyco)	Industrial affiliate	30.2	15.2	-18.9
IBM Global Financing	Captive	26.4	16.5	-8.0
International Lease Finance	Other	21.1	4.1	17.4
Fleet Capital	Bank affiliate	15.9	5.3	11.3
Caterpillar Financial	Captive	15.3	6.8	-4.6
Bank of America	Bank affiliate	13.9	2.7	-4.6
Wachovia Leasing	Bank affiliate	13.7	1.9	25.0
John Deere Credit	Captive	11.3	8.3	4.3
Total (top 10)	([1])	299.4	131.7	7.0
Total (top 100)	([1])	482.5	198.9	[2]7.2

[1] Not applicable.
[2] Average growth.

Source: Monitor 100, *Monitor Leasing and Financial Services,* vol. 29, No. 6 (June 2002).

Figure 1
U.S. leasing volume, by equipment type, 2000



Source: London Financial Group, "Global Leasing Report," *World Leasing Yearbook 2002* (Colchester, Essex, United Kingdom: Euromoney Publications, 2002).

as the decline in new business investment reduced demand for leasing services.[19] In particular, economic downturns and overcapacity in the transportation, telecommunications, computer, and construction industries weakened important markets for U.S. lessors. As a consequence, 9 major U.S. leasing companies declared bankruptcy in 2000, 13 announced that they were for sale, and an additional 46 were acquired by competitors. Another 17 leasing firms exited the industry in 2001, either through acquisition or bankruptcy.[20]

U.S. Cross-Border Trade and Affiliate Sales Data

Cross-border leasing occurs when a lessor and lessee are based in different countries and they structure a lease that transfers equipment across international borders. The contract of sale, which occurs before the lease begins, falls under the national laws of the lessor's country, whereas the leasing contract falls under the jurisdiction of both countries. This situation can create complex international transactions due to wide variations in the tax, accounting, and legal frameworks of the contracting countries. Recent international attempts to standardize the leasing process have met with little success.[21] In general, bank lessors tend to expand abroad to follow their domestic clients into foreign markets and captive lessors tend to expand abroad to finance foreign sales of their products. Due to the legal costs involved in structuring complicated leasing contracts, lessees often prefer to establish global equipment contracts with a single lessor rather than to establish new leasing relationships in each market.[22]

The United States has maintained a trade surplus in cross-border leasing for the past 15 years (figure 2).[23] Canada and the European Union (EU) are the primary foreign markets for U.S. lessors. U.S. exports of leasing services totaled $2.7 billion in 2000, whereas U.S. lessees imported $168 million of leasing services, resulting in a trade surplus of $2.5 billion. By 2000, U.S. imports of leasing services have declined 59 percent from a 1995 high of $407 million.[24] Overall, U.S. leasing exports increased at an average annual rate of 13.0 percent during 1990-2000. However, industry representatives expect U.S. exports of leasing

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[19] In the United States, approximately 30 percent of new business investment in equipment is financed through leasing. *World Leasing Yearbook 2002,* p. 446.

[20] "Monitor 100," *Monitor Leasing and Financial Services,* June 2001, pp. 4-6; and "Monitor 100," *Monitor Leasing and Financial Services,* June 2002, p. 2.

[21] See the later discussion in this article regarding the UNIDROIT Convention on International Financial Leasing.

[22] See David Porter, "European Market Soars, Lifting World Volume to Record High," in *World Leasing Yearbook 2000,* pp. 2-8.

[23] Official trade data on cross-border leasing services only cover operational leases. The data excludes capital, or finance leases, which are defined as leases under which the lessee has the option of taking title of the leased asset at the end of the lease term. Financial flows related to cross-border capital leases are recorded separately from the services trade data, as part of the Bureau of Economic Analysis' International Transaction Accounts, except for fees that a firm collects for arranging or entering into a financial lease contract (which are distinct from the actual lease payments to the lessor). These fees are included within the larger category of cross-border trade in financial services, although a breakout of such fees related specifically to leasing are not available.

[24] U.S. Department of Commerce (USDOC), Bureau of Economic Analyisis (BEA)*, Survey of Current Business*, Oct. 2000, found at Internet address *http://www.bea.gov,* retrieved July 11, 2002.

Figure 2
U.S. operational leasing services: Exports, imports, and trade balance, 1990-2000

Source: Compiled from official statistics of the U.S. Department of Commerce, Bureau of Economic Analysis.

services to decline in the near future, as the rising harmonization of tax laws, civil laws, and accounting systems decrease the tax benefits of cross-border leasing.[25]

International lessors operate through foreign affiliates as well, the sales of which are reported separately from cross-border trade statistics.[26] In 1999, foreign affiliates of U.S. leasing firms generated sales of services (exports) valued at $2.6 billion in the United Kingdom (UK) and $1.2 billion in Canada.[27] By comparison, U.S. affiliates of foreign firms recorded $3.6 billion in total sales (imports) of equipment leasing services in the United States, of which $1.3 billion were from UK-based firms. This represented a 38.5-percent increase over the 1998 level, when foreign-owned affiliates recorded total sales of $2.6 billion.[28]

[25] Industry representatives, telephone interviews with USITC staff, Oct. 19-24, 2002. In addition, tax benefits that relate to cross-border operational leasing are facing restriction or elimination based upon the finding by a Dispute Settlement Panel of the World Trade Organization that the use of foreign sales corporations is inconsistent with U.S. obligations under international trade agreements. This finding, and its reported potential implications for the cross-border leasing industry, are discussed under "Foreign Sales Corporations" later in this article.

[26] Official data on affiliate sales and purchases of leasing services include both capital and operating leases, but excludes commercial bank lessors (both bank affiliates and bank parents), as commercial banks (or depository institutions) are not required to report affiliate trade data to BEA.

[27] Total sales by affiliates of U.S. firms abroad was suppressed by the BEA to avoid disclosing financial transactions related to particular companies.

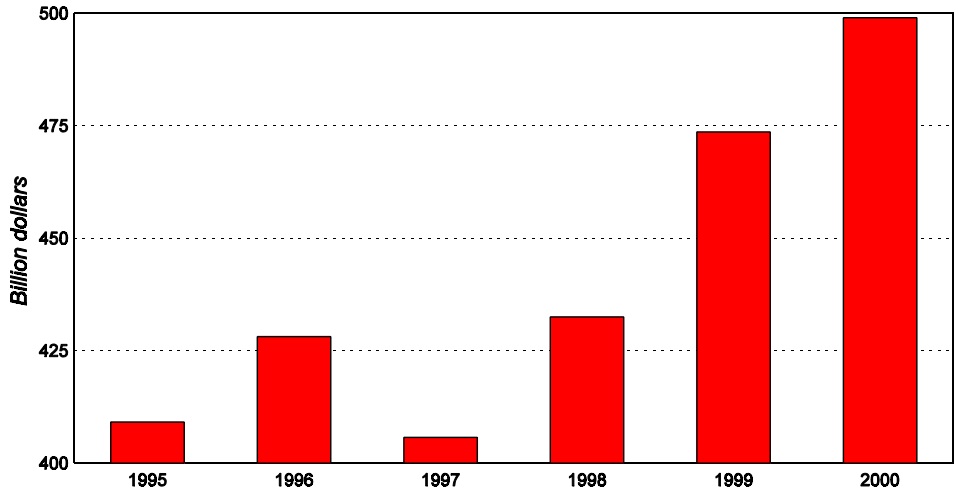
[28] USDOC, BEA, *Survey of Current Business,* Nov. 2001, pp. 93-95.

The Global Equipment Leasing Market

Global and Regional Trends

Global equipment leasing volume increased at an average annual rate of 4.1 percent during 1995-2000 (latest available), and increased steadily for all years except 1997, when both Asian and European leasing volumes declined sharply (figure 3) during the Asian financial crisis. The largest lessor region by far is North America, where $272.4 billion in leasing transactions were concluded in 2000, accounting for 55 percent of the global market, compared with 41 percent in 1996, shortly before the Asian financial crisis (figure 4). Leasing volume in North America increased at an average annual rate of 10.0 percent during 1995-2000. In 2000, European leasing firms held 26 percent of the market with $131.0 billion in total leasing volume. The Asian financial crisis resulted in a 24.2-percent decline in Asian leasing operations from 1996 to 1997, with a further 6.9-percent decline in 1998, bringing Asia's total market volume to $74.7 billion in that year. The Asian region had not recovered much lost ground by 2000, with total leasing volume reaching $78.3 billion, or 16 percent of the global total.[29]

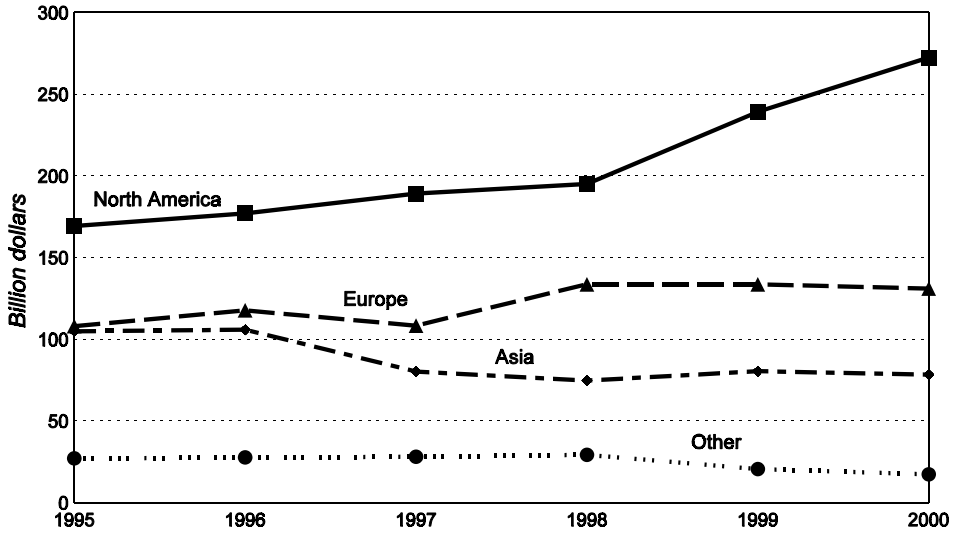
Figure 3
Global equipment-leasing volume, 1995-2000



Source: London Financial Group, "Global Leasing Report," *World Leasing Yearbook 2002* (Colchester, Essex, United Kingdom: Euromoney Publications, 2002).

[29] London Financial Group, "American Leasing Powers Ahead in 2000," *World Leasing Yearbook 2002* (Colchester, Essex, United Kingdom: Euromoney Publications, 2000), p. 5.

Figure 4
Equipment leasing volume by region, 1995-2000



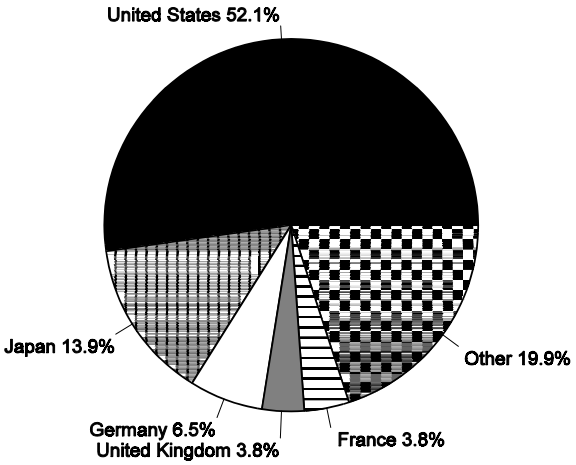
Source: London Financial Group, "Global Leasing Report," *World Leasing Yearbook 2002* (Colchester, Essex, United Kingdom: Euromoney Publications, 2002).

The top 10 leasing countries accounted for $445.1 billion or 89 percent of global leasing activity in 2000, with the top five countries accounting for over 80 percent (figure 5). The United States, Japan, Germany, the United Kingdom, and France were the largest suppliers of leasing services in global markets in 2000, despite a 4.0-percent decline in leasing volume for the United Kingdom from 1999 to 2000. France and Italy recorded strong growth of 9.9 and 19.1 percent, respectively, placing them fifth and sixth in global rankings. Mexico, Argentina, and Australia recorded the largest declines in leasing volume, of 50.0 percent, 28.2 percent, and 24.7 percent, respectively.[30]

The annual level of new leasing business, as measured by leasing volume, closely reflects the propensity of investors to lease new equipment rather than purchase it. Among the top 10 leasing countries, domestic leasing volume as a share of total fixed investment ranged from a high of 32 percent in the United States to a low of 5 percent in Spain (figure 6). Although transportation equipment accounts for the largest share of leased equipment in the United States, computer equipment comprises the largest share of leased equipment (34 percent) in Japan.[31] Overall, road transport equipment accounted for nearly 50 percent of global leased equipment in 1998 (latest available), followed by machinery and industrial equipment (25.5 percent); computers (12.5 percent); and ships, aircraft, and railway rolling stock (5.3 percent).[32] These shares remained virtually unchanged throughout the 1990s, with only computers showing substantial growth. Due to rapid changes in computer technology, many companies still prefer to lease computer systems rather than purchase them. The share

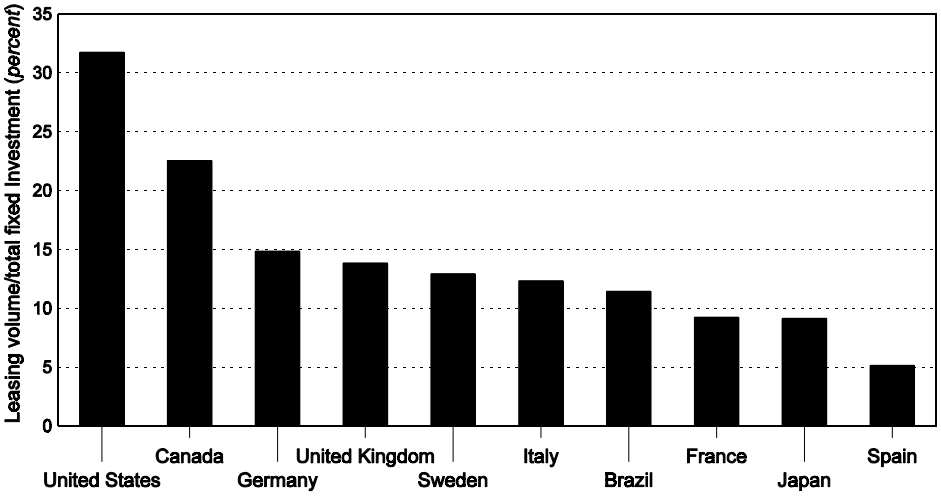
[30] Ibid., pp. 1-3.
[31] These data are not available for other leasing countries. *World Leasing Yearbook 2002,* p. 288.
[32] World Leasing Yearbook 2000 (Colchester, Essex, United Kingdom: Euromoney Publications, 2000), p. 36.

Figure 5
Shares of global equipment leasing market, 2000



Source: London Financial Group, "Global Leasing Report," *World Leasing Yearbook 2002* (Colchester, Essex, United Kingdom: Euromoney Publications, 2002).

Figure 6
Equipment leasing market penetration, top-ten leasing countries, 2000



Source: London Financial Group, "Global Leasing Report," *World Leasing Yearbook 2002* (Colchester, Essex, United Kingdom: Euromoney Publications, 2002).

of new leases accounted for by aircraft and rolling stock will likely decline in 2001 and 2002, due to difficult economic conditions in those industries.[33]

The UNIDROIT Convention on International Financial Leasing

The global effort to change tax structures as they pertain to leasing is principally focused on increasing transparency within the industry. Industry officials note that transparency clarifies cross-border leasing agreements and offers information to investors, lessors, and lessees about potentially profitable niches in the market. Enhancing market transparency would alleviate concerns that the current global leasing market provides unequal information by allowing firms from certain countries to exploit leasing opportunities while limiting opportunities for others.[34]

The International Institute for the Unification of Private Law (UNIDROIT)[35] Convention on International Financial Leasing was drafted in order to facilitate both increased transparency and increased cross-border trade in global leasing services,[36] and was opened for signature in 1988. As of May 2002, a total of 18 states had signed the Convention,[37] but only 9 states had ratified it (table 5), with several others expected to ratify soon.[38] The UNIDROIT Universal Uniform Commercial Code for international leasing transactions would clarify and standardize leasing terminology, contract provisions, time frames for when a lease takes effect, obligations of lessees and lessors if a contract is breached, and similar commercial matters. The overall intent of the Convention is to promote international leasing by clarifying commercial rules. The Convention does not promote specific changes in any country's tax treatment of equipment leases.[39]

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[33] Equipment Leasing Association, "State of the Industry Report 2002," p. 16.

[34] Andrew Law, "Speak-Easy," in *The Handbook: The International Leasing Directory, Asset Finance International*, 2000/20001, pp. 14-15, 22.

[35] UNIDROIT, the French-language acronym for the International Institute for the Unification of Private Law, is an international organization based in Rome, which seeks to promote the harmonization of national commercial laws, including laws related to financial leasing. As of 2002, UNIDROIT counted 59 member countries, including the United States, Japan, and all of the members of the EU.

[36] Martin Stanford, "International Financial Leasing: The Status of the UNIDROIT Convention and an Analysis of its Provisions," *Uniform Commercial Code Law Journal,* fall 1999, p. 6.

[37] The following states signed the convention, but have not ratified it: Belgium, Czechoslovakia, Finland, Ghana, Guinea, Morocco, the Philippines, Tanzania, and the United States.

[38] Martin Stanford, "The UNIDROIT Convention on International Financial Leasing," in *World Leasing Yearbook 2002*, p. 53.

[39] The complete text of the UNIDROIT Convention on International Financial Leasing (Ottawa, 1988) is available at Internet address *http://www.UNIDROIT.org/english/conventions/c-leas.htm.*

Table 5
States that have ratified the UNIDROIT Convention, 2000

Country	Date of accession	World rank in leasing volume, 1998
France	September 1991	5
Italy	November 1993	6
Nigeria	October 1994	48
Hungary	May 1996	27
Panama	March 1997	47
Latvia	August 1997	([1])
Russia	June 1998	25
Belarus	August 1998	([1])
Uzbekistan	July 2000	([1])

[1] Not applicable.

Source: International Institute for the Unification of Private Law (UNIDROIT), "1988 UNIDROIT Convention on International Financial Leasing: Signatures and Ratifications," found at Internet address *http://www.UNIDROIT.org/,* retrieved Oct. 9, 2002.

Several factors have discouraged additional states from becoming parties to the Convention. Many countries do not have large cross-border leasing markets. Of the nations that have acceded to the Convention, only France and Italy have domestic leasing industries operating on a global scale. The fact that most of the signatories have small leasing markets suggests that they view the Convention as a means of increasing their participation in the global leasing industry. Anecdotal evidence suggests that lessors in industrialized countries favorably regard lessees in emerging economies which have acceded to the Convention, as an assurance that the lessor's rights will be protected.[40] However, industry sources report that other exporters of leasing services remain skeptical of the Convention, since a share of the profit from cross-border leasing transactions is derived from the differences in tax laws between jurisdictions. Hence, if the Convention were to encourage countries to effectively harmonize their leasing laws and tax provisions, such action might remove some of the economic incentives that make leasing profitable.[41]

Even though only a small number of countries have ratified the Convention, it has served as a model in a number of countries that have since adopted national laws pertaining to the leasing industry. China, Ghana, Indonesia, Nigeria, Panama, the Russian Federation, Sweden, Turkey, and the United States have enacted leasing legislation modeled on the Convention.[42] For example, in the United States, the 1985 Uniform Personal Property Leasing Act, which became Article 2A of the Uniform Commercial Code, was largely rewritten in 1990 following the framework of the Convention and the subsequent UNIDROIT Union Personal Property Leasing Act.[43] In Panama, the national law regulating

[40] UNIDROIT official, e-mail communication to USITC staff, May 13, 2002.
[41] Klaus Feinen, "The Impact of the Euro." Leaseurope Statistics, *World Leasing Yearbook 2000,* p. 10.
[42] UNIDROIT official, e-mail communication to USITC staff, May 13, 2002.
[43] Article 2A of the Uniform Commercial Code, "Leases;" and James White and Robert Summers, "Uniform Commercial Code," *Practitioner Treatise Series*, 4th ed., vol. 2 (St. Paul, MN: West Publishing Company, 1995), p. 3.

the leasing industry (Law No. 7 of July 10, 1990) also was extensively influenced by the UNIDROIT treaty.[44]

Foreign Sales Corporations

Foreign sales corporations (FSCs) were initially created under the 1984 Tax Reform Act.[45] Under the statute, an FSC is a foreign corporation, generally a subsidiary of a U.S. parent, which is exempt from tax on those portions of its income derived from sales and leases of goods produced in the United States and exported to foreign countries (box 1).[46] The majority of FSCs are incorporated in the U.S. Virgin Islands, Barbados, or Bermuda.[47] The 1984 Tax Reform Act thus enabled U.S. leasing companies to reduce their tax obligations while encouraging exports of U.S. goods. By leasing equipment to foreign firms through an FSC, rather than directly from the U.S. parent, leasing companies were able to reduce their U.S. income taxes owed on foreign profits by an effective rate of 15-30 percent.[48] The use of FSCs rapidly increased during the 1990s, as the understanding of their tax benefits became more widespread. According to one industry estimate, aircraft leases accounted for approximately 90 percent of the total value of cross-border leases which utilized the FSC tax rules.[49] The U.S. Treasury estimated that in 1997, FSCs generated total tax benefits for all U.S. industries of more than $2.0 billion.[50]

On July 1, 1998, the EU requested that the Dispute Settlement Body of the World Trade Organization (WTO) establish a panel to examine U.S. tax treatment of FSCs. According to the EU, FSCs violate certain provisions of the WTO Agreements on Subsidies and Countervailing Measures (SCM) and on Agriculture.[51] The EU argued that FSCs are designed to promote U.S. exports through corporate tax reductions that act as export

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[44] *World Leasing Yearbook 2002,* p. 55.

[45] P.L. 98-369, 98 Stat. 494, 26 U.S. Code §1 nt.

[46] According to the Joint Committee on Taxation, "A foreign sales corporation generally is not subject to U.S. tax on its exempt foreign trade income." Joint Committee on Taxation, "Overview of Present-Law Foreign Sales Corporation Rules," *Description of H.R. __ (The "FSC Repeal and Extraterritorial Income Exclusion Act of 2000")* (JCX-87-00), July 27, 2000. See also H. Franklin Bloomer, Jr., "Cross-Border Equipment Leasing," presented at American Bar Association National Institute conference, "Negotiating and Structuring International Commercial Transactions," June 10-11, 1999, Washington, DC, found at Internet address *http://www.morganlewis.com/spc71399.htm,* retrieved Oct. 15, 2002.

[47] Federico Maria Giuliani, "Notes on DISCs, E-Commerce, and Tax-Sparing Credit – Part I," *The International Tax Journal,* Fall 2001, found at Internet address *http://www.proquest.umi.com/,* retrieved May 15, 2002.

[48] "New Rules for Taxing Extraterritorial Income," *The Tax Adviser,* vol. 33, No. 5 (May 2002).

[49] Industry representative, telephone interview with USITC staff, Oct. 22, 2002.

[50] WTO Report, "United States: Tax Treatment for Foreign Sales Corporations," WT/DS/108/R (99-4118), Oct. 8, 1999, p. 41, found at Internet address *http://www.wto.org,* retrieved May 13, 2002; and "New Rules for Taxing Extraterritorial Income," *The Tax Adviser,* vol. 33, No. 5 (May 2002).

[51] Request for the Establishment of a Panel by the European Communities, "United States Tax Treatment for Foreign Sales Corporations," WT/DS/108/2 (98-2734), July 9, 1998, found at Internet address *http://www.wto.org/,* retrieved Oct. 8, 2002.

Box 1
Foreign sales corporations

In 2000, the Joint Committee on Taxation prepared a report outlining the tax rules applicable to foreign sales corporations (FSCs). The report explains the differences between the U.S. income and foreign-source income of FSCs, and the conditions under which foreign-source income is taxable in the United States. Specifically, the report notes the following:

- "A foreign sales corporation must be located and managed outside the United States, and must perform certain economic processes outside the United States. A foreign sales corporation is often owned by a U.S. corporation that produces goods in the United States. The U.S. corporation either supplies goods to the foreign sales corporation for resale [or lease] abroad or pays the foreign sales corporation a commission in connection with such sales [or leases]."[1]

- "A foreign sales corporation generally is not subject to U.S. tax on its exempt foreign trade income." [The exempt portion is specified under the foreign sales corporation rules.] "The exempt foreign trade income of a foreign sales corporation is treated as foreign-source income which is not effectively connected with the conduct of a trade or business within the United States."

- "Foreign trade income other than exempt foreign trade income generally is treated as U.S.-source income effectively connected with the conduct of a trade or business conducted through a permanent establishment within the United States. Thus, a foreign sales corporation's income other than exempt foreign trade income generally is subject to U.S. tax currently and is treated as U.S.-source income for purposes of the foreign tax credit limitation."

- "Foreign trade income of a foreign sales corporation is defined as the foreign sales corporation's gross income attributable to foreign trading gross receipts. Foreign trading gross receipts generally are the gross receipts attributable to the following types of transactions: . . . ; the lease or rental of export property; services related and subsidiary to such a sale or lease of export property; . . . ." "Investment income and carrying charges are excluded from the definition of foreign trading gross receipts."

[1] Text in brackets added by author.

Source: Joint Committee on Taxation, "Overview of Present-Law Foreign Sales Corporation Rules," *Description of H.R. __ (The "FSC Repeal and Extraterritorial Income Exclusion Act of 2000")* (JCX-87-00), July 27, 2000, found at Internet address *http://www.useu.be/ISSUES/FSCcommittee.pdf,* retrieved Oct. 30. 2002.

subsidies.[52] The United States contended that FSCs are a WTO-compliant system enacted as a result of a 1981 agreement concluded under the General Agreement on Tariffs and Trade (GATT) to address similar complaints about the pre-FSC Domestic International Sales Corporation (DISC) policy.[53]

In October 1999, the WTO Dispute Settlement Panel ruled in essence that FSCs created a subsidy to U.S. firms which was contingent upon export performance, and found that the FSC tax exemption conflicted with U.S. obligations under its international trade agreements.[54] In response, the U.S. Government replaced the FSC system with an extraterritorial income (ETI) regime that offered a 15-30 percent tax exclusion from U.S. taxes for income received from qualifying cross-border equipment leasing transactions.[55] The exclusion is available to all cross-border leasing firms, whether they are based in the United States or in foreign countries.[56] In January 2002, the WTO ruled that the ETI regime also constituted an illegal export subsidy.[57] That ruling allowed the EU to proceed with its request for authority to impose retaliatory duties on U.S. goods. In August 2002, a WTO arbitration panel determined that the EU is permitted to suspend trade concessions to the United States in the amount of $4.0 billion, the largest punitive tariff amount ever sought from the WTO.[58] As of September 2002, the EU had not imposed trade sanctions, allegedly in the hope that the U.S. Government would change its tax laws to conform to WTO rules without retaliatory measures being enacted.[59]

According to industry representatives, the most significant problem for the cross-border leasing industry stemming from the WTO decision is the potential impact on lessors currently holding existing cross-border leases. The majority of these contracts are long-term

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[52] "WTO News: 1998 News Item," Oct. 29, 1998, found at Internet address *http://www.wto.org/english/news_e/news98_e/wdsbsept.htm.*

[53] Office of the United States Trade Representative (USTR), "US Disappointed with WTO FSC Ruling, Vows to Work With EU to Reach Solution," press release, Feb. 24, 2000, found at Internet address *http://www.ustr.gov/releases/,* retrieved Aug. 21, 2001.

[54] Specifically, the WTO panel ruled that the United States, through its use of FSCs, acted inconsistently with its obligations under Article 3.1(a) of the Agreement on Subsidies and Countervailing Measures and Articles 3.3 and 8 of the Agreement on Agriculture. WTO Report, "United States: Tax Treatment for Foreign Sales Corporations," p. 293.

[55] "New Rules for Taxing Extraterritorial Income," *The Tax Adviser*. The replacement legislation creating the ETI rules contained a transition rule allowing the FSC provisions to continue to be used for preexisting long-term contracts.

[56] Foreign leasing firms are eligible for the tax exclusion if they waive U.S. treaty benefits and elect to be treated as a domestic corporation. "FSC Repeal and Extraterritorial Income Exclusion Act of 2000." Public Law 106-519. 106th Congress. Pg. 114, STAT 2423 (DOCID: f:pub1519.106), November 15, 2000.

[57] The ETI regime was also found to violate GATT Article III-4, and, because of the transition rules, the United States was found to have failed to withdraw the measure. WTO Report, "United States – Tax Treatment for "Foreign Sales Corporations": Recourse to Article 21.5 of the DSU by the European Communities," WT/DS108/AB/RW, Jan. 14, 2002. See also Office of the United States Trade Representative, "WTO Upholds Adverse Ruling on Foreign Sales Corporation (FSC) Tax," press release, Jan. 14, 2002.

[58] WTO Report, "United States - Tax Treatment for "Foreign Sales Corporations": Recourse to Arbitration by the United States under Article 22.6 of the DSU and Article 4.11 of the SCM Agreement," WT/DS108/ARB, Aug. 30, 2002. See also USTR, "WTO Panel Sets Amount of FSC Sanctions," press release, Aug. 30, 2002.

[59] "W.T.O. Allows Europe to Impose Record Sanctions Against U.S.," *The New York Times,* Aug. 30, 2002, found at Internet address *http://www.nytimes.com/,* retrieved Aug. 30, 2002.

leases of 15-25 years, for big-ticket items such as electric power plants, airplanes, and railroad rolling stock. The pricing on such contracts, many of which were concluded in the early and mid-1990s, takes into account the tax benefits of the FSC structure, allowing lessors to offer advantageous lease rates to lessees. According to industry sources, if the FSC structure is declared invalid during the life of a lease contract, there is no contingency for renegotiating the contract terms. Reportedly, lessors could thus be forced to bear the increased tax costs associated with the demise of the FSC structure throughout the remaining life of these contracts, a significant expense that industry sources contend would turn such leasing contracts into money-losing enterprises for U.S. lessors.[60] The "American Competitiveness and Corporate Accountability Act of 2002," (H.R. 5095) which was introduced in the U.S. House of Representatives in July 2002, is currently awaiting action by the House Ways and Means Committee. The bill would repeal the FSC-ETI rules from the U.S. tax code, but in contrast to the 2000 legislation that created the ETI rules, H.R. 5095 does not contain any provisions to "grandfather" existing FSC lease contracts, or to replace the FSC-ETI system with a substitute tax system.[61]

Outlook

The cross-border leasing industry faces several important challenges, including changes in global tax codes and the WTO rulings regarding FSCs and the ETI tax regime. Tax treatment has always been one of the primary reasons to lease rather than purchase new equipment. Industry representatives contend that these WTO rulings have already contributed to a downturn in the U.S. cross-border leasing industry by creating uncertainty about the tax treatment of cross-border leasing contracts. The cost and complexity of arranging cross-border contracts has significantly increased, and the number of new leasing opportunities has dwindled, as tax rules have been tightened in many countries.[62] For example, new business origination by the U.S. leasing industry recorded its first decline in 2001 (0.6 percent compared to 2000), with a total decrease of $7.0 billion in foreign business.[63] New cross-border leasing business has largely been placed on hold, awaiting the U.S. Government's reaction to potential EU trade sanctions. Several industry sources contend that if the U.S. Congress repeals the FSC tax structure, U.S. lessors will be less able to compete in the cross-border leasing market and their market share is anticipated to decline.[64]■

[60] Industry representatives, telephone interviews with USITC staff, Oct. 18-24, 2002; and Coalition of Service Industries, "The Case for Preserving Transitional Rules for FSC and ETI Leasing Transactions," press release, Coalition of Service Industries.

[61] Ibid.

[62] Andrew Law, "Is the Party Over?" in *The Handbook: The International Leasing Directory, Asset Finance International,* 2000/2001, p. 18.

[63] "Monitor 100," *Monitor Leasing and Financial Services,* June 2002, p. 12.

[64] Industry representatives, telephone interviews with USITC staff, Oct. 18-24, 2002.

International Telecommunication Markets: Accounting Rate Reform

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International telecommunication service markets are undergoing technological advance and market liberalization that have intensified competition, increasing the incentive to reform the accounting rate remuneration mechanism for settling traffic imbalances between international carriers. Competitive U.S. carriers have expressed growing dissatisfaction with paying settlement rates that are higher than actual costs. As a result, in 1997, the U.S. Federal Communications Commission adopted a "Report and Order" that sets lower benchmarks for international settlement rates. In addition, the International Telecommunications Union has established a study group to undertake accounting rate reform. Although market and remuneration reform may reduce financial flows to net exporters of telecommunication services (typically foreign carriers), service providers that initiate new services and become more efficient may benefit as well. This article provides an overview of the accounting rate system, examines the emergence of competition in the global telecommunication services market, analyzes the dissolution of the accounting rate system, and discusses the potential impact on developing countries of accounting rates reform.

An Overview of the Accounting Rate System

In the latter half of the nineteenth century European countries devised the international accounting rate system as a method for dividing revenue between carriers of international telegraph services. The same system was later adopted by telephone companies for international telephone services, and its principles were codified within the International Telecommunication Union.[2] Under the system, telecommunication carriers bilaterally negotiate accounting rates. Each carrier's share, called the settlement rate, is usually equivalent to one-half of the accounting rate. If outbound calling minutes (e.g. imports) exceed inbound calling minutes (e.g. exports), carriers make bilateral net settlement payments at the end of each accounting period. Bilateral payments are calculated by multiplying the settlement rate by net outbound minutes (i.e. outbound minutes minus inbound minutes). In the U.S. balance of payments, net settlement payments register as imports, whereas net settlement receipts register as exports.

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[1] The views expressed in this article are the author's. They are not the views of the U.S. International Trade Commission (USITC) as a whole or of any individual Commissioner.

[2] Headquartered in Geneva, Switzerland, the International Telecommunications Union (ITU) is an international organization within the United Nations System where governments and the private sector coordinate global telecommunication networks and services.

ITU, "Direction of Traffic, 1996," *Trends in International Telephone Tarriffs* (Geneva: ITU, 1996), p. 16.

Regulatory Reform and Competition in Global Telecommunication Service Markets

In the past telecommunication services in many countries came from state-owned enterprises with monopoly rights for the provision of local, long-distance, and international services. Regulators adopted the view that the telecommunication services industry exhibited natural monopoly characteristics, given the large economies of scale that characterized the market.[3] However, more recent technological developments have reduced the cost of market entry and have facilitated competition in international telecommunication markets.[4] Network digitization[5] has reduced network maintenance costs, and advances in terminal equipment[6] and switching technologies[7] have reduced the costs associated with establishing international telecommunication connections.[8] Such developments have encouraged many governments to introduce regulations that enable market entrants to access former monopolies' infrastructure, lease circuits from former monopolies, and resell carrying capacity over such circuits in competition with former monopolies.[9] In an effort to increase carrier efficiencies in public telecommunication markets and to prepare markets for competition, many countries have chosen to privatize some or all of their monopoly telecommunication carriers.[10] In the Americas, Europe, and Asia-Pacific regions, a majority of countries had introduced full or partial telecommunication privatization by 2000 (figure 1).

Competition in international telecommunication markets has been further advanced by the World Trade Organization's (WTO's) Basic Telecommunications Agreement, effective

[3] Olivier Boylaud and Giuseppe Nicoletti, *Regulation, Market Structure, and Performance in Telecommunications*, Organization for Economic Cooperation and Development (OECD), Economic Department Working Papers No. 237, Apr. 12, 2000, found at Internet address *http://www.olis.oecd.org/olis/2000doc.nsf/*, retrieved Feb. 21, 2001.

[4] Ibid., p. 5.

[5] Network digitization is enabled by technologies that convert analog signals into a series of ones and zeros. This type of signal transmission is economically more efficient than traditional analog systems.

[6] Terminal equipment usually refers to telephones and other equipment that reside on the customer's premises.

[7] Switching technologies refer to equipment that route calls by establishing and releasing connections between two or more circuits.

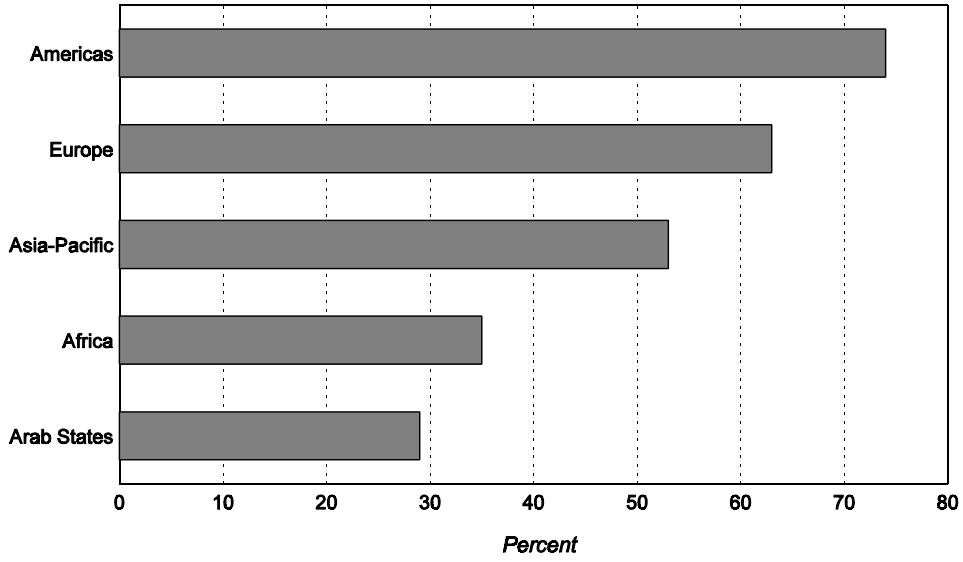
[8] OECD, "Refile and Alternative Calling Procedures: Their Impact on Accounting Rates and Collection Charges," *Committee for Information, Computer, and Communications Policy* (Paris: OECD, 1995), p. 4

[9] Resale refers to the wholesale purchase of telecommunication lines and then reselling telecommunication services to customers at retail rates for a profit.

OECD, "Refile and Alternative Calling Procedures," p. 4.

[10] In addition to the reasons cited above, many countries choose to privatize their monopoly telecommunication carriers to raise capital for infrastructure investment and to reduce public debt. U.S. Department of Commerce, International Trade Administration, "Telecommunication Services," *U.S. Industry & Trade Outlook 2000* (New York, NY: McGraw Hill Companies:, 2000), p. 30-1; and ITU, "Reinventing Telecoms," *World Telecommunication Development Report* (Geneva: ITU, 2002), p. 42.

Figure 1
Share of countries with privatized telecommunication service carriers, by region, 2000



Source: Compiled from official statistics of the International Telecommunications Union.

February 5, 1998.[11] The agreement seeks to provide foreign telecommunication service providers with access to signatories' local, long-distance, and international service markets using all means of network technology (e.g. cellular and satellite systems), either through resale or on a facilities basis.[12] A reference paper supplements market-access commitments with a list of procompetitive regulatory principles. These principles discourage anticompetitive practices, such as cross-subsidization; ensure transparency and nondiscrimination in interconnection,[13] universal service, licensing criteria, and allocation of scarce resources; and mandate the independence of regulators and suppliers. Today, partly as a result of the agreement, telecommunication markets accounting for 95 percent of global telecommunication service revenues are open to full or partial competition.[14]

The Dissolution of the Accounting Rate System

Telecommunication market reform is contributing to the gradual demise of the accounting rate system. The system worked well when international services were primarily provided

[11] As a result of the WTO's Basic Telecommunication services negotiations, the Fourth Protocol to the General Agreement on Trade in Services was adopted. It provides for the annexation of new basic telecommunication schedules to the Uruguay Round services schedules. WTO, "Legal Texts," found at Internet address *http://www.wto.org/english/tratop_e/serv_e/telecom_e/telecom_e.htm*, retrieved Oct. 15, 2002.

[12] A facilities-based carrier owns most of its own equipment, such as switching equipment and transmission lines.

[13] Interconnection involves an agreement between established telecommunication companies to access each other's network.

[14] Office of the United States Trade Representative (USTR), "World Trade Organization," *2002 Trade Policy Agenda and 2001 Annual Report of the President of the United States on the Trade Agreements Program* (Washington, DC: USTR, 2002), p. 71.

by monopoly carriers and traffic imbalances between countries were not large.[15] It is easy and inexpensive to administer.[16] However, the system becomes difficult to manage when multiple telecommunication carriers enter a market, in part as a result of difficulties associated with negotiating rates with multiple carriers. Additionally, the system places restraints on competitive carriers because high accounting rates could significantly affect the commercial operations of telecommunication carriers.[17] For instance, if a carrier maintains a net deficit in international settlements, its ability to reduce consumer calling rates is limited. Conversely, a carrier with a net settlement surplus has little incentive to reduce the accounting rate or increase efficiency.[18] Telecommunication carriers with persistent net settlement deficits (such as U.S. service providers) complain that the system subsidizes countries with high-cost, inefficient carriers at the expense of lower-cost, competitive carriers.[19]

The U.S. Experience

The U.S. market demonstrates many of the shortcomings inherent in the current accounting rate system. The United States consistently registers net deficits in international settlements (table 1) as the world's largest net importer of international telecommunication services. The U.S. net deficit is primarily a result of the large number of international calls that originate in the United States, which obligates U.S. carriers to remit payments to foreign carriers. Factors that affect the U.S. cross-border trade deficit include the relative wealth of the United States and the relatively low U.S. international calling prices, both of which encourage increased call volumes; and the average length of calls, which tends to be longer for calls originating from the United States.

Table 1
U.S. international telecommunication transactions, 1993-99

Transaction measure	1993	1994	1995	1996	1997	1998	1999
Outbound minutes (*millions*)	11,163	13,110	15,135	18,174	21,288	21,712	25,016
Inbound minutes (*millions*)	5,786	6,385	7,051	8,293	9,170	10,198	10,785
Net outbound minutes (*millions*)	5,377	6,725	8,084	9,881	12,118	11,514	14,231
Net settlement payment (*million dollars*)[1]	(3,706)	(4,291)	(4,938)	(5,668)	(5,429)	(4,484)	(4,579)

[1] Calculated by multiplying the settlement rate by net outbound minutes.

Source: Federal Communication Communications, *Trends in the International Telecommunications Industry,* Apr. 2001, found at Internet address *http://www.fcc.gov*, retrieved June 13, 2002.

[15] Peter A. Stern and Tim Kelly, *Liberalization and Reform of International Telecommunication Settlement Arrangements*, Latin American and Caribbean Telecommunication Finance and Trade Colloquium, Brasilia, Brazil, July 1997, p. 7.

[16] Carlos Braga, Emmanual Forestier, and Peter A. Stern, "Developing Countries and Accounting Rates Reform - A Technological and Regulatory El Nino?," *Public Policy for the Private Sector,* Note No. 173 (Washington, DC: The World Bank Group, 1999), p. 3; and Stern and Kelly, *Liberalization and Reform of International Telecommunication Settlement Arrangements*, p. 4.

[17] ITU, *What is the Accounting Rate System?*, found at Internet address *http://www.itu.int/newsarchive/press/WTPF98/Whatisaccountrate-es.html*, retrieved May 16, 2002.

[18] Ibid.

[19] Ibid.

U.S. net settlement payments are further inflated by the provision of low-cost, customer-friendly services, such as country-direct services and call-back arrangements (table 2). These innovations enable customers in foreign locations to place international telephone calls through reliable, low-cost U.S. service providers. Country-direct services provide callers with a number to access a U.S. operator, whereas call-back arrangements allow the customer to call an assigned U.S. telephone number and receive a computer-driven return call that provides a U.S. dial tone. Calls placed on these systems are recorded in the current account as U.S. outbound calls, thereby driving upward U.S. net settlement payments (registered as imports). Thus, in sum, U.S. carriers by virtue of being low-cost, reliable, and innovative suppliers of telecommunication services, were until recently obligated to pay out net settlements year by year, often to carriers with whom they compete abroad. In 1996, U.S. net settlement payments peaked at $5.7 billion (see table 1).

Table 2
Alternative calling plans

Plan	Description	Settlement arrangement	Benefit to service provider	Effect on accounting rate
Country-direct services (CDS)	User calls a specified 800 number in their home country and the call is routed to its final destination using the home-country service provider.	The call is converted from an inbound all to an outbound call, and the home-country service provider must pay settlement fees accordingly.	Collection charges from consumer usually outweigh settlement fee costs.	Incentive exists for home-country service provider to negotiate lower accounting rates.
Call-back services	User calls a designated number in a second country and receives a return call with a dial-tone from the second country.	The service generates an outbound call from the second country, which must pay settlement fees accordingly.	None. The service is offered in competition to traditional service provider.	Incentive exists for home-country service provider to negotiate lower accounting rates.
International simple resale (ISR)	ISR providers route traffic via an international leased line. The provider pays a fixed rate for the leased line and charges customers on a per-minute basis.	Traditional settlement fees do not apply.	The service is profitable when large traffic volumes are established. It allows the service provider to by-pass the traditional accounting rate system	High accounting rate countries have incentive to reduce rates to compete with this service and maintain settlement revenues.
Refile	Routes traffic through third countries in order to take advantage of lower accounting rates.	Service provider pays all applicable settlement fees.	Enables service provider to send traffic along its least cost route.	Incentive to reduce accounting rates to avoid traffic re-routing and maintain settlement revenue.

Source: Compiled by USITC staff from various sources.

Alternatives to the Accounting Rate System

International simple resale (ISR) and Internet protocol (IP) telephony create opportunities for carriers to entirely bypass the accounting rate system. ISR involves the reselling of telecommunication services over lines leased from incumbent carriers. IP telephony enables carriers to send voice signals over the Internet, thus avoiding costs associated with conventional telecommunications. A description of each service follows.

International Simple Resale

As noted, some regulators have introduced competition into their markets by permitting market entrants to resell network capacity.[20] Resellers typically lease a line between two popular locations and profit from the transactions by selling services to customers at prices below those offered by incumbent telecommunication carriers. Incumbent operators usually charge resellers a fixed rate based on the cost of connecting to the network, and therefore resellers are not required to pay settlement fees.

As countries continue to deregulate their telecommunication service markets, ISR transactions are increasing. In 2000, such arrangements accounted for approximately 36 percent of total U.S. billed international minutes.[21] Additionally, in 1999,[22] ISR revenues for all U.S. carriers totaled $4.4 billion, a significant increase from $1.12 billion in 1994.

ISR became the dominant mode of competition during the 1990s, as an increasing number of countries permitted it in their markets.[23] Competitive resellers face relatively small market-entry barriers and international markets provide the greatest opportunities for price arbitrage.[24] In addition to recent market entrants, incumbent telecommunication service providers are increasingly using ISR as a means of bypassing the accounting rate system and reducing costs. For example, in 1999, AT&T Corp. recorded resale service revenues of $254 million, representing a significant increase from $43 million in 1997, the first year in which the company reported such revenues. Similarly, resale service revenues for MCI Worldcom increased from $39 million in 1997 to $618 million in 1999 and for Sprint Corp. increased from $95 million to $244 million during the same time frame.[25]

Internet Protocol Telephony

IP telephony uses packet switching technology[26] to transmit voice signals over data networks. The transmissions can be sent over the public Internet or through managed,

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[20] Braga, Forestier, and Stern, "Developing Countries and Accounting Rates Reform–A Technological and Regulatory El Nino?," p. 3.

[21] Federal Communications Commission (FCC), *2000 International Telecommunications Data*, Dec. 2001, p. 4.

[22] Latest data available.

[23] FCC, *Trends in the International Telecommunications Industry*, Apr. 2001, p. 46.

[24] Ibid., p. 45.

[25] Ibid., p. 43.

[26] Packet-switching networks transmit signals in electronic blocks, or packets. Each packet is assigned an identification number and a destination code, which allow network nodes to properly route data to its final destination. Each packet can be sent along a different route and then reassembled to more efficiently utilize network capacity. This method is more efficient than circuit switching, which relies on a single dedicated circuit to send information.

private networks,[27] and are settled outside the traditional accounting rate system.[28] International Data Corp. (IDC), an Internet consultancy, estimates that IP telephony traffic will increase from 2.7 billion minutes in 1999 to approximately 135 billion minutes by 2004, and Deltathree.com, an IP telephony service provider, expects IP-based telecommunication service to account for 35 percent of all international telephone traffic by 2005.[29]

IP telephony market growth is attributable to the low costs associated with the service. IP telephony service providers Dialpad.com and Net2Phone currently offer free domestic long-distance services by offsetting interconnection charges with advertising revenue.[30] These firms generate additional revenues by providing international calling services, which IDC estimates will account for 75 percent of the IP telephony services market by 2004.[31] In most cases, IP telephony service providers offer international rates that are much lower than traditional telecommunication carriers' rates for the same service. For example, Net2Phone charges 3.9, 16.0, and 7.9 cents per minute to call Canada, Mexico, and Germany, respectively. Comparatively, AT&T charges 7.0, 35.0, and 17.0 cents to call these countries, respectively.[32]

Traditional telecommunication providers are preparing for IP telephony competition by investing in IP telephony-related technologies and acquiring stakes in IP telephony service providers. For example, in August 2000, an AT&T-led consortium completed an investment in Net2Phone. The investment gives the consortium, which also includes Liberty Media and British Telecom, a 39-percent voting stake in Net2Phone.[33] Similarly, Sprint Corp. and Worldcom are developing strategies that will use IP technology to provide telecommunication and data services to their customers.[34] Such services enable traditional telecommunication providers to bundle voice, data, and multimedia transmissions over a single IP-based network,[35] allowing them to offer high-value, customized services.[36] Sema Group, a Swedish consultancy, reports that 60 percent of traditional telecommunication providers expect IP telephony to become the primary means of telecommunication by 2004,

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[27] Technical constraints currently limit the reliability of all IP-based telephone calls. However, private networks provide greater sound quality than the public Internet. ITU, *Internet Reports: IP Telephony* (Geneva: ITU, Dec. 2000), pp. 1 and 15.

[28] Telecommunication service providers use private networks to transmit IP-based telephone calls. Such lines interconnect with foreign carriers' networks, and an interconnection rate is negotiated between the two carriers. These rates are usually lower than the accounting rate. ITU, *ITU Internet Reports: IP Telephony* (Geneva: ITU, 2001), p. 26

[29] Ibid., p. 24.

[30] Patricia Riedman, "PCs, Phones Link Voices as Web-talk Proliferates," *Advertising Age,* Mar. 20, 2000, p. 60.

[31] Carolyn Hirschman, "International IP Telephony: Governments, Providers Debate Voice-Over-IP Issues, Revenue Streams," *Telephony*, Sept. 11, 2000, p. 114.

[32] USITC staff research.

[33] Net2Phone, *AT&T completes Net2Phone investment*, Company Press Release, Aug. 11, 2000, found at Internet address *http://www.net2phone.com*, retrieved Feb. 14, 2001; and Kelly Carroll, "Preparing for Wireless Voice Over IP," *Telephony*, July 10, 2000, p. 16.

[34] Jim Barthold, "Saving Voice: Worldcom's New Image Leans Heavily on Voice Over IP," *Telephony*, Feb. 12, 2001, p. 20.

[35] Reportedly, consumers will prefer the convenience of bundled services, as it allows them to pay one bill each month for telephone and Internet services. Economist Intelligence Unit (EIU), *Vision 2010: New Strategies for Communication Enterprises*, report published in cooperation with Andersen Consulting, 1999, p. 4.

[36] Vincent Ryan, "A Walk on the Revenue Side," *Telephony*, May 8, 2000, p. 46.

and that one-quarter of them expect the majority of their traffic to be carried over IP-based networks by that date.

Efforts to Encourage Accounting Rate Reform

Actions by the Federal Communications Commission

On August 7, 1997, the Federal Communications Commission (FCC) adopted a Report and Order[37] that established international benchmarks that would progressively lower settlement rates to levels that better reflect actual costs.[38] The benchmark rates adopted by the FCC are based on foreign carriers' published tariff rates, and are scheduled to be reduced to 15 cents per minute for upper income countries, 19 cents per minute for middle-income countries, and 23 cents per minute for lower income countries.[39] According to the Order, U.S. telecommunication companies are required to negotiate settlement rates with foreign carriers that are equivalent to or better than the target rates.[40] By the end of 1999, almost all carriers from upper income countries had complied with the FCC's Benchmark Order.[41] Middle- and lower income countries already have reduced their accounting rates significantly;[42] during 1996-2001, average accounting rates for carriers in all countries have declined by more than 14 percent (figure 2). Such reductions contributed to a 25-percent decline in international consumer rates during 1996-98. The FCC expects international consumer rates to decrease an additional 45 percent when the Benchmark Order is fully implemented in 2003.[43]

Actions by the International Telecommunications Union

The International Telecommunications Union (ITU) has established Study Group 3 within its Telecommunication Standardization Sector to review the current remuneration system and consider reform. Reportedly, discussions within the Group have generated considerable interest, and ITU delegates from more than 80 countries have participated in the Group's meetings.[44] Goals of the Group include:

- Developing general principles and guidelines for the establishment of accounting rates;
- Determining cost components to be included in accounting rates;

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[37] FCC, *Report and Order: In the Matter of International Settlement Rates,* IB Docket No. 96-261, Aug. 7, 1997, found at Internet address *http://www.fcc.gov/Bureaus/International/Orders/1997/fcc97280.txt*, retrieved Aug. 13, 2001.

[38] International telecommunication costs are associated with infrastructure construction, network maintenance, and business operations. Reportedly, network construction costs and maintenance costs are minimal, with construction costs approaching zero over the network's lifetime. ITU, "Direction of Traffic, 1996," pp. 4 to 5.

[39] FCC, Benchmark Order (IB Docket No. 96-261), publication No. 97-280, Aug. 17, 1997.

[40] Ibid.

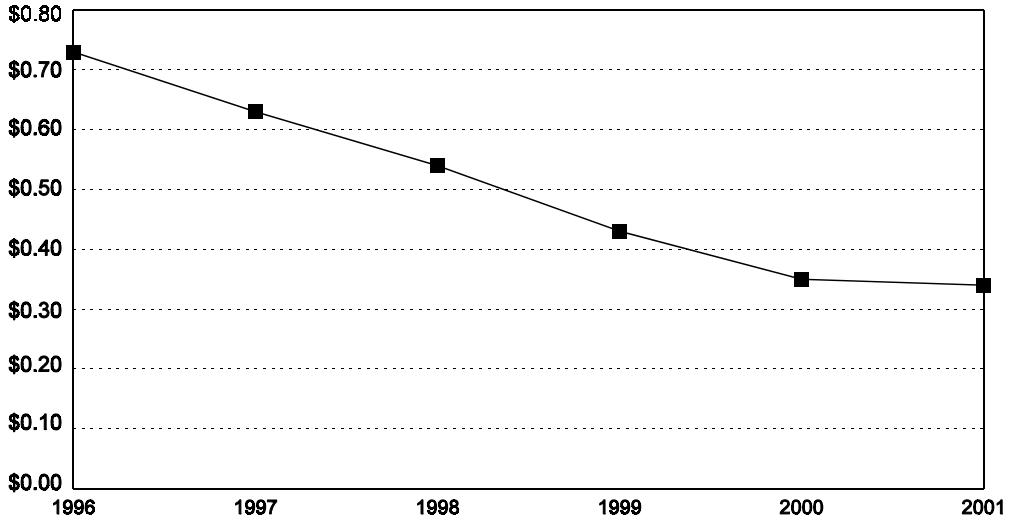
[41] FCC, *Report on International Telecommunications Markets, 1999 Update*, publication No. DA 00-87, Jan. 14, 2000

[42] Ibid.

[43] Ibid.

[44] ITU, *Accounting Rate Reform Undertaken by ITU-T Study Group 3*, found at Internet address *http://www.itu.int/ITU-T/studygroups/com03/accounting-rate/index.html*, retrieved June 13, 2002.

Figure 2
Average accounting rates, 1996-2001



Source: Federal Communications Commission, *IMTS Accounting Rates of the United States,* 1985-2001.

- Expediting development of appropriate costing methodologies; and
- Establishing a transition period to avoid drastic changes in the system.[45]

Although these goals were embodied in principles outlined in ITU-T Recommendation D.140, adopted in 1992, many countries considered the rate of accounting rate reform too slow and took additional measures to ensure a more rapid transition toward cost-oriented remuneration methods (e.g. see FCC Actions above).[46] Study Group 3 continued its work on accounting rate reform, and in 1998, introduced alternative remuneration procedures. Such procedures include the termination charge procedure, enabling governments to establish a single termination charge for all operators in the country; the settlement rate procedure, allowing carriers to negotiate cost-oriented accounting rates; and the commercial arrangement procedure, allowing carriers to bilaterally negotiate their own alternatives to the accounting rates. Reportedly, such procedures should facilitate the reform process.[47]

Potential Impact of Accounting Rate Reform: Developing Countries' Perspective

Developing countries have expressed concern about the potential loss of revenue that would result from reform of the accounting rate system.[48] The majority of developing countries are

[45] Ibid.
[46] Ibid.
[47] Ibid.
[48] Carlos Braga and others, *Developing Countries and the Telecommunications Accounting Rates Regime: A Role for the World Bank*, Feb. 23, 1998, found at Internet address *http://www.worldbank.org/html/fpd/telecoms/subtelecom/telecommunications.htm*, retrieved Feb. 20, 2001.

net exporters of international telecommunication services[49] and many depend on settlement revenues for hard currency to support their fiscal expenditures.[50] Approximately 70 percent of U.S. settlement payments goes to developing countries.[51] The 10 most dependent countries rely on U.S. settlement payments for 40 percent to 80 percent of their total telecommunication revenues.[52] Net flows of settlement payments to developing countries from industrialized countries totaled approximately $50 billion during 1990-2000.[53]

Industry observers suggest that the settlement revenue declines of developing countries may be partially offset by new opportunities and infrastructure development created by market liberalization.[54] Foreign investment enables governments to direct funds toward upgrading telecommunications infrastructure.[55] Additionally, market liberalization often encourages greater efficiency, improved service quality, and the rapid adoption of new technologies, resulting in lower consumer costs and increased revenue streams.[56]

Summary

Pressure to reform the international accounting rate system has increased in recent years as technological advances and market reform have intensified competition. Net settlement payments by carriers operating in competitive markets to those in less efficient markets have significantly increased in recent years as international telecommunication traffic flows have become less balanced. This has created incentives for carriers from competitive telecommunication markets to bilaterally negotiate lower accounting rates. In competitive markets, incumbent carriers as well as new market players are increasingly seeking ways to reduce costs associated with providing international services by entirely circumventing the accounting rate system. Such carriers are increasingly relying on alternative calling procedures, such as international simple resale or IP telephony for the provision of international services. Although accounting rate reform may pose short-term disadvantages for net exporters of telecommunication services, firms that can take advantage of new market opportunities and infrastructure development as a result of liberalization could well benefit from changes in the remuneration system.■

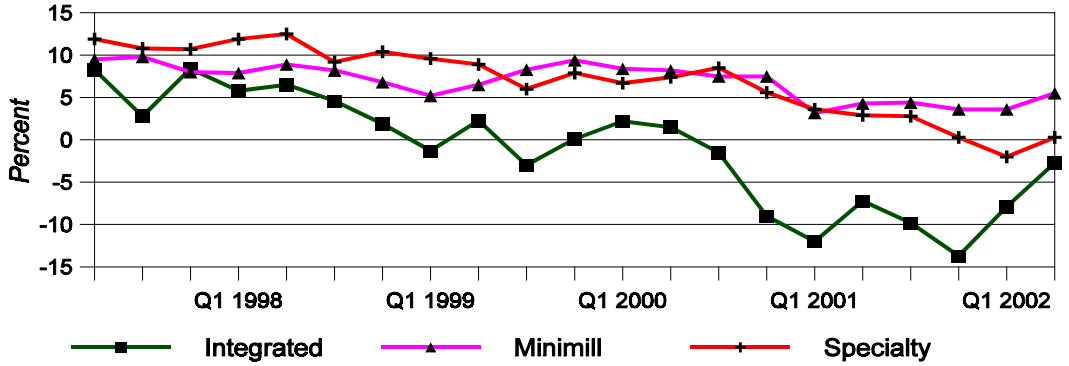
[49] Ibid.
[50] Ibid.
[51] Ibid.
[52] Ibid.
[53] ITU, *Internet Reports*, p. 26.
[54] Pekka Tarjanne, "Preparing for the Next Revolution in Telecommunications: Implementing the WTO Agreement," *Telecommunications Policy*, vol. 23, No. 1, 1999.
[55] Ibid.
[56] Ibid.

APPENDIX A
Key Performance Indicators of Selected Industries and Regions[1]

[1] The data and views presented for the following indicators are compiled from the industry sources noted and are those of the authors. They are not the views of the United States International Trade Commission as a whole or of any individual Commissioner. Nothing contained in this information based on published sources should be construed to indicate how the Commission would find in an investigation conducted under any statutory authority.

STEEL

Figure A–1
Increased shipments and higher prices help reduce losses for integrated producers while sales and profits trend upward for minimills during second quarter 2002; specialty producers realized a small profit on flat sales[1]



[1]Operating income as a percent of sales. Integrated group contains 5 firms. Minimill group contains 7 firms. Specialty group contains 4 firms.

Source: Individual company financial statements.

- On August 30, 2002, the Office of the U.S. Trade Representative (USTR) announced the exclusion of additional products from the temporary steel safeguard actions imposed in March, 2002. To date, 727 products have been excluded as USTR determined that they are not sufficiently available from U.S. producers, and that excluding these products would not undermine the effectiveness of the safeguard actions. See *http://www.ustr.gov*.
- Continuing the recent trend of consolidation in the minimill sector, on September 23, 2002, Co-Steel Inc. of Canada agreed to merge with the North American operations of Gerdau SA. The combined firm, Gerdau AmeriSteel, to be headquartered in Canada, will operate 11 minimills in the United States and Canada with an annual capacity of more than 6.8 million tons. See *http://www.costeel.com*.
- The OECD High Level Group Working Parties on Steel met in Paris during September 11-13, 2002, to discuss changes in capacity in participating countries and industry practices in steel. See *http://www.oecd.org/EN/home/0,,EN-home-39-nodirectorate-no-no-no-7,00.html*. The International Iron and Steel Institute Board of Directors, who met the week of October 7, 2002, to review the state of government negotiations on steel undertaken under the auspices of the OECD, issued a release noting "a strong consensus in the industry worldwide . . to ban further government subsidies . . except to assist with the social and environmental costs associated with the permanent closure and elimination of steel capacity" and encouraging governments to "use the next high-level meeting in Paris in December to start practical negotiations on a new agreement banning subsidies in the steel industry." See *http://www.worldsteel.org/news/29*.
- Trends for finished and semifinished imports moved in opposite directions during the second quarter of 2002 compared to the second quarter of 2001 (table A-1). Quarterly imports of semifinished steel, purchased primarily by domestic producers, increased by more than 28 percent, while imports of finished steel declined by more than 26 percent from the second quarter of 2001.

Table A–1
Semifinished imports increase sharply during second quarter 2002 compared with second quarter 2001, and during first 6 months of 2002 compared to first 6 months of 2001

Item	Q2 2002	Percentage change, Q2 2002 from Q2 2001[1]	YTD 2002	Percentage change, YTD 2002 from YTD 2001[1]
Producers' shipments *(1,000 short tons)*	25,610	-2.9	49,548	-3.0
Finished imports *(1,000 short tons)*	4,890	-26.3	10,740	-7.8
Ingots, blooms, billets, and slabs *(1,000 short tons)*	1,804	28.8	4,177	34.4
Exports *(1,000 short tons)*	1,446	-2.0	2,918	-7.1
Apparent supply, finished *(1,000 short tons)*	29,053	-6.9	57,370	-3.7
Ratio of finished imports to apparent supply *(percent)*	16.8	[2]-3.1	18.7	[2]0.7

[1] Based on unrounded numbers.
[2] Percentage point change.
Note.–Because of rounding, figures may not add to the totals shown.

Source: American Iron and Steel Institute.

STEEL

Table A–2
Service Center: Second quarter 2002 shipments hold steady compared with second quarter 2001 as inventories decline

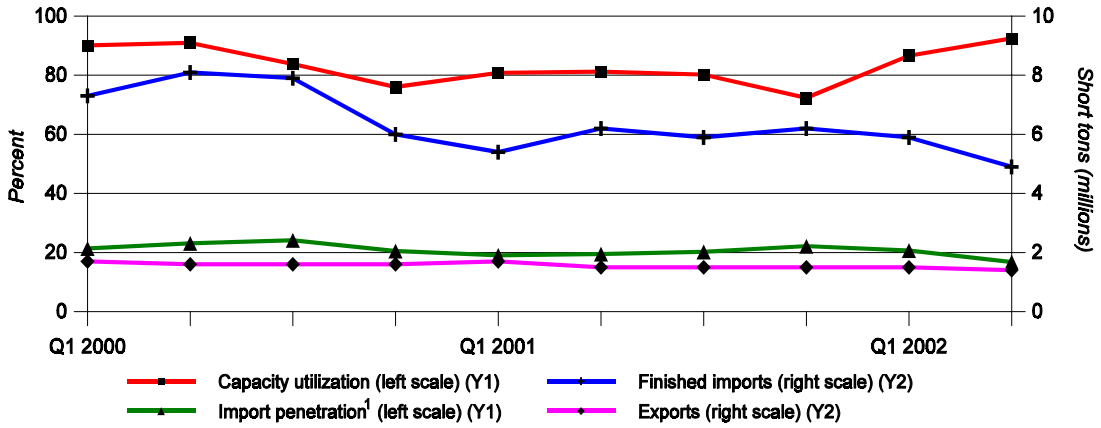
Item	Mar. 2002	June 2002	Percentage change, June 2002 from Mar. 2002[1]	Q2 2001	Q2 2002	Percentage change, Q2 2002 from Q2 2001[1]
Shipments *(1,000 short tons)*	2,111	2,105	-0.3	6,636	6,605	-0.5
Ending inventories *(1,000 short tons)* . .	7,152	7,153	0.0	8,163	7,153	-12.4
Inventories on hand *(months)*	3.2	3.2	([2])	3.8	3.2	([2])

[1] Based on unrounded numbers.
[2] Not applicable.

Source: Metals Service Center Institute.

- U.S. service center shipments remained steady during the second quarter 2002 compared to the second quarter 2001 (table A–2), but increased by more than 5 percent compared to the first quarter of 2002 level of 6,279 thousand short tons. Inventories trended downward from the year-end 2001 peak of 4 months on hand. See *http://www.ssci.org*.
- The American Institute for International Steel import market survey (August 2002) continues to predict domestic shortages of semi-finished, hot-rolled, cold-rolled, and corrosion resistant sheet during the next 1 to 3 months. See *http://www.aiis.org*.
- The Institute for Supply Management's Report On Business (September 2002) reported short supplies of steel for the 7th consecutive month, and steel price increases for the 8th consecutive month. See *http://www.ism.ws/ISMReport/ROB102002.cfm*.
- Domestic capacity utilization continued to increase, reaching its highest quarterly level in more than 2 years, while import penetration continued to fall (Figure A–2). See *http://www.steel.org*.

Figure A–2
Steel mill products, all grades: Domestic capacity utilization continues to increase as import penetration drops



[1] Finished import share of apparent open market supply.

Source: American Iron and Steel Institute.

AUTOMOBILES

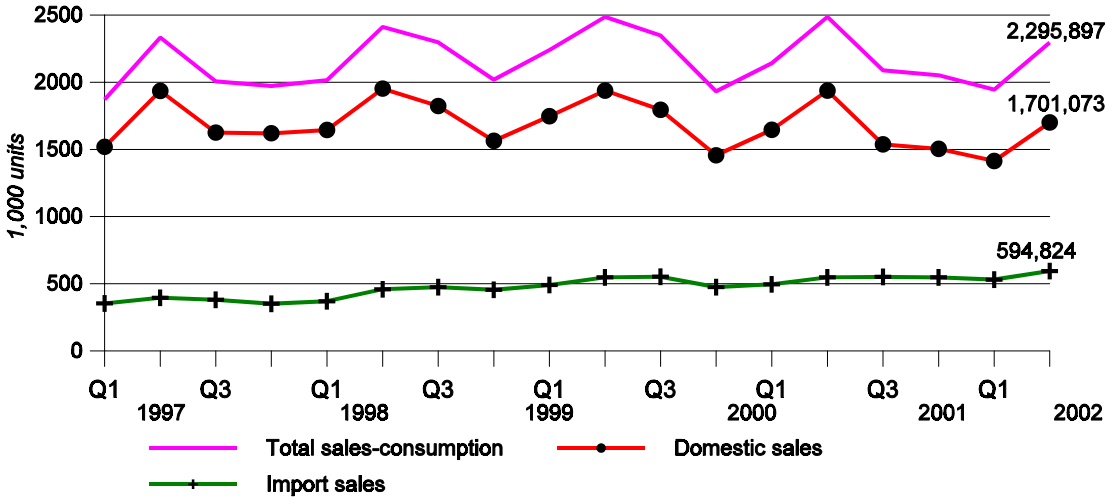
Table A–3
U.S. sales of new automobiles, domestic and imported, and share of U.S. market accounted for by sales of total imports and Japanese imports, by specified periods, January 2001-June 2002

Item	Apr.-Jun. 2002	Jan.-Mar. 2002	Percentage change: Apr.-Jun. 2002 from Jan.-Mar. 2002	Percentage change: Jan.-Mar. 2002 from Jan.-Mar. 2001
U.S. sales of domestic autos (*1,000 units*)[1]	1,701	4,983	20.3	-9.1
U.S. sales of imported autos (*1,000 units*)[2]	595	1,619	11.9	1.6
Total U.S. sales (*1,000 units*)[1, 2]	2,296	6,602	18.0	-6.7
Ratio of U.S. sales of imported autos to total U.S. sales (*percent*)[1, 2]	25.9	24.5	-5.1	8.9
U.S. sales of Japanese imports as a share of the total U.S. market (*percent*)[1, 2]	10.9	7.2	-6.6	16.2

[1] Domestic automobile sales include U.S.-, Canadian-, and Mexican-built automobiles sold in the United States.
[2] Imports do not include automobiles imported from Canada and Mexico.

Source: Compiled from data obtained from *Automotive News*.

Figure A–3
U.S. sales of new passenger automobiles increased in the second quarter 2002; sales of domestic autos as a percentage of total U.S. sales gain significantly compared to first quarter 2002

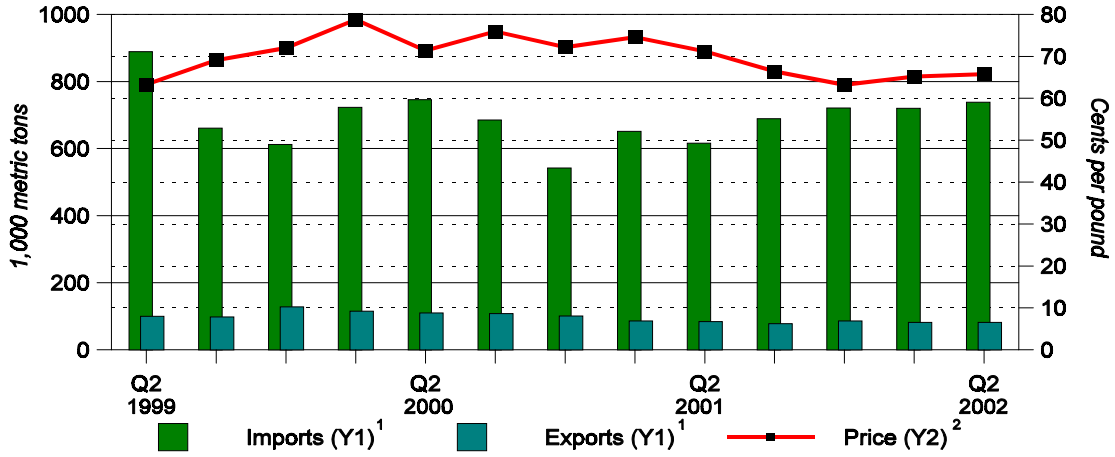


Note.–Domestic automobile sales include U.S.-, Canadian-, and Mexican-built automobiles sold in the United States; these same units are not included in import sales.

Source: *Automotive News*; prepared by the Office of Industries.

UNWROUGHT ALUMINUM[1]

Figure A–4
Despite little change in price and trade indicators in second quarter 2002, concerns remain over medium-term prospects due to slower than anticipated recovery of the global economy



[1] Unwrought aluminum and aluminum alloys.
[2] Quarterly average of the monthly U.S. market price of primary aluminum ingots.

Source: Complied by USITC staff based on data obtained from the U.S. Geological Survey.

- The rebound in U.S. production as a result of restarts from smelters in the Pacific Northwest will be offset by idled capacity at Alcoa's Badin, North Carolina facility (120,000 metric tons per year (mtpy)). Further, Alcoa has decided to dismantle two facilities in the Pacific Northwest (441,000 mtpy).
- Planned expansion of smelting capacity in foreign countries (a projected 7 million metric tons over the next 5 years) has tempered analysts' outlook for the aluminum industry as production is expected to exceed consumption over the next 5 years. The key driver of this growth is China which, according to industry sources, is expected to expand production capacity by 1 million metric tons in 2002 and expand export growth by 36 percent as a result.
- Declining participation in recycling programs coupled with low scrap prices has led some cities, such as New York, to suspend curbside recycling programs. In 2001, the nationwide recycling rate declined by 6.7 percentage points from 2000—and was 12.5 percentage points off its 10-year high in 1992—while scrap prices have fallen from 60 cents per pound to 20 cents per pound. A continuation of this trend could possibly lead to greater reliance on less energy-efficient primary sources.

Table A–4
Inventories in LME warehouses increased to 10-year highs in second quarter 2002

				Percentage change	
Item	Q2 2001	Q1 2002	Q2 2002	Q2 2002 from Q2 2001	Q2 2002 from Q1 2002
Primary production (*1,000 metric tons*)	669	627	669	0.0	6.7
Secondary recovery (*1,000 metric tons*)	778r	735r	741	-4.8	0.8
Imports (*1,000 metric tons*)	616	720	738	19.8	2.5
Import penetration (*percent*)	31.1	36.0	35.7	[1]4.9	[1]-0.3
Exports (*1,000 metric tons*)	84	82	82	-2.4	0.0
Average nominal price (*cents/lb*)	71.2	65.2	65.8	-8.4	1.0
LME inventory level (*1,000 metric tons*)	629	1,029	1,255	99.5	22.0

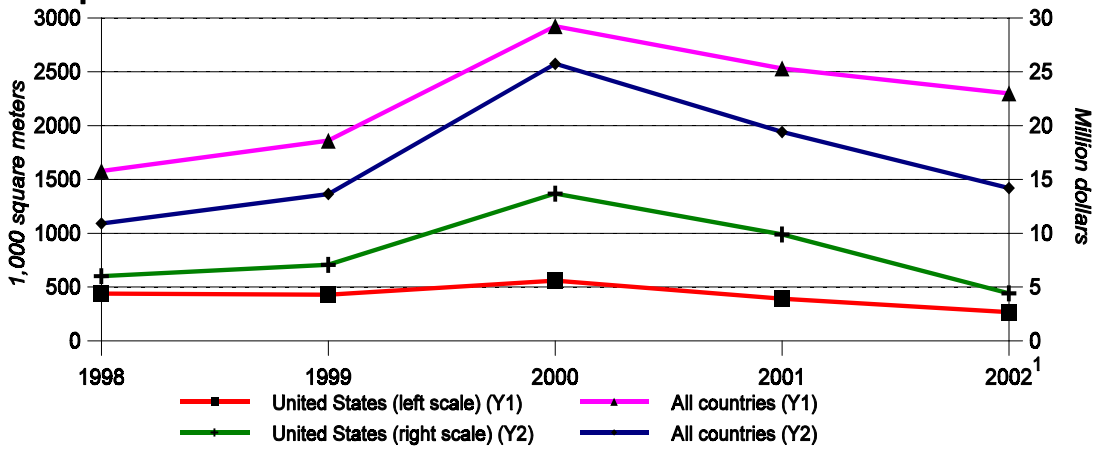
[1] Percentage point change
Note.–Revised data indicated by "r."

Sources: Compiled from data obtained from U.S. Geological Survey and World Bureau of Metal Statistics.

[1] Product coverage includes only unwrought aluminum and certain aluminum alloys for improved data comparability.

FLAT GLASS

Figure A–5
Japanese import decline slows



[1] Data for 2002 include Jan.-July. (Latest available data).

Source: Average monthly Japanese imports of flat glass compiled from "World Trade Atlas: Japan" at *http://www.globaltradeatlas.com* on Sept. 6, 2002, which uses official statistics provided by the Government of Japan.

Background

- The U.S.-Japanese agreement on Japanese market access for imports of flat glass sought to increase access and sales of foreign flat glass in Japan through such means as increased adoption of nondiscriminatory standards and expanded promotion of safety and insulating glass. The agreement covered the 1995-99 period and expired on December 31, 1999.[1]
- The Japanese economy slowed in 2001 along with demand for imported flat glass. The average monthly quantity of Japanese imports from all countries decreased by 13 percent during 2001 to 2.5 million square meters, while the average monthly value of such imports decreased by 25 percent to $19.4 million. Imports from the United States decreased by 30 percent to 392,000 square meters and by 28 percent to $9.9 million, respectively, and the U.S. share of the market declined.

Current

- The decline in Japan's demand for imported flat glass in 2002 slowed during May through July. The average monthly quantity of Japanese imports from all countries was down by 13 percent for the first 4 months of 2002, but eased to a decrease of 9 percent for the first 7 months of 2002 to 2.3 million square meters, while the average monthly value of such imports decreased by 27 percent to $14.2 million. However, the quantity of imports from the United States decreased by 31 percent to 269,000 square meters and the value declined by 55 percent to $4.4 million, respectively, and the U.S. share of the market has declined in terms of quantity; imports from the United States lost market share to imports from Korea, China, and Thailand during this period.
- The U.S. Government continues to pursue market access for flat glass with the Japanese Government. Although no progress was reported, the issue was raised in Tokyo in July 2002 at the first Trade Forum, established under the U.S.-Japan Economic Partnership for Growth to exchange views and recommendations on trade issues and to facilitate resolution of trade issues.[2]

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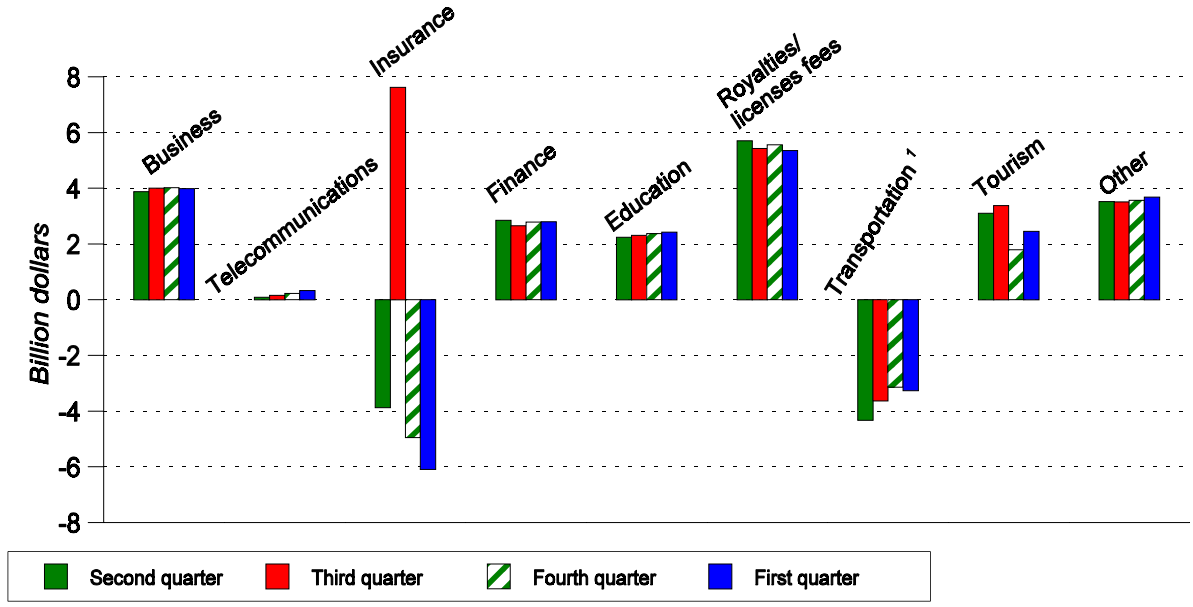
[1] Office of the U.S. Trade Representative (USTR), *The President's 1999 Annual Report on the Trade Agreements Program*, p. 227, downloaded from *http://www.ustr.gov/reports/tpa/2000/index.html* on Mar. 3, 2000.

[2] U.S. Embassy at Tokyo, Japan, *U.S. and Japan Hold First Meeting of Trade Forum*, downloaded from *http://usembassy.state.gov/tokyo/wwwhpr0063.html* on Sept. 17, 2002.

SERVICES

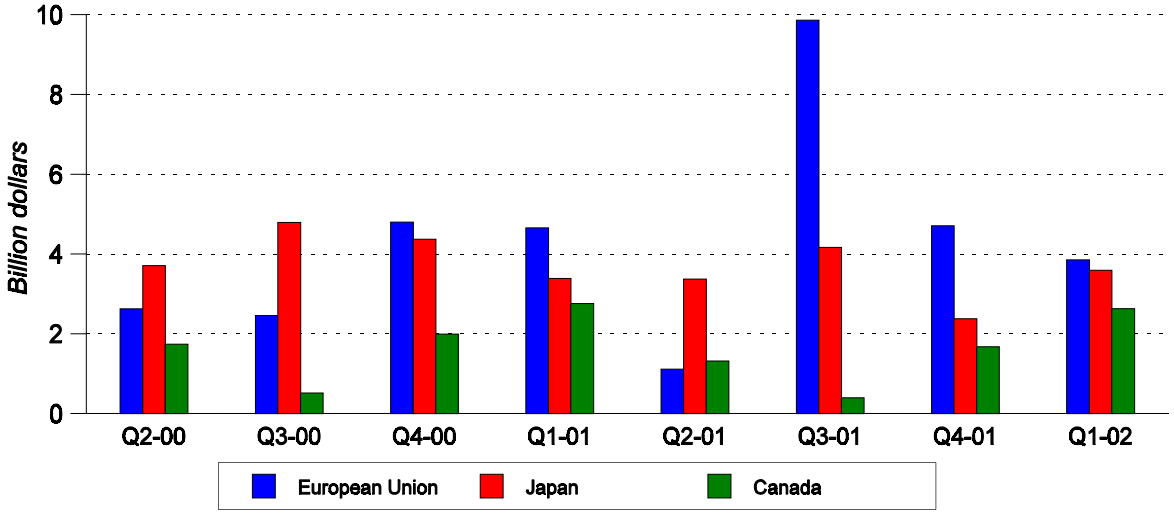
Figure A–6
Balance on U.S. service trade accounts, by quarters, 2001-2002



[1] Includes port fees.

Source: Bureau of Economic Analysis, *Survey of Current Business*, July 2002, p. 69.

Figure A–7
Surpluses on cross-border U.S. services transactions with selected trading partners, by quarter, 2000-2002[1]



[1] Private-sector transactions only; military shipments and other public-sector transactions have been excluded.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 2002, pp. 78-81; Apr. 2002, pp. 68-71; Jan. 2002, pp. 52-57; Oct. 2001, pp. 79-91; and July 2001, pp. 74-77.

NORTH AMERICAN TRADE HIGHLIGHTS

U.S. trade with its North American partners is highlighted in table A-5. The following is a summary of key developments through the second quarter 2002.

- Total U.S. trade with its NAFTA partners ($286 billion) decreased by 6 percent ($19 billion) during the first half 2002 compared with January-June 2001. A slowly recovering U.S. economy that grew at an annual rate of 1.3 percent during the second quarter 2002[1] resulted in less demand for Canadian and certain Mexican manufactured products. Although a first half 2001/2002 comparison indicates the U.S. merchandise trade deficit with Canada ($33 billion) declined by 15 percent or $5.7 billion, the period's trade deficit with Mexico ($23 billion) increased by $3.6 billion or 19 percent.
- Mexico's second quarter 2002 GDP expanded at an annual rate of 2.1 percent after 3 consecutive quarters of contraction dating back to the third quarter 2001.[2] The growth in the Mexican economy is attributed to higher than expected prices for petroleum and a modest reactivation of external demand for its products, primarily by the United States. Increased U.S. demand for petroleum and a sparse increase in demand for some durable goods, such as major household appliances, resulted in a modest rise in U.S. imports from Mexico which remained second only to Canada as the largest trading partner with the United States during the period.
  - U.S. exports to Mexico in the first half 2002 totaled $42.5 billion, a decline of 8 percent ($3.9 billion) from the corresponding period in 2001. U.S. exports to Mexico of intermediate goods (76 percent) and, to a lesser extent, capital goods (12 percent) are largely destined for Mexico's Maquiladora and PITEX programs. The decrease in U.S. exports to Mexico's assembly industry reflects the contraction of that sector in response to reduced U.S. demand for assembly services in Mexico, U.S. companies' continued sell down of inventories, and switched sourcing from Mexico to Asia by some U.S. firms.
  - During January-June 2002, U.S. imports from Mexico decreased by less than 1 percent ($282 million) to $65.6 billion from the corresponding period in 2001. The decrease in imports from Mexico was led by motor-vehicles, computer and telephone equipment, and electrical machinery. However, an expansion in business inventories by some multinational firms was a major factor leading to a slight increase in imports from Mexico in first half 2002.
  - The Government of Mexico announced on September 4, 2002, the immediate elimination or reduction of customs duties on a wide range of components and products in the electronics and information technology (IT) industries. The program, known in Mexico as "ITA Plus," is Mexico's version of the World Trade Organization (WTO) Information Technology Agreement (ITA).[3] Numerous Mexican IT firms rely on imported components that cannot be sourced entirely in North America.[4] The reported goal of the "ITA Plus" program is to provide Mexican firms wider access to IT goods at lower prices and to facilitate improved competitiveness, particularly with China.[5]
- Canada's GDP grew by 1.1 percent during the second quarter 2002, and at an annualized rate of 4.3 percent. The Canadian economy was led by strong domestic demand for consumer services, an increase in domestic business

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[1] U.S. real gross domestic product (GDP) increased at an annual rate of 3.1 percent in the third quarter 2002 led by personal consumption expenditures, according to advance estimates released by the Bureau of Economic Analysis (BEA). *BEA News Release* 02-32, Oct. 31, 2002. Many analysts attributed the "advance" third quarter increase primarily to consumer spending for interest-free financing of motor vehicles, and are predicting that growth will fall back to a 1 to 2 percent annual rate in the fourth quarter 2002.

[2] According to a consensus forecast published in *Latin Trade*, Oct. 2002, Mexico's real GDP is expected to grow by 1.7 percent in 2002.

[3] The ITA was concluded at the WTO Singapore Ministerial Conference in December 1996. The ITA entered into force on July 1, 1997. At present, 58 countries accounting for approximately 93 percent of world trade in IT products have endorsed the ITA. Mexico has not become a signatory to the ITA.

[4] The ITA eliminates customs duties, on a reciprocal basis, on a wide range of IT products, such as computers, semiconductors, software, and telecommunications equipment, among others. For a list of products covered by the ITA visit the WTO's website at www.wto.org.

[5] Mexico's "ITA Plus" program includes resins, steel, and audio and video products which are not covered by the ITA.

NORTH AMERICAN TRADE

Table A–5
North American trade, 1997-2001, January-June 2001, and January-June 2002

Item	1997	1998	1999	2000	2001	January-June 2001	January-June 2002	Percent change 2001/02
	Value *(million dollars)*							
U.S.-Mexico trade:								
Total imports from Mexico	85,005	93,017	109,018	134,734	130,509	65,859	65,577	([1])
U.S. imports under NAFTA:								
Total value	62,837	68,326	71,317	83,995	81,162	40,763	41,477	2
Percent of total imports	74	73	65	62	62	62	63	[2]1
Total exports to Mexico	68,393	75,369	81,381	100,442	90,537	46,455	42,512	-8
U.S. merchandise trade balance with Mexico[3]	-16,612	-17,648	-27,637	-34,292	-39,971	-19,403	-23,065	-19
U.S. -Canada trade:								
Total imports from Canada	167,881	174,685	198,242	229,060	216,836	115,706	105,331	-9
U.S. imports under NAFTA:								
Total value	88,949	111,675	115,715	123,052	113,179	59,438	58,020	-2
Percent of total imports	53	64	58	54	52	51	55	[2]4
Total exports to Canada	134,794	137,768	145,731	155,601	144,621	76,977	72,257	-6
U.S. merchandise trade balance with Canada[4]	-33,087	-36,918	-52,511	-73,459	-72,215	-38,728	-33,073	15

[1] Less than -0.5 percent
[2] Percentage point change.
[3] The negative (-) symbol indicates a loss or trade deficit. The $40.0-billion deficit in U.S. merchandise trade with Mexico in 2001 was partially offset by a $3.4-billion U.S. surplus in bilateral services trade.
[4] The $72.2-billion deficit in U.S. merchandise trade with Canada in 2001 was partially offset by a $6.0-billion U.S. surplus in bilateral services trade.

Source: Compiled by USITC staff from official statistics of the U.S. Department of Commerce. Statistics on U.S. services trade with Canada and Mexico are based on preliminary data provided in U.S. Department of Commerce, Bureau of Economic Analysis, "U.S. International Transactions Accounts Data," tables 10 and 10a, found at http://www.BEA.DOC.GOV/BEA/International/BP_web/list.CFM?ANON=92.

investment in machinery and equipment, as well as vigorous growth in home construction and automotive sales. Additionally, Canada's forest products sector benefitted from the temporary suspension of U.S. countervailing/ antidumping duties on softwood lumber from Canada.

- During January-June 2002, U.S. exports to Canada totaled $72.3 billion and declined 6 percent ($4.7 billion) from the corresponding period of 2001. Motor-vehicle parts and engines, electrical machines and equipment, and certain types of machinery and equipment (such as water treatment apparatus and computers) were some of the leading product categories experiencing export declines in first half 2002.

- U.S. imports from Canada during the first half 2002 totaled $105 billion, a decrease of 9 percent ($10.3 billion) from the corresponding period of 2001. The decrease in imports from Canada was led by petroleum oils, electrical energy, and natural gas. A much warmer than expected winter season and a sluggish U.S. economy were the primary factors leading to reduced imports from Canada in the first half 2002.