Recent Trends in U.S. Services Trade

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United States International Trade Commission

U.S. International Trade Commission

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PREFACE

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

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

The current report begins with a statistical overview of U.S. trade in services and a discussion of key trends. This overview is followed by industry-specific analyses that focus on trends in exports, imports, and trade balances during 1994-99. Industry-specific analyses also identify major trading partners during the subject period. The report concludes with an analysis of productivity in service industries.

Additional USITC analyses of trade in services include a series of reports on U.S. trading partners' schedules of commitments under the General Agreement on Trade in Services (GATS) administered by the World Trade Organization. The schedules of commitments indicate the extent to which U.S. trading partners grant market access and national treatment to service providers from other countries, including the United States. The USITC reports are entitled *General Agreement on Trade in Services: Examination of Major Trading Partners' Schedules of Commitments* (USITC publication 2940, Dec. 1995), *General Agreement on Trade in Services: Examination of South American Trading Partners' Schedules of Commitments* (USITC publication 3007, Dec. 1996), *General Agreement on Trade in Services: Examination of the Schedules of Commitments Submitted by Asia/Pacific Trading Partners* (USITC publication 3053, Aug. 1997), *General Agreement on Trade in Services: Examination of the Schedules of Commitments Submitted by Eastern Europe, the European Free Trade Association, and Turkey* (USITC publication 3127, Sept. 1998), and *General Agreement on Trade in Services: Examination of the*

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

Schedules of Commitments Submitted by African Trading Partners (USITC publication 3243, Oct. 1999).

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

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Figures--*Continued*

Tables

CHAPTER 1
INTRODUCTION

Scope and Purpose

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

Methodological Approach and Organization

The trade data presented herein are drawn primarily from the most recent annual data available for U.S. trade in services, which are estimated and published by the U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA).[1] Data pertaining to trade in environmental services are the exception, as BEA data captures these as part of trade in various other service industries. Trade data regarding environmental services are drawn from reports published by Environmental Business International (EBI) and other industry sources.

Chapter 2 of this report describes the nature and extent of cross-border trade and affiliate transactions in the service sector and provides an overview of U.S. services trade by industry and by trading partner. Chapters 3 through 20 discuss U.S. international trade in intangible intellectual property and in selected service industries, including accounting and management consulting; air transportation; architectural, engineering, and construction; audiovisual; banking and securities; computer and data processing; education; energy; environmental; health care; insurance; legal; maritime transportation; retail trade; telecommunication; travel and tourism; and wholesale trade services. Each discussion compares cross-border trade performance in 1999 to

[1] Periodically, BEA changes its methodology to enhance annual reporting. In 1999, BEA revised estimates of cross-border trade in services to incorporate reclassifications and improvements in source data. Modifications included a redefinition of services by reclassifying employee compensation as income instead of cross-border trade in services, beginning with estimates for 1986. Moreover, revisions to estimates for 1995-98 were made for medical services provided to foreign residents at U.S. hospitals, and to estimates for 1997-98 concerning U.S. imports of travel and tourism services. For more information, see U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, Oct. 1999, p. 53.

trends evident during 1994-98, and/or sales by foreign-based affiliates of U.S. firms in 1998 to trends during 1993-97. However, a reclassification of U.S.-based affiliates of foreign firms precludes meaningful comparison of data reflecting sales of such affiliates in 1997 and 1998 with data reported for previous years, and with data on sales by foreign-based affiliates of U.S. firms during 1997 and 1998.[2] Thus, sales by U.S.-based affiliates of foreign firms are reported for 1997 and 1998 only, and no balance on affiliate transactions is presented. Chapters 3 through 20 also review the principal factors underlying the volume and direction of recent services trade, and identify factors likely to influence future trade performance. Outlooks regarding the subject service industries are based on USITC staff interviews with industry representatives and reviews of secondary sources, such as industry journals. Chapter 21 examines labor productivity and total factor productivity in service industries, seeking to explore broad relationships between productivity, wages, employment, and inflation, and to explain the source of measured productivity growth in certain industries.

U.S. merchandise trade is not discussed in this report. As noted in the *Preface,* it is the subject of a separate USITC annual report. However, to put U.S. services trade in perspective with merchandise trade, cross-border services trade accounted for 21.3 percent of total U.S. cross-border trade volume in 1999 (figure 1-1).[3] U.S. cross-border trade in services generated an $81-billion surplus in 1999, in contrast to a U.S. merchandise trade deficit of $346 billion.[4] Further, the service sector accounted for 78.4 percent of U.S. private-sector gross domestic product (GDP) in 1998 (figure 1-2).[5] By comparison, manufacturing accounted for 18.6 percent of GDP, and mining and agriculture together accounted for 3.0 percent. Similarly, the service sector provided 79.9 percent of total private-sector employment in 1999, while the manufacturing sector provided 17.6 percent, and the mining and agriculture sectors together provided 2.5 percent (figure 1-3).[6]

According to data reported by the International Monetary Fund (IMF), world exports of services totaled $1.3 trillion[7] in 1998.[8] The United States was, by far, the largest services exporter, accounting for 19.7 percent of such exports (figure 1-4). Other significant services exporters included the United Kingdom (7.7 percent), France

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[2] For more information regarding this change in methodology, see box 2-1 in ch. 2.

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

[4] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 91.

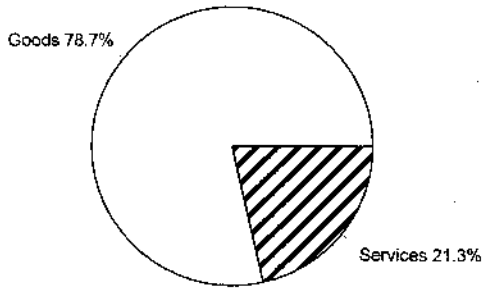
[5] Ibid., p. D-30. The data for 1998 are the latest available.

[6] USDOC, BEA, *Survey of Current Business*, Aug. 2000, p. 78.

[7] Total services exports were calculated by adding the services exports of all countries for which such data were reported. Countries for which no services trade data were reported include Benin, Burkina Faso, Cameroon, the Central African Republic, Chad, Comoros, the Congo, Djibouti, Equatorial Guinea, Gabon, The Gambia, Greece, Grenada, Guinea-Bissau, Guyana, Iraq, Kiribati, Lebanon, Liberia, Malawi, Malaysia, Mali, the Marshall Islands, Micronesia, Netherlands Antilles, Niger, Pakistan, Palau, Qatar, San Marino, São Tomé and Principe, Senegal, Seychelles, Sierra Leone, Somalia, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Suriname, Tajikistan, Tonga, Turkmenistan, Uganda, the United Arab Emirates, Uzbekistan, Vietnam, Yugoslavia, Zambia, and Zimbabwe.

[8] Although the IMF has published trade data for 1999, 1998 data were used in this analysis because they are more complete.

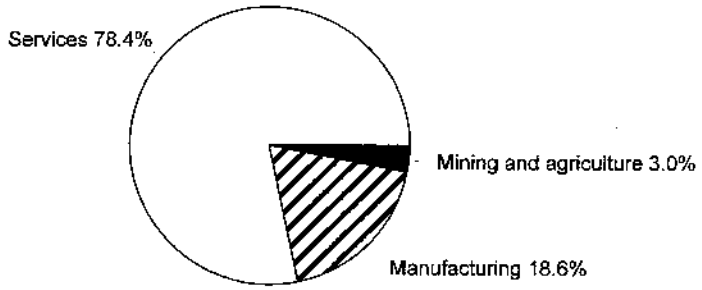
Figure 1-1
U.S. cross-border trade volume, by sector, 1999



Total trade volume = $2.2 trillion

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 91.

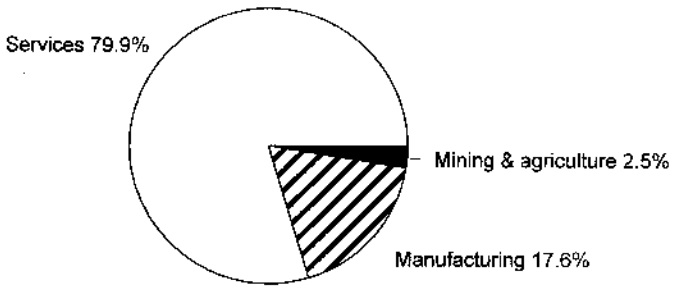
Figure 1-2
U.S. private-sector gross domestic product, by sector, 1998



Total private-sector GDP = $7.7 trillion

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. D-30.

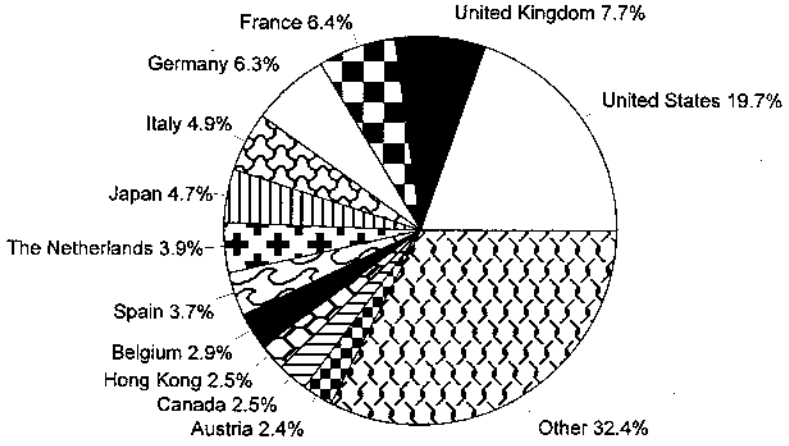
Figure 1-3
U.S. private-sector employment, by sector, 1999



Total full-time equivalent employees = 103.8 million workers

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Aug. 2000, p. 78.

Figure 1-4
World service exports, by exporting country, 1998[1]

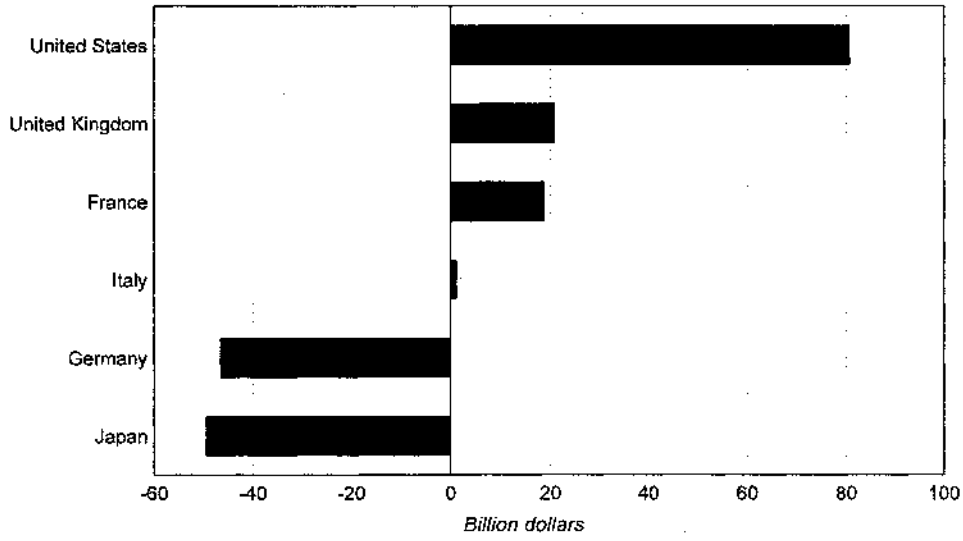


Total = $1,326.8 billion

[1] Total may not equal 100 percent due to rounding.

Source: International Monetary Fund, *International Financial Statistics*, Oct. 2000, various pages.

Figure 1-5
Services trade balances of leading exporting countries, 1998



Source: Compiled by the Commission, based on data found in International Monetary Fund, *International Financial Statistics*, Oct. 2000.

(6.4 percent), Germany (6.3 percent), Italy (4.9 percent), and Japan (4.7 percent). Among those countries for which 1998 trade data were reported, the United States posted the largest services trade surplus ($80.7 billion) while Japan posted the largest services trade deficit ($49.4 billion) (figure 1-5).[9]

[9] Compiled by the Commission, based on data found in International Monetary Fund (IMF), *International Financial Statistics*, Oct. 2000.

CHAPTER 2
U.S. TRADE IN SERVICES

Nature of Trade in Services

Nations trade services through two principal channels. The first channel, cross-border trade, entails sending individuals, information, or money across national borders.[1] The current account of the United States[2] explicitly delineates cross-border exports and imports of services. The second channel, affiliate transactions, entails selling services through affiliates established by multinational companies in foreign markets.[3] The current account does not include such transactions among exports and imports, but does report direct investors' shares of the profits generated by these affiliates as investment income. In 1990, the majority of U.S. services exports were delivered to foreign consumers through cross-border channels (figure 2-1). However, the relative importance of affiliate sales and cross-border trade gradually shifted during the 1990s. By 1998, U.S. affiliate sales of services exceeded U.S. cross-border services exports by a significant margin.[4]

Cross-Border Trade

Cross-border services trade, as reported in the current account, includes both private- and public-sector transactions. The latter principally reflect operations of the U.S. military and embassies abroad. The current account reported a U.S. services trade surplus of $80.6 billion in 1999 (figure 2-2), which offset 23.3 percent of the $345.6 billion merchandise trade deficit (figure 2-3).[5] However, because public-sector transactions are not considered to reflect U.S. service industries' competitiveness

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[1] Employing terminology found in the General Agreement on Trade in Services (GATS), this channel encompasses modes of supply one (cross-border supply), two (consumption abroad), and four (movement of natural persons).

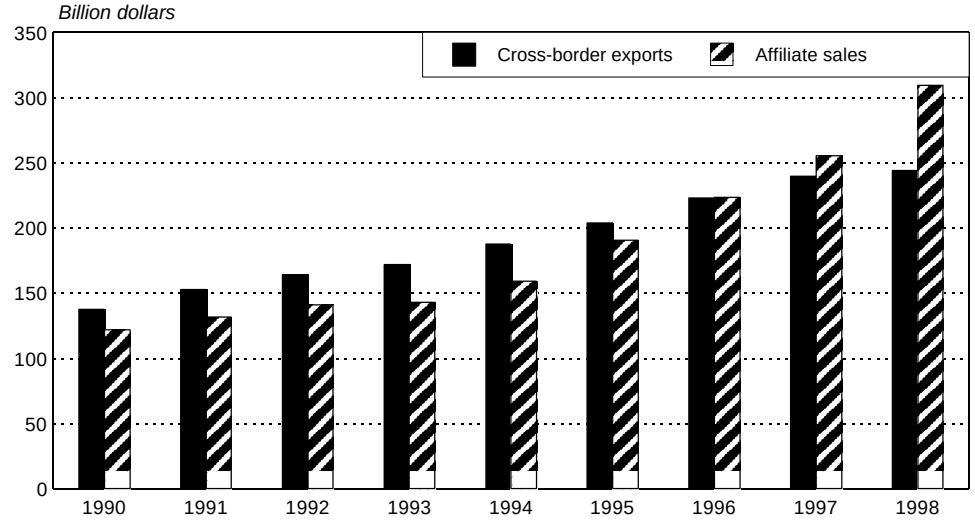
[2] The current account of the U.S. balance of payments reports trade in goods and services, flows of investment income, and unilateral transfers of funds (e.g., U.S. Government grants, pensions, and other funds).

[3] Employing terminology found in the GATS, this channel encompasses mode of supply three (commercial presence).

[4] For a more detailed discussion of the relative importance of cross-border trade and affiliates sales, see United States International Trade Commission (USITC), *Examination of U.S. Inbound and Outbound Direct Investment*, (USITC publication 3383, Jan. 2001), pp. 5-1 - 5-3 and 5-11 - 5-13.

[5] Values are reported before deductions for expenses and taxes, as gross values are most directly comparable across countries, industries, and firms. U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, June 1992, pp. 68-70.

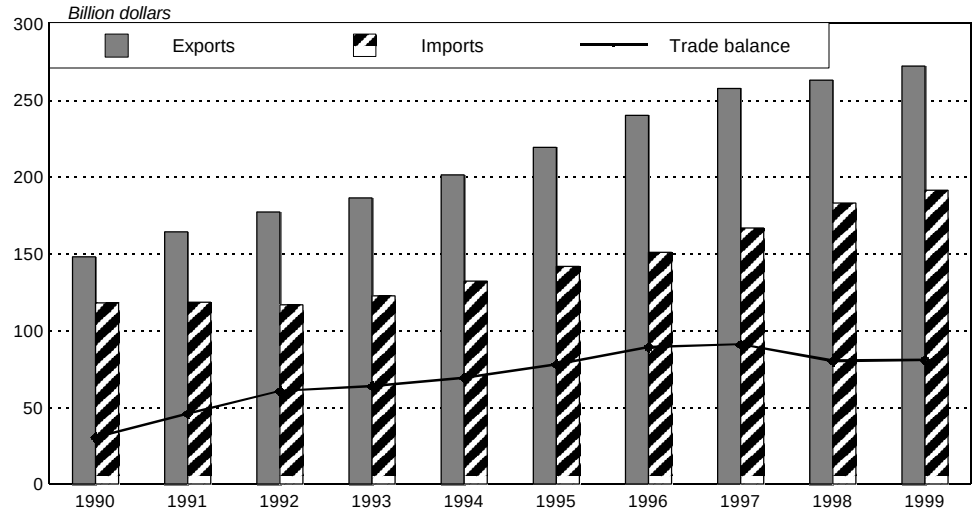
Figure 2-1
U.S. cross-border exports[1] of services and U.S.-owned foreign affiliate sales of services, 1990-98



[1] Trade data exclude public-sector trade.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 119.

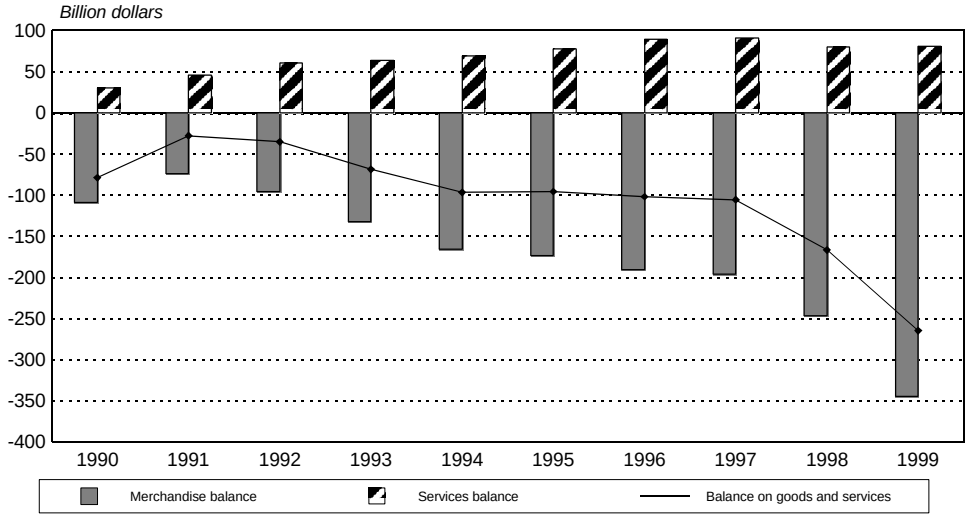
Figure 2-2
U.S. cross-border trade in services: Exports, imports, and trade balance, 1990-99[1]



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

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 2000, pp. 88-89.

Figure 2-3
U.S. merchandise and services trade balances, 1990-99[1]



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

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 2000, pp. 88-89.

and may introduce anomalies resulting from events such as international peace-keeping missions,[6] it is most appropriate to focus solely on private-sector transactions in this report. When public-sector transactions are removed from 1999 data, the value of service exports still exceeds that of imports, but the value of the surplus is reduced to $79.8 billion (table 2-1).[7]

The cross-border services trade surplus, which grew at an average annual rate of 8.8 percent during 1990-98, increased by 4.4 percent in 1999.[8] Cross-border service exports and imports reached $254.7 billion and $174.8 billion, respectively, in 1999. Exports increased by 4.3 percent, slower than the average annual growth rate of 7.5 percent experienced during 1990-98. Private-sector, cross-border service imports also increased by 4.3 percent, slower than the average annual growth rate of 6.9 percent registered during 1990-98.

Cross-Border Trade by Industry

In 1999, travel and tourism services accounted for 29.4 percent of U.S. service exports, the largest share of total service exports accounted for by a single industry (figure 2-4). Other services accounting for large shares of total U.S. exports were those related to intangible intellectual property (reported as royalties and license fees), representing 14.3 percent; business, professional, and technical services

[6] For example, the United States recorded relatively high levels of public sector imports in 1990 and 1991, a likely result of Operation Desert Shield and Operation Desert Storm.

[7] USDOC, BEA, *Survey of Current Business*, Aug. 2000, p. D-7.

[8] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 130-131.

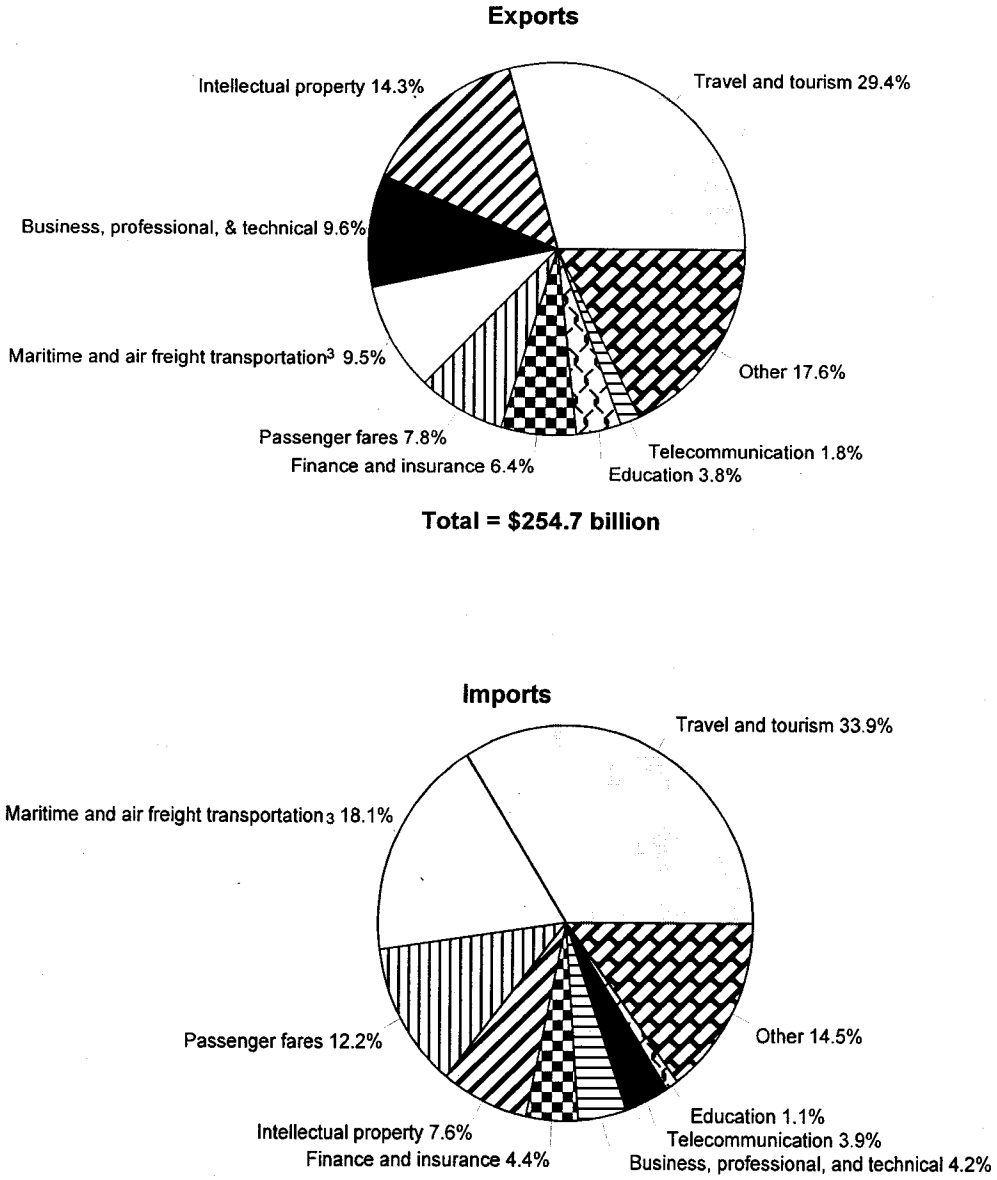
Table 2-1
Derivation of U.S. private-sector, cross-border services trade balance, 1990-99

(*Million dollars*)

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Total exports	147,832	164,261	176,916	185,941	201,031	219,229	240,007	257,235	262,653	271,884
Public-sector exports . . .	(10,600)	(11,825)	(13,228)	(14,354)	(13,674)	(15,461)	(17,374)	(17,791)	(18,554)	(17,219)
Private-sector exports . . .	137,232	152,436	163,688	171,587	187,357	203,768	222,633	239,444	244,099	254,665
Total imports	(117,659)	(118,459)	(116,476)	(122,281)	(131,878)	(141,447)	(150,850)	(166,502)	(182,697)	(191,296)
Public-sector imports . . .	19,450	18,525	16,098	14,341	12,777	12,666	13,748	14,460	15,090	16,471
Private-sector imports . .	(98,209)	(99,934)	(100,378)	(107,940)	(119,101)	(128,781)	(137,102)	(152,042)	(167,607)	(174,825)
Private-sector trade balance	39,023	52,502	63,310	63,647	68,256	74,987	85,531	87,402	76,492	79,840

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, July 2000, pp. 88-89.

Figure 2-4
U.S. cross-border service exports and imports,[1] by industry, 1999[2]



[1] Trade data exclude public-sector trade.
[2] Totals may not equal 100 percent due to rounding.
[3] Reflects freight transport and port services only. Excludes ground transportation services.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, pp. 130-131 and 137.

(hereafter, professional services), 9.6 percent; maritime and air freight transportation services (including port services), 9.5 percent; and passenger fares (airline and maritime), 7.8 percent. With respect to imports, travel and tourism, maritime and air freight transportation, and passenger fares also figured prominently in 1999, accounting for 33.9 percent, 18.1 percent, and 12.2 percent of total service imports, respectively.[9] The table in appendix A delineates, where applicable, the activities reflected in official cross-border services trade data.

In 1999, as in most other years, most U.S. service industries registered cross-border trade surpluses. Prominent exceptions included maritime and air freight transportation, passenger fares, telecommunication, and insurance services. Certain professional service industries, such as the accounting, auditing, and bookkeeping services industry, also experienced trade deficits in 1999. The trade deficits posted by transport, telecommunication, and insurance industries largely reflect accounting conventions and trade estimation methodologies. For instance, the shortfall in maritime and air freight transportation services mirrors the deficit in U.S. merchandise trade in large part, as payments for such transportation services are, by convention, made by importers to carriers of exporting countries. Because U.S. merchandise imports exceed merchandise exports, U.S. importers are likely to pay foreign freight carriers more than U.S. freight carriers receive from foreign importers of U.S. goods. The deficit in telecommunication services reflects the relatively high volume of international calls originating in the United States, and an international accounting convention whereby carriers providing outbound international calls compensate the carriers handling inbound calls. Finally, the surplus of premiums received by U.S. insurers over claims paid to foreign policyholders (i.e., net exports by accounting convention) was less than the surplus of premiums collected by foreign insurers over claims paid to U.S. policyholders (i.e., net imports by accounting convention), resulting in a cross-border deficit.

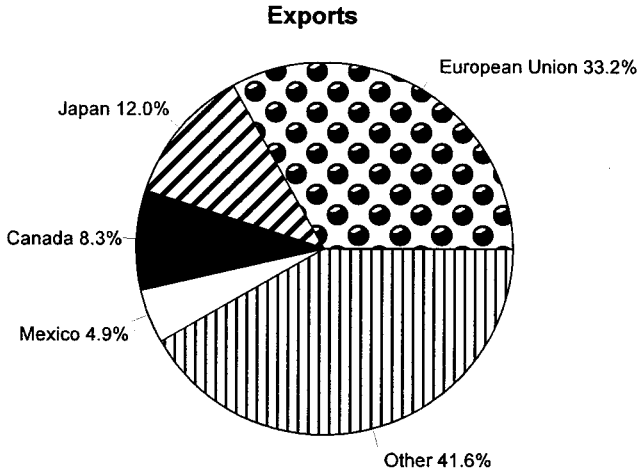
Cross-Border Trade by Trading Partner

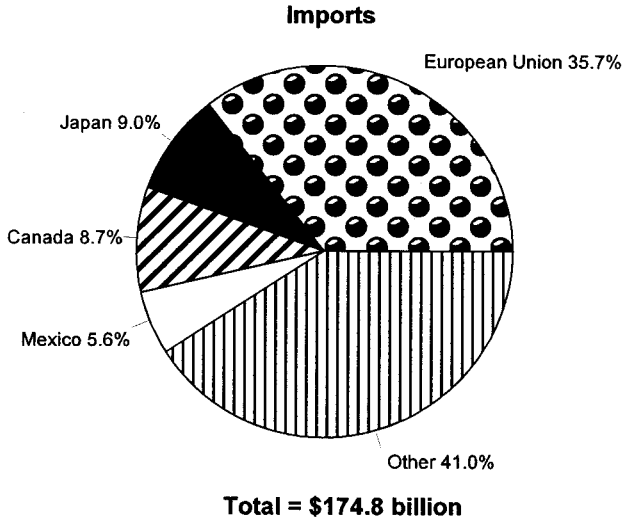
In 1999, the European Union (EU) was the largest market for U.S. cross-border exports of services, accounting for 33.2 percent of such exports (figure 2-5). Japan, Canada, and Mexico were the next largest U.S. export markets, accounting for 12.0 percent, 8.3 percent, and 4.9 percent, respectively. With regard to U.S. imports of services, the EU supplied the dominant share (35.7 percent), followed by Japan (9.0 percent), Canada (8.7 percent), and Mexico (5.6 percent). Jointly, these four major trading partners accounted for almost 60 percent of both U.S. cross-border service exports and imports.

In 1999, the United States registered cross-border trade surpluses in services with all major trading partners. Surpluses measured $22.2 billion with the EU, $14.8 billion with Japan, $5.9 billion with Canada, and $2.8 billion with Mexico.[10] In 1999, surpluses with Canada, Mexico, and the EU increased by $1.9 billion (46.8 percent),

[9] Ibid., p. 131.
[10] Ibid., pp. 132-133.

Figure 2-5
U.S. cross-border service exports and imports,[1] by selected trading partners, 1999





[1] Trade data exclude public-sector trade.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, pp. 132-133.

$925 million (50.4 percent), and $889 million (4.2 percent), respectively. However, the surplus with Japan decreased by $1.6 billion (9.5 percent) in 1999.

Affiliate Transactions

Data on affiliate transactions track majority-owned affiliates' sales to unaffiliated foreigners in the host market.[11] The provision of many services requires that the service provider be proximate to the consumer for practical and regulatory reasons. For example, the delivery of certain tourism services, such as hotel and restaurant services, is not feasible across borders. Accounting firms prefer to provide services to overseas clients through foreign affiliates, in part, because regulations may restrict, or render uneconomic, cross-border transmission of financial data. Similarly, architectural and engineering firms find that the establishment of a commercial presence in a foreign market is often a necessary prerequisite for obtaining contracts. Consequently, many firms establish a commercial presence abroad through foreign direct investment. As noted earlier, direct investors' shares of profits from sales through affiliates are reported as investment income in the balance of payments.[12]

In 1998, sales[13] by foreign-based affiliates of U.S. companies totaled $309.0 billion (figure 2-1). This reflected 21.0-percent growth from the previous year, faster than the 12.5-percent average annual growth posted during 1989-97. Sales in the EU grew by 26.2 percent in 1998, principally as a result of 30.4- and 28.0-percent increases in sales by French-based and British-based affiliates of U.S. firms, respectively.[14] In 1998, purchases from U.S.-based affiliates of foreign firms amounted to $255.1 billion, up by 14.4 percent from the previous year. The change in BEA data collection methodology precludes a comparison to affiliate purchases prior to 1997 (box 2-1).

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

[12] In 1998, U.S. receipts of direct investment income by all U.S. parents, manufacturers and service providers alike, totaled $106.4 billion, while U.S. payments of direct investment income totaled $38.7 billion, yielding a surplus of $67.7 billion. USDOC, BEA, *Survey of Current Business*, July 2000, p. 89.

[13] Sales receipts are reported before deductions for expenses and taxes, as gross sales figures are more directly comparable across countries, industries, and firms. USDOC, BEA, *U.S. Direct Investment Abroad: 1994 Benchmark Survey, Final Results*, May 1998, p. M-17.

[14] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 158.

Box 2-1
U.S. Purchases from Affiliates: Changes in Definition and Classification in 1997

BEA's estimates for 1997 and 1998 on U.S. purchases of services from U.S.-based affiliates of foreig companies are reported under industry classifications found in the 1997 North American Industry Classification System (NAICS).[1] The NAICS is the newly instituted classification system for economic activities developed by the United States, Canada, and Mexico.[2] The estimates on U.S. purchases from affiliates of foreign firms for years prior to 1997 are based on industry classifications derived from the 198 U.S. Standard Industrial Classification (SIC).[3]

Adoption of the NAICS system entailed a redefinition of services classifications. The use of NAICS-based definitions and classifications in redefining service industries created a discontinuity between estimates for U.S. purchases in 1997-98 and such purchases recorded for earlier years. Moreover, comparability is reduced between data on U.S. purchases and data on sales of services to foreign persons by foreign-based affiliates of U S -parent firms, for which data are still collected using SIC-based classifications. Beginnin with data for 1999, scheduled for publication in preliminary form in 2001, estimates on U.S. sales by foreign affiliates will be collected using NAICS-based classifications and definitions.

The redefinition of U.S. purchases of services from affiliates under the NAICS system is believed to raise the estimated value of such purchases. The reason for this increase is that those transactions defined as purchases of services under the NAICS that were previously defined as purchases of goods under the SIC system exceed purchases of goods under the NAICS that were formerly defined as purchases of services under the SIC system. Examples of purchases newly classified as transactions in service industries under the NAICS include purchases from publishers of newspapers, periodicals, books, and records, and purchases from restaurants. Alternatively, NAICS-based definitions of purchases of services exclude some purchases that SIC-based definitions include, such as purchases from dental laboratories and from firms that reproduce software and video.[4]

The conversion to NAICS-based classifications is likely to provide certain advantages over the SIC-based classifications, such as greater industry detail, better reflection of new and emerging technologies, and a more logical distinction between goods and services.[5] For example, restaurants are included in retail trade in the SIC; accordingly, sales by restaurants are treated as sales of goods. Under the NAICS classification, restaurants are included in the service industry "accommodation and food services," and their sales are classified as sales of services. The treatment under NAICS better reflects meal preparation, table service, and the provision of facilities for on-site meal consumption, which differentiate restaurants from grocery stores and other establishments providing unprepared food to retail customers, whose sales are treated as sales of goods.

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[1] Office of Management and Budget, *North American Industry Classification System: United States, 1997* (Washington, DC, 1998)

[2] Ibid., p. 11.

[3] Office of Management and Budget, *Standard Industrial Classification Manual, 1987* (Washington, DC: U.S. Government Printing Office, 1987).

[4] For additional information on differences in classifications between NAICS and SIC systems, see *NAICS: United States, 1997*, and Bureau of the Census, *1997 Economic Census, Core Business Statistics Series, Advance Report* (Washington, DC, Mar. 1999), which may be found at Internet address http://www.census.gov/epcd/www/econ97.html.

[5] USDOC, BEA, *Survey of Current Business*, Oct. 1999, p. 61.

Affiliate Transactions by Industry

In 1998, sales by U.S.-owned insurance affiliates in foreign markets accounted for 15.0 percent of total services sales by foreign affiliates of U.S. firms, representing the largest share identified for any single industry (figure 2-6).[15] U.S.-owned affiliates in the computer and data processing industry accounted for 14.8 percent of total services sales; those in the public utilities industry accounted for 8.2 percent; and those in the communication and wholesale industries each accounted for 4.8 percent.[16] A number of other industries--namely, architectural, engineering, and surveying services; accounting, research, management, and related services; and motion pictures (including tapes and films only)--each accounted for between 2 and 4 percent of foreign affiliates' sales of services in 1998.

Services purchased from U.S.-based insurance affiliates of foreign parents accounted for 24.7 percent of total U.S. purchases of services from foreign-owned affiliates in 1998, reflecting the large presence of foreign insurance companies in the U.S. market (figure 2-7).[17] Purchases from transportation affiliates, banking and securities affiliates, and broadcasting and telecommunications affiliates of foreign firms respectively accounted for 6.2 percent, 5.9 percent, and 5.6 percent of total purchases. Purchases from wholesale trade, travel and tourism, and motion picture and sound recording affiliates of foreign parents each accounted for between 3 percent and 5 percent of total U.S. affiliate purchases of services. The table in appendix B delineates, where applicable, the activities reflected in official data regarding affiliate transactions.

Affiliate Transactions by Trading Partner

The majority of U.S. affiliate sales and purchases of services are transacted with EU Member States, in particular the United Kingdom. In 1998, U.S.-owned affiliates located in the EU accounted for 57.4 percent of sales, while those in Canada and Japan accounted for 8.6 percent and 7.4 percent, respectively (figure 2-8). Sales by foreign affiliates of U.S. firms based in the EU rose by 26.2 percent in 1998, led by 30.4-percent and 28.0-percent increases in France and the United Kingdom, respectively. U.S. affiliate sales in France increased significantly in the accounting and management consulting industry (175.8 percent) and the banking and securities industry (44.4 percent). In the United Kingdom, affiliate sales in the telecommunication services; engineering, architectural, and surveying services; and computer and data processing services industries rose by 42.9 percent, 36.6 percent,

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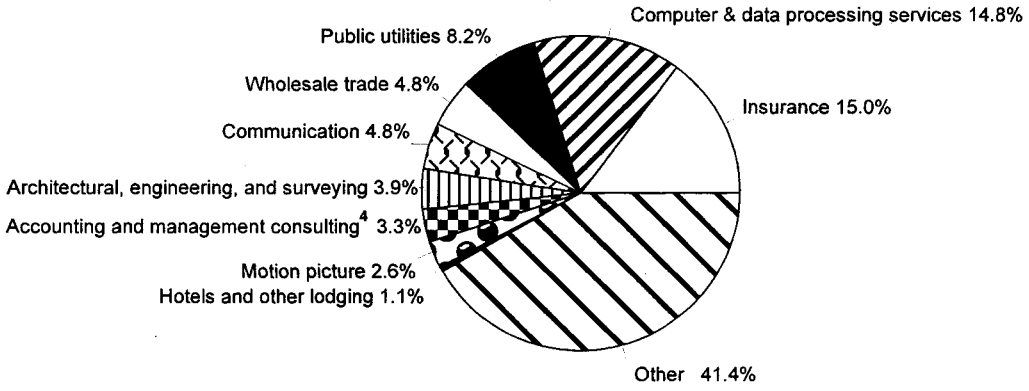
[15] Ibid., p. 159.

[16] BEA suppressed data reflecting total sales by U.S.-owned affiliates in the machinery (manufacturing), retail trade, transportation, and finance industries so as not to disclose information about the operations of individual firms. However, data that BEA elected to publish on sales by such affiliates in select countries allow computation of the shares reported above.

[17] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 161.

Figure 2-6
Affiliate service transactions: U.S. sales,[1] by industry,[2] 1998[3]

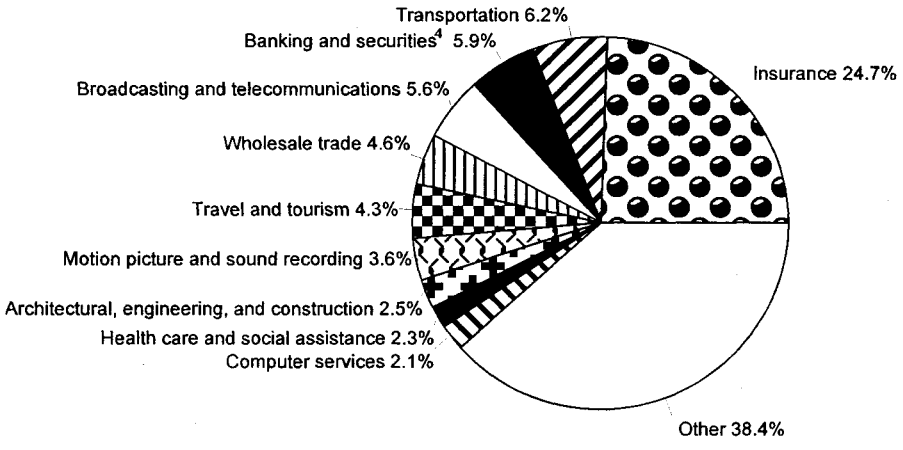


Total sales = $309.0 billion

[1] Sales of services by majority-owned foreign affiliates of U.S.-parent firms.
[2] The Bureau of Economic Analysis (BEA) suppressed global sales data for U.S-owned affiliates in the transportation and finance industries so as not to disclose information about the operations of individual firms.
[3] Total may not equal 100 percent due to rounding.
[4] Includes accounting, research, management, and related services.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

Figure 2-7
Affiliate service transactions: U.S. purchases,[1] by industry,[2] 1998[3]

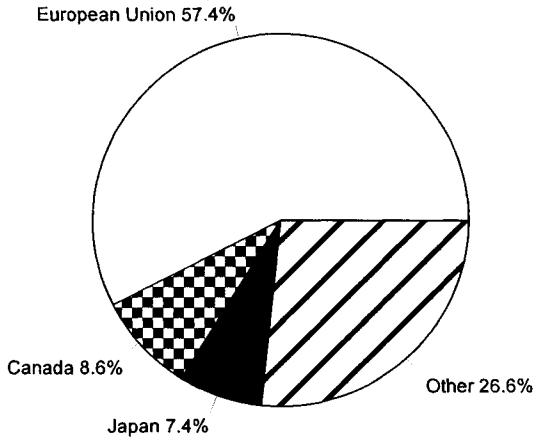


Total purchases = $255.1 billion

[1] Purchases of services from majority-owned U.S. affiliates of foreign-parent firms.
[2] See appendix B for a description of service industries.
[3] Total may not equal 100 percent due to rounding.
[4] Does not include depository institutions.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 161.

Figure 2-8
Affiliate service transactions: U.S. sales,[1] by selected trading partners, 1998



Total sales = $309.0 billion

[1] Sales of services by majority-owned foreign affiliates of U.S.-parent firms.

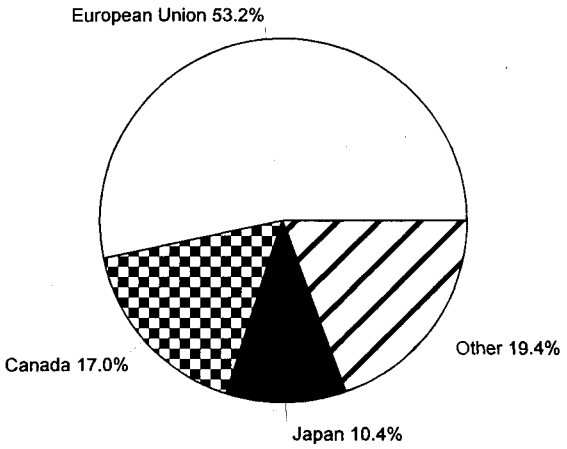
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

and 27.1 percent, respectively, in 1998.[18] Sales of services by U.S.-owned affiliates in Canada increased by 10.7 percent in 1998, while such sales rose by 5.3 percent in Japan.

U.S.-based affiliates owned by EU-parent companies accounted for 53.2 percent of total U.S. purchases from foreign-owned affiliates in 1998 (figure 2-9). Purchases from British-owned affiliates alone accounted for 22.9 percent of U.S. purchases. Affiliates of Canadian and Japanese parent firms, respectively, accounted for 17.0 percent and 10.4 percent of U.S. purchases. Insurance affiliates accounted for the largest share of U.S. purchases from European- and Canadian-owned affiliates in 1998. By contrast, affiliates in the wholesale trade and travel and tourism industries accounted for the largest portions of U.S. purchases from Japanese-owned affiliates.

[18] During 1998, sales of health services by U.S.-owned affiliates in the United Kingdom rose by 136.6 percent. However, such sales accounted for only 0.1 percent of total U.S. affiliate sales to the United Kingdom in 1998.

Figure 2-9
Affiliate service transactions: U.S. purchases,[1] by selected trading partners, 1998



Total purchases = $255.1 billion

[1] Purchases of services from majority-owned U.S. affiliates of foreign-parent firms.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 158.

CHAPTER 3
ACCOUNTING AND MANAGEMENT CONSULTING SERVICES

Introduction

Trade data on accounting and management consulting services include data for closely related services such as auditing, bookkeeping, and public relations, as well as for accounting and management consulting.[1] International trade in accounting and management consulting services takes place on both a cross-border and an affiliate basis. Affiliate transactions in accounting and management consulting services far exceed cross-border transactions due to regulations that proscribe transmitting sensitive financial data across borders,[2] and to the purported advantage of establishing permanent overseas operations in order to better evaluate local market conditions and to provide services directly to clients.

Recent Trends

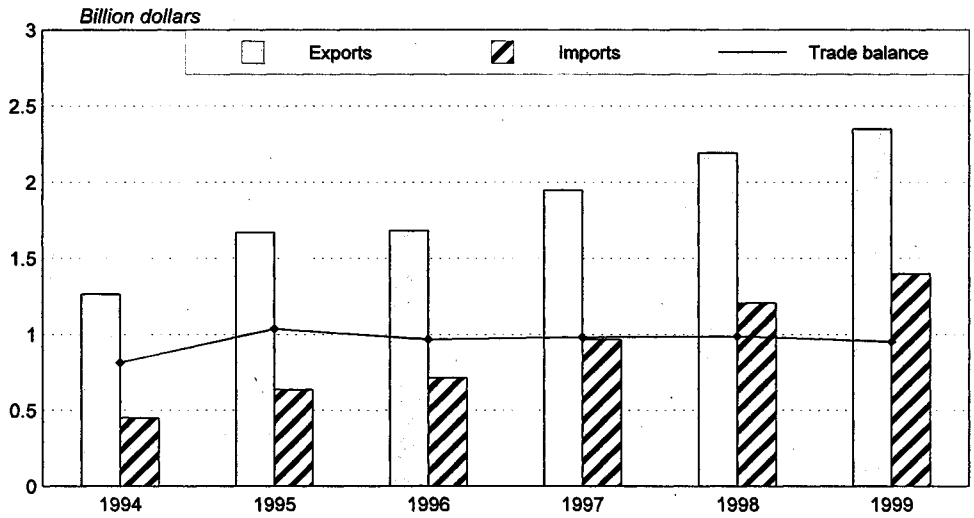
Cross-Border Trade, 1994-99

U.S. cross-border exports of accounting and management consulting services totaled $2.4 billion in 1999, while imports amounted to $1.4 billion (figure 3-1). Exports grew by 7.1 percent in 1999, slower than the 14.7-percent average annual rate of increase during 1994-98, as demand for such services eased in every region except Europe, where demand remained high due to substantial corporate restructuring and

[1] For this analysis, cross-border trade data on accounting and management consulting services are the sum of two categories of data reported by the Bureau of Economic Analysis (BEA), namely, data on accounting, auditing, and bookkeeping services, and data on management, consulting, and public relations services. Affiliate sales data reported by BEA comprise accounting, research, management, and related services, while data on U.S. purchases from foreign-owned affiliates comprise accounting, tax preparation, bookkeeping, and payroll services; and management, scientific, and technical consulting. (For more information, see footnote 11, this chapter).

[2] Usually, there are fewer legal restrictions on servicing clients through a local affiliate than on providing such services across borders.

Figure 3-1
Accounting and management consulting services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 130-131.

frequent changes in corporate tax laws.[3] Imports increased by 15.9 percent in 1999, slower than the 27.9-percent growth recorded during 1994-98. The slower growth rate in 1999 is primarily attributable to a decrease in consulting engagements concerning Year 2000 readiness and computer integration.[4] In 1999, the trade surplus in accounting and management consulting services decreased by 3.6 percent, to $952 million, in contrast to the 4.9-percent average annual rate of increase recorded during 1994-98.

Growth in revenues for the largest U.S. accounting and management consulting firms slowed in 1999. The 50 largest management consulting firms registered nearly 20-percent growth in 1999, down from 27 percent in 1998.[5] At the 100 largest U.S. accounting firms, following years of much higher revenue growth rates in the management consulting segment as compared with the accounting and related services segment,[6] the revenue growth rate for consulting services (18 percent) slowed in the fiscal year that ended in mid-2000 to slightly above the growth rates for accounting and related services (14 percent -16 percent).[7] The five largest

[3] "PWC Finds Tougher Tax Competition in Europe," *Public Accounting Report*, Sept. 15, 1999.

[4] "Top 100 Revenue Growth Dips to 17.8%," *Public Accounting Report*, Aug. 31, 2000.

[5] "CN50 Consulting Growth Was Down But Not Out in 1999," *Consultants News*, June 2000.

[6] As mentioned above, related services include auditing, bookkeeping, and tax services.

[7] "Top 100 Revenue Growth Dips to 17.8%," *Public Accounting Report*, Aug. 31, 2000.

and related services (14 percent -16 percent).[7] The five largest accounting firms (the "Big Five"),[8] which accounted for 88 percent of the top 100 firms' revenues in 1999, also collectively recorded slower growth in consulting revenues.[9]

In 1999, the United Kingdom and Canada appeared to be the largest U.S. export markets for accounting and management consulting services, accounting for 9.4 and 8.9 percent of exports, respectively.[10] Other major U.S. export markets for such services were Japan (8.4 percent), Germany (7.4 percent), and France (4.9 percent). The leading sources of U.S. imports were the United Kingdom (22.6 percent) and Canada (20.0 percent), with other markets accounting for no more than 6 percent each. The United States recorded deficits of $17 million and $3 million with the United Kingdom and Canada, respectively, while generating surpluses with Japan ($147 million), Germany ($96 million), and France ($55 million) (figure 3-2). In all of these markets, large multinational manufacturers tend to engage a single accounting and management consulting firm, contributing significantly to cross-border trade.

Affiliate Transactions, 1993-98

In 1998, U.S.-owned foreign affiliates in the accounting and management consulting services industry generated sales of $10.3 billion (figure 3-3). Such sales rose by 17.1 percent in 1998, up from the 14.2-percent average annual growth rate recorded during 1993-97. Sales to foreign consumers in Europe rose most dramatically, as consulting activity intensified with the proliferation of merger and acquisition activity. In 1998, the United Kingdom accounted for 22.3 percent of total sales by U.S.-owned affiliates in the accounting and management consulting industry, followed by Germany (11.8 percent), France (11.4 percent), Canada (7.9 percent), and Switzerland (7.3 percent) (figure 3-4).

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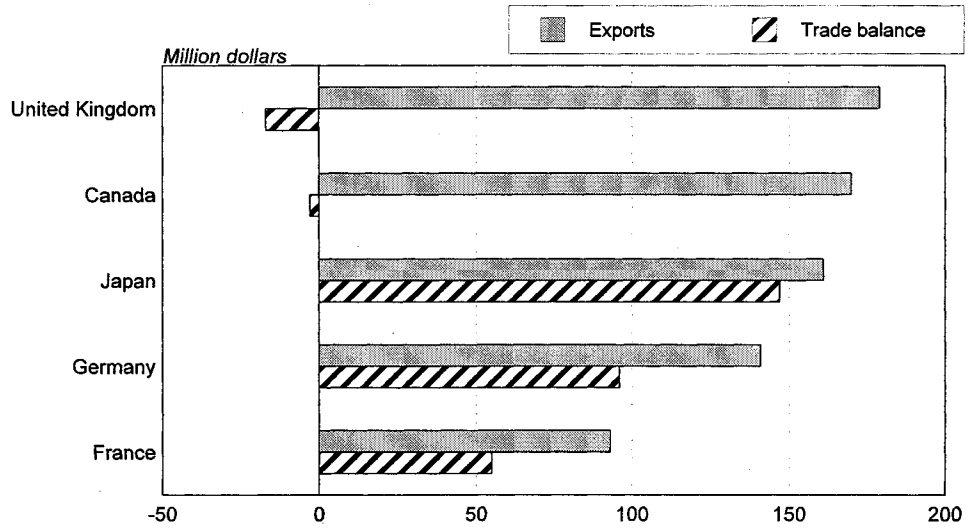
[7] "Top 100 Revenue Growth Dips to 17.8%," *Public Accounting Report*, Aug. 31, 2000.

[8] The Big Five firms are Anderson (formerly known as Arthur Andersen), Deloitte & Touche, Ernst & Young, KPMG, and PricewaterhouseCoopers. Beginning in 2001, revenues reported for Andersen will no longer include those for Accenture, which was formerly known as Andersen Consulting and which was granted its independence through international arbitration and ceased its association with Arthur Andersen in August 2000.

[9] On average, the Big Five consulting practices grew by 18 percent in the fiscal year that ended in mid-2000, compared with 30 percent and 25 percent during the comparable periods in 1999 and 1998, respectively. Average consulting growth in fiscal 2000 was 11 percent for the 100 leading public accounting firms ranked below the Big Five. "Top 100 Revenue Growth Dips to 17.8%," *Public Accounting Report*, Aug. 31, 2000.

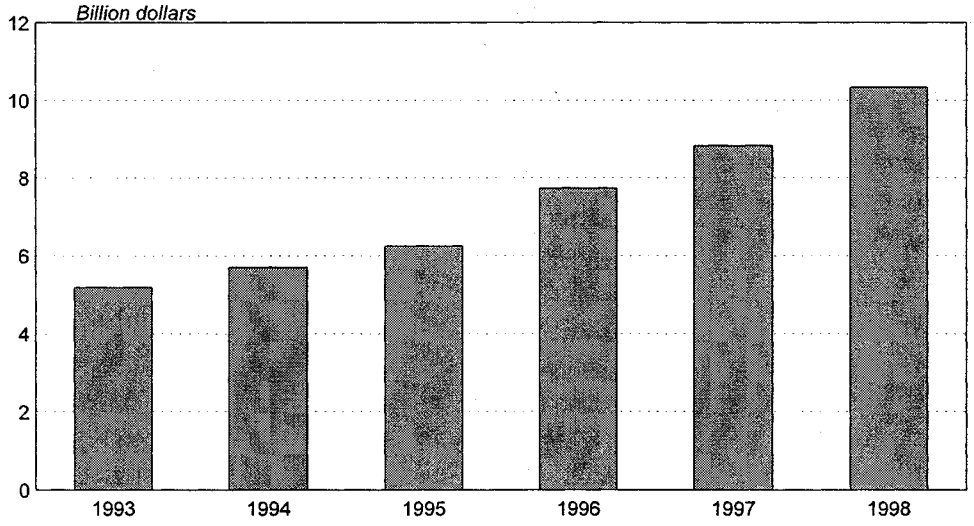
[10] Although cross-border export data by country are not available for accounting services, the data reported for management consulting services are believed to identify principal export markets for the combined accounting and management consulting services industry.

Figure 3-2
Accounting and management consulting services: U.S. cross-border exports and trade balance, by major trading partners, 1999



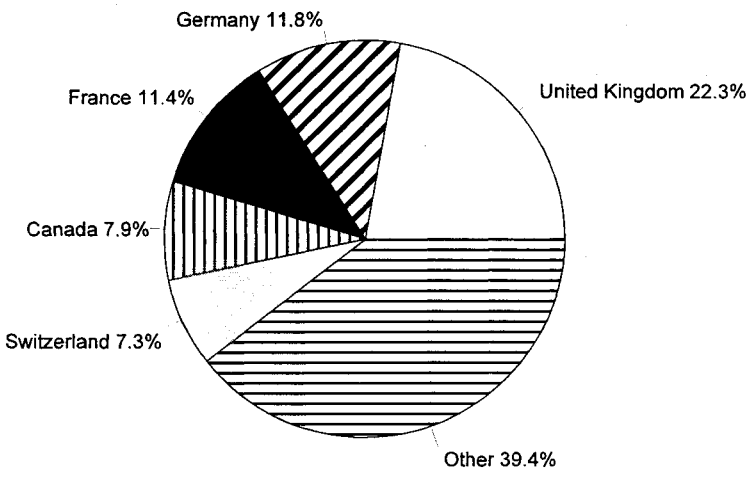
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 157.

Figure 3-3
Accounting and management consulting affiliates: Sales of services by majority-owned affiliates of U.S. firms, 1993-98



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 159; Oct. 1999, p. 93; Oct. 1998, p. 115; Oct. 1997, p. 137; and Nov. 1996, p. 111.

Figure 3-4
Accounting and management consulting affiliates: Sales by majority-owned affiliates of U.S. firms, by principal markets, 1998[1]



[1] Total may not equal 100 percent due to rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

reduction compared to the previous year.[11] U.S.-based affiliates owned by French parent firms supplied the largest share (30.8 percent), followed by affiliates of British firms (14.4 percent).[12] Most notably, U.S. affiliates of French firm Constantin recorded net revenue gains of more than 200 percent during 1996-98, reportedly the fastest growth among the leading 100 public accounting firms in the United States. Constantin predominantly provides management consulting services to financial institutions.[13]

Summary and Outlook

Numerous recent U.S. mergers and acquisitions in foreign markets are likely to result in increased sales through affiliates. Indicative of such industry consolidation, in 1999, U.S. management consulting firm A.T. Kearney agreed to acquire Telesis, a French-based strategy consulting and corporate development firm that assists

[11] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

[12] Certain country-specific data on affiliates were suppressed by BEA in order to avoid disclosure of individual company data.

[13] "Constantin Makes Niche Practice Work," *Public Accounting Report*, Sept. 30, 1999.

corporations with mergers and acquisitions.[14] Other examples include PricewaterhouseCoopers' mergers with Galgano & Merli (Italy) and SV&GM (France).[15]

During1999-2001, most of the Big Five firms acted or conceived plans to separate certain consulting activities from their accounting services operations. For example, Ernst & Young sold its consulting practice to Cap Gemini (France) in May 2000 for more than $12 billion, reportedly the largest transaction of its kind in the global consulting industry.[16] PricewaterhouseCoopers reportedly plans to restructure and is considering a divestiture of its management consulting activities, among other businesses.[17] KPMG incorporated its consulting practice, sold a portion of the new entity to Cisco Systems, a U.S. computer-networking firm, and divested most of its remaining financial interest through an initial public offering.[18] Deloitte currently plans to retain its consulting services, although its accounting and consulting operations have been effectively separated within the firm.[19]

Many large U.S. firms have shed or considered shedding all or a portion of their consulting businesses, due to the belief that more frequent and intense scrutiny by U.S. regulatory agencies, principally the U.S. Securities and Exchange Commission (SEC), is likely.[20] Regulators' concern is centered on the potential for conflicts of interest that may result if accounting firms perform audits and consulting assignments for the same client. In November 2000, following public comments and discussions with representatives of the Big Five firms and other industry leaders, the SEC approved modernized rules concerning auditor independence[21] that were generally acceptable to the large firms. Nevertheless, in view of the disclosure requirements under the new rules, some industry executives believe that a publicly traded company that engages a

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[14] "A.T. Kearney Acquires French Strategy Consulting Firm Telesis," A.T. Kearney, press release, Nov. 15, 1999, found at Internet address *http://www.atkearney.com/*, retrieved Nov. 2, 2000.

[15] "Making Global Inroads," *International Accounting Bulletin*, June 30, 1999.

[16] Cap Gemini Group, news release, May 24, 2000, found at Internet address *http://www.cgey.com/*, retrieved Nov. 15, 2000.

[17] Previously announced plans by Hewlett-Packard to acquire PricewaterhouseCoopers' management consulting business were terminated in November 2000. "PricewaterhouseCoopers Says Talks With HP Terminated," news release, Nov. 13, 2000, found at Internet address *http://www.pwcglobal.com/*, retrieved Nov. 15, 2000.

[18] "KPMG Offering Surges 30.3 Percent on NASDAQ Debut," *Financial Times*, Feb. 8, 2001, found at Internet address *http://www.news.ft.com/*, retrieved Feb 9, 2001.

[19] "Deloitte to Retain Consulting Operation," *Financial Times*, Sept. 19, 2000.

[20] *Public Accounting Report*, various issues.

[21] Among other things, the newly approved rules list nonaudit services at large accounting firms that either cannot be cross-sold to audit clients of accounting firms or, if sold, are subject to restrictions. For example, information technology consulting provided by Big Five accounting firms that also perform statutory audits for a publicly traded corporate client will have to be reviewed for possible conflicts of interest by the audit committee of the corporate client's board of directors. Moreover, information on fees for such consulting and audits performed by the same accounting firm will have to be disclosed to the public. U.S. Securities and Exchange Commission, "Commission Approves Auditor Independence and Market Structure Rules," press release, Nov. 15, 2000, found at Internet address *http://edgar.sec.gov/news/audmarkt.htm*, retrieved Nov. 15, 2000.

Big Five firm to perform its public audit could decide to end consulting relationships with the same firm, or that a Big Five firm may be reluctant to pursue certain consulting arrangements.[22] As a result, smaller accounting firms may be in a position to gain discontinued consulting clients from the Big Five firms, or such clients may shift among the Big Five firms.

Recent slower growth in consulting revenues also has motivated some accounting firms to reevaluate the potential for certain consulting services, or to divest certain consulting services in order to remit to partners a portion of the substantial profits earned during years of faster growth. This relatively slow growth is considered temporary by most industry observers, as accounting and management consulting firms adjust to implement various international accounting standards and provide evolving services, such as assisting multinational clients' entrance into electronic commerce. Accordingly, most major firms are expected to be more likely to change the type of consulting they perform than to exit consulting services. For example, business process outsourcing (BPO), the procurement of certain administrative and operating functions formerly conducted in-house, is a quickly growing source of revenue for PricewaterhouseCoopers. Rapidly growing BPO markets include Australia, China, France, Germany, Italy, Taiwan, and the United Kingdom.[23]

The major accounting firms and the American Institute of Certified Public Accountants (AICPA) continue to encourage acceptance of multi-disciplinary practices[24] within U.S.-based accounting firms, as already occurs in many key foreign markets.[25] Among other reasons, accountants worldwide are interested in developing multi-disciplinary practices that include attorneys in response to the proliferation of electronic business and technologies, which transforms business structures and requires complex strategic decision-making and assistance in implementation. The Big Five firms are increasingly purchasing law practices in those countries that permit legal and accounting professionals to share fees or commissions. For example, in 1999, PricewaterhouseCoopers acquired the bulk of Australia's largest legal practice, reportedly the largest foreign law practice purchased by a Big Five firm.[26] In the United States, however, the American Bar Association's policymaking body recently rejected a proposal that would have allowed U.S. lawyers to share fees with, or give referral commissions to, non-attorneys, including certified public accountants.

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[22] *Public Accounting Report*, various issues.

[23] "Profession Watches for Outsourcing Boom," *Public Accounting Report*, Sept. 30, 1999.

[24] Multi-disciplinary practices (MDPs) are professional services firms operated by accountants or others who are not lawyers that provide or seek to provide legal services to the public.

[25] For more information on multi-disciplinary practices, see ch. 15.

[26] "PwC's Acquisition of Australian Law Firm Touted as Biggest Ever," *Public Accounting Report*, Sept. 30, 1999.

CHAPTER 4
AIR TRANSPORTATION SERVICES

Introduction

For the purpose of this discussion, air transportation services include passenger transportation, freight transportation, and port services. Exports of passenger transportation services arise when U.S. carriers transport foreign residents to and from the United States or between two foreign points of travel. Conversely, imports occur when foreign carriers transport U.S. residents between the United States and foreign countries.[1] Trade in freight transportation and port services predominantly stems from merchandise trade. For instance, exports of freight transportation services take place when U.S. airlines transport U.S. merchandise exports to foreign destinations, or when U.S. carriers convey cargo between two foreign ports.[2] Imports of freight transportation services, on the other hand, occur when foreign airlines transport foreign merchandise imports to the United States.[3] Finally, exports of port services encompass the value of goods and services procured by foreign airlines at U.S. airports, whereas imports of port services comprise the value of goods and services procured by U.S. carriers at airports in foreign countries.

Due to commonplace prohibitions on cabotage[4] in foreign markets, trade in airline transportation services is typically a cross-border transaction. For this reason, the following discussion focuses on cross-border trade in air transportation services.

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[1] Payments by U.S. residents to foreign carriers for travel between two foreign points are not incorporated in passenger fare data. Rather, such payments are recorded in the travel and tourism data prepared by the Bureau of Economic Analysis (BEA). BEA official, telephone interview by USITC staff, Nov. 16, 1998.

[2] According to balance-of-payments accounting convention, the importer is said to assume ownership of the goods when they cross the border of the exporting country and, as a consequence, bears all subsequent transportation costs. Therefore, receipts of U.S. carriers for the transport of U.S. imports are excluded from U.S. transportation exports because, by this convention, they represent transactions between U.S. parties. Similarly, foreign payments to foreign carriers for transporting U.S. exports are not included in U.S. transportation imports because they represent transactions between foreign residents and foreign providers of transportation services. U.S. Department of Commerce (USDOC), BEA, *Survey of Current Business*, Oct. 1998, p. 78.

[3] Transactions involving a U.S. resident contracting with a foreign carrier to transport goods between two foreign points are not included in calculations of U.S. payments for freight imports. BEA official, telephone interview by USITC staff, Nov. 16, 1998.

[4] Cabotage refers to the transport of passengers or cargo between two cities within the same country.

Recent Trends in Cross-Border Trade, 1994-99

During 1999, U.S. exports of air transportation services increased by 0.3 percent to $32.2 billion, significantly slower than the average annual growth rate of 5.1 percent registered during 1994-98 (figure 4-1). By contrast, U.S. imports rose by 8.8 percent to $35.4 billion in 1999, whereas such imports grew at an average annual rate of 8.4 percent during 1994-98. As a result, the U.S. trade deficit in air transportation services increased markedly from $421 million in 1998 to $3.2 billion in 1999. The increase in the U.S. trade deficit in air transportation services is largely a result of a rise in U.S. imports of air freight and port services, without a commensurate increase in U.S. exports. More specifically, while U.S. imports of air freight services increased by 14.2 percent during 1999,[5] U.S. exports of these services rose by only 6.0 percent. Similarly, U.S. imports of port services increased by 10.3 percent, while U.S. exports of such services posted a 1.9-percent increase.[6] The significant rise in U.S. imports of air freight and port services is likely due to continued robust growth in the U.S. economy, and a consequent increase in U.S. demand for imported goods.[7]

In 1999, the five leading export markets for U.S. air transportation services were Japan, the United Kingdom, Canada, France, and Germany (figure 4-2). Japan accounted for 15.7 percent of total U.S. exports, while the United Kingdom accounted for 12.3 percent; Canada, 5.9 percent; France, 5.5 percent; and Germany, 5.3 percent. The U.S. trade surplus in air transportation services with Japan decreased by 14.1 percent in 1999 to $1.7 billion. This decrease is largely due to a continued decline in the number of Japanese passengers traveling to the United States on U.S. airlines. The U.S. trade deficit with the United Kingdom decreased by 9.8 percent during 1999, principally because of faster growth in U.S. passenger fare exports as compared to U.S. imports. The U.S. trade surplus with Canada also decreased by 14.0 percent, and in this case the decline can be attributed to more rapid growth in U.S. imports of passenger fares and port services relative to U.S. exports of such services. In France, the U.S. trade surplus in air transportation services fell by 29.7 percent, and in Germany, the U.S. deficit increased by 51.0 percent. In both countries, the U.S. position was affected by a decrease in U.S. exports of port services, as well as faster growth in U.S. passenger fare imports as compared to U.S. exports.[8]

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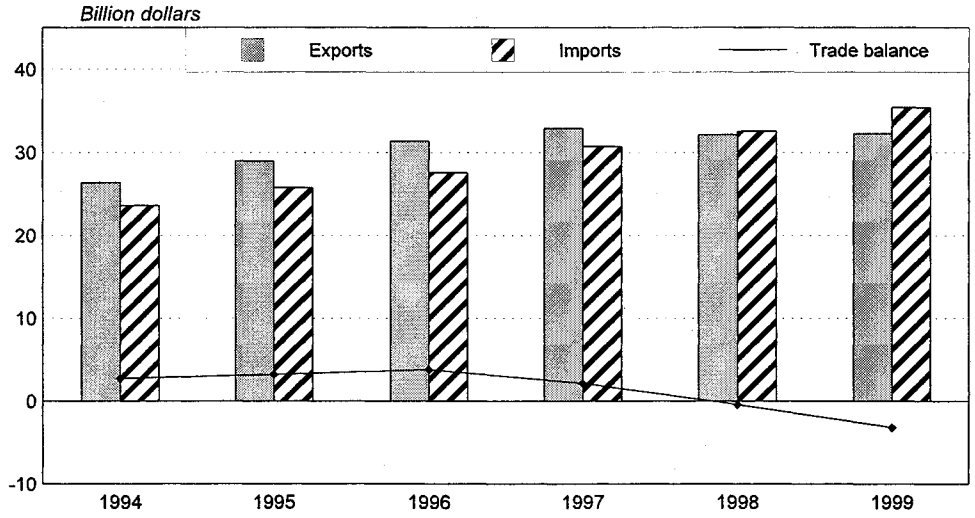
[5] In 1999, U.S. air freight imports from the United Kingdom and Japan rose most notably, increasing by 23.7 percent and 15.5 percent, respectively. USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 136-137.

[6] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 134-137; Oct. 1999, p. 68; and Oct. 1998, p. 90.

[7] In 1999, there was a sharp increase in the volume of U.S. goods imports from some Asian countries that had begun to recover from the regional economic crisis. U.S. goods imports from certain European countries also increased notably during 1999. At the same time, the volume of U.S. goods exports to Europe exhibited little growth due to the depreciation in the value of the euro. Industry representative, telephone interview by USITC staff, Dec. 18, 2000; and data compiled by the Commission, found at Internet address *http://dataweb.usitc.gov/*.

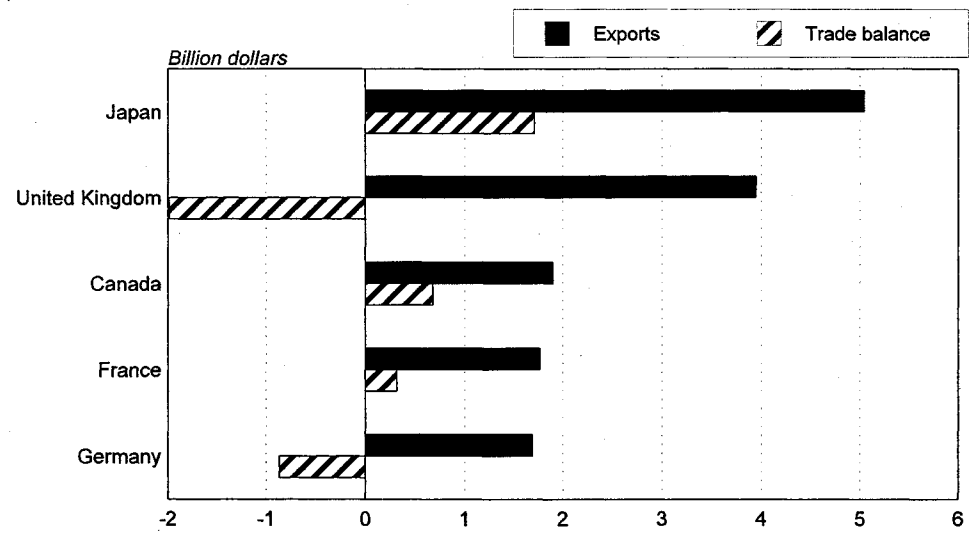
[8] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 136-137.

Figure 4-1
Air transportation services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 134-137; Oct. 1999, pp. 68; and Oct. 1998, p. 90.

Figure 4-2
Air transportation services: U.S. cross-border exports and trade balance, by major trading partners, 1999



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 137.

Summary and Outlook

The United States continues to conclude open skies[9] and other bilateral aviation agreements, thereby increasing opportunities for U.S. air transportation providers operating in foreign markets. By December 2000, the United States had signed a total of 52 open skies agreements with foreign countries, most recently with Benin, Burkina Faso, the Gambia, Ghana, Namibia, Nigeria, Senegal, the Slovak Republic, and Turkey.[10] In March 2000, the United States also signed aviation agreements with Colombia and Vietnam that permit U.S. carriers to enter into cooperative marketing arrangements with these countries' airlines or to expand the range of services that they provide in these markets.[11] Finally, in November 2000, the United States entered into its first multilateral open skies agreement with four trading partners in the Asia-Pacific Economic Cooperation (APEC) group, including Brunei, Chile, New Zealand, and Singapore. The agreement permits signatories' airlines to provide air service between each other's countries with relatively few restrictions.[12]

Recently, U.S. and foreign airlines have contemplated mergers as a way to achieve cost efficiencies and increase market share. For example, in May 2000, United Airlines announced its intention to acquire US Airways. The newly-combined carrier would operate a fleet of 1,000 aircraft and would control nearly 30 percent of the U.S. air passenger market.[13] Similarly, in January 2001, American Airlines revealed its plans to purchase Trans World Airlines (TWA), which would reportedly create an

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[9] Open skies agreements permit the airlines of signatory countries to fly to, from, and beyond each other's territory with relatively few restrictions.

[10] U.S. Department of Transportation, Office of the Secretary, "New/Expanded Agreements in the Current Administration," found at Internet address *http://ostpxweb.dot.gov/aviation/intav/agmts.htm*, retrieved Oct. 5, 2000; and U.S. Department of Transportation, Office of the Secretary, Office of Public Affairs, "U.S. Secretary of Transportation Rodney E. Slater Announces Open Skies Agreement With Senegal," found at Internet address *http://ostpxweb.dot.gov/aviation/intav/agmts.htm*, retrieved Dec. 16, 2000.

[11] U.S. Department of Transportation, Office of the Secretary, Office of Public Affairs, "United States Announces New Opportunities For U.S.-Vietnam Air Service," Mar. 3, 2000, found at Internet address *http://www.dot.gov/*, retrieved Mar. 3, 2000; and "DOT Tentatively Awards New Colombia Services to Delta," July 17, 2000, found at Internet address *http://www.dot.gov/*, retrieved Oct. 10, 2000.

[12] U.S. Department of Transportation, Office of the Secretary, "United States, Asia-Pacific Aviation Partners Enter Multilateral Open Skies Agreement," found at Internet address *http://www.dot.gov/affairs/2000/dot22200.htm*, retrieved Jan. 22, 2001.

[13] As of March 2001, the merger between United Airlines and US Airways was still awaiting antitrust approval from the U.S. Department of Justice. "United, US Airways Merger to Be Biggest Monopoly Test Yet," *Aviation Week Newsletters*, found at Internet address *http://www.awgnews.com/*, retrieved May 24, 2000; "Oberstar Warns Slater of Further Consolidation, Asks DOT To Review Merger," *Aviation Daily*, June 1, 2000, p. 1; and James Rowley and John Hughes, "US Airways' Wolf Calls Merger Vital," *The Washington Post*, Mar. 22, 2001, p. E6, found at Internet address *http://www.washingtonpost.com/*, retrieved Mar. 22, 2001.

airline as large as the union between United Airlines and US Airways.[14] Industry analysts predict that, should mergers among U.S. domestic carriers receive regulatory approval, the resulting decline in the number of major passenger airlines would give the United States incentive to introduce greater competition into the U.S. market by revising its current restrictions on cabotage and foreign ownership.[15] In September 2000, British Airways and Dutch air carrier KLM abandoned a proposal to merge their airlines,[16] due to economic and regulatory issues. Nevertheless, analysts indicate that other European airlines will likely continue to consider mergers in the future.[17]

Competitive pressure and a concomitant desire to reduce costs have led U.S. and foreign airlines to embrace new e-commerce initiatives. For instance, five U.S. passenger airlines—American, Continental, Delta, Northwest, and United—plan to launch a new online booking site in 2001 that will allow customers to purchase tickets from over 30 airlines.[18] The site will enable sponsoring airlines to eliminate the costs associated with distributing tickets through middlemen, and will compete directly with existing Internet booking sites, including Expedia, Priceline.com, and Travelocity.[19] Reportedly, Internet travel bookings by U.S. companies increased by 85 percent in 2000, and 69 percent of such bookings were for airline reservations.[20] In April 2000, United Airlines announced its intention to join with American, Air France, British Airways, Continental, and Delta in order to establish a joint procurement site on the Internet. The site will enable these carriers to achieve economies of scale in the purchase of aircraft components, fuel, and maintenance services. For example, participation in the online exchange could reportedly reduce British Airways' costs by nearly $300 million over a two-year period.[21]

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[14] In March 2001, the U.S. Department of Justice consented to the purchase of TWA by American Airlines. "American to Buy TWA," *Cnnfn*, found at Internet address *http://cgi.cnnfn.com/*, retrieved Jan. 8, 2001; and "DOJ Clears American-TWA Deal; Labor Integration Still in Talks," *Aviation Daily*, Mar. 19, 2001, p. 3.

[15] The United States currently prohibits foreign airlines from providing cabotage, unless the flight providing that service originated in or is destined for a foreign country. In addition, the U.S. Government limits foreign ownership of U.S. airlines to a 25 percent equity stake. "Merger Talk Opens the Door for Greater Aviation Reform," *Aviation Daily*, June 21, 2000, p. 7.

[16] Within the European Union, an EU national or corporate entity may acquire a majority stake in any EU-member airline. Daniel Michaels, "British Airways Set to Disclose KLM Takeover, Skirting Curbs," *The Wall Street Journal*, June 6, 2000, p. A18.

[17] "World News Roundup," *Aviation Week & Space Technology*, Sept. 25, 2000, p. 25.

[18] Standard & Poor's, *Industry Surveys: Airlines*, p. 13; and industry representative, telephone interview by USTIC staff, Jan. 22, 2001.

[19] Scott McCartney, "Inside the Airline Industry's Plan to Dominate Online Reservations," *The Wall Street Journal*, Apr. 11, 2000, p. B1.

[20] Internet travel bookings primarily include airline, car rental, and hotel reservations. Lorraine Sileo, "E-Commerce and Its Impact on Future Aviation Demand," presentation made at the 26th Annual FAA Commercial Aviation Forecast Conference, sponsored by the U.S. Department of Transportation, Federal Aviation Administration, Washington, DC, Mar. 13-14, 2001.

[21] "United Breaks from Star Alliance to Join Airline B2B Exchange," *Aviation Daily*, Apr. 28, 2000, p. 1.

CHAPTER 5
ARCHITECTURAL, ENGINEERING, AND CONSTRUCTION SERVICES

Introduction

Architectural, engineering, and construction (AEC) services comprise interrelated service activities. Architectural firms provide blueprint designs for buildings and public works, and may oversee construction projects.[1] Engineering firms provide planning, design, construction, and management services for projects such as civil engineering works and residential, commercial, industrial, and institutional buildings.[2] Construction services include pre-erection work, new construction and repair, and alteration, restoration, and maintenance work. Such services may be provided by general contractors who oversee all construction work for a certain project, or specialty subcontractors who perform discrete segments of the construction.

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

Recent Trends

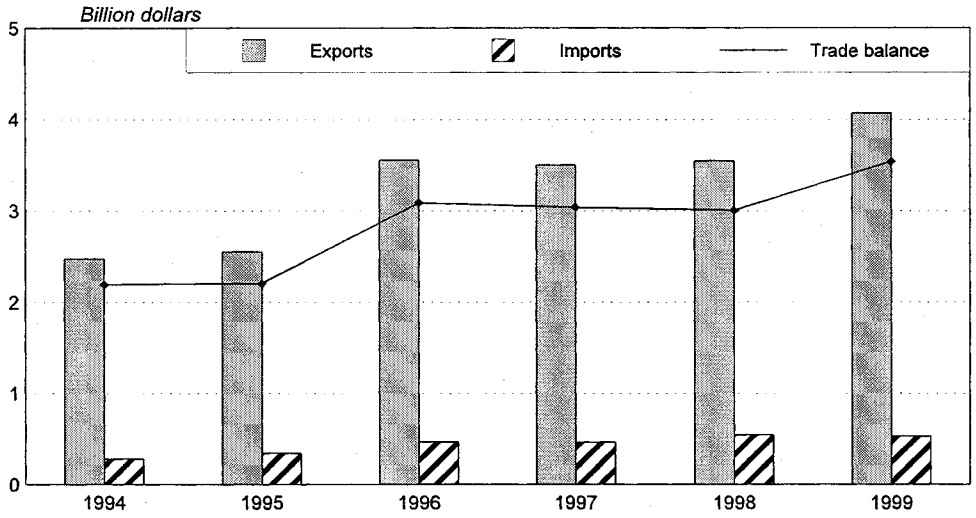
Cross-Border Trade, 1994-99

In 1999, U.S. cross-border exports of architectural, engineering, and construction services totaled $4.1 billion, while imports totaled $530 million, yielding a trade surplus of $3.5 billion. U.S. exports of AEC services increased by 14.7 percent in 1999, significantly faster than the average annual growth rate of 9.4 percent recorded during 1994-98 (figure 5-1). U.S. imports of AEC services fell by 2.6 percent in 1999. The decrease contrasted sharply with the 18.1-percent average annual growth

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

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

Figure 5-1
Architectural, engineering, and construction services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 130-131.

rate registered during 1994-98. As a result of these trends, the U.S. trade surplus in AEC services grew by 17.9 percent in 1999, much faster than the average annual growth rate of 8.2 percent recorded during 1994-98.

Indonesia remained the single largest foreign market for U.S. exports of AEC services, accounting for 11.5 percent of such exports despite a 12.3-percent decline in 1999 (figure 5-2). Exports to Saudi Arabia declined by 19.4 percent, while exports to the United Kingdom, Canada, China, and Venezuela increased by 1,470.0 percent, 860.0 percent, 72.4 percent and 53.9 percent, respectively.[3] Significant suppliers of U.S. AEC service imports in 1999 included Canada and the United Kingdom, which accounted for imports of $86 million and $80 million, respectively.[4] These are the only two foreign markets that accounted for more than 4 percent of AEC imports to the United States.

Affiliate Transactions, 1993-98

In 1998, sales of AEC services by U.S.-owned foreign affiliates increased by over 21.3 percent to $12.1 billion (figure 5-3). This rise exceeded the 13.6-percent

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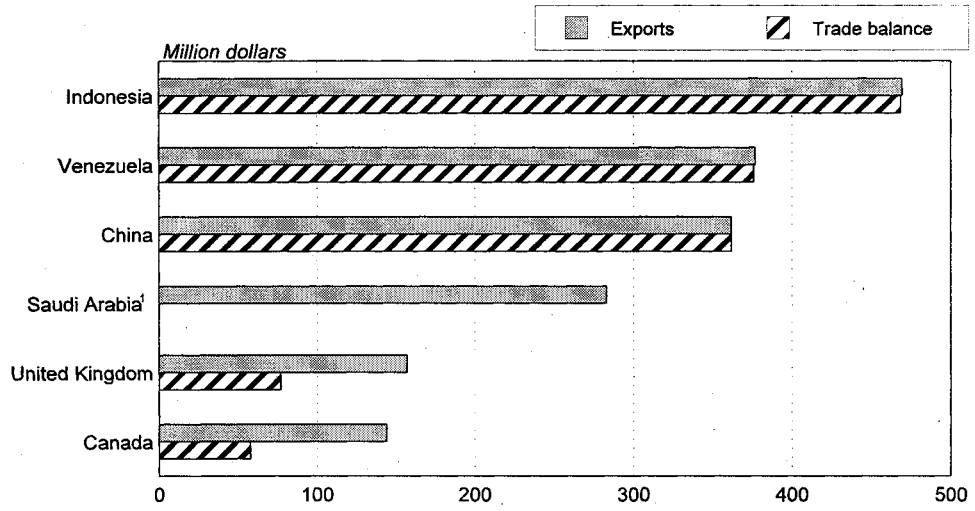
[3] U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, Oct. 2000, p. 157. The extraordinary increases witnessed in both the United Kingdom and Canada in 1999 follow decreases of relatively the same magnitude. Specifically, in 1998, U.S. exports of AEC services to the United Kingdom and Canada declined by 2,760 percent and 560 percent, respectively.

[4] Data for certain countries were suppressed by BEA in order to avoid disclosure of individual company data. These countries include Argentina, France, Korea, Saudi Arabia, and Singapore.

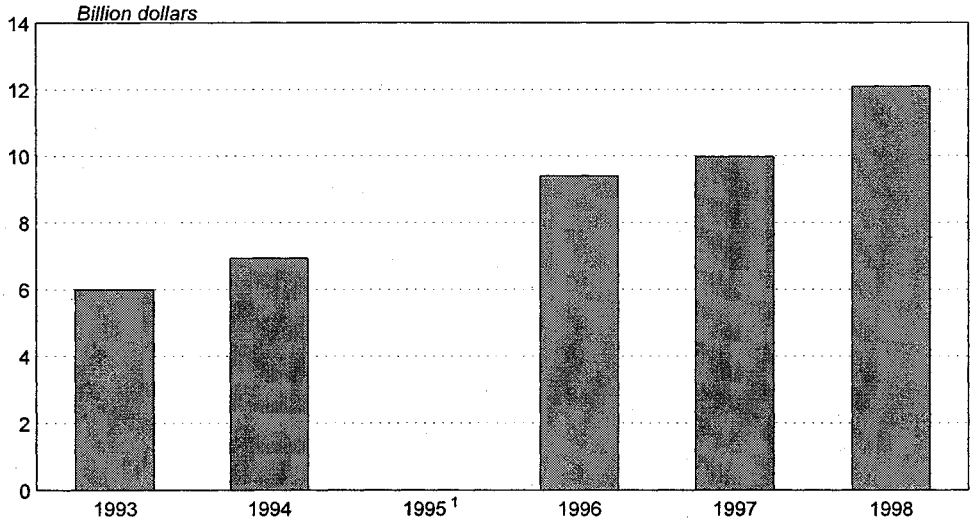
Figure 5-2
Architectural, engineering, and construction services: U.S. cross-border exports and trade balance, by major trading partners, 1999



[1] The Bureau of Economic Analysis suppressed data on U.S. architectural, engineering, and construction imports from Saudi Arabia in order to avoid disclosure of individual company data. Thus, the U.S. trade balance with Saudi Arabia cannot be presented in this figure.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 157.

Figure 5-3
Architectural, engineering, and construction affiliates: Sales of services by majority-owned affiliates of U.S. firms, 1993-98



[1] Not available.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 159; Oct. 1999, p. 93; Oct. 1998, p. 115; and Nov. 1996, p. 111.

average annual increase in affiliate sales witnessed during 1993-97. The United Kingdom and Australia were the largest markets for U.S.-owned affiliate sales of AEC services, respectively accounting for at least 44.9 percent and 9.7 percent of such sales.[5] Other significant markets included the Netherlands, Canada, France, and Germany, which accounted for sales of 5.2 percent, 4.0 percent, 3.0 percent, and 2.4 percent, respectively.[6]

Purchases of AEC services from foreign-owned affiliates in the United States totaled $6.3 billion in 1998, a 9.2-percent increase from 1997.[7] Affiliates with parent firms in Germany, the United Kingdom, and Japan were the leading sources of such purchases, respectively accounting for at least $683 million (10.9 percent), $668 million (10.6 percent),[8] and $630 million (10.0 percent). Affiliates with parent firms in France, the Netherlands, and Canada accounted for 5.8 percent, 5.5 percent, and 3.0 percent of purchases, respectively.

Summary and Outlook

The sustained strength of the U.S. economy has spurred growth in the domestic U.S. architectural, engineering, and construction industry, but it is uncertain whether this growth will continue. Wage and commodity price inflation may hinder continued growth of the U.S. construction sector, as available labor remains in short supply and oil prices remain high. In addition, lagging growth in overseas AEC service markets has led foreign firms to pursue increased market share in the United States during 2000, resulting in more intense competition. Consequently, consolidation in the U.S. AEC industry continued in 2000, as companies seeking administrative efficiencies merged and struggling firms exited the market.[9]

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[5] This estimate likely understate the value of sales by U.K.-based and Australia-based affiliates of U.S. firms, because data for construction sales in these countries were suppressed by BEA in order to avoid disclosure of individual company data.

[6] This estimate likely understate the value of sales by Canada-based affiliates of U.S. firms, because data for construction sales in Canada were suppressed by BEA in order to avoid disclosure of individual company data.

[7] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

[8] These estimates likely understates the value of sales by U.S.-based affiliates of British and German parent firms, because certain data were suppressed by BEA in order to avoid disclosure of individual company data. Specifically, data for architectural, engineering, and related services were suppressed in the case of Germany, and data for construction services were suppressed in the case of the United Kingdom.

[9] Industry representatives, telephone interviews by USITC staff, Oct. 17-18, 2000; and Peter Reina, "Global Wanderlust Helps to Ease German Firms' Problems at Home," *Engineering News-Record*, Aug. 14, 2000, pp. 44-47.

Information technology and software have continued to change the way architecture and engineering firms conduct business. Most significantly, computer-assisted design (CAD) techniques and electronic communications have allowed U.S. firms to expand their use of foreign workers, some of whom offer high quality drafting and designing skills at low cost. In addition, several AEC-related websites that serve the needs and interests of industry participants have been developed. These include news and information sites, e-commerce and product promotion websites, and project websites that facilitate communication among geographically dispersed teams involved in specific engineering and construction projects.[10]

The privatization of public infrastructure projects, such as airports and highways, may result in growing trade in the AEC industry. One desirable feature of privatization from the perspective of the host country is that a single agent-developer presides over the design, construction, and financing of the project, resulting in clearer communications and coordination between the client and the service provider. In addition, the practice of granting post-construction concessions to AEC firms may promote trade, as these firms may reduce bids by the amount they expect to generate through such concessions. In one instance, the rights to operate adjacent retail space resulted in bids that were sufficiently low to promote construction that may not have occurred under the traditional competitive-bid model.[11]

[10] Industry representatives, telephone interviews by USITC staff, Oct. 17-18, 2000. See Tom Sawyer, "Global Giants for Exchange," *Engineering News-Record*, July 10, 2000, p. 16.

[11] Industry and government representatives, telephone interviews by USITC staff, Sept.-Oct. 2000; and industry representatives, interviews by USITC staff, Washington, DC, Sept.-Oct. 2000.

CHAPTER 6
AUDIOVISUAL SERVICES

Introduction

Audiovisual services comprise the production and distribution of motion pictures, television and radio programs, recorded music, music videos, and recorded video tapes and disks. These services are distributed to consumers through rental or sale of prerecorded work, projection in movie theaters, and television, pay television, and radio broadcasting. Audiovisual service transactions take the form of outright sales, royalties, rental fees, license fees, or other receipts or payments for the rights to display, reproduce, or distribute prerecorded material.[1] Trade occurs both across borders and through affiliates whose parent firms are based in another country. Cross-border trade data on audiovisual services reflect only film and tape rentals. Data on U.S.-owned affiliates' sales reflect the production and distribution of motion pictures, television tapes, and film; the operation of movie theaters; and the rental of video tapes and disks.[2] Data on U.S. purchases reflect sales to U.S. persons by U.S.-based motion picture and sound recording affiliates of foreign companies.[3]

Recent Trends

Cross-Border Trade, 1994-99

As noted above, data on cross-border trade in audiovisual services reflect only film and tape rentals. In 1999, U.S. cross-border exports of audiovisual services increased by 7.4 percent to $7.5 billion, slower than the 12.7-percent average annual growth rate registered during 1994-98 (figure 6-1).[4] U.S. motion pictures such as *Austin Powers 2* and *The Sixth Sense* earned a substantial proportion of their box office revenues in foreign markets, and likely dominated U.S. film and tape rentals

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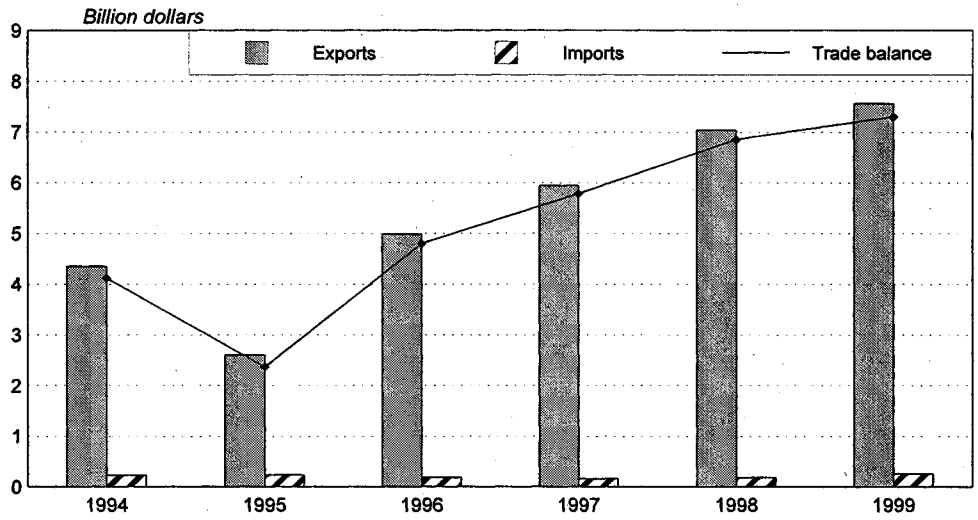
[1] U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA) representative, interview by USITC staff, Washington, D.C., Dec. 10, 1998.

[2] USDOC, BEA representative, interview by USITC staff, Washington, D.C., Dec. 10, 1998.

[3] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

[4] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 142-149; Oct. 1999, pp. 76-77; and Oct. 1998, pp. 98-99.

Figure 6-1
Audiovisual services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 142-149; Oct. 1999, pp. 76-77; and Oct. 1998, pp. 98-99.

overseas.[5] U.S. imports of audiovisual services rose by 41.4 percent in 1999 to $256 million, in sharp contrast to the average annual decrease of 5.6 percent recorded during 1994-98. In 1999, the United States registered a trade surplus of $7.3 billion in the audiovisual services industry, an increase of 6.5 percent over the previous year. This was slower than the 13.5-percent average annual growth in the surplus recorded during 1994-98.[6]

In 1999, the five leading U.S. export markets for audiovisual services were the United Kingdom, Germany, the Netherlands, France, and Japan (figure 6-2). U.S. exports to the United Kingdom and Germany totaled $1.0 billion each; followed by the Netherlands, $871 million; France, $588 million; and Japan, $579 million.[7] U.S. films captured substantial shares of European motion picture markets in 1999. For example, U.S. films accounted for 87 percent of market share in Iceland,[8] 77 percent

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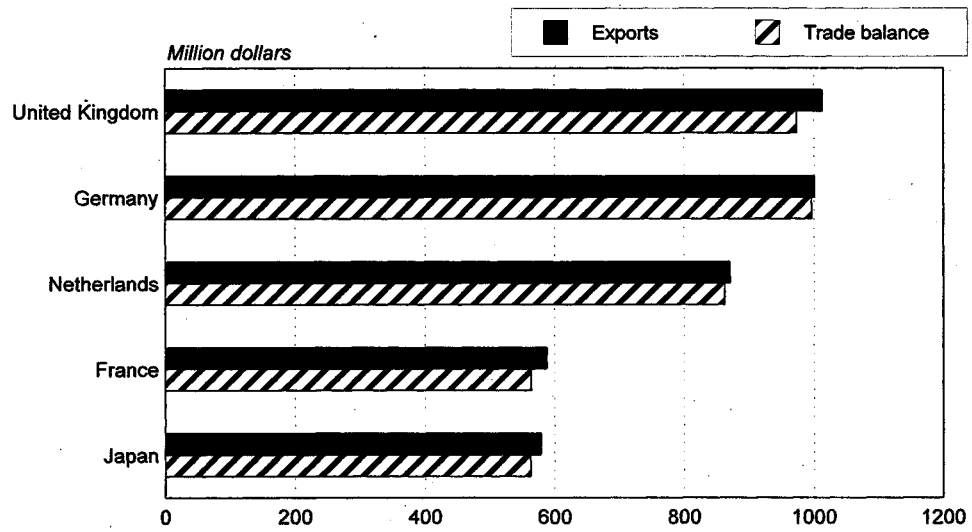
[5] *Austin Powers 2* earned 33.7 percent of its box office revenues in foreign markets, while *The Sixth Sense* earned 55.6 percent of such revenues overseas. Overall, in 1999 U.S. motion picture firms earned 52.2 percent of their revenues in foreign markets, an increase from 48.9 percent in 1998. "Worldwide Box Office Grosses," found at Internet address *http://www.boxofficeguru.com/intl.htm*, retrieved Sept. 15, 2000; and Motion Picture Association of America (MPAA), "Estimated Worldwide Revenues by Media for All U.S. Companies: 1996-99," MPAA Worldwide Market Research, Dec. 2000.

[6] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 142-149; Oct. 1999, pp. 76-77; and Oct. 1998, pp. 98-99.

[7] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 148.

[8] Data for Iceland includes Reykjavik only. Media Salles, *2000 European Cinema Yearbook*, found at Internet address *http://www.mediasalles.it/*, retrieved Oct. 24, 2000.

Figure 6-2
Audiovisual services: U.S. cross-border exports and trade balance, by major trading partners, 1999



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, pp. 148-149.

in Belgium,[9] and 76 percent in the Netherlands.[10] This is due, in part, to the growth of European cable and satellite outlets, which has increased Europe's demand for U.S. films.[11] The largest suppliers of U.S. cross-border audiovisual services imports in 1999 were the United Kingdom, which accounted for $39 million in imports; Japan and the Netherlands, each of which accounted for $16 million; Australia, $14 million; and France, $12 million.[12]

Affiliate Transactions, 1993-98

Foreign-based audiovisual services affiliates of U.S. firms generated sales of $8.0 billion in 1998. This represented a 2.8-percent increase from the previous year, slower than the average annual growth rate of 7.4 percent registered during 1993-97 (figure 6-3). In 1998, the largest markets for affiliate sales of audiovisual services were the Netherlands ($2.3 billion); the United Kingdom ($1.3 billion); France ($736 million); Canada ($672 million); and Japan ($665 million) (figure 6-4).[13] U.S. purchases from U.S.-based audiovisual services affiliates of foreign companies

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[9] U.S. motion picture market share in Belgium is based on theater admissions. Media Salles, *2000 European Cinema Yearbook*, found at Internet address *http://www.mediasalles.it/*, retrieved Oct. 24, 2000.

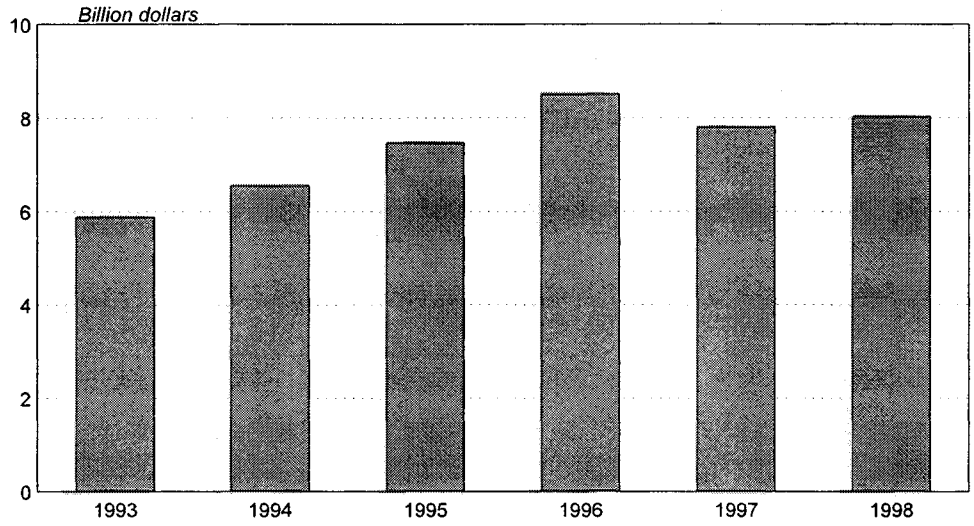
[10] Media Salles, *2000 European Cinema Yearbook*, found at Internet address *http://www.mediasalles.it/*, retrieved Oct. 24, 2000.

[11] Standard & Poor's, *Industry Surveys: Movies & Home Entertainment*, Nov. 18, 1999, p. 11; and "Flirtation and Frustration," *The Economist*, Dec. 11, 1999, p. 61.

[12] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 149.

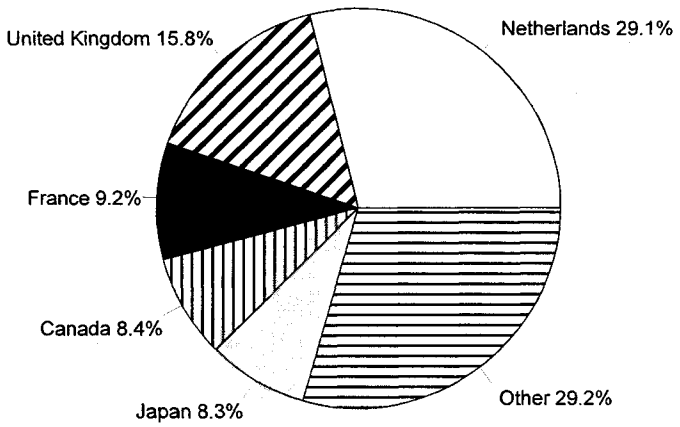
[13] Ibid., p. 159.

Figure 6-3
Audiovisual affiliates: Sales of services by majority-owned affiliates of U.S. firms, 1993-98



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 159; Oct. 1999, p. 93; Oct. 1998, p. 115; Oct. 1997, p. 137; and Nov. 1996, p. 111.

Figure 6-4
Audiovisual affiliates: Sales by majority-owned affiliates of U.S. firms, by principal markets, 1998



Total = $8.0 billion

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

U.S. purchases from U.S.-based audiovisual services affiliates of foreign companies totaled $9.2 billion in 1998, a decrease of 12.1 percent from the previous year. Available data[14] indicate that U.S. purchases from European-owned affiliates in the United States accounted for 63.7 percent of total U.S. purchases.[15] In addition, Fox Entertainment Group, an affiliate of Australian firm News Corp., Universal Pictures, a subsidiary of Canadian firm Seagram,[16] and Colombia Pictures Group and Tri-Star Pictures, both subsidiaries of Japanese-owned Sony Corporation[17] have large shares of the U.S. motion picture market.[18] Foreign-owned U.S. affiliates, including Universal, Sony Corporation, EMI Group (United Kingdom), and Bertelsmann AG (Germany), rank among the top distributors of musical recordings in the United States.[19] In 1999, Sony Music Entertainment Inc.[20] reportedly earned its highest revenues to date due to the release of new albums by Celine Dion, Ricky Martin, and Jennifer Lopez. Sony Music also increased its efforts to distribute musical recordings over the Internet and in digital form.[21]

Summary and Outlook

Changing technology has given rise to mergers and acquisitions in the audiovisual services industry that combine media content providers with Internet, cable, and wireless network operators. In January 2000, America Online (AOL) announced that it would acquire Time Warner.[22] The merger, which was approved by the U.S. Federal Trade Commission in December 2000, will enable Time Warner to distribute its media products through the AOL online network, and will permit AOL to provide

[14] BEA suppressed certain country-specific audiovisual services data to avoid disclosing individual company information.

[15] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 161.

[16] In 2000, Universal Pictures and its parent company Seagram were purchased by French firm, Vivendi. "Vivendi Seals Pact to Buy Seagram Co.," *The Wall Street Journal*, June 20, 2000, p. A3.

[17] For the purposes of data collection, BEA classifies Sony Corporation as a manufacturing rather than as motion picture and sound recording services firm. USDOC, BEA representative, telephone interview by USITC staff, Jan. 23, 2001.

[18] Standard & Poor's, *Industry Surveys: Movies & Home Entertainment*, Nov. 18, 1999, p. 8.

[19] Ibid., pp. 9-10.

[20] Sony Music Entertainment Inc. (SMEI) oversees Sony's music business outside Japan. *Sony Corporation Annual Report 2000*, pp. 26-27, found at Internet address *http://www.world.sony.com/IR/Financial/AR/200/pdf.html*, retrieved Oct. 25, 2000.

[21] *Sony Corporation Annual Report 2000*, pp. 26-27, found at Internet address *http://www.world.sony.com/IR/Financial/AR/200/pdf.html*, retrieved Oct. 25, 2000.

[22] "Time Warner Makes Deal with AOL and EMI," *The Quill*, Mar. 2000, found at Internet address *http://proquest.umi.com/*, retrieved Sept. 19, 2000.

high-speed Internet service through Time Warner's cable lines.[23] In October 2000, the European Commission approved French firm Vivendi's[24] proposed acquisition of Canadian conglomerate Seagram.[25] Seagram Co. owns 92 percent of Universal, which produces both motion pictures and musical recordings.[26] The new company will also include Vivendi's Europe-based pay television subsidiary, Canal +,[27] and Vivazzi, a wireless service provider. The merger reportedly will enable the new company, named Vivendi Universal, to distribute television programming, music, and films over its own wireless, Internet, cable, and satellite networks.[28]

The use of digital compression technology presents new opportunities to the U.S. audiovisual services industry. Digital compression technology enables 35-millimeter motion picture film to be compressed into digital files that can be delivered over the Internet and viewed on home computers.[29] In addition to home viewing, industry analysts forecast that there will be nearly 10,000 movie screens worldwide that display digital films by 2005, with a full conversion to digital theater to be completed by 2020.[30] Similarly, MP3 software allows musical recordings on compact disc to be converted into digital form and downloaded on personal computers.[31]

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[23] Reportedly, AOL has nearly 20 million subscribers worldwide, one-fifth of whom reside outside of the United States. Brent Shearer, "AOL/Time Warner Sparks Speculation on the Future of Media," *Mergers and Acquisitions*, Mar. 2000, found at Internet address *http://proquest.umi.com/*, retrieved Sept. 19, 2000; "Time Warner Makes Deal with AOL and EMI," The Quill, Mar. 2000, found at Internet address *http://proquest.umi.com/*, retrieved Sept. 19, 2000; "AOL-Warner Lists Concessions," *The Washington Post*, Sept. 22, 2000, p. E1; and Alec Klein, "AOL Merger Clears Last Big Hurdle," *The Washington Post*, Dec.15, 2000, p. A01.

[24] Vivendi has interests in a variety of telecommunications networks, including high-speed wireless systems, and Internet, cable, and satellite transmission networks. "Vivendi, Seagram and Canal+ to Merge, Creating Fully Integrated Global Media and Communications Company for the Wired and Wireless World," Seagram News Releases, June 20, 2000, found at Internet address *http://www.seagram.com/*, retrieved Sept. 25, 2000.

[25] William Drozdiak, "EU Allows Vivendi Media Deal," *The Washington Post*, Oct. 14, 2000, p. E2.

[26] Seagram will reportedly divest itself of its wine and spirits business. Standard & Poor's, *Industry Surveys: Movies & Home Entertainment*, p. 12; and William Drozdiak, "EU Allows Vivendi Media Deal," *The Washington Post*, Oct. 14, 2000, p. E2.

[27] Vivendi previously held a 49 percent stake in Canal +, and purchased the remaining 51 percent in June 2000. "Vivendi Seals Pact to Buy Seagram Co.," p. A3.

[28] "Vivendi, Seagram and Canal+ to Merge, Creating Fully Integrated Global Media and Communications Company for the Wired and Wireless World," Seagram News Releases, June 20, 2000, found at Internet address *http://www.seagram.com/*, retrieved Sept. 25, 2000.

[29] Digital data files can be stored on digital videodisks (DVD). They can also be transmitted through cable or satellite networks. Sathnam Sanghera, "E-movies Are Ready to Roll," *Financial Times*, Sept. 7, 2000, found at Internet address *http://www.ft.com/*, retrieved Sept. 15, 2000.

[30] Ibid.

[31] MP3 stands for MPEG-1, Layer 3, a software program that reduces the size of music files and allows them to be captured in digital form. Lee Gomes, "Laying the Tracks," *The Wall Street Journal*, Mar. 20, 2000, p. R14.

In recent years, there have been efforts to counteract the online trading of unauthorized copies of music and film. In 1998, the United States passed the Digital Millennium Copyright Act, which extended copyright protection to films, music, and other audiovisual works that are stored in digital format and delivered over the Internet.[32] During that same year, the Recording Industry Association of America (RIAA) led an inter-industry effort to launch the Secure Digital Music Initiative (SDMI). The objective of the SDMI is to develop a technology that ensures online copyright protection of music.[33] In July 2000, a U.S. district court issued a preliminary injunction against an online music exchange site, Napster, arguing that the company had violated copyright law by permitting its members to exchange illegal copies of music over the Internet.[34] Similarly, in July 2000, a lawsuit was filed jointly by major U.S. motion picture and recording companies against Scour.com, an Internet site that permits its users to trade both music and full-length feature films.[35] The audiovisual industry has indicated that it will continue to oppose third-party Internet sites that distribute music and film until they are confident that such sites ensure copyright protection.[36]

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[32] Section 103 § 1201 of the Digital Millennium Copyright Act (Public Law 105-304, 17 U.S.C. Section 101 note, passed on Oct. 28, 1998) prohibits: (1) circumvention of technological measures that control access to protected works (i.e., encryption); or (2) manufacturing or trading in technology designed to circumvent measures that control access to, or protect rights of, copyright owners in such works. Bill Summary & Status for the 105th Congress," found at Internet address *http://thomas.loc.gov/*, retrieved Sept. 26, 2000.

[33] Members of the SDMI Forum include representatives from the Internet, information technology, consumer electronics, and recording industries. Recording Industry Association of America (RIAA), *Annual Report*, Apr. 1998; and "Secure Digital Music Initiative," found at Internet address *http://www.smdi.org/*, Sept. 27, 2000.

[34] In March 2001, Napster proposed introducing software that would deter users from downloading copyrighted music, in an effort to avoid a final court injunction. "Rewired for Sound," *The Economist*, Aug. 5, 2000, p. 59; and P.J. Huffstutter and Jon Healy, "Napster to Block Copyrighted Song Files," *Los Angeles Times*, Mar. 3, 2001, found at Internet address *http://www.latimes.com/news/state/20010303/t000018769.html*, retrieved Mar. 5, 2001.

[35] Scour.com ceased operation in November 2000. CenterSpan Communications Corp., which purchased Scour in October 2000, plans to re-launch Scour.com as a Internet site for the legal exchange of copyright-protected music and videos. David Usborne, "Hollywood Acts to Stamp Out Nightmare of Internet Pirates," *The Independent*, July 22, 2000, found at Internet address *http://www.ft.com/*, retrieved Sept. 15, 2000; and information provided through *http://www.scour.com/*, retrieved Mar. 5, 2001.

[36] "Rewired for Sound," p. 59.

CHAPTER 7
BANKING AND SECURITIES SERVICES

Introduction

For the purposes of this discussion, banking and securities services comprise both fee-based commercial banking services and securities-related services. Fee-based commercial banking services include financial management and transaction services; advisory services; custody services;[1] credit card services; and other credit-related services, such as the provision of standby letters of credit for trade financing.[2] Securities-related services include brokerage; securities lending services;[3] securities clearance and settlement services; securities trading services; private placements;[4] and securities underwriting services.[5] Deposit-taking and lending services are excluded from this discussion.[6] Both fee-based commercial banking services and securities-related services can be traded across borders or sold through foreign affiliates.

[1] A custodian holds securities under a written agreement for a client and buys and sells when instructed. Custody services include securities safekeeping as well as collection of dividends and interest. Thomas P. Fitch, *Dictionary of Banking Terms* (New York: Barron's, 1990), p. 172.

[2] A standby letter of credit represents an obligation by the issuing bank to a designated third party (the beneficiary) that is contingent on the failure of the bank's customer to perform under the terms of the contract with the beneficiary. A standby letter of credit is most often used as a credit enhancement, with the understanding that, in most cases, it will never be drawn against or funded. Fitch, *Dictionary of Banking Terms*, 1990, p. 591.

[3] A securities loan is a loan made by broker-dealers, banks, or other organizations to finance the purchase of securities. Fitch, *Dictionary of Banking Terms*, 1990, p. 552.

[4] A private placement is the sale of an entire issue of securities to a small group of investors. Fitch, *Dictionary of Banking Terms*, 1990, pp. 481-482.

[5] Data on transactions of financial services affiliates reflect the operations of financial holding companies, franchises, and other financial companies, including securities and commodities brokers. Securities and commodities brokers account for the vast majority of sales and purchases by financial services affiliates. U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *U.S. Direct Investment Abroad*, preliminary 1998 estimates, table II.A.2., and *Foreign Direct Investment in the United States*, preliminary 1998 estimates, table A-1.

[6] BEA does not report data on trade in deposit-taking and lending services as provided by banks.

Recent Trends

Cross-Border Trade, 1994-99

Throughout 1994-98, the United States maintained a steadily increasing cross-border trade surplus in banking and securities services (figure 7-1).[7] That trend continued in 1999, as the U.S. surplus in banking and securities services increased by 34.2 percent to $10.4 billion. U.S. exports increased by 23.5 percent to $13.9 billion in 1999, faster than the average annual growth rate of 18.3 percent registered during 1994-98. By comparison, imports increased by 0.4 percent to $3.6 billion in 1999, much slower than the 21.1-percent average annual growth rate recorded during 1994-98. Strong growth in exports combined with slow growth in imports are consistent with overall global economic conditions. The United States enjoyed stronger economic growth than most other countries in 1999, attracting investment from many foreign countries and keeping U.S. investors focused on the domestic market.[8] Rising investment in U.S. stocks and bonds allowed U.S. financial service firms to increase their collection of fees and commissions from foreigners investing in U.S. markets.

Strong exports of financial services during 1994-99 were buoyed by large net foreign purchases of U.S. securities, which have increased significantly in every year since 1994. Net foreign purchases of U.S. securities, other than U.S. Treasury securities, reached a record $325.9 billion in 1999, 49.5 percent higher than the previous record of $218.0 billion in 1998.[9] In 1999, record foreign purchases were recorded for U.S. stocks and U.S. corporate and Government agency bonds. Specifically, foreigners made net purchases of U.S. stocks totaling $94.9 billion, almost double the 1998 figure, and made net purchases of U.S. corporate and Government agency bonds totaling $231.0 billion, 35.5 percent higher than the 1998 record of $170.5 billion. Improving economic conditions in many developing countries, particularly in Asia, enabled investors in those countries to increase their purchases of U.S. securities. However, net foreign purchases of U.S. Treasury securities decreased dramatically during 1997-99, from $146.4 billion in 1997 to -$21.8 billion[10] in 1999. This decrease occurred because foreigners moved their investment funds into other types

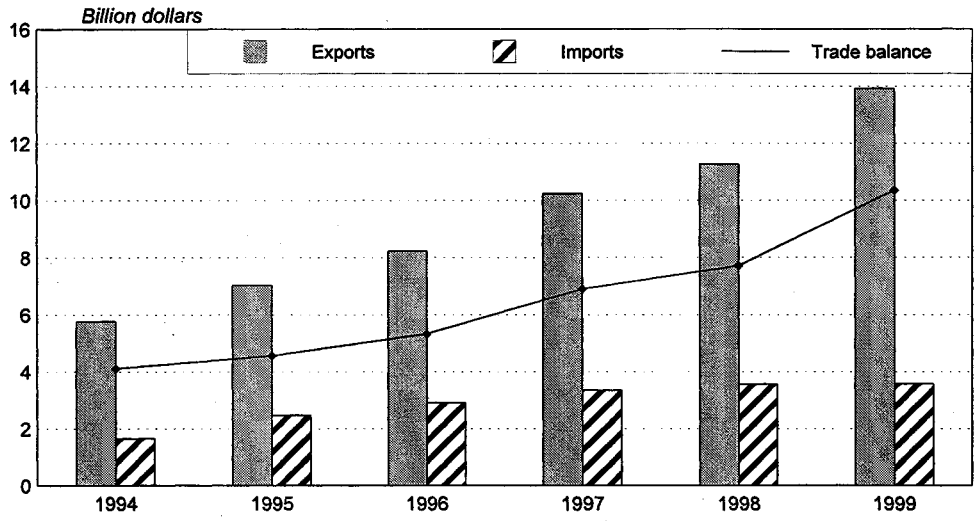
[7] Following the completion of the 1999 quinquennial Benchmark Survey of Financial Services Transactions Between U.S. Financial Services Providers and Unaffiliated Foreign Persons, BEA substantially revised its estimates of cross-border financial services in the securities field. For brokerage commissions and for underwriting fees, estimates for both imports and exports were revised downward. BEA attributes the declines to increased competition among financial service providers, new telecommunication technology allowing easier communication with customers and foreign markets, and large-scale mergers among financial service providers. The revisions did not affect the overall 5-year trend for either imports or exports. USDOC, BEA, *Survey of Current Business*, July 2000, pp. 72-73.

[8] USDOC, BEA, *Survey of Current Business*, Apr. 2000, pp. 154-156.

[9] Ibid., pp. 167, 173.

[10] Net foreign purchases of U.S. Treasury securities are negative when foreigners sell more securities to the U.S. Government than they purchase from the U.S. Government.

Figure 7-1
Banking and securities services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, pp. 130-131.

of bonds, and because the U.S. Government used the budget surplus to repurchase Treasury securities in order to pay down the U.S. Federal debt.[11]

The slowdown in imports reflects a decrease of 4.9 percent in net U.S. purchases of all foreign securities, from $102.9 billion in 1998 to $97.9 billion in 1999. However, the overall data mask large differences between recent trends in U.S. purchases of foreign stocks and bonds. Net purchases of foreign bonds fell from $25.1 billion in 1998 to $100 million in 1999, the lowest level recorded since 1982. In contrast, net U.S. purchases of foreign stocks reached a record $97.8 billion in 1999, 25.7 percent higher than the previous record of $77.8 billion in 1998. Transfers of stock used to finance cross-border mergers and acquisitions accounted for much of the volume of stock purchases.[12]

The United Kingdom continued to be the largest export market for U.S. financial service providers in 1999, having accounted for $2.4 billion, or 17.1 percent, of total U.S. exports in the industry (figure 7-2). Cross-border exports to Canada accounted for $1.1 billion, or 7.8 percent, of U.S. financial services exports. Other significant export markets for U.S. financial service providers included Bermuda, Japan, and Switzerland, with 4.8 percent, 4.2 percent, and 4.1 percent, respectively. The United Kingdom is by far the largest supplier of cross-border financial service imports to the United States, having accounted for $1.4 billion, or 38.8 percent, of all U.S. cross-border imports of financial services in 1999. Japan, the next largest supplier of imports, accounted for $210 million of U.S. financial services imports in 1999.

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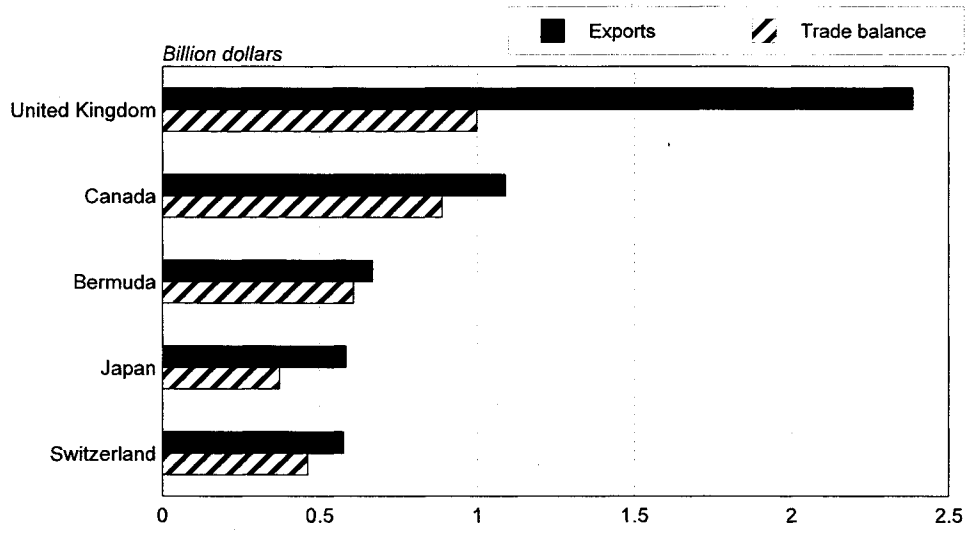
[11] USDOC, BEA, *Survey of Current Business,* Apr. 2000, pp. 171-172.
[12] Ibid., pp. 168-169.

Figure 7-2
Banking and securities services: U.S. cross-border exports and trade balance, by major trading partners, 1999



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 148-149.

Affiliate Transactions, 1993-98

By establishing a physical presence in foreign markets, commercial banks and securities firms are better positioned to develop and nurture consumer relationships. Total affiliate sales data were suppressed in 1998 to avoid disclosure of data pertaining to individual companies, but limited data on affiliate sales in certain countries are available.[13] In 1998, sales by U.S.-owned banking and securities affiliates in Japan increased by 48.4 percent to $3.6 billion. Changes in Japan's securities industry regulations since 1997 have accorded U.S. financial services firms greater access to the Japanese market. For example, U.S. investment advisors may now compete to manage Japanese pension funds, and U.S. securities firms may now serve retail customers.[14] Sales by French affiliates of U.S.-owned financial services firms increased by 44.4 percent to $1.1 billion in 1998, while sales by U.S.-owned affiliates in Australia and Switzerland totaled $1.0 billion and $730 million, respectively. However, the United Kingdom likely is the largest market for sales by U.S.-owned affiliates, having accounted for sales of $7.1 billion in 1995.[15]

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[13] BEA data on total sales by foreign affiliates of U.S. firms were suppressed in order to avoid disclosing confidential information pertaining to individual firms.

[14] U.S. Department of the Treasury, *National Treatment Study 1998,* found at Internet address *http://www.ustreas.gov/nts/*, retrieved Jan. 8, 2001.

[15] Data reflecting sales by British-based banking and securities affiliates of U.S. firms were suppressed by BEA in 1996, 1997, and 1998 in order to avoid disclosure of individual company data.

In 1998, U.S. purchases of services from U.S.-based banking and securities affiliates of foreign firms amounted to $15.2 billion, a decrease of 1.4 percent from 1997.[16] Securities, commodity contracts, and other intermediation and related activities accounted for $13.1 billion, or 86.3 percent of total U.S. purchases in 1998, while nondepository credit intermediation and related services accounted for $1.9 billion, and funds, trusts, and other financial vehicles accounted for $181 million. Canadian-owned affiliates accounted for the largest share of U.S. financial services purchases, with $3.0 billion, or 20.0 percent, followed by British, Swiss, and Japanese affiliates, with $2.8 billion, $2.3 billion, and $2.2 billion, respectively (figure 7-3). In 1998, purchases from Japanese-owned and Swiss-owned affiliates declined significantly, by 52.6 percent and 21.7 percent, respectively. However, U.S. purchases from Canadian-owned and French-owned affiliates increased by 156.4 percent and 64.8 percent, respectively, in 1998. In response to anti-merger regulations at home, large Canadian banks began acquiring banking, insurance, and asset management firms in the United States in the late 1990s, in an effort to enhance their global competitive position.[17] New French investments in the U.S. financial services industry likely boosted U.S. affiliate purchases during 1998, including Société Generale's purchase of New York investment bank Cowen & Co.[18]

Summary and Outlook

Two new pieces of legislation passed in 2000 may impact the banking and securities industries. In the United States, new legislation established the legal validity of electronic signatures and sanctioned the electronic distribution of government-mandated consumer protection disclosures.[19] The financial services industry considers this action to be very important, as it enables consumers to conduct financial transactions entirely over the Internet, which may reduce costs and increase sales volume.[20]

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[16] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

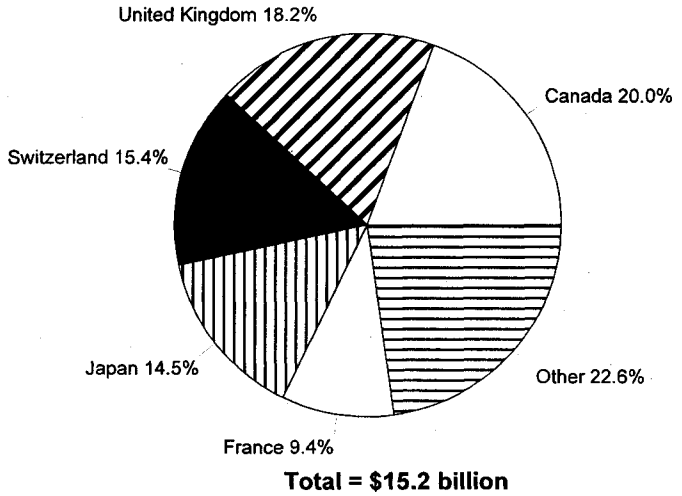
[17] See "Restricted at Home, Canada Banks Train Sights on U.S.," *Reuters*, June 23, 2000, found at Internet address *http://www.kpmginsiders.com/*, retrieved June 26, 2000.

[18] "Cowen Merger, Two Years Later, Still A Struggle," *American Banker*, Dec. 7, 1999, found at Internet address *http://www.americanbanker.com/*, retrieved Jan. 10, 2001.

[19] "Electronic Signatures in Global and National Commerce Act," 114 stat. 464, P.L. 106-229, June 30, 2000.

[20] "KPMG Analysis E-Sign: A New Technology for Consumers, A New Business for Banks," found at Internet address *http://www.kpmginsiders.com/*, retrieved Oct. 17, 2000.

Figure 7-3
Banking and securities affiliates: Purchases from majority-owned affiliates of foreign firms, by country of ultimate beneficial owner,[1] 1998[2]



[1] An ultimate beneficial owner of a U.S. affiliate is the entity, proceeding up the affiliate's ownership chain, that is not owned more than 50 percent by another person.
[2] Total may not equal 100 percent due to rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 161.

In Germany, the Tax Reduction Act of 2000 will eliminate the 40-percent capital gains tax on corporate divestitures beginning in 2002.[21] Many German financial service firms have held large stakes in non-financial German firms for decades, which they have been unwilling to divest in recent years due to high tax liabilities. The elimination of the capital gains tax is widely expected to encourage German financial service firms to increase the pace of their U.S. acquisitions, as they sell holdings in non-related industries and, thus, liberate capital of up to $500 billion.[22] German financial firms are already active in the U.S. market. For example, Deutsche Bank AG, Germany's largest bank, acquired Banker's Trust Company in 1999. Germany's largest insurance firm, Allianz AG Holding, acquired two U.S. asset management firms in 1999 and 2000, and received permission to list its shares

[21] "Tax Reduction Act," July 2000; and U.S. Department of State telegram, "German Parliament Passes Landmark Tax Reform; Opposition Front Crumbles," message reference No. 02965, prepared by U.S. Embassy, Berlin, July 14, 2000.

[22] Embassy of Germany, "Tax Policy for Germany's Future," found at Internet address *http://www.germany-info.org/*, retrieved Oct. 12, 2000; "Tax Changes Could Spur German Firms to Acquire U.S. Insurers," *National Underwriter,* Aug. 14, 2000, p. 28; and "Survey - International Mergers and Acquisitions: Big Players Wait on Tax Reform Decision," *Financial Times,* June 30, 2000, found at Internet address *http://www.ft.com/*, retrieved Nov. 3, 2000.

firms in 1999 and 2000, and received permission to list its shareson the New York Stock Exchange in November 2000, a move seen as preliminary to further acquisitions of U.S. financial service firms.[23]

There have been a number of other high profile banking and securities mergers and acquisitions during 2000, including several large cross-border transactions. Two Swiss banks have announced plans to acquire U.S. investment houses. In July, UBS Warburg announced the purchase of Paine Webber for $10.8 billion,[24] and in August, Credit Suisse First Boston announced the purchase of Donaldson, Lufkin & Jenrette for $11.5 billion.[25] In February 2000, Citigroup announced its acquisition of Bank Handlowy, Poland's top corporate bank, for approximately $1 billion.[26] Two domestic mergers, both announced in September 2000, also have broad significance for the industry. Chase Manhattan Corp. concluded an agreement to acquire J.P. Morgan for an estimated $36 billion, creating the third-largest U.S. commercial bank. This merger will strengthen Chase Manhattan's investment banking and private banking capabilities, and increase its visibility in Europe.[27] In addition, Citigroup plans to acquire Associates First Capital Corp. of Texas, a consumer finance company, for approximately $31 billion. Associates has strong operations in both Japan and Europe, and the acquisition is expected to expand Citigroup's international consumer finance business.[28]

In June 2000, the OECD published a list of 35 offshore financial centers that it terms "tax haven" countries, in an effort to encourage these countries to change tax laws that are believed to promote money laundering and corporate tax avoidance. Countries identified as tax havens may become subject to sanctions from OECD member countries, including the United States, if they refuse to change their tax policies within one year.[29] Several countries, including the Cayman Islands, Bermuda, and Malta, were not included on the OECD list, as they have committed to policy reforms that

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[23] See "Allianz NYSE Listing Seen as a Fast Track to U.S. M&As," *Dow Jones*, found at Internet address *http://www.kpmginsiders.com/*, retrieved Nov. 3, 2000; and "Allianz Seeks Life Insurance Buys," *Financial Times*, found at Internet address *http://www.ft.com/*, retrieved Nov. 3, 2000.

[24] "UBS to Merge with Paine Webber," press release, July 12, 2000, found at Internet address *http://www.painewebber.com/*, retrieved Sept. 13, 2000.

[25] Donaldson, Lufkin, & Jenrette, press release, found at Internet address *http://www.dlj.com/*, retrieved Sept. 13, 2000; "Credit Suisse First Boston to Buy DLJ," *New York Times*, found at *http://www.nytimes.com/*, retrieved Aug. 30, 2000.

[26] "Handlowy: Citigroup to Pay $1Bn for Poland's Top Corporate Bank," *Financial Times*, found at Internet address *http://www.ft.com/*, retrieved Feb. 11, 2000.

[27] "Chase Plus J.P. Morgan: Wholesale Juggernaut," *American Banker*, Sept. 13, 2000, p. 1; and "Chase Agrees to Buy J.P. Morgan & Co. In a Historic Linkup," *Wall Street Journal*, Sept. 13. 1000, p. A1.

[28] "Citigroup to Buy Associates First Capital," *New York Times*, Sept. 6, 2000, found at Internet address *http://www.nytimes.com/*, retrieved Sept. 6, 2000.

[29] The OECD has not yet specified the nature of the sanctions. See OECD, "Towards Global Tax Co-operation," found at Internet address *http://www.oecd.org/*, retrieved Oct. 3, 2000; "Financial Paradise Under Threat," *Reactions*, Sept. 2000, pp. 51-6; "Tax Havens Cave in to Global Pressure," *Wall Street Journal*, June 20, 2000; and "Caribbean Calls OECD Tax List 'Economic Blackmail'," *Reuters*, June 27, 2000, found at Internet address *http://www.kpmginsiders.com/*, retrieved June 28, 2000.

address the concerns of OECD members. Other tax haven countries, led by the Caribbean Community (Caricom),[30] have declined to change their tax policies and have initiated dispute settlement proceedings on this issue before the World Trade Organization (WTO).[31] In another effort to combat money laundering, 12 major U.S. and European banks have developed a uniform, international code of conduct for private bankers. These voluntary guidelines seek to ensure that banks worldwide observe the same standards of due diligence when dealing with customers, in order to prevent the proceeds of criminal activity from entering the global financial system.[32] Money laundering has also been a concern of the U.S. Congress. A U.S. Senate report, published in February 2001,[33] raised concern that U.S. banks' correspondent accounts[34] with shell banks[35] based in offshore financial centers may be used to introduce illegitimate funds into the U.S. financial system. The 107th Congress has held hearings on the subject, and is considering legislative action to address the issue.[36]

In October 2000, President Clinton signed the bill granting permanent normal trade relations to China.[37] China is expected to enter the WTO, and has agreed to implement significant market-opening measures for foreign banks when WTO accession takes place. China has also agreed to implement market-opening measures that benefit securities firms.

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[30] Caricom is a trading alliance consisting of 14 Caribbean countries. See Internet address *http://www.imf.org/external/np/sec/decdo/caricom.htm*.

[31] "Tax Havens Seek WTO Intervention," *Financial Times*, Oct. 2, 2000, found at Internet address *http://news.ft.com/*, retrieved Oct. 3, 2000.

[32] The banks involved are ABN-Amro, Banco Santander, Barclays, Citigroup, Chase Manhattan Corp., Credit Suisse Group, Deutsche Bank, HSBC Holdings, J.P. Morgan, Societe Generale, UBS AG, and Bankers Trust (part of Deutsche Bank). "Dozen Big Banks Agree Int'l Anti-Laundering Code," *Reuters*, found at Internet address *http://www.kpmginsiders.com/*, retrieved Oct. 23, 2000; and "Banks Agree Money-Laundering Rules," *Financial Times*, Oct. 30, 2000, found at Internet address *http://www.ft.com/*, retrieved Oct. 31, 2000.

[33] U.S. Senate, Permanent Subcommittee on Investigations, "Correspondent Banking: A Gateway for Money Laundering," Feb. 2001.

[34] Accounts that banks hold with other banks. The accounts are used to pay for services provided by one bank to another, such as check clearing and foreign exchange services.

[35] Banks with no offices or branches.

[36] "Launder Law Looks Like an '01 Washout," *American Banker*, Mar. 7, 2001, p. 1.

[37] "U.S.-China Relations Act of 2000," 114 stat. 880, P.L. 106-286, Oct. 10, 2000.

CHAPTER 8
COMPUTER AND DATA PROCESSING SERVICES

Introduction

Computer and data processing services include computer systems analysis, design, and engineering; custom software and programming services; computer leasing;[1] systems integration services;[2] data entry, processing, and tabulation; and other computer-related services such as computer timesharing, maintenance, and repair.[3] U.S. firms sell computer and data processing services in foreign markets primarily through foreign-based affiliates.[4] These services are also provided through cross-border delivery, which has benefitted from the Internet and other advances in long-distance electronic transmission technologies. As these technologies are simplified and become more economical, computer and data processing firms are able to increase the volume and diversity of their cross-border transactions. Computer and data processing services most often provided to foreign clients include systems integration, outsourcing,[5] and custom programming.[6]

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

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

[3] This service category excludes prepackaged software that is shipped to or from the United States, and that is included in U.S. merchandise trade statistics. U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Instructions to BE-22 Survey*, OMB form No. 0608-0060, July 20, 1995.

[4] BEA reports that computer-related services are likely sold by affiliates that are classified in the "computer and office equipment manufacturing" and "professional and commercial equipment and supplies" categories. Also, some computer-related services may be sold by affiliates in unrelated industries. Thus, data on sales by affiliates in the computer-related services industry likely understate the value of total affiliate sales of computer-related services. USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 128.

[5] Outsourcing is defined as the practice of contracting out internal functions, ranging from low-skill services such as data entry to more complex functions such as payroll, invoicing, or the management of a company's telecommunication and computer networks.

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

Recent Trends

Cross-Border Trade, 1994-99

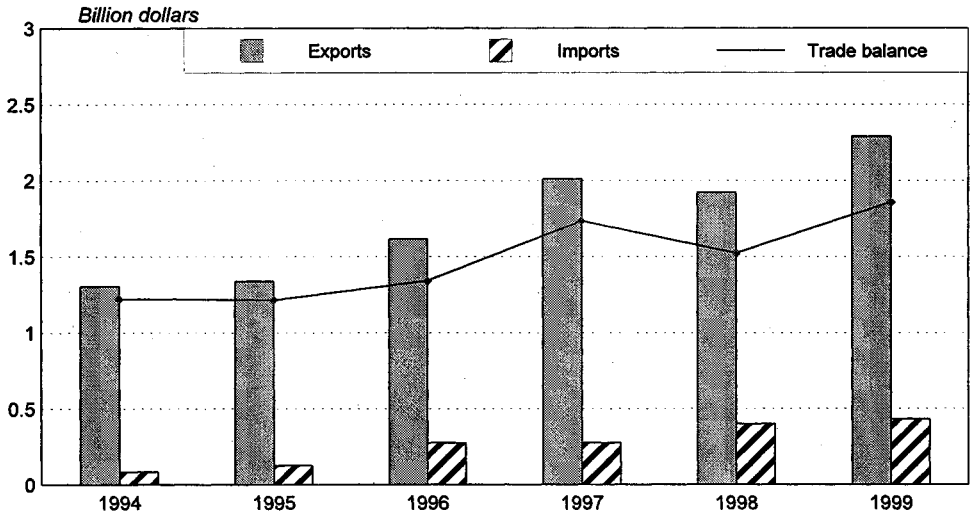
In 1999, U.S. cross-border exports of computer and data processing services increased by 19.2 percent to $2.3 billion, recovering from a 4.4-percent decrease in 1998 and returning to a rate of increase closer to the 15.5-percent average annual growth rate achieved during 1994-97 (figure 8-1). U.S. imports increased by 8.3 percent to $432 million, significantly slower than the 48.1-percent average annual growth rate achieved during 1994-98. Strong exports lifted the trade balance to $1.9 billion in 1999.

Europe was the leading market for U.S. cross-border exports of computer and data processing services in 1999, accounting for almost half of such exports. Overall, exports to Europe grew by 30.8 percent in 1999. U.S. cross-border exports of computer and data processing services to the United Kingdom, Germany, and France (figure 8-2), which together accounted for 58.0 percent of exports to Europe, increased by 34.4 percent, 25.0 percent, and 32.9 percent, respectively. Export growth was particularly robust in the Netherlands, where exports of U.S. computer and data processing services increased by 37.7 percent, from $69 million in 1998 to $95 million in 1999.

U.S. exports of computer and data processing services to the Asia/Pacific region increased by 17.2 percent in 1999. Japan remained the region's leading market, accounting for 37.4 percent of U.S. exports to the Asia/Pacific region. However, U.S. exports to Japan increased by only 4.5 percent in 1999. In contrast, exports to Australia, Hong Kong, and Taiwan increased by 25.0 percent, 95.0 percent, and 30.3 percent, respectively. U.S. exports of computer and data processing services to South and Central America decreased by 17.7 percent in 1999, totaling $190 million and accounting for 8.3 percent of total U.S. exports of such services. Exports to Brazil and Mexico, which together accounted for over half of U.S. exports to the region, decreased by 51.0 percent and 16.4 percent, respectively, in 1999.

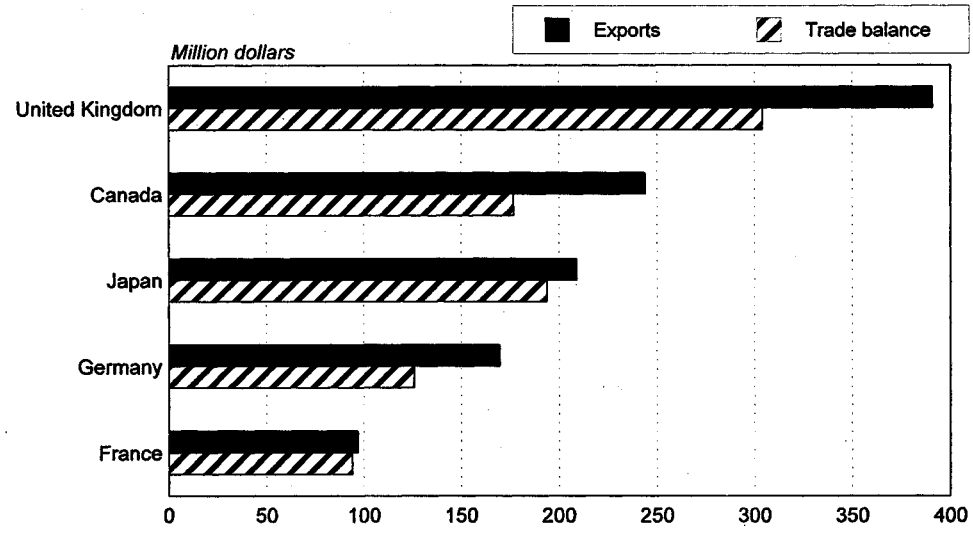
U.S. imports of Canadian computer and data processing services decreased by 14.1 percent in 1999 to $67 million. Imports from Europe increased by 5.9 percent in 1999, led by a 63.0-percent increase in computer and data processing services imports from Germany. A 59.8-percent increase in U.S. imports from India contributed to a 26.6-percent increase in U.S. imports from the Asia/Pacific region. In 1999, India accounted for 30.3 percent of all U.S. cross-border imports of computer and data processing services. India has rapidly become an important

Figure 8-1
Computer and data processing services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 130-131.

Figure 8-2
Computer and data processing services: U.S. cross-border exports and trade balance, by major trading partners, 1999



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 157.

supplier of many computer services, spurred in part by demand from U.S. firms that report a shortage of technical personnel.[7]

Affiliate Transactions, 1993-98

In 1998, U.S. sales of computer and data processing services through foreign-based affiliates totaled $45.8 billion, accounting for 15 percent of all U.S. services sales through foreign affiliates. During 1996-98,[8] U.S. affiliate sales rose at an average annual rate of 25.9 percent, which was somewhat slower than the 31.6-percent average annual growth rate recorded during 1993-96 (figure 8-3). In 1998, U.S. sales of such services through affiliates in Europe increased by 50.2 percent, led by strong growth of outsourcing services. Sales in the United Kingdom, which accounted for 17.9 percent of total U.S. affiliate sales in 1998 (figure 8-4), increased by 27.1 percent during that year. Japan, Germany, France, and Australia accounted for sales of 14.3 percent, 7.8 percent, 6.2 percent, and 6.0 percent, respectively.

U.S. purchases of computer and data processing services from U.S.-based affiliates of foreign firms increased by 37.0 percent in 1998 to $5.2 billion, led by a 54.0-percent increase in purchases from European-owned affiliates.[9] France accounted for 25.8 percent of total U.S. purchases in 1998, while Japan accounted for 18.5 percent.[10]

Summary and Outlook

As discussed above, U.S. cross-border exports of computer and data processing services showed strong growth in 1999, increasing by 19.2 percent. Export growth is expected to continue as U.S. firms expand and develop overseas operations.[11] Large U.S. firms such as Accenture (formerly known as Andersen Consulting), Automatic Data Processing (ADP), Computer Sciences Corporation (CSC),

[7] India's information technology capabilities have evolved beyond low-skill, low-wage tasks. While these low-skill services are still in demand, U.S. firms increasingly rely on India for sophisticated computer services, which command higher wages and, consequently, boost the value of India's exports. U.S. firms are also turning to India to increase their productivity. Information technology projects often face severe time constraints and employing offshore personnel enables work to continue essentially 24 hours a day.

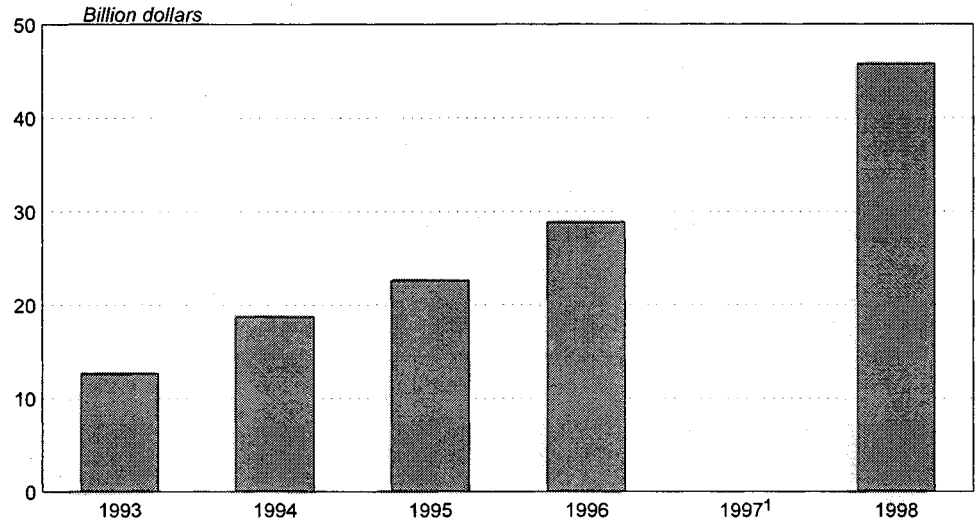
[8] BEA suppressed certain 1997 computer and data processing services data to avoid disclosing individual company information.

[9] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

[10] BEA suppressed certain country-specific computer and data processing services data to avoid disclosing individual company information.

[11] Industry representative, telephone interview by USITC staff, Oct. 18, 2000.

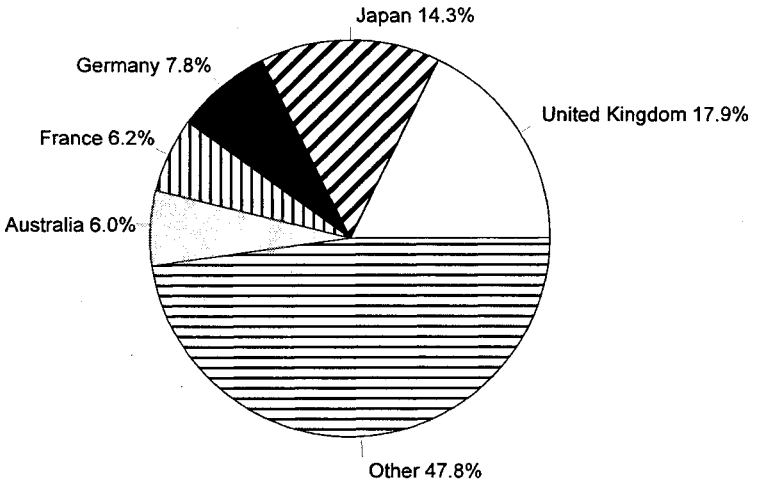
Figure 8-3
Computer and data processing affiliates: Sales of services by majority-owned affiliates of U.S. firms, 1993-98



[1] Not available.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 159; Oct. 1999, p. 93; Oct. 1997, p. 137; and Nov. 1996, p. 111.

Figure 8-4
Computer and data processing affiliates: Sales by majority-owned affiliates of U.S. firms, by principal markets, 1998



Total = $45.8 billion

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

Electronic Data Systems (EDS), First Data Corporation, IBM Global Services, and Unisys account for the bulk of U.S. computer and data processing services exports, and a significant share of the services consumed worldwide. However, in some markets these firms face intense competition from other multinational computer and data processing service providers such as Cap Gemini (France), Fujitsu (Japan), Groupe Bull (France), and Siemens Nixdorf (Germany).

U.S. providers of computer and data processing services report that in 1999, high demand resulting from increased outsourcing continued to be a major contributor to their strong international performance. In the United Kingdom, where the computer services industry is one of the fastest growing sectors of the economy, U.S. firms EDS and CSC were the market leaders, accounting for approximately 30 percent of all outsourcing-related revenues generated in the British market.[12] These and other large U.S. firms maintain a strong competitive advantage in the United Kingdom because they are the only suppliers with the necessary size and global reach to meet the requirements of the largest contracts. CSC reports that its European revenues increased by 12 percent, or $275.9 million, during fiscal 2000 due in large part to the expansion of outsourcing in the United Kingdom.[13]

In 1999, demand for product support services, data management, applications development, systems integration, and consulting continued to bolster growth in the European computer and data processing services industry. Strong demand is expected for services such as the management of a firm's multi-vendor information technology infrastructure and the transfer of all or part of a firm's business to the Internet. U.S. firms operating in Europe are also responding to growing demand for the development of networks that are based on Internet technology and that will allow the convergence of voice and data networks. In addition, demand is growing for applications that support wireless telecommunications, an industry segment in which Europe is considered more advanced than the United States because the European market has a unified wireless standard.

U.S. firms expanded their international presence in 1999 through acquisitions and strategic alliances. CSC recently acquired two major Italian providers of information technology services, as well as Paris-based KPMG Peat Marwick SA., Australia-based G.E. Capital ITS, and Singapore-based CSA Holdings, Ltd.[14] Anticipating strong growth in Japan's outsourcing market, IBM Japan plans to form an alliance with Japan's NTT Comware to deliver information technology services in that country. The companies estimate that this work will generate approximately

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[12] Neil M. Coe, "The Externalization of Producer Services Debate: The UK Computer Services Sector," *The Service Industries Journal*, Apr. 2000, vol. 20, Iss. 2, pp. 64-81.

[13] CSC reports that revenues from its international operations outside of Europe grew by 81 percent, or $403.4 million, during fiscal 2000. Computer Sciences Corporation, *2000 Annual Report*, found at Internet address *http://www.csc.com/*, retrieved Oct. 27, 2000.

[14] Computer Sciences Corporation, *2000 Annual Report*, found at Internet address *http://www.csc.com/*, retrieved Oct. 27, 2000.

$15 billion in revenue over 10 years.[15] As part of its initiatives to develop online products and services, ADP recently acquired Business Management Software, LTD., a U.K.-based software developer that specializes in the development of payroll and human resources applications. Further, ADP entered the Australian payroll services market with the acquisition of PayConnect in July 2000, and now provides services to more than 7,500 clients in Australia.[16]

In 1999, France's Cap Gemini acquired Ernst & Young Consulting Services from Ernst & Young LLP, marking the first time a U.S. "Big Five"[17] accounting firm has sold its consulting business.[18] These firms expect that the merger will enable Cap Gemini, the largest computer services company in Europe, to compete more effectively with the largest U.S. providers of computer services.[19] Cap Gemini Ernst & Young, the merged firm, is the world's third-largest consulting company with close to 60,000 employees operating in 30 countries worldwide.[20]

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[15] IBM, "NTT Comware and IBM Announce Intention to Form Alliance To Deliver IT Services in Japan," *IBM News*, Oct. 31, 2000, found at Internet address *http://www.ibm/.com/*, retrieved Nov. 7, 2000.

[16] Automatic Data Processing (ADP), FORM 10-K, fiscal year ended June 30, 2000, filed Sept. 12, 2000, Securities and Exchange Commission, found at Internet address *http://www.sec.gov/*, retrieved Oct. 27, 2000.

[17] The Big Five firms are Anderson (formerly known as Arthur Andersen), Deloitte & Touche, Ernst & Young, KPMG, and PricewaterhouseCoopers. See chapter 3 for more details on the Big Five accounting firms.

[18] For more information on recent trends in the accounting and management consulting services industry, see chapter 3.

[19] Cap Gemini reports interest in becoming a major participant in the U.S. market and strengthening its position in Germany. Cap Gemini Ernst & Young, "Cap Gemini and Ernst & Young Have Agreed on Terms for the Acquisition of Ernst & Young Consulting," press release, Feb. 2000, found at Internet address *http://www.cgey.com/news/2000/*, retrieved Nov. 21, 2000.

[20] Larry Greenemeier, "Smooth Transition--Will Newly Merged Cap Gemini Ernst & Young's Strategy Retain and Attract Customers?" *InformationWeek*, Aug. 14, 2000, p. 59.

CHAPTER 9
EDUCATION SERVICES

Introduction

Education services include formal academic instruction in primary, secondary, and higher education institutions, as well as instructional services offered by libraries and vocational, correspondence, language, and special education schools. U.S. cross-border exports reflect the estimated tuition and living expenses of foreign residents enrolled in U.S. colleges and universities,[1] while U.S. cross-border imports of education services represent the estimated tuition and living expenses of U.S. residents who study abroad.[2] Affiliate transactions in education services occur when institutions provide courses in overseas markets using their own faculty and facilities. However, because comprehensive data on affiliate transactions are not available, this chapter will focus on cross-border trade.

Recent Trends in Cross-Border Trade, 1994-99

In 1999, U.S. exports of education services totaled $9.6 billion, while U.S. imports amounted to $1.8 billion (figure 9-1). Exports rose by 5.9 percent in 1999, matching the average annual growth rate registered during 1994-98. U.S. imports increased by 15.7 percent in 1999, faster than the 13.1-percent average annual rate of growth recorded during 1994-98. As a result of these trends, the United States registered a $7.7-billion surplus in education services trade in 1999. The surplus grew by 3.8 percent that year, slightly slower than the 4.7-percent average annual increase during 1994-98.[3]

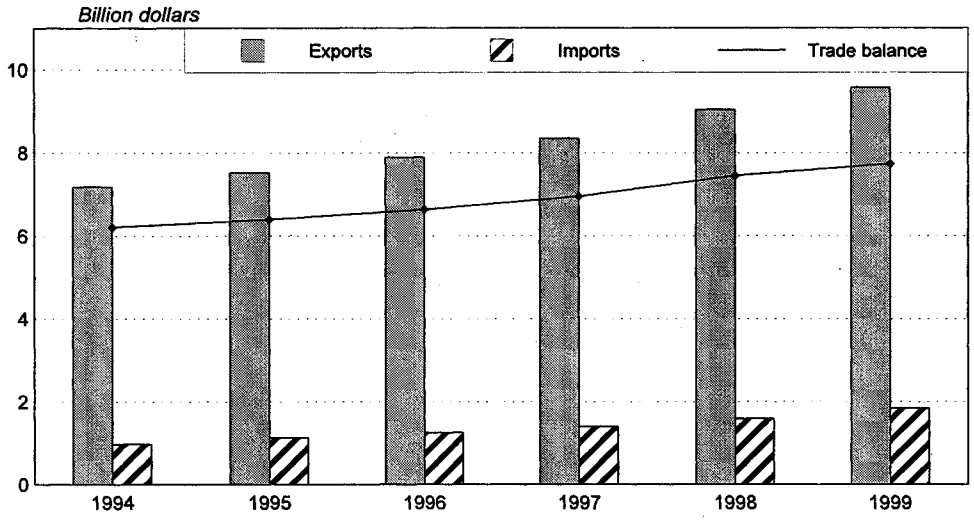
In 1999, the principal U.S. export markets for education services, in descending order, were Japan (9.2 percent), China (8.5 percent), Korea (6.5 percent), India (6.3 percent), and Taiwan (5.2 percent) (figure 9-2). With the exception of Korea, exports to each of these markets increased in 1999, led by India (up by 15.9 percent) and followed by China (13.5 percent), Taiwan (5.1 percent), and Japan (1.4 percent). U.S. exports to

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

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

[3] U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, Oct. 2000, pp. 130-131.

Figure 9-1
Education services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 130-131.

Figure 9-2
Education services: U.S. cross-border exports and trade balance, by major trading partners, 1999

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 148-149.

Korea decreased by 4.6 percent in 1999, reversing the upward trend in exports recorded since 1994. Student enrollments from Korea likely decreased due to the Asian financial crisis, which led students' families to curtail expenditures.[4]

The United States is the world's leading destination for study abroad, capturing approximately 28 percent of the global market. In the 1999-2000 academic year, nearly 515,000 foreign students enrolled in higher education institutions in the United States.[5] By far, the largest share of foreign students came from Asian countries (54 percent), followed by European (15 percent) and Latin American countries (12 percent).[6] Individually, the largest number of students continued to come from China, Japan, India, Korea, and Taiwan.[7]

The number of foreign students in the United States rose by 5 percent above the 1998-99 academic year's total. Increases were highest among students from Africa (16 percent), Latin America (12 percent), and Eastern Europe (11 percent). Foreign students' enrollments in U.S. community colleges increased by more than 46 percent between the academic years 1993-94 and 1999-2000, compared with the 15-percent growth rate registered for all types of higher education institutions. Growth in community college enrollment is attributed to a perception among foreign students that such colleges provide affordable, high-quality technical vocational programs and intensive English language training.[8]

Although the United States remains the leading destination for study abroad, both Australia and the United Kingdom achieved faster growth in their foreign student populations than did the United States in the 1999-2000 academic year. Australia, whose foreign student population increased by 30 percent, has made particularly significant progress in attracting Asian students, who have accounted for nearly all of that country's foreign students in recent years. In contrast to the United States, Australia, Canada, France, and the United Kingdom, among others, have trade strategies and specific government-industry organizations in place to attract foreign students. These countries reportedly have various competitive advantages, including proximity to student populations, more affordable tuition, and simplified university application and immigration processes.[9] These foreign governments have also established Internet-based educational portals that offer information to prospective foreign students.

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[4] Depreciation in the value of foreign currencies against the U.S. dollar makes education services provided in the United States less affordable to foreign students. In real terms, the U.S. dollar appreciated 2 percent against other major currencies in 1999. USDOC, BEA, *Survey of Current Business*, Apr. 2000, pp. 147-48.

[5] "More Students Study Abroad, But Their Stays Are Shorter," *Chronicle of Higher Education*, Nov. 17, 2000, p. A74.

[6] Study abroad data on Latin America do not include data on Mexico.

[7] "Top Places of Origin of Foreign Students, 1999-2000," *Chronicle of Higher Education*, Nov. 17, 2000, p. A77.

[8] Ibid.

[9] Michael Schneider, "The U.S. Leads the World in International Educational Exchange, But Can Do More and Better," unpublished paper, 2000.

In the 1998-99 academic year, nearly 130,000 U.S. students studied abroad, primarily in Europe (63 percent) and Latin America (15 percent). Five percent of U.S. students abroad studied in more than one foreign region.[10] U.S. imports of education services in 1999 were led by the United Kingdom (21.7 percent), Mexico (10.9 percent), Spain (8.6 percent), Italy (7.9 percent), and France (7.6 percent). U.S. imports from each of the four principal European trading partners grew at similar rates. Imports from the United Kingdom increased by 18.8 percent; followed by Spain, 18.7 percent; Italy, 16.9 percent; and France, 16.7 percent. Imports from Mexico increased by 11.1 percent.[11]

Summary and Outlook

In 1999, the number of students[12] studying in higher education and training institutions in world markets was estimated at 48 million, with 35 percent (17 million) from Asia. By 2025, this foreign student population is projected to increase to 159 million, with Asians comprising 55 percent (87 million students).[13] Added to this traditional demand, lifelong learning, which includes job training and self-improvement courses, is expanding worldwide. In the United States, the prime college-age population (ages 18 to 24) is expected to grow through 2008, expanding enrollment in higher education institutions and training centers and increasing the number of U.S. students studying abroad.[14]

The U.S. Government, recognizing the heightened competitive environment for foreign students, the changes taking place worldwide in education service delivery, and the increased demand for lifelong learning and training, recently took steps toward establishing an international education policy. In April 2000, President Clinton issued a memorandum directing Executive Branch departments and agencies, in partnership with others, to perform 10 steps intended to increase and broaden U.S. support for international education.[15] Among other things, the directive calls for the identification of actions that would improve the worldwide availability of accurate information regarding U.S. educational opportunities. The directive also calls for prudent use of technology, strengthening of foreign language programs at all education levels, and proliferation of opportunities for exchanges of faculty, administrators, and students. This directive is consistent with the final communiqué at the summit of the Group of Eight industrialized countries in July 2000, in which heads of state pledged to promote

[10] "Study Abroad by U.S. Students, 1998-99," *Chronicle of Higher Education*, Nov. 17, 2000, p. A75.

[11] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 149.

[12] Estimates are for students 18 to 24 years of age. U.S. industry representative, telephone interview by USITC staff, Jan. 29, 2001.

[13] Marjorie Peace Lenn, "Higher Education and the Global Marketplace," *Institute for International Professional Services (IIPS) Outlook*, Winter 2001, p. 4.

[14] "The Next Ten Years: Trends Affecting Study Abroad Participation for U.S. Students," *International Educator*, vol. 9, No. 4, Fall 2000, pp. 34-35.

[15] The White House, Office of the Press Secretary, "Memorandum for the Heads of Executive Departments and Agencies: International Education Policy," press release, Apr. 19, 2000, found at Internet address *http://www.pub.whitehouse.gov/*, retrieved May 3, 2000.

exchanges of students, teachers, researchers, and administrators in order to double the rate of mobility over the next 10 years.[16] In addition, education is among the service industries that may be the subject of renewed negotiations at the World Trade Organization.

Globalization and advances in information technology are among the major forces driving changes in the delivery of education and training services. The provision of distance education through the Internet is accelerating in importance. An industry forecast predicts that the number of students enrolled in distance learning will increase from 710,000 in 1998 to 2.2 million in 2002, an increase from 5 percent to 15 percent of the U.S. college population.[17] Providers of distance education span a wide spectrum in terms of size, reputation, and cost. Principal U.S. suppliers of distance education at the international level include Jones International University, the first virtual university to secure accreditation for its degree and course offerings; the National Technological University; publishing firms Harcourt General and McGraw-Hill; Sylvan Learning Systems; and the University of Phoenix. Several large institutions, including New York University and the University of Maryland, have recently established for-profit entities in an effort to extend distance learning programs to international markets.

There is also a large and growing number of U.S.-style[18] universities and identifiable affiliates in foreign markets. Such institutions can be found in at least 40 countries, and include affiliates of well-known schools such as Webster University, Johns Hopkins University, Temple University, The George Washington University, and American University.[19] Reportedly, many U.S. universities establishing commercial operations abroad have formed joint ventures with local partners in host countries, in conformity with law or culture.

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[16] "G-8 Seeks More Student, Scholar Mobility," *NAFSA Newsletter*, vol. 51, No. 6, Sept.-Oct. 2000.

[17] "Trends in Distance Education Offerings," *Peterson's Guide to Distance Learning Programs* (U.S.: Peterson's, 1999); and Ray Boggs and Sau Lau, "Distance Learning in Higher Education: 1999 Market Update," Bulletin No. W19938, Aug. 1999, found at Internet address *http://www.itresearch.com/*, retrieved May 3, 2000.

[18] U.S.-style universities abroad have characteristics in common with traditional U.S. higher education institutions at the undergraduate level, namely 4-year degree programs, in which students take 2 years of general (core) courses before specializing in the final 2 years. Moreover, students are evaluated using a variety of measures including, but not limited to, a final examination. Industry representative, telephone interview by USITC staff, Jan. 29, 2001.

[19] Various sources, including Dun & Bradstreet, *America's Corporate Families and International Affiliates 1998* (Bethlehem, PA: Dun & Bradstreet, 1998).

CHAPTER 10
ENERGY SERVICES

Introduction

Energy services comprise a wide variety of activities related to energy exploration, production, delivery, and sales. These services may be broadly divided into two categories: petroleum-related services and utility-related services. Petroleum-related services principally include oil and gas field services, pipeline transportation and storage services, tanker services, and services provided by petroleum wholesalers and retailers. Utility-related services comprise sales of services by firms engaged in the distribution of natural gas and the generation, transmission, and/or distribution[1] of electrical energy.[2] Energy services may also include related design and engineering services; transportation; storage; trading, marketing, and brokerage; commodity and price risk management; customer services;[3] and waste management and disposal services.

Energy services may be sold to foreign customers either through cross-border channels or through foreign-based affiliates. Energy services most likely to be traded on a cross-border basis include transportation; design and engineering services; and financially oriented activities such as energy trading, marketing, brokerage, and risk management. Services provided through foreign affiliates tend to be those that typically require a direct presence in foreign markets, such as oil field services; pipeline transportation and distribution services; and electric power generation, transmission, and distribution services. Official data on cross-border energy services trade are unavailable principally because they are not captured by an individual service category. Instead, cross-border trade in energy services is reflected in data on engineering, financial, transportation, consulting, and other services. With respect to affiliate transactions, some official data are reported on sales of services by utilities and petroleum-related firms. However, as with cross-border trade, affiliate transactions data do not capture energy-related sales of services by engineering or construction companies, because such transactions cannot be distinguished from non-energy sales. Due to these data limitations, the following data discussion addresses only affiliate transactions by firms engaged directly in petroleum-related and utility businesses.

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[1] Electric power transmission involves the movement of electricity across significant distances through high-voltage grids, whereas electric power distribution involves the delivery of lower voltage electricity to the ultimate consumer.

[2] Although electricity itself is traded across borders, it is classified as a commodity and therefore recorded in the merchandise trade account.

[3] These include programs to reduce or restructure a customer's consumption of energy in order to improve energy conservation and efficiency. These also include metering and billing services.

Recent Trends in Affiliate Transactions, 1993-98

In 1998, U.S. sales of energy services through foreign affiliates increased by 17.8 percent, reaching an estimated $38.2 billion (figure 10-1).[4] The increase in sales recorded in 1998 was strong, but somewhat slower than the 29.2-percent average annual growth rate recorded during 1993-97. This likely reflects an easing in the pace of electric power privatization initiatives abroad, as the massive programs undertaken by the United Kingdom and Australia had largely been completed. As in previous years, the 27.6-percent sales growth in the utilities segment considerably outpaced the 2.1-percent growth rate recorded in the petroleum-related segment. As a result, growth in utilities sales accounted for 95.5 percent of the total increase in energy services sales.

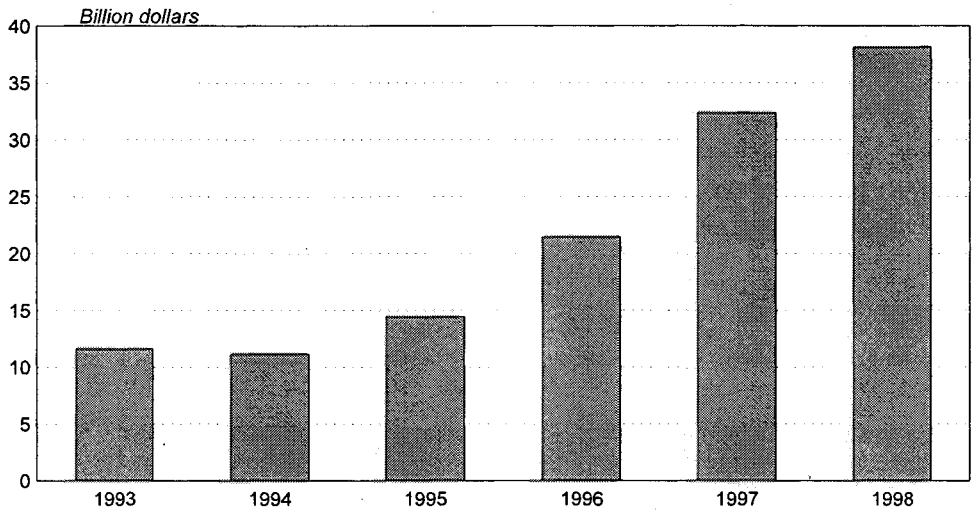
Europe accounted for the largest portion of U.S. sales in 1998, with 54.4 percent. Sales through U.K.-based affiliates alone represented 85.7 percent of sales to Europe, and 46.6 percent of all sales by U.S.-owned energy affiliates (figure 10-2). Latin America and Canada accounted for 11.3 percent and 10.6 percent of sales, respectively, and Australia accounted for an additional 6.7 percent. In 1998, U.S. sales increased most rapidly in Latin America (30.3-percent growth) and Australia (21.1-percent growth). Strong growth in sales through Latin America-based affiliates reflects a number of new projects and acquisitions undertaken by U.S. firms such as AES, PP&L, El Paso Energy, and GPU in countries such as Mexico and Argentina.[5] Similarly, sales growth in Australia is explained, in part, by investments made by AES and GPU during 1998.[6] The regional distribution of sales in the utilities segment is significantly different than the distribution in the petroleum-related segment. In 1998, Europe accounted for 79.9 percent of sales in the utilities segment, but only 38.8 percent of petroleum-related sales. In Latin America, sales in the utilities segment increased by 104.1 percent in 1998, as compared to 7.4 percent growth in the petroleum-related segment.

[4] Data on U.S. sales was obtained from U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, Oct. 2000, p. 159.

[5] "Deregulation Fosters Globalization of the Electric Power Industry," *Industry, Trade, and Technology Review* (USITC Publication 3134, Sept. 1998), pp. 49-55; "Morristown, N.J.-Based Utility GPU to Buy Argentine Holding Company," Dec. 24, 1998, found at Internet address *http://www.energycentral.com/*, retrieved Dec. 30, 1998; and "Mexico's President Zedillo Inaugurates Samalayuca II Power Facility," Aug. 14, 1998, found at Internet address *http://www.newspage.com/*, retrieved Aug. 17, 1998.

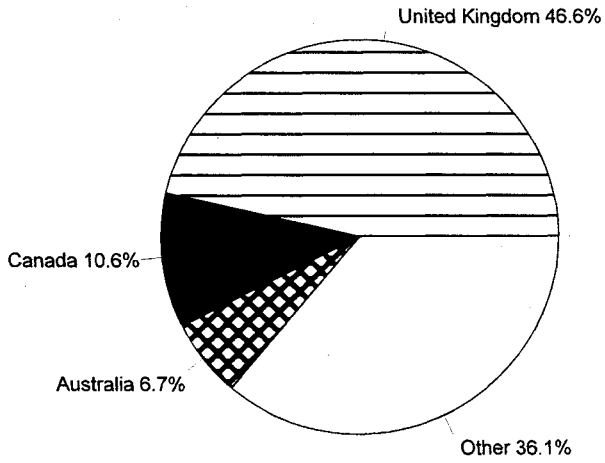
[6] Ibid.; and GPU 1998 form 10-K submitted to the Securities and Exchange Commission, retrieved Jan. 16, 2001.

Figure 10-1
Energy affiliates: Sales of services by majority-owned affiliates of U.S. firms, 1993-98



Source: Compiled by the Commission based on data provided by U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business,* Oct. 2000, p. 159; Oct. 1999, p. 93; Oct. 1998, pp. 115-6; Oct. 1997, pp. 137-8; Nov. 1996, pp. 104-5; and Sept. 1994, pp. 135-6; USDOC, BEA, *U.S. Direct Investment Abroad, 1994 Benchmark Survey, Final Results,* table III.F.20.

Figure 10-2
Energy affiliates: Sales by majority-owned affiliates of U.S. firms, by principal markets, 1998



Total = $38.2 billion

Source: Compiled by the Commission based on data provided by U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 159.

U.S. purchases of energy services through foreign-owned affiliates measured an estimated $13.1 billion dollars in 1998, reflecting a 5.4-percent increase from 1997.[7] As with U.S. sales, the utilities segment accounted for the majority (64.6 percent) of U.S. affiliate purchases in 1998, 93.3 percent of which took place in the electric power segment. Services related to coal mining and petroleum exploration and extraction accounted for 18.5 percent of purchases, while petroleum transportation and storage services accounted for 16.9 percent of purchases. Although U.S. purchases of services related to mining and petroleum exploration and extraction increased by 14.0 percent in 1998, this growth was offset by smaller increases in the utilities segment (3.8 percent) and the transportation segment (4.0 percent).

European-owned affiliates accounted for 58.9 percent of U.S. purchases of energy services in 1998, while Canadian-owned affiliates accounted for an additional 15.9 percent (figure 10-3). The balance of U.S. energy services purchases was widely distributed among other regions. The utilities segment accounted for 86.7 percent of U.S. purchases through European-owned affiliates and 67.0 percent of purchases through Canadian-owned affiliates.

Summary and Outlook

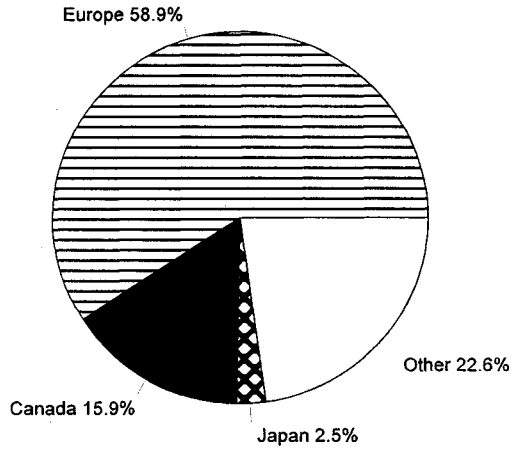
Energy services trade continues to be driven largely by fluctuations in oil and natural gas prices and by regulatory reform programs. In 2000, the price of both oil and natural gas rose dramatically, with oil prices consistently exceeding $30 per barrel (nearly three times the price of $11 per barrel recorded in 1998), and natural gas prices reportedly rising above $5 per million British thermal units (twice the price recorded in January 2000).[8] The rise in oil prices reportedly was a direct result of coordinated production cut-backs by OPEC members, who account for approximately 40 percent of global crude oil production.[9] Natural gas prices have also risen because supply has not kept pace with the growth in demand. Specifically, low gas prices discouraged exploration and development activity during much of the 1990s, while demand grew at a relatively strong average annual rate of nearly 3 percent as commercial, industrial, and residential consumers increasingly shifted

[7] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1. U.S. purchases data reported herein were estimated by USITC staff based on data provided by USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 158; and USDOC, BEA, *Foreign Direct Investment in the United States: Operations of U.S. Affiliates of Foreign Companies*, July 2000.

[8] Steve Liesman and John J. Fialka, "Barrel Roll: Why Oil Price Tripled," *Wall Street Journal*, Mar. 27, 2000, p. A-1; and Chip Cummins, "Demand and Prices for Natural Gas Keep Rising," *Wall Street Journal*, Sept. 14, 2000, p. A-2.

[9] Thaddeus Herrick, "Big Oil Firms Trim Exploration Spending," *Wall Street Journal*, Sept. 26, 2000, p. A-2.

Figure 10-3
Energy affiliates: Purchases from majority-owned affiliates of foreign firms, by country of ultimate beneficial owner,[1] 1998[2]



Total = $13.1 billion

[1] An ultimate beneficial owner of a U.S. affiliate is the entity, proceeding up the affiliate's ownership chain, that is not owned more than 50 percent by another person.
[2] Total may not equal 100 percent due to rounding.

Source: Compiled by the Commission based on data provided by U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, Oct. 2000, p. 158; and USDOC, BEA, *Foreign Direct Investment in the United States: Operations of U.S. Affiliates of Foreign Companies*, July 2000.

from other fuels to cleaner-burning, relatively lower-cost natural gas.[10] Higher oil and gas prices typically encourage increased exploration and development activity, and hence greater demand for oil and gas field services. However, recent price increases seem to have encouraged development principally for natural gas, as rising oil prices are considered to be a result of temporary production cut-backs. In fact, the number of rigs drilling for natural gas has increased by 60 percent since 1999, whereas major oil companies have made only modest efforts to develop new production capacity.[11]

In the United States and abroad, regulatory reforms in the natural gas and electric power industries continue to create new opportunities for private firms to establish or acquire foreign affiliates.[12] Most of this activity is occurring in the electric power industry, where 124 cross-border mergers and acquisitions with a combined value of $38 billion took place in 1999.[13] Firms based in the European Union have become

[10] Chip Cummins and Alexei Barrionuevo, "Spike in Demand Has Natural Gas Producers Struggling to Catch Up," *Wall Street Journal,* Oct. 11, 2000, p. A-1; and American Gas Association, "The Potential Impact of Higher Natural Gas Prices on Residential Consumers," policy statement, June 30, 2000.

[11] Herrick, "Big Oil Firms Trim Exploration Spending," p. A-2.

[12] Andrew Taylor, "Acquisitions Rise in Global Electricity Sector," *Financial Times,* Apr. 27, 2000, p. 8. For more information on regulatory reform of the electric power sector abroad, see USITC, *Electric Power Services: Recent Reforms in Selected Foreign Markets,* USTIC Publication 3370, Nov. 2000).

[13] Price Waterhouse Coopers, "Record Year for Cross-Border Deals in the Electricity Sector," found at Internet address *http://www.pwcglobal.com/*, retrieved Apr. 3, 2000.

Electric Systems for $3.2 billion in March 2000 and Eastern Utilities Associates for $643 million in April 2000. In September 2000, National Grid also agreed to acquire Niagara Mohawk for $3 billion.[14] In February 2000, PowerGen, also of the United Kingdom, announced a $3-billion acquisition of LG&E, a vertically-integrated gas and electricity utility headquartered in Kentucky.[15] Iberdrola of Spain is also reportedly interested in making a major acquisition in the United States.[16] Although U.S. energy services firms took part in a number of cross-border mergers and acquisitions during the 1990s, such firms pursued foreign acquisitions less actively during 1999 and 2000, and some firms are retrenching either because their foreign ventures had not proven as profitable as anticipated or in order to devote additional resources to the U.S. market. For example, Reliant Energy of Houston plans to sell most of its Latin American assets, and GPU of New Jersey sold its assets in Australia.[17] In addition, firms like Edison International and Entergy have experienced declines in their U.S. stock market valuation as market and regulatory factors in the United Kingdom have adversely affected the profitability of their British affiliates. Such factors may cause other U.S. firms to be more cautious in pursuing international investments.[18]

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[14] National Grid Group, "Electricity: National Grid USA", found at Internet address *http://www.nationalgrid.com/*, retrieved Oct. 27, 2000; and "National Grid Agrees to Buy U.S. Utility," *Wall Street Journal*, Sept. 6, 2000, p. A-8.

[15] Gautam Malkani, "British Power Group in $3 Billion U.S. Takeover," *Financial Times*, Feb. 27, 2000, found at Internet address *http://news.ft.com/*, retrieved Feb. 28, 2000.

[16] Nikhil Deogun, Carla Vitzthum, and Rebecca Smith, "Iberdrola is in Talks to Buy FPL," *Wall Street Journal*, Mar. 27, 2000, p. A-3.

[17] Industry representative, interview by USITC staff, Houston, TX, Apr. 12, 2000; and GPU, "GPU Completes Sale of Powernet," press release, June 30, 2000, found at Internet address *http://www.gpu.com/*, retrieved Oct. 27, 2000.

[18] Andrew Taylor, "UK Power Groups Shares Fall on U.S. Profits Warnings," *Financial Times*, Mar. 7, 2000, found at Internet address *http://news.ft.com/*, retrieved Mar. 8, 2000; and Rebecca Smith, "Shares of Edison International Plunge on Missed Four-Year Profit Projection," *Wall Street Journal*, Mar. 7, 2000.

CHAPTER 11
ENVIRONMENTAL SERVICES

Introduction

For the purposes of this report, environmental services[1] specifically include solid and hazardous waste management, environmental consulting and engineering, remediation,[2] environmental analysis, and wastewater treatment.[3] Architectural, engineering, consulting, and specialized waste management firms, along with construction contractors, laboratories, and other professional service providers, supply these services. National governments, local governments, and firms bound by environmental guidelines are the principal consumers of environmental services,[4] with the public sector accounting for the majority of environmental services demand in all OECD countries other than the United States and the Netherlands.[5] Environmental goods and services are often provided as part of a single package, in which services frequently play the more important role.[6] Although the data used in this chapter do not distinguish between cross-border trade and affiliate transactions, it is likely that trade in environmental services is conducted primarily through overseas affiliates, as cross-border trade is often infeasible in this sector.

[1] The scope of the environmental services sector, as discussed herein, is that used by Environmental Business International Inc. (EBI) in the compilation of trade and market data.

[2] Remediation services comprise the cleanup of polluted land and water sites, as well as the emergency cleanup of accidents that damage the environment, such as oil spills. United Nations Conference on Trade and Development (UNCTAD), "Strengthening Capacities in Developing Countries to Develop Their Environmental Services Sector," May 12, 1998, p. 5.

[3] Bureau of Economic Analysis (BEA) data on cross-border trade in environmental services or transactions by majority-owned affiliates in the environmental services industry are unavailable, principally because they are not captured by an individual service category. Consequently, this chapter includes data compiled and reported by industry sources, primarily EBI and *Engineering News-Record*, published by the McGraw-Hill Companies.

[4] UNCTAD, "Strengthening Capacities in Developing Countries to Develop Their Environmental Services Sector," p. 5.

[5] World Trade Organization (WTO), Committee on Trade and Environment, contribution by the United States, "Liberalization of Trade in Environmental Services and the Environment" (WT/CTE/W/70), Nov. 21, 1997.

[6] UNCTAD, "Strengthening Capacities in Developing Countries to Develop Their Environmental Services Sector," p. 11.

Recent Trends

U.S. exports of environmental services rose by 2.6 percent in 1999, from $3.6 billion to $3.7 billion (figure 11-1).[7] This increase was slightly faster than the 1.0-percent increase recorded in 1998, but considerably slower than the 11.6-percent average annual growth rate registered during 1994-98. U.S. imports rose by 55.2 percent, from $2.9 billion in 1998 to $4.5 billion in 1999, significantly faster than the average annual increase of 17.9 percent recorded during 1994-98. As a result of these trends, the U.S. environmental services trade balance decreased sharply for a second straight year, falling from a surplus of $0.7 billion in 1998 to a deficit of $0.8 billion in 1999. These data trends reflect the continuing consolidation and changing ownership of firms in the U.S. environmental services industry, particularly in the solid waste management and wastewater treatment segments.

U.S. exports of environmental consulting and engineering services rose from $1.8 billion in 1998 to $2.3 billion in 1999, accounting for 62.8 percent of all U.S. environmental service exports (figure 11-2). Other segments in which the United States recorded relatively substantial exports in 1999 included solid waste management ($0.7 billion) and remediation/industrial services ($0.4 billion). However, U.S. exports in both of these segments decreased in 1999. U.S. imports of wastewater treatment services rose from $1.8 billion in 1998 to $2.5 billion in 1999, accounting for 55.6 percent of all U.S. environmental service imports. Significant U.S. import growth was also recorded in the solid waste management segment, in which imports rose from $0.4 billion in 1998 to $0.8 billion in 1999, and the consulting and engineering segment, in which imports grew from $0.3 billion in 1998 to $0.7 billion in 1999.

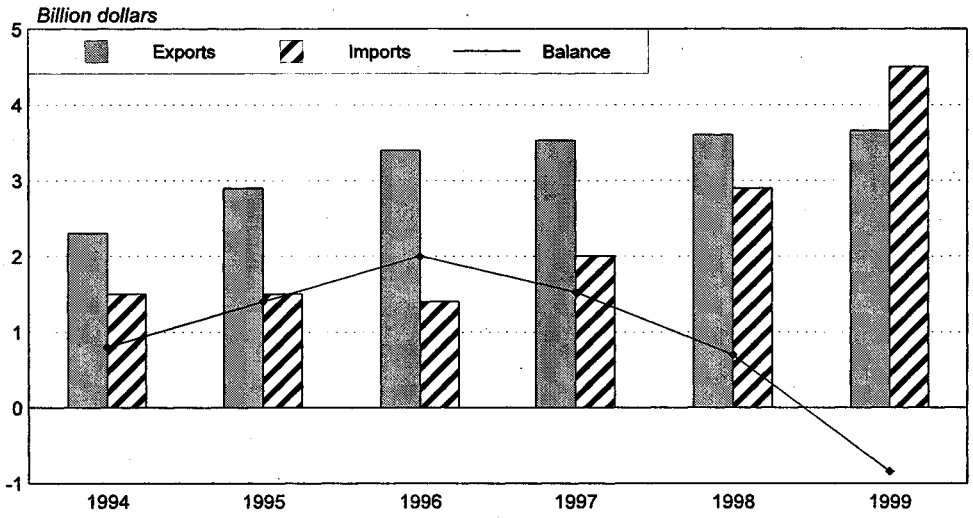
The data used to prepare the discussion above do not indicate which countries or regions account for the greatest share of U.S. environmental services exports and imports. However, data based on a different definition of the sector do reveal the relative importance of certain overseas markets for the U.S. environmental industry.[8] Reportedly, Europe accounted for the largest share (45.9 percent) of non-U.S. revenues earned by the leading 200 U.S.-based environmental firms in 1999 (figure 11-3).[9] Asia/Australia, the Middle East, and Latin America were also important markets for U.S. environmental firms, accounting for 17.1 percent, 16.7 percent and 10.9 percent of overseas revenues, respectively. By this definition, overseas revenues declined by 9.5 percent, from $5.8 billion in 1998 to $5.2 billion in 1999.

[7] EBI, preliminary estimates, facsimile, Oct. 10, 2000.

[8] The most significant differences in this definition are believed to be the inclusion of revenues from construction services and equipment sales, plus the addition of goods and services pertaining to the nuclear waste segment.

[9] Debra K. Rubin and others, "Revenue Grows in Green Markets," *Engineering News-Record*, July 3, 2000, p. 50.

Figure 11-1
Environmental services: U.S. exports, imports, and balance, 1994-99



Source: EBI, preliminary estimates, facsimile, Oct. 10, 2000; EBI, *Environmental Business Journal*, Overview 1998, vol. 11, No. 7, p. 7; Annual Industry Overview, Aug. 1995, vol. 8, No. 8, p. 2; Apr. 1996, vol. 9, No. 4, p. 7; and Apr. 1997, vol. 10, No. 4, p. 11; *EBI Report 1211: Asia Country Briefings*, excerpts presented at Environmental Exports: Outlook 2000, Arlington, VA, Nov. 8-9, 1999.

Summary and Outlook

Despite economic expansion in the United States and economic recovery in Asia, international revenues for the top 200 U.S. environmental firms fell by 9 percent in 1999. At the same time, domestic revenues for the top 200 U.S. environmental firms rose by 9 percent.[10] Reportedly, margins and rates of return for environmental engineering firms are improving in the domestic market, but not in the highly competitive international market.[11] Mature segments of the domestic environmental services industry, such as non-hazardous solid waste management, will likely experience moderate increases in revenues. The primary market driver for other segments of the industry, such as remediation and wastewater treatment, is government regulation. Thus, such segments will continue to be affected by the uncertain regulatory environment and budgets for site cleanup, as well as the strong price competition and continued consolidation that affect the environmental industry as a whole.[12]

The U.S. solid waste management segment has experienced considerable merger and acquisition activity in recent years.[13] For example, in 1999, the third-largest firm in the U.S. solid waste management segment, Allied Waste Industries, Inc., acquired

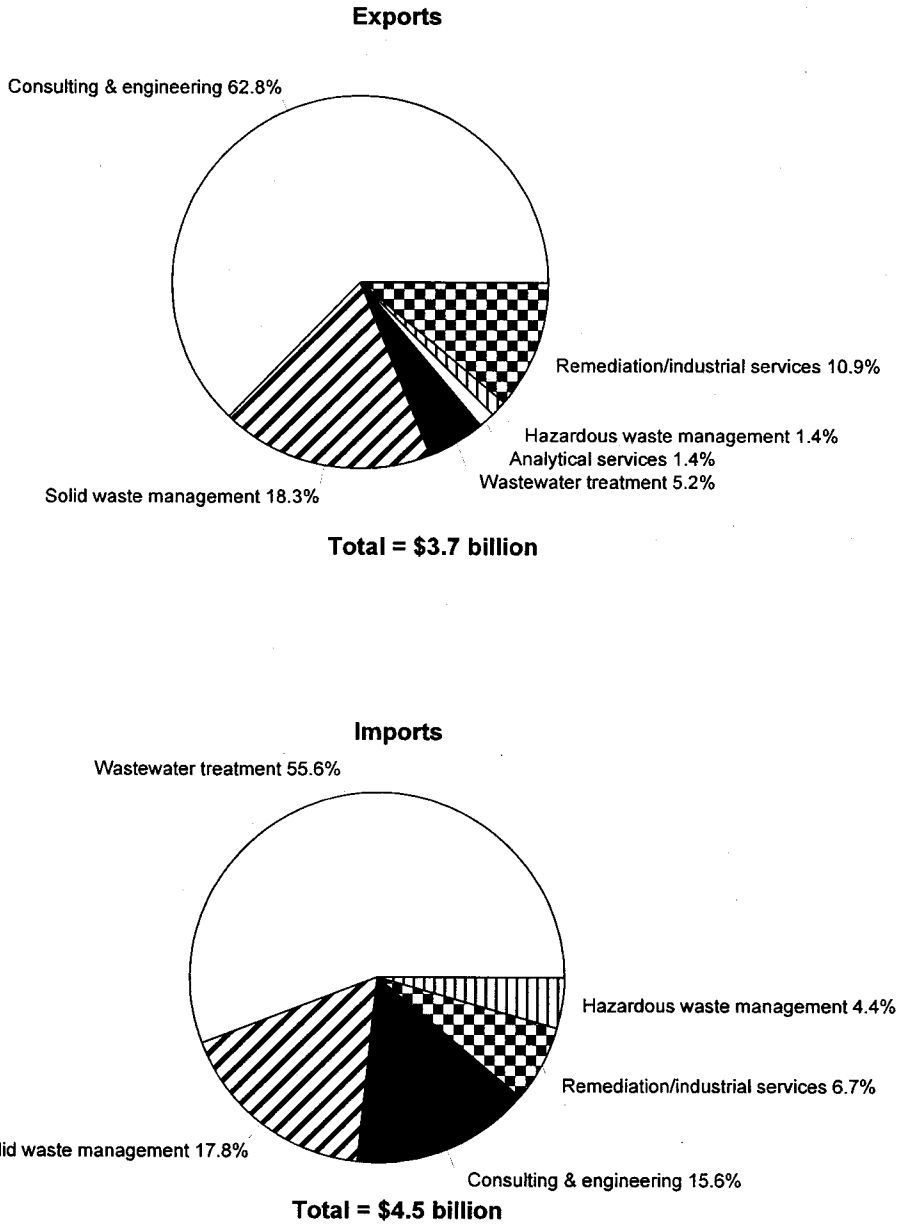
[10] Rubin and others, "Revenue Grows in Green Markets," p. 36.

[11] Debra K. Rubin, "Engineer CEOs Report Good Times But New Risks Loom, Says Survey," *Engineering News- Record*, Nov. 6, 2000, p. 14.

[12] U.S. Department of Commerce (USDOC), "Environmental Technologies and Services," *U.S. Industry and Trade Outlook 2000* (Washington: The McGraw-Hill Companies, 2000), p. 20-4.

[13] Ibid.

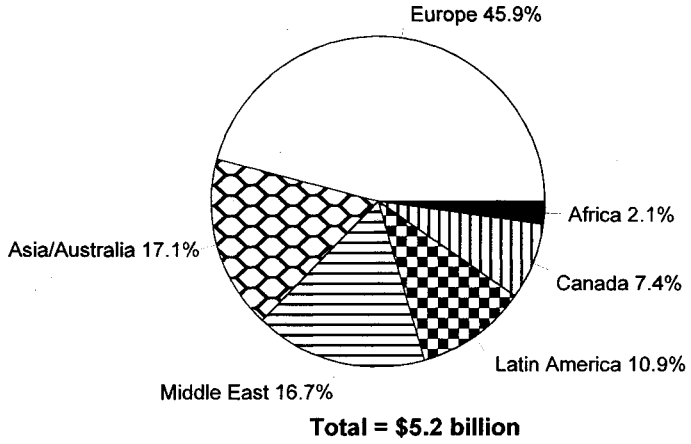
Figure 11-2
Environmental services: U.S. exports and imports, by industry segment, 1999[1]



[1] Totals may not equal 100 percent due to rounding.

Source: EBI, preliminary estimates, facsimile, Oct. 10, 2000.

Figure 11-3
Environmental industry:[1] Foreign revenue of U.S.-based environmental goods/services firms, by region, 1999[2]



[1] Data relating to the environmental industry, as presented in the *Engineering News-Record*, comprise both goods and services revenues earned by the leading 200 U.S.-based environmental firms in the following environmental sectors: hazardous waste management, nuclear waste management, water quality, wastewater treatment, environmental compliance, and other environmental markets.
[2] Total may not equal 100 percent due to rounding.

Source: Compiled by the Commission using data reported in Rubin Powers and Angelo Rosenbaum, "Revenue Growns in Green Markets," *Engineering News-Record*, July 3, 2000, p. 50.

the second-largest firm, Browning-Ferris Industries, Inc. This acquisition was preceded by Allied's acquisition of Rabanco Ltd., and number one Waste Management Inc.'s acquisition of Eastern Environmental Services, both of which occurred in 1998. Consolidation in this segment reportedly will continue. Likewise, in the water and wastewater segments, acquisition and merger activity is likely to continue as municipalities respond to rising costs and burgeoning needs for infrastructure improvements by turning to private sector firms for operation and maintenance services or by privatizing publicly-owned facilities.[14]

Although it incorporated Internet strategies later than many other industries, the environmental services industry has made significant investments in computer technology in recent years. Environmental services firms have applied Internet technology to the business-to-business (B2B) market. For example, newly-established Internet sites are facilitating activities such as bidding on projects; connecting environmental managers in manufacturing companies with service providers; auctioning and trading waste material; managing data, news, and regulatory information; and selling equipment and supplies.[15]

[14] Ibid.
[15] EBI, "The Internet Offers Challenges and Opportunities," *Environmental Business Journal*, vol. XII, No. 11/12 (2000), p. 1.

CHAPTER 12
HEALTH CARE SERVICES

Introduction

Health care services encompass a broad range of services provided by medical professionals and health care institutions. For the purpose of this report, health care services include services provided to patients by hospitals and hospital chains; offices and clinics of medical doctors and other health care professionals; nursing homes and other long-term care providers; rehabilitation facilities; home health care providers; certain health maintenance organizations (HMOs); medical and dental laboratories; kidney dialysis centers; and specialty outpatient facilities.

Health professionals provide services to foreign patients through cross-border trade and through affiliates established in foreign markets. Cross-border trade consists of the treatment of citizens of one country by health care providers in another country. Cross-border exports largely consist of the treatment of foreign persons in the United States by hospitals, clinics, medical doctors, and other health care service professionals. Cross-border imports comprise the treatment of U.S. citizens overseas by foreign health care service providers. Affiliate transactions comprise health care services provided to persons in their home countries by foreign-owned affiliates based in those countries. Cross-border transactions account for the greater proportion of U.S. health care exports,[1] while affiliate transactions account for the majority of U.S. imports.

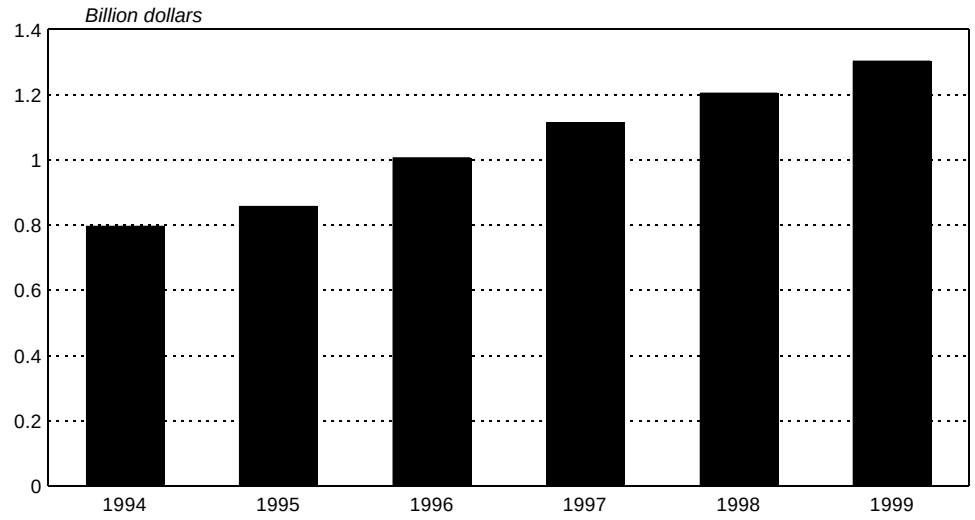
Recent Trends

Cross-Border Trade, 1994-99

In 1999, U.S. cross-border exports of health care services totaled $1.3 billion. The value of corresponding imports is not available, as such data are not reported by official data collection agencies. U.S. cross-border exports of health care services increased by 8.1 percent in 1999 (figure 12-1). This roughly matches the increase in

[1] Estimated receipts for medical services provided to foreign residents at U.S. hospitals reflect improved methodology and new source data beginning in 1995. Inpatient estimates were prepared by obtaining information from State regulatory agencies, hospital associations, and hospitals with international medical centers. Outpatient estimates were provided by individual hospitals and are based on approximate data on the number of outpatients, in addition to associated charges per outpatient. Total medical receipts from foreign patients amounted to inpatient charges plus outpatient charges. U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, July 1999, pp. 68-69.

Figure 12-1
Health care services: U.S. cross-border exports, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 130.

health care services exports in 1998 (8.2 percent), but remains below the 11.0-percent average annual growth rate registered during 1994-98.[2]

Export growth recorded in 1999 is likely a result of continued economic recovery in Latin America, East Asia, and Europe, as such recovery increases the number of foreign nationals who can afford to travel to the United States for medical care.[3] However, the strength of the U.S. dollar against other currencies throughout 1999[4] probably had a moderating effect on the growth of cross-border health care exports.

Although official data do not identify which countries account for the greatest shares of U.S. health care services exports, citizens of Australia, Canada, Germany, Japan, Mexico, and the United Kingdom reportedly are important consumers of U.S. health care services.[5] In addition, several Latin American countries, such as Argentina, Brazil, Chile, Colombia, and Venezuela, likely account for an increasing share of cross-border exports as the quality of coverage provided by public systems in these countries reportedly continues to decline. Until these countries develop robust health care service industries, the United States likely will remain a top provider of health care services among those who demand standards of treatment that are not provided by the health care system in their home country, and who can afford the expense of traveling to the United States for treatment.

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[2] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 130-131.

[3] International Monetary Fund (IMF), *World Economic Outlook*, Oct. 2000, found at Internet address *http://www.imf.org/*, retrieved Dec. 20, 2000.

[4] In real terms, the U.S. dollar appreciated 2 percent against other major currencies during 1999. USDOC, BEA, *Survey of Current Business*, Apr. 2000, pp. 147-148.

[5] Industry representatives, telephone interviews by USITC staff, Nov. 2, 2000.

Affiliate Transactions, 1993-98

Sales of health care services by foreign-based affiliates of U.S. firms totaled $376 million in 1998. This reflected a 7.4-percent increase over sales posted in 1997, and contrasts sharply with the average annual decline of 2.1 percent recorded during 1993-97 (figure 12-2).[6] U.S. expansion in foreign markets may be tempered by the fact that in most countries, many health care services continue to be publically-provided. However, the increase in foreign sales by U.S. affiliates may represent the beginning of an expansion by U.S. firms into those foreign health care service markets that have recently experienced limited privatization, including the United Kingdom and certain Latin American countries. These markets accounted for significant and rapidly growing shares of U.S. affiliate sales in 1998 (figure 12-3). Specifically, U.S. sales to the United Kingdom increased by 136.6 percent to $97 million in 1998, and U.S. sales to Latin America increased by 140.0 percent to $48 million in 1998.[7]

U.S. purchases of health care services from U.S.-based affiliates of foreign-owned firms increased by 24.3 percent to $5.9 billion in 1998.[8] U.S. affiliates of European firms accounted for $3.8 billion of such purchases.[9] German-owned Fresenius Medical Care AG continued to expand its health care service business in the United States, reportedly providing over $2.5 billion in services through its New York-based affiliate in 1998.[10] Thus, it is likely that German-owned affiliates accounted for a substantial share of U.S. purchases of health care services.

Summary and Outlook

The continuing strength of the U.S. dollar will likely have a significant effect on foreign demand for U.S. health care services in the future. According to industry, a strong U.S. dollar, together with the continued liberalization of health care markets abroad and the slowing pace of domestic consolidation, may lead to increased expansion by U.S. health care services firms in foreign markets.[11] In contrast, the strength of the U.S. dollar may discourage cross-border exports and significant

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[6] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 159.

[7] Ibid.

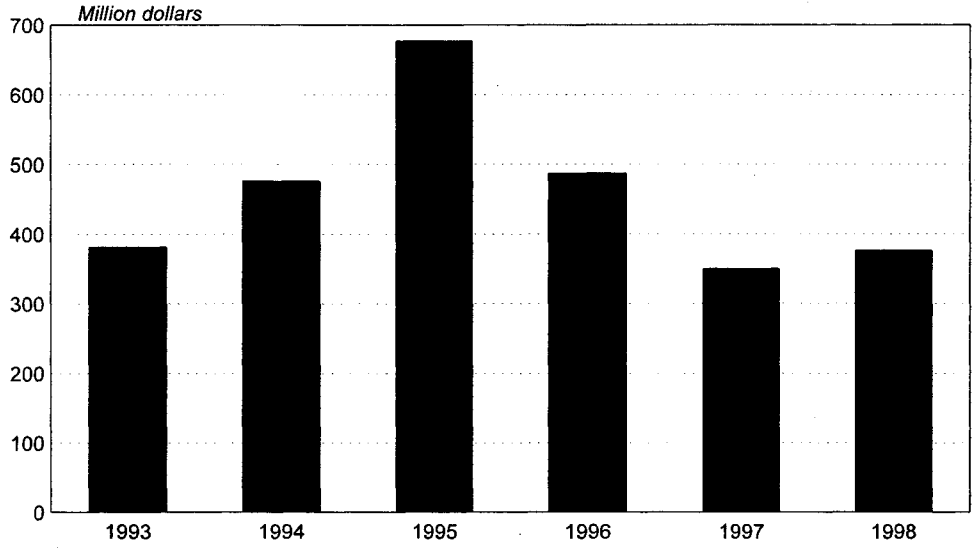
[8] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

[9] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 160-61.

[10] Fresenius Medical Care AG, *Annual Report 1998*, found at Internet address *http://www.fmc-ag.com/*, retrieved Dec. 20, 2000.

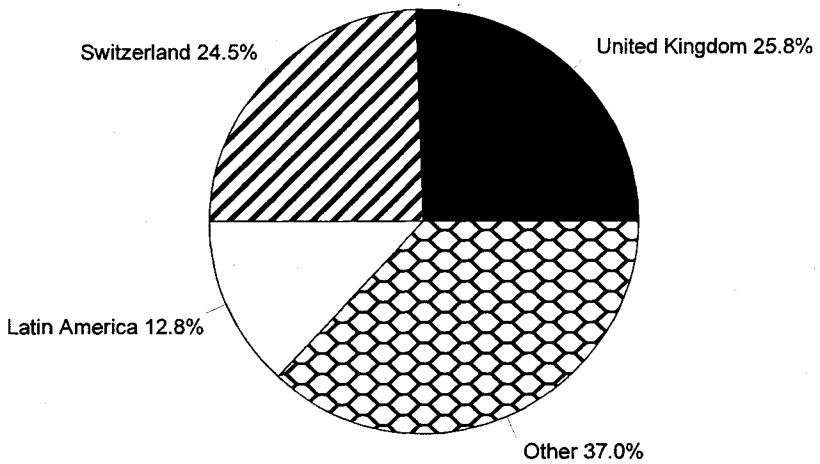
[11] USDOC, *U.S. Industry & Trade Outlook 2000*, pp. 43-5 - 43-6; *Modern Healthcare*, special section on international healthcare, Nov. 13, 2000, pp. 28-48; and Deanna Bellandi, "Hospital CEOs More Optimistic," *Modern Healthcare*, June 26, 2000, pp. 60-64.

Figure 12-2
Health care affiliates: Sales of services by majority-owned affiliates of U.S. firms, 1993-98



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 159; Oct. 1999, p. 115; Oct. 1997, p. 137; and Nov. 1996, p. 111.

Figure 12-3
Health care affiliates: Sales by majority-owned affiliates of U.S. firms, by principal markets, 1998[1]



[1] Total may not equal 100 percent due to rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

foreign investments in the U.S. health care sector by making such transactions relatively more expensive. Currency values will likely have a less severe impact on cross-border exports to Canada and Mexico, however, as nationals traveling from these countries to the United States face relatively low transportation costs.[12]

Despite the fact that most healthcare executives in the United States view health care as a "local business," the health care services industry is experiencing its own variety of globalization. Entrepreneurs are creating electronic resources that facilitate customer access to medical information and products.[13] For example, an increasing number of websites, like Web/MD, allow consumers to research conditions and diagnoses without consulting a physician. Likewise, online pharmacies enable customers to obtain prescription drugs at reduced cost without sacrificing convenience or timely delivery. The Internet may also contribute to the pace and accuracy of care by enabling doctors to access a wider range of resources, share experience and professional insights, and provide an easier means of making diagnoses.

[12] Industry representatives, telephone interviews by USITC staff, Nov. 2, 2000.

[13] Ron Hammerle, "Healthcare Becoming a Lot Less Local," *Modern Healthcare*, Mar. 20, 2000, p. 40.

CHAPTER 13
INSURANCE SERVICES

Introduction

The insurance industry underwrites financial risk for life and non-life (property/casualty) products, and provides many specialty products. The latter include reinsurance (the further transferring of risk between insurance companies), marine and transportation insurance (for hulls, cargoes, and off-shore oil rigs), and brokerage services (the packaging of policies from several underwriters to cover a given risk). In addition to risk transfer, insurance is also an important individual savings device in most countries.[1] The business of insurance is increasingly being combined with other financial services such as banking, securities, mutual funds, and annuities, most commonly in the distribution of its products, but also as an integrated method of managing savings, investment, and risk.

International trade in insurance takes place on both a cross-border and an affiliate basis. Because insurance sales often demand knowledge of, and proximity to, insurance consumers, affiliate transactions are considerably larger than cross-border trade. Cross-border trade figures for insurance services are presented on a net basis; i.e., imports comprise premiums paid to foreign insurers minus claims received, and exports comprise premiums received from foreign policy holders minus claims paid. Affiliate transactions data reflect payment of premiums only.

Recent Trends

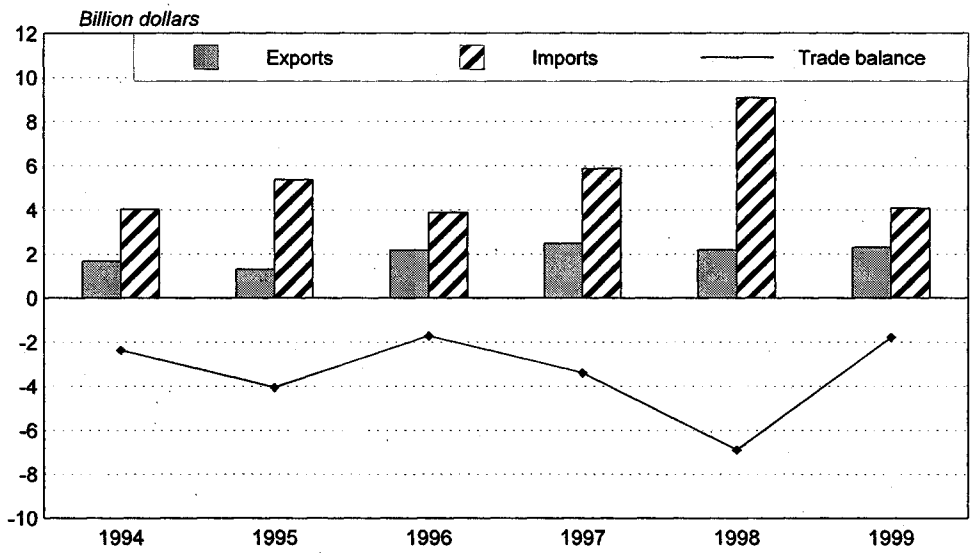
Cross-Border Trade, 1994-99

In 1999, U.S. cross-border exports of insurance services totaled $2.3 billion, and imports totaled $4.1 billion, yielding a trade deficit of $1.8 billion (figure 13-1). U.S. exports increased by 4.8 percent in 1999, slower than the average annual rate of 6.9 percent recorded during 1994-98. Slower growth was due to heavy losses from weather-related catastrophes, including windstorms in Europe and a major typhoon in Japan.[2] Exports to Europe and Asia totaled only $199 million and $249 million,

[1] Increasing numbers of consumers in many countries are using private life insurance products such as annuities and other pension products to supplement government-sponsored social insurance programs. American Council of Life Insurance, *Life Insurance Fact Book 1999* (Washington, DC: ACLI, 1999), p. 155.

[2] Swiss Re, "Catastrophe Year 1999: Seven Billion-Dollar Losses, Over 105,000 Dead," *Sigma*, No. 2 (2000), pp. 6-7.

Figure 13-1
Insurance services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 130-131.

respectively, in 1999. In contrast, exports to Latin America and the Caribbean[3] increased by 81.3 percent in 1999 to $1.6 billion, accounting for 70.8 percent of total U.S. cross-border insurance exports.[4] Total U.S. imports of insurance services declined by 54.6 percent in 1999, a significant change from the average annual increase of 22.5 percent recorded during 1994-98. Even though premiums paid to foreign insurers increased by 4.7 percent in 1999, total claims collected by U.S. residents from these insurers increased by 53.1 percent, yielding a decline in net U.S. imports. The large claims payments were the result of losses recovered by U.S. insurers from foreign reinsurance companies due to an unusual number of weather-related problems in 1998 and 1999, both in the United States and abroad.[5] The U.S. trade deficit in insurance services has persisted throughout 1994-99. However, the 1999 drop in imports led to a 74.1-percent decline in the deficit, a significant shift from 1994-98, during which the trade deficit increased at an average annual rate of 30.7 percent.

In 1999, the United States' largest cross-border export markets for insurance services were Japan and Canada, which accounted for net insurance receipts of $231 million and $207 million, respectively (figure 13-2). Other significant U.S. export markets were the United Kingdom ($128 million), Argentina ($114 million), and

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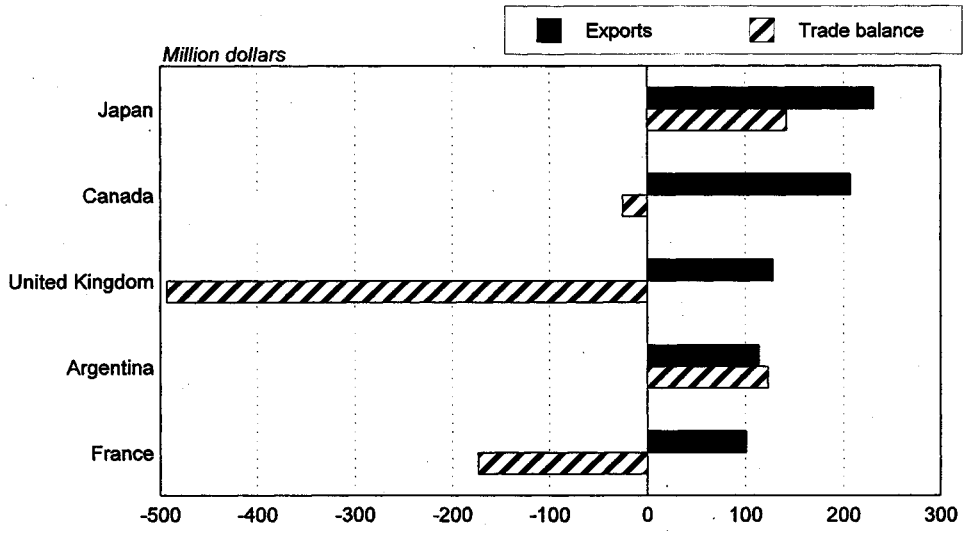
[3] $1.4 billion of these exports went to Caribbean countries other than Bermuda, but no breakdown is available.

[4] Due to data limitations, it is not possible to determine which countries within the region account for the majority of these exports.

[5] U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business,* Oct. 2000, p. 122.

Figure 13-2
Insurance services: U.S. cross-border exports and trade balance, by major trading partners, 1999



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 153.

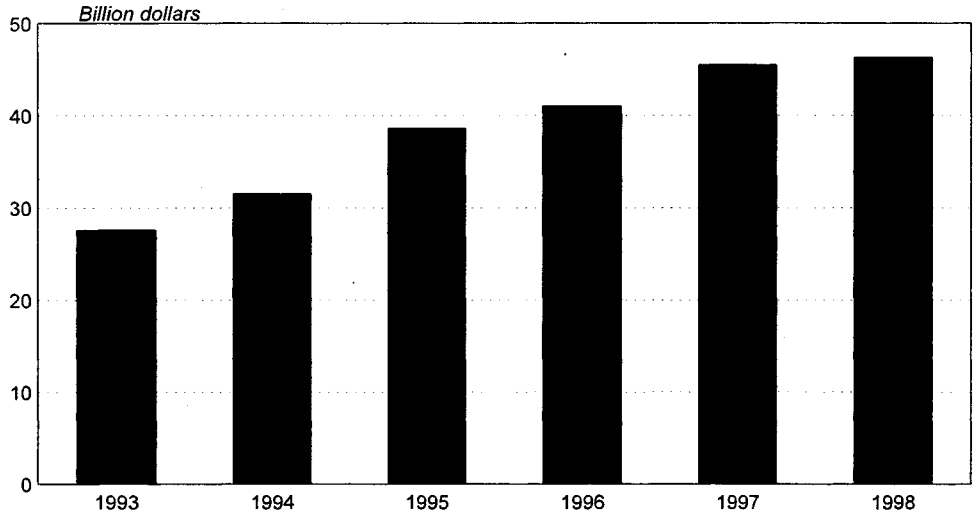
France ($101 million). Heavy losses in Europe due to windstorms Lothar and Martin resulted in increased claims payments by U.S. insurance firms to many European countries, reducing net cross-border insurance exports to Europe by 73.5 percent in 1999. In Germany, which ranked as the fourth-largest U.S. export market in 1998, claims paid exceeded premiums collected, yielding negative net exports of $16 million.

With respect to imports, Bermuda continued to be the largest supplier of insurance services to the United States, accounting for $2.7 billion of net U.S. insurance payments in 1999. Germany ranks second, accounting for net imports of $880 million. Other significant import suppliers in 1999 include the United Kingdom ($621 million), Australia ($413 million), and France ($274 million).

Affiliate Transactions, 1993-98

As noted above, most insurance trade takes place through affiliates operating in foreign markets. In 1998, U.S.-owned insurance affiliates in foreign markets recorded sales of $46.3 billion, up 1.8 percent from 1997 (figure 13-3). This increase was significantly slower than the 13.3-percent average annual increase in affiliate sales recorded during 1993-97. Japan was the largest market for U.S.-owned insurance affiliates in 1998, accounting for 19.2 percent, or $8.9 billion, of total sales (figure 13-4). The United Kingdom ranked second, with 16.4 percent, followed by Germany, with 11.5 percent, and Canada, with 9.2 percent. Sales by U.S.-owned affiliates in Japan, the United Kingdom, and Canada all recorded

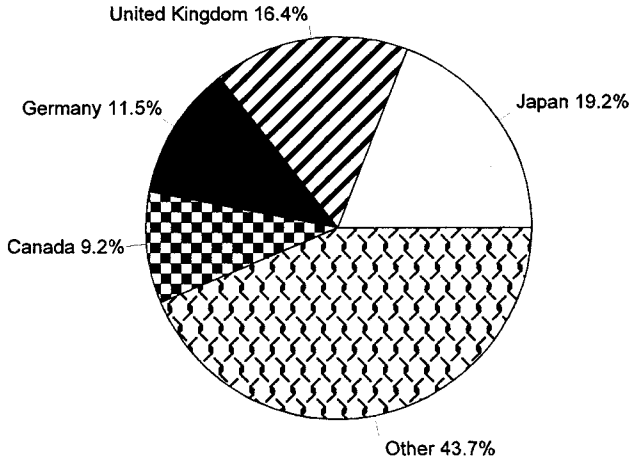
Figure 13-3
Insurance affiliates: Sales of services by majority-owned affiliates[1] of U.S. firms, 1993-98



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

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 159; Oct. 1999, p. 93; Oct. 1998, p. 115; Oct. 1997, p. 137; and Nov. 1996, p. 111.

Figure 13-4
Insurance affiliates: Sales by majority-owned affiliates[1] of U.S. firms, by principal markets, 1998



Total = $46.3 billion

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

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

declines in 1998.[6] The only region to record an increase in sales by U.S.-owned affiliates was Latin America and the Caribbean, with sales increasing from $6.6 billion to $8.5 billion. Due to data limitations, it is not clear which countries accounted for this increase. However, Brazil has the region's largest insurance market, and a number of U.S. insurers have recently opened new offices in that country in order to take advantage of its expanding economy.[7] For example, U.S. insurance underwriters Aetna, AIG, and Liberty Mutual, as well as Aon, an insurance brokerage firm, all acquired affiliates in Brazil during 1997 and 1998.[8] Non-Brazilian insurance companies collected 23 percent of total Brazilian insurance premiums in 1999, up from 5 percent in the early 1990s.[9]

U.S. purchases from U.S.-based insurance affiliates of foreign companies totaled $62.9 billion in 1998, an increase of 8.5 percent over 1997.[10] Life insurance accounted for 52.2 percent of the total, property/casualty insurance for 41.6 percent, and insurance agents and brokers for 6.3 percent. As was the case in 1997, six countries accounted for over 95 percent of U.S. purchases from foreign-owned insurance affiliates in 1998 (figure 13-5). These countries were the United Kingdom (20.8 percent), Switzerland (20.0 percent), Canada (16.3 percent), Germany (13.9 percent), France (13.4 percent), and the Netherlands (12.4 percent).

Summary and Outlook

Several recent developments have created opportunities for U.S. insurers in Asia. In December 1999, India opened up its insurance sector to foreign investment, permitting joint ventures between foreign insurers and domestic firms, with foreign equity participation of up to 26 percent. India also established a new insurance regulatory agency, which formally ended the Government's longstanding insurance

[6] Data regarding affiliate sales in Germany were suppressed in 1997, so it is not possible to compare 1997 and 1998 sales.

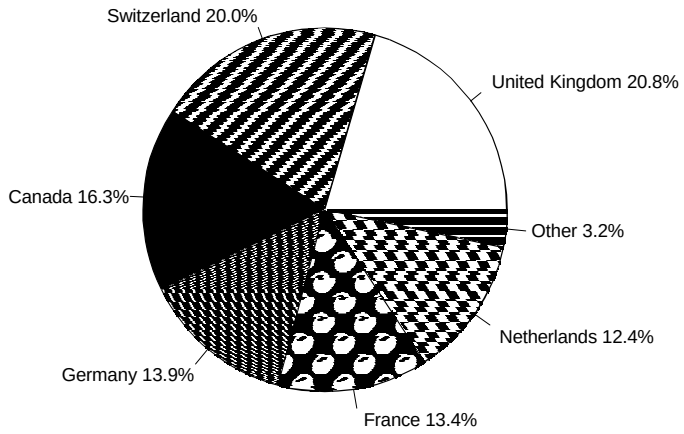
[7] See "Brazil Attracting U.S. Insurers' Interest," *National Underwriter*, Oct. 25, 1999, p. 35.

[8] Swiss Re, "Latin America: Dominance of Foreign Insurers," *Sigma*, No. 4 (2000), p. 31; "News Briefs: Aon Buys Broker, Consulting Firm," *National Underwriter*, Apr. 27, 1998, found at Internet address *http://www.nunews.com/archives/*, retrieved Nov. 6, 2000; and "AIG to Acquire Interest in Brazilian Pension Co." *National Underwriter*, Aug. 10, 1998, found at Internet address *http://www.nunews.com/archives/*, retrieved Nov. 6, 2000.

[9] "Brazil: Preparing for Privatisation," *World Insurance Report*, No. 622, Oct. 1, 1999, p. 2.

[10] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

Figure 13-5
Insurance affiliates: Purchases from majority-owned affiliates[1] of foreign firms, by country of ultimate beneficial owner,[2] 1998



Total = $62.9 billion

[1] Data reflect premiums only for primary insurance and reinsurance. Affiliate trade data are not comparable with cross-border insurance trade because cross-border data are net of claims paid.
[2] An ultimate beneficial owner of a U.S. affiliate is the entity, proceeding up the affiliate's ownership chain, that is not owned more than 50 percent by another person.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 161.

monopoly by granting six new insurance licenses in October 2000.[11] In March 2000, Singapore's monetary authority eliminated restrictions on the entry of insurers and insurance brokers, and removed the 49-percent equity limit on ownership of local insurers by foreign companies.[12] In that same month, AIG became the first U.S. company to receive a life insurance license in Vietnam.[13] China is expected to enter the World Trade Organization (WTO), and has agreed to implement significant market opening measures for foreign insurers when WTO accession takes place. Thus, U.S. insurers anticipate a substantial expansion of commercial opportunities following China's WTO accession.[14]

Two new agreements have been concluded regarding Holocaust-era insurance claims. German insurers and other German firms concluded an agreement with the U.S. Government, the Israeli Government, and Jewish organizations to create a $5.2-billion foundation that will settle all Holocaust-era claims, including insurance claims, against

[11] One of the new companies, Max New York Life, is a joint venture between Max India of Delhi and U.S.-based New York Life. "India Grants Licences," *World Insurance Report*, No. 649, Oct. 27, 2000, p. 1. See also "India: Insurance Liberalisation Bill Finally Passed," *World Insurance Report*, No. 627, Dec. 10, 1999, p. 6; and "Finally, India Opens Up," *Reactions*, Jan. 2000, p. 12.
[12] "Singapore: MAS Liberalises Insurance Sector," *World Insurance Report*, No. 634, Mar. 31, 2000, p. 6.
[13] "AIG Receives Life Insurance License in Vietnam," *Business Wire*, Mar. 14, 2000, found at Internet address *http://www.kpmginsiders.com/*, retrieved Mar. 14, 2000.
[14] Industry representative, telephone interview by USITC staff, Oct. 16, 2000.

German firms.[15] Dutch banks, insurance companies, and the Dutch Government have reached a separate agreement with Dutch Jewish groups to pay a total of $325.5 million to resolve all Holocaust-era claims.[16] Several U.S. state insurance commissioners have threatened to take action against U.S.-based affiliates of foreign insurers if those insurers fail to settle such claims.[17]

[15] "Germans Settle Holocaust Claims for $5.2B," *National Underwriter,* Jan. 31, 2000, p. 17.

[16] "End in Sight for Dutch Holocaust Restitution Issue," *Reuters,* July 17, 2000, found at Internet address *http://www.kpmginsiders.com/*, retrieved July 18, 2000.

[17] "Calif. Acts Against Four Firms Over Holocaust Claims," *National Underwriter*, Aug. 9, 1999, p. 29; "Holocaust Ruling Favors Insurers," *National Underwriter*, July 3, 2000, p. 24; "Holocaust-Era Claims Dispute Kills Re Deal," *National Underwriter*, Aug. 21, 2000, p. 1; and "Germans Settle Holocaust Claims for $5.2 B," *National Underwriter*, Jan. 31, 2000, p. 17.

CHAPTER 14
INTANGIBLE INTELLECTUAL PROPERTY RIGHTS

Introduction

Trade in intangible intellectual property rights encompasses numerous service industries and is deemed particularly important in advanced technology industries as an indicator of global competitiveness. In the U.S. balance of payments, cross-border trade in intangible intellectual property rights is captured under the line item for "royalties and license fees." Such fees are collected by those who sell the rights to use industrial processes, techniques, formulas, and designs; copyrights and trademarks; business format franchising rights; and broadcast rights.[1] Additionally, royalties and license fees are collected for the rights to distribute, use, and reproduce computer software;[2] for rights to sell products under a particular brand name or signature; and for the provision of management services.[3]

U.S. royalty and license fee receipts reflect U.S. exports of intangible intellectual property, whereas U.S. payments of royalties and license fees reflect U.S. imports of such property. Many transactions involving intangible intellectual property are intrafirm transactions, carried out between parent firms in the home market and

[1] U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), "U.S. International Sales and Purchases of Private Services," *Survey of Current Business*, Oct. 1998, p. 79.

[2] In the 1998 *Survey of Current Business*, the BEA modified its methodology to include computer software royalties and license fees among other royalties and license fees. Intellectual property trade in computer software comprises transactions that confer (1) rights to distribute software and (2) rights to use or reproduce computer software that has been electronically transmitted or made from a master copy. Intellectual property trade in computer software does not include fees for custom software and programming services. USDOC, BEA, *Form BE-93, Annual Survey of Royalties, License Fees, and Other Receipts and Payments for Intangible Rights Between U.S. and Unaffiliated Persons*, 1997, p. 3.

[3] Management services essentially include administrative, professional, and managerial services. Management fees, like royalties and license fees, are payments for the rights to utilize intangible intellectual property. For example, a firm providing blueprints and technical advice to its affiliate may classify the associated charges as a licensing fee, whereas another firm may classify charges on an identical transaction as management fees. For more information on the USDOC survey of intangible intellectual property-related trade, see USDOC, BEA, "U.S. International Transactions in Royalties and Licensing Fees: Their Relationship to the Transfer of Technology," *Survey of Current Business*, Dec. 1973, p. 15.

foreign affiliates[4] in host markets. In 1999, intrafirm trade accounted for approximately 72 percent of cross-border trade in intangible intellectual property rights. Intrafirm trade predominates because it enables large multinational firms to control the distribution of their intellectual property in foreign markets. Multinationals first sell property rights to their foreign affiliates, which subsequently sell the rights on behalf of the parent firm and monitor protection of the intellectual property in host markets.

Recent Trends in Cross-Border Trade, 1994-99

In 1999, the United States exported intangible intellectual property valued at $36.5 billion and imported intangible intellectual property valued at $13.3 billion, resulting in a $23.2 billion surplus (figure 14-1). This surplus, which represents a 5.3-percent decline from the previous year, accounted for slightly less than a third of the total U.S. surplus in cross-border services trade. Intangible intellectual property rights respectively accounted for 14.3 percent and 7.6 percent of total U.S. exports and imports of private services. Exports increased by 0.7 percent in 1999, significantly slower than the 7.9-percent average annual growth rate registered during 1994-98. The relatively slow increase in 1999 was partially a result of a decline in U.S. parents' exports to their Europe-based industrial machinery and wholesale trade affiliates.[5] U.S. imports increased by 13.3 percent in 1999, slower than the 21.8-percent increase registered in 1998. The relatively large increase in 1998 was reportedly attributable to payments for broadcast rights for the Olympic Winter Games.[6]

In 1999, U.S. exports of intangible intellectual property were reflected in U.S. parents' receipts from foreign-based affiliates ($24.6 billion), U.S.-based firms' receipts from unaffiliated firms ($10.2 billion), and U.S.-based affiliates' receipts from their foreign parents ($1.7 billion) (figure 14-2). Receipts from affiliated firms decreased by 1.9 percent in 1999, following a 7.8-percent increase in 1998. The 1998 increase resulted from strong sales of newly-developed products by U.S.-owned foreign affiliates, most notably in the pharmaceutical industry.[7] Receipts of royalties and license fees from unaffiliated firms increased by 8.2 percent in 1999, higher than the 7.1-percent increase registered in 1998.

U.S. imports of intangible intellectual property rights in 1999 consisted of U.S. affiliates' payments to their foreign parents ($8.1 billion), U.S.-based firms' payments to unaffiliated firms ($3.1 billion), and U.S. parents' payments to their

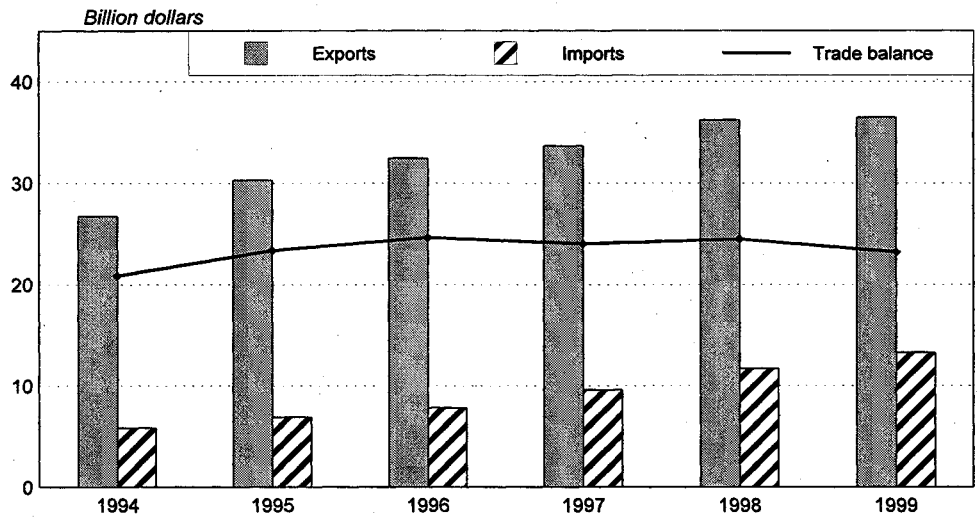
[4] Herein, foreign-based affiliates of U.S. firms are defined as those at least 10-percent owned directly or indirectly by U.S. parent firms. Similarly, U.S.-based affiliates of foreign-owned firms are defined as those at least 10-percent owned directly or indirectly by foreign parents.

[5] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 125.

[6] Ibid.

[7] Ibid.

Figure 14-1
Royalties and license fees services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 130-131.

foreign affiliates ($2.1 billion). U.S. imports from affiliated and unaffiliated firms increased by 13.3 percent and 3.6 percent, respectively, during 1999.

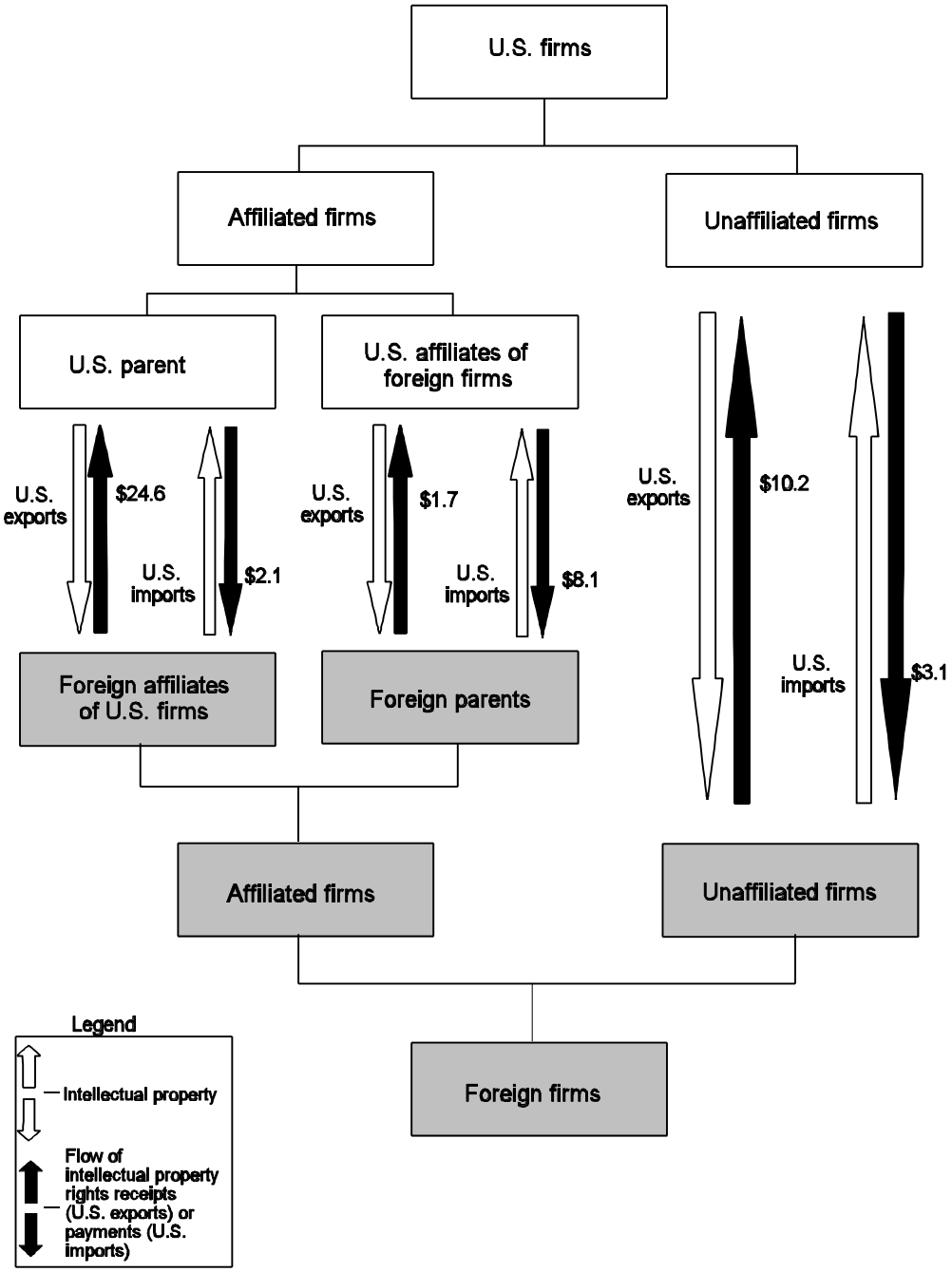
The United States recorded trade surpluses amounting to $16.1 billion with affiliated firms and $7.1 billion with unaffiliated firms in 1999. While the surplus resulting from trade with unaffiliated firms remained virtually unchanged from that recorded in 1998, the surplus in intrafirm trade decreased by 10.8 percent in 1999. As discussed above, this decrease was likely the result of the decline in U.S. parents' exports to their Europe-based industrial machinery and wholesale trade affiliates.[8]

In 1999, the major U.S. export markets for intangible intellectual property were, in descending order, Japan, the United Kingdom, Germany, the Netherlands, and France (figure 14-3). Exports to Japan totaled $6.1 billion in 1999, representing an increase of 1.3 percent. However, this increase followed a 10.8-percent decrease in 1998, likely resulting from the downturn in the Japanese economy. The United Kingdom, Germany, and France accounted for U.S. exports of $3.5 billion, $3.1 billion, and $2.1 billion, respectively, having registered slight declines in 1999. The Netherlands accounted for U.S. exports of $3 billion, reflecting an increase of 5.4 percent.

The major foreign suppliers of intangible intellectual property to the United States in 1999 were Japan, the United Kingdom, Germany, Switzerland, and France. U.S. imports of intellectual property from Japan totaled $3.2 billion, representing a 33.7-percent increase over 1998. Imports from the United Kingdom declined by 15.1 percent to $1.7 billion. This decrease is likely attributable to a decline in U.S.

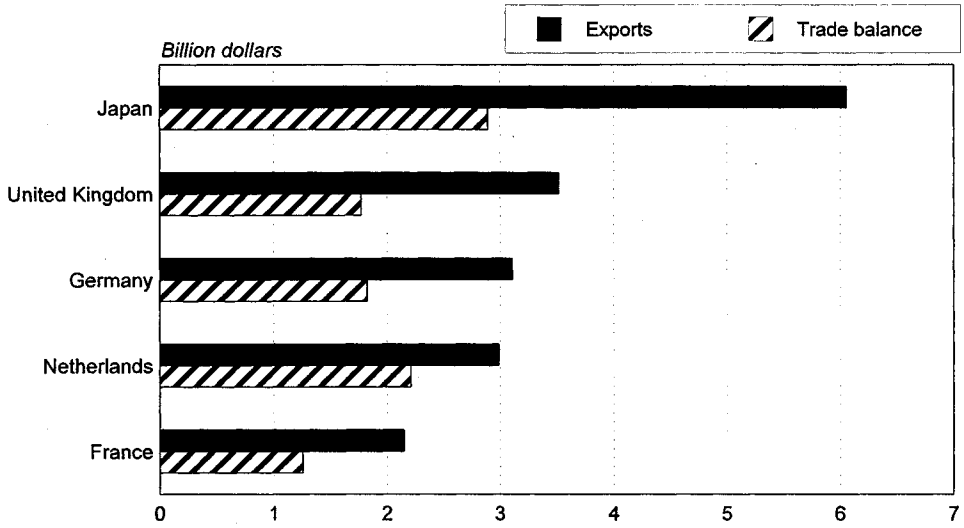
[8] Ibid.

Figure 14-2
U.S. cross-border trade in intangible intellectual property rights, 1999
(*Billion dollars)*



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 141.

Figure 14-3
Royalties and licenses fees services: U.S. cross-border exports and trade balance, by major trading partners, 1999



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 141.

intrafirm imports from that country. Imports from Germany totaled $1.3 billion. France and Switzerland changed places on the list of major foreign suppliers of intellectual property, as imports from Switzerland increased by 48.5 percent to $1.2 billion, while imports from France increased by 7.1 percent to $895 million. The increase in imports from Switzerland reflects a 58.8-percent increase in payments by U.S. affiliates to their parent firms in Switzerland.

Summary and Outlook

Software licensing[9] is one of the fastest growing segments of trade in intangible intellectual property. In 1999, worldwide revenues for general use computer software[10] totaled $155 billion, and U.S. firms reportedly accounted for 90 percent of these revenues.[11] Worldwide sales of general use computer software are expected to

[9] Software-licensing agreements are reportedly the primary means by which computer-related services are delivered to foreign markets through cross-border channels.

[10] General use computer software refers to software sold ready-to-use out of the box. The term may be used interchangeably with the term packaged software, which is commonly defined as software that is mass produced for widely used applications such as operating systems, word processing, spreadsheets, graphics, e-mail, etc. BEA representative, telephone interview by USITC staff, Washington, DC, Oct. 31, 2000.

[11] Clay Woods, Danielle Kriz, Duane Priestly, and Patricia Johnson, "Software and Internet Technologies," ch. in *U.S. Industry & Trade Outlook '99* (Washington, DC: U.S. Department of Commerce, 1999), pp. 28-2, 28-4.

exceed $268 billion by 2003.[12] The growth of the general use computer software market may be attributed, in part, to the proliferation of the Internet, which increases distribution channels and expands the global reach of software companies. Reportedly, on-line purchases of software were expected to reach $900 million by year-end 2000,[13] and 40 percent of all software purchases are expected to take place on-line by 2004, up from 7 percent in 1999.[14]

Continued growth of U.S. intangible intellectual property exports depends, in part, on the ability of U.S. trading partners to protect such property. Piracy losses in the global software industry reportedly exceeded $12 billion in 1999, and totaled $59 billion during 1994-98.[15] Additionally, it is estimated that approximately 13 percent of global recording industry sales, or $5 billion annually, is being lost to piracy.[16] In response, the audiovisual and software industries have made use of copyright protection technologies, such as digital-watermarking and encryption, in an effort to curb software and audiovisual theft. Such technologies, together with the enforcement of copyright laws, may discourage piracy and, thus, encourage U.S. exports of intangible intellectual property.

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[12] Woods and others, "Software and Internet Technologies," p. 28-4.

[13] Business Software Alliance, "Forecasting a Robust Future," 1999, found at Internet address *http://www.bsa.org/*, retrieved Oct. 31, 2000.

[14] David Lake, "E-commerce Spotlight: The Lowdown on Downloads," *The Standard Media International*, found at Internet address *http://www.thestandard.com/research/metrics/display/0,2799,10110,00.html/*, retrieved Oct. 31, 2000.

[15] International Planning & Research Corporation, "1999 Global Privacy Report," study conducted for the Business Software Alliance and Software & Information Industry Association, May 2000, found at Internet address *http://www.bsa.org/*, retrieved Oct. 4, 2000.

[16] Hilary B. Rosen, "The Promise and the Peril: Two Sides of the Digital Universe," presentation during conference entitled Intellectual Property Protection in the Digital Age (Washington DC, The European Institute, 1999).

CHAPTER 15
LEGAL SERVICES

Introduction

Legal services include legal advisory and representation services in various fields of law, advisory and representation services in statutory procedures of quasi-judicial bodies, and legal documentation and certification services. Legal services are traded both on an affiliate and a cross-border basis, although trade data are available only for the latter. Cross-border trade in this industry occurs when legal professionals travel abroad to provide services to clients, when clients travel abroad to engage the services of foreign attorneys, or when legal documents or advice are transmitted across national borders via telecommunication networks, postal carriers, or other modes of correspondence.

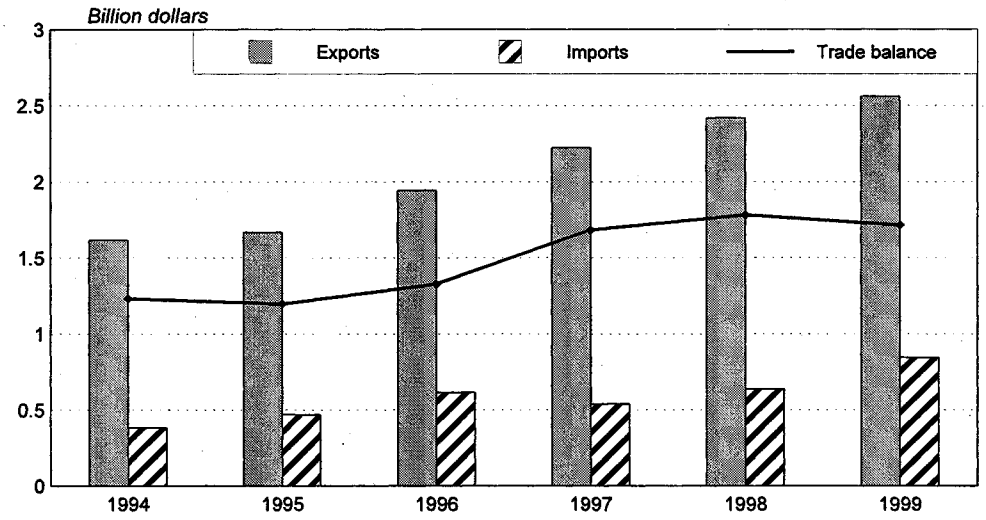
Occasionally, legal service providers may become members of foreign bars, allowing them to appear in foreign courts and provide advice on foreign law. However, most lawyers practicing abroad are not locally accredited and, therefore, function more narrowly as foreign legal consultants. Typically, U.S. foreign legal consultants may provide advice regarding U.S. law, international law, and third-country law, but are precluded from appearing in host country courts or giving advice on host country law, unless that advice is based on the counsel of a member of the local bar. Internationally, this arrangement is fairly common and is not widely regarded as a barrier to trade by U.S. legal service providers.

Recent Trends in Cross-Border Trade, 1994-99

In 1999, the U.S. trade surplus in legal services decreased for the first time since 1995 (figure 15-1). This drop was a result of moderate U.S. export growth and rapid U.S. import growth. U.S. cross-border exports of legal services totaled $2.6 billion in 1999, having increased by 5.8 percent over the previous year.[1] This increase falls short of the 10.6-percent average annual growth rate recorded during 1994-98. At the same time, U.S. cross-border imports of legal services reached $844 million, a 32.5-percent gain over 1998. This growth far surpassed the 13.6-percent average annual growth rate recorded during 1994-98.

[1] Industry representatives believe that the value of U.S. cross-border exports of legal services is substantially understated and that the actual value may be closer to twice the $2.6 billion figure. This discrepancy may occur because export revenues captured within the balance of payments between countries do not always account for the various ways law firms actually charge and collect fees. For example, a U.S.-based law firm representing a German firm in Germany may be paid in the United States by a U.S. affiliate of the German firm. Industry representative, telephone interview by USITC staff, Jan. 22, 2001.

Figure 15-1
Legal services: U.S. cross-border exports, imports, and trade balance, 1994-99



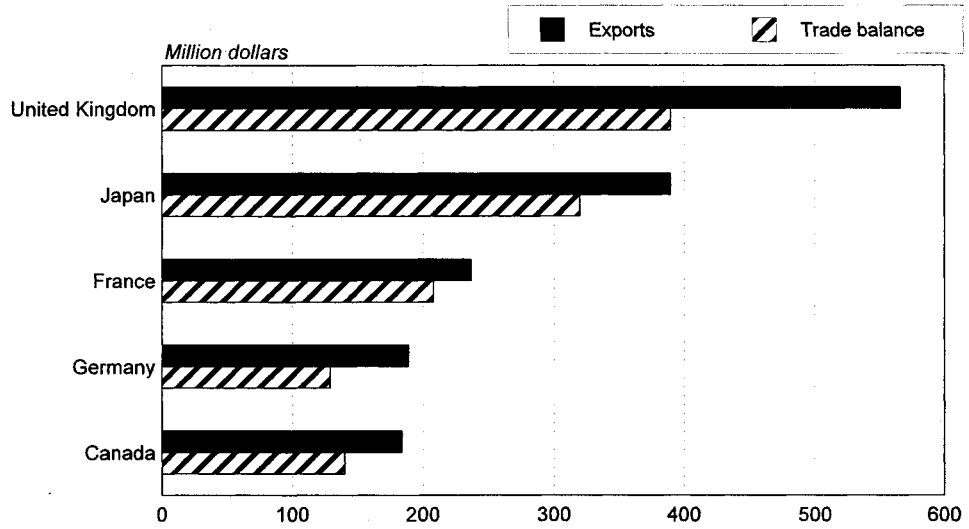
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 130-131.

In 1999, the largest U.S. export markets for legal services included the United Kingdom, accounting for 22.1 percent of total U.S. exports; Japan, 15.2 percent; France, 9.3 percent; Germany, 7.4 percent; and Canada, 7.2 percent (figure 15-2). Exports to Europe increased by 6.1 percent in 1999, slower than the 11.0-percent average annual growth rate recorded during 1994-98. Within Europe, U.S. exports to Germany grew most rapidly, increasing by 18.1 percent in 1999. U.S. exports to France and the United Kingdom also saw strong growth, increasing by 11.8 percent and 11.4 percent, respectively. U.S. exports of legal services to the Asia/Pacific region slowed, increasing by only 4.8 percent in 1999 after posting a 12.6-percent average annual growth rate during 1994-98. Exports to China and Korea increased dramatically in 1999, growing by 117.6 percent and 29.7 percent, respectively. However, each of these countries accounted for less than 4 percent of total U.S. exports.

U.S. imports of legal services from the Latin American region, which surged 137.8 percent in 1999, contributed significantly to the increase in total legal services imports.[2] U.S. imports from the European Union (EU), which accounted for 42.3 percent of all U.S. imports, increased by 18.6 percent in 1999. Among foreign countries, leading providers of legal services to the United States included the United Kingdom, Japan, and Germany, which accounted for 20.9 percent, 8.3 percent, and 7.1 percent of total U.S. imports, respectively.

[2] Determining the specific source(s) of this increase is not possible due to suppression of data by the Bureau of Economic Analysis (BEA).

Figure 15-2
Legal services: U.S. cross-border exports and trade balance, by major trading partners, 1999



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 157.

Summary and Outlook

During 2000, U.S. law firms expanded their international presence through mergers with foreign firms, by establishing offshore offices, and by offering a wider range of services to foreign clients.[3] U.S. lawyers report strong international demand for a wide range of legal services, including advisory and documentation services related to mergers and acquisitions (M&As) and international finance and banking. In addition, most law firms with a substantial international base report that their global work, whether for foreign clients in the United States, for U.S. clients overseas, or for non-U.S. clients overseas, accounts for an increasing percentage of their gross revenue.[4] To further enhance their international presence, U.S. law firms are

[3] Many U.S. law firms, believing opportunities in Europe will continue to grow, are committing significant resources to the region. For example, the London office of White & Case recently expanded its global finance, mergers and acquisitions (M&A), and capital markets practices, and plans to recruit more than 30 additional lawyers in the next 18 months. White & Case, "White & Case Announces Major English Law Expansion," press release, found at Internet address *http://www.whitecase.com/*, retrieved Nov. 29, 2000.

[4] Alison Frankel, "Who's Going Global?" *The American Lawyer,* Nov. 8, 2000, found at Internet address *http://www.law.com/*, retrieved Dec. 5, 2000.

actively developing Internet applications both for marketing and for the delivery of legal services.[5]

Opportunities for U.S. legal services providers have increased markedly in the EU as a result of the harmonization and liberalization of European merger laws.[6] U.S. legal services providers have been particularly successful in the European M&A segment, as such deals often involve industry segments in which U.S. firms enjoy a favorable competitive position in global markets, such as information technology, e-commerce, the Internet, and other segments with a high intellectual property component. Also, European corporations increasingly finance M&As with capital from U.S. investment banks, which are among U.S. law firms' largest clients. U.S.-owned affiliates[7] currently handle more than half of the European M&A transactions carried out by the leading London-based firms.[8]

Worldwide, the authorization of multi-disciplinary practices (MDPs)[9] remains a high-profile issue. For example, in the United Kingdom, the Law Society's ruling council recently endorsed MDPs, while the French continue to oppose them.[10] In July 2000, the American Bar Association voted to retain rules forbidding lawyers to engage in profit-sharing or partnerships with non-lawyers, including accountants and financial planners.[11] However, this ruling has not resolved disagreements among local bar associations. For instance, the New York State Bar Association issued a report that opposed partnerships between lawyers and non-lawyers, whereas the Bar

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[5] While U.S. law firms believe that e-commerce applications will eventually contribute greatly to the profession, legal services currently present unique challenges when delivered over the Internet, the foremost of which are questions of jurisdiction. Industry representative, telephone interview by USITC staff, Jan. 23, 2001.

[6] For example, two years after its adoption, the EU's internal electricity market directive, which is designed to reduce prices through integration of EU national electricity markets, has spurred a M&A boom among suppliers, as national electricity companies prepare for international competition. Michael Roberts, "EU Electricity Directive Faces Some Resistance," *Chemical Week*, Oct. 13, 1999, vol. 161, Iss. 38, pp. 62-63.

[7] About 80 U.S. law firms have offices in London, eight times the number of British firms with a presence in the United States. "Big in America," *The Law Society Gazette*, June 23, 2000, found at Internet address *http://www.lawgazette.co.uk/*, retrieved Sept. 27, 2000.

[8] Sullivan & Cromwell was the leading firm in European M&A activity from 1995 through 1998 and the top U.S. firm in 1999, based on dollar volume of announced transactions. Sullivan & Cromwell, *S&C M&A Practice*, found at Internet address *http://www.sullcrom.com/*, retrieved Jan. 11, 2001.

[9] Multi-disciplinary practices (MDPs) are professional services firms operated by accountants or others who are not lawyers that provide or seek to provide legal services to the public.

[10] The European bar, the Council of the Bars and Law Societies of the European Union, recommends that MDPs should not be permitted. The Canadian Bar Association voted early in 2000 to allow lawyers to practice within MDPs.

[11] American Bar Association (ABA), "The House Adopted Revised Recommendation 10F," Commission on Multi-disciplinary Practice -- July 2000 House of Delegates Action, July 13, 2000, found at Internet address *http://www.abanet.org/*, retrieved Oct. 19, 2000.

of the City of New York endorsed MDPs under most circumstances.[12] The "Big Five" U.S. accounting firms are among the strongest proponents of MDPs.[13]

U.S. and British law firms continue to form alliances with continental European law firms. U.K.-based Linklaters recently announced that an Italian firm will join the multi-jurisdictional alliance that it formed with law firms from Belgium, France, Germany, the Netherlands, Spain, and Sweden in 1999.[14] Both U.S. and British law firms are focusing on Germany due to the increasing amount of business opportunities in that country related to M&As, telecommunications, intellectual property, and international banking. At least five firms based in the United States or the United Kingdom merged with German law firms in 2000, including U.S. firm Coudert Brothers', which merged with Schürmann & Partner. As a result of this merger, Coudert Brothers' presence in Germany will be one of the largest among U.S.-based international law firms, with approximately 70 lawyers spread among offices in Frankfurt, Berlin, Munich, and Bonn.[15] In contrast, several U.S. and British firms have closed or downsized their offices in Moscow, citing the economic downturn and a decrease in business activity relating to international finance, capital markets, and international trade.

In June 2000, China granted licenses to 11 foreign law firms and two Hong Kong law firms, bringing the total to 92 foreign law firms from 11 countries. Many U.S. and foreign providers of legal services believe that China's growing economy will create strong demand for their services and are actively working to establish a commercial presence in China. However, although the Chinese Minister of Justice has stated that the legal services market will be liberalized after China joins the World Trade Organization (WTO), some legal services providers are unsure of the role Western law firms may play in China and are waiting for further developments before committing resources to the market.[16]

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[12] New York State Bar Association, "N.Y. State Bar Assoc. Demands Protection of Public: Adopts Seven Principles Aimed at Preserving Core Values of the Legal Profession," June 27, 2000, found at Internet address *http://www-1.nysba2.org/*, retrieved Oct. 19, 2000; and The Association of the Bar of the City of New York, "Statement of Position on Multi-disciplinary Practice," July 20, 1999, found at Internet address *http://www.abcny.org/*, retrieved Oct. 19, 2000.

[13] For more information regarding U.S. accounting firms' support of MDPs, see chapter 3.

[14] For the first half of 2000, Linklaters & Alliance was the leading provider of M&A services throughout Europe. Linklaters and Associates, "No.1 in European M&A," *News*, July 19, 2000, found at *http://www.linklaters.com/*, retrieved Sept. 27, 2000.

[15] This merger created a combined firm with nearly 700 lawyers and 29 offices in 16 countries, including 400 lawyers in 15 European offices. Coudert Brothers, "Coudert Brothers and German-based Law Firm Schürmann & Partner Announce Merger," press release, Jan. 25, 2000, found at Internet address *http://www.coudert.com/*, retrieved Oct. 11, 2000.

[16] Difficulties in the Chinese law market include a lengthy licensing process, and regulations that do not permit foreign law firms to employ or go into partnership with Chinese lawyers or to operate offices in more than one location. Tamara Loomis, "Will China in WTO Be Boon for Lawyers?," *New York Law Journal*, July 6, 2000, found at Internet address *http://www.law.com/*, retrieved Sept. 27, 2000.

CHAPTER 16
MARITIME SERVICES

Introduction

For the purpose of this discussion, maritime transportation services include freight transportation and port services. Trade in freight transportation and port services stems from merchandise trade. For instance, exports of freight transportation services take place when U.S. ocean carriers[1] transport U.S. merchandise exports to foreign destinations, or when U.S. ocean carriers convey cargo between two foreign ports.[2] Imports of freight transportation services, on the other hand, occur when foreign ocean carriers transport merchandise imports to the United States.[3] U.S. exports of port services encompass the value of goods and services procured by foreign ocean carriers while in U.S. sea ports, whereas imports of port services comprise the value of goods and services procured by U.S. carriers while in foreign sea ports.

Although sales by affiliates may be an important means of providing freight transportation services in countries where there are no prohibitions on the foreign provision of inland waterway and intercoastal services, cross-border delivery is the prevailing mode of trade in maritime transportation services. For this reason, the following discussion will focus on cross-border trade in maritime transportation services.

Recent Trends in Cross-Border Trade, 1994-99

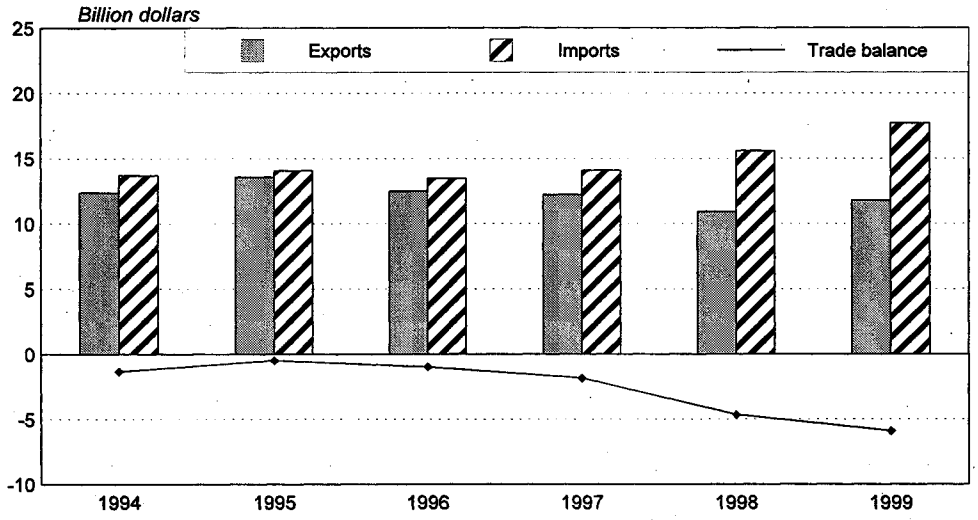
In 1999, the U.S. trade deficit in maritime transport services increased by 27.0 percent to $5.9 billion (figure 16-1). This was slower than the 37.0-percent average

[1] According to the U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), a U.S. ocean carrier is a ship which is operated by crew members whose country of residence is the United States, but which may not necessarily be U.S.-owned or fly the U.S. flag.

[2] According to balance-of-payments accounting convention, the importer is said to assume ownership of the goods when they cross the border of the exporting country and, as a consequence, bears all subsequent transportation costs. Therefore, receipts of U.S. carriers for the transport of U.S. imports are excluded from U.S. transportation exports because, by this convention, they represent transactions between U.S. parties. By the same token, payments to foreign carriers for transporting U.S. exports are not included in U.S. imports because they represent transactions between foreign residents and foreign transportation service providers. USDOC, BEA, *Survey of Current Business*, Oct. 1998, p. 78.

[3] Transactions involving a U.S. resident contracting with a foreign carrier to transport goods between two foreign points are not included in calculations of U.S. imports. BEA official, telephone interview by USITC staff, Nov. 16, 1998.

Figure 16-1
Maritime services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, pp. 134-137; Oct. 1999, p. 68; and Oct. 1998, p. 90.

annual rate of growth registered during 1994-98. The increase in the U.S. maritime transport services deficit was primarily due to a 15.2-percent rise in U.S. imports of ocean freight services, which outpaced a 5.2-percent increase in U.S. exports of such services.[4] The increase in U.S. imports of ocean freight services was likely due to continued strong growth in the U.S. economy, which was accompanied by rising U.S. demand for merchandise imports.[5] Overall, U.S. exports of maritime transport services increased by 7.9 percent to $11.8 billion in 1999, in contrast to the average annual decrease of 3.1 percent registered during 1994-98. U.S. imports of ocean freight and port services increased by 13.6 percent in 1999, more than four times the average annual growth rate of 3.3 percent posted during 1994-98.

Leading markets for U.S. maritime services exports in 1999 were Japan, accounting for 13.0 percent of such exports; Korea, 7.9 percent; Taiwan, 7.5 percent; Germany, 5.2 percent; and the Netherlands, 2.9 percent (figure 16-2). With the exception of the Netherlands, with whom the United States continued to register a small trade surplus, U.S. trade deficits with each of these markets increased in 1999. For example, the U.S. deficit with Japan on maritime transport services increased by 50.5 percent, from $650 million in 1998 to $978 million in 1999, largely due to a rise in U.S. imports of ocean freight services. Likewise, the U.S. deficits with both Korea and Taiwan more than doubled primarily as a result of significant increases in U.S. ocean freight imports. The increase in U.S. ocean freight imports from Japan, Korea, and Taiwan is likely the result of strong U.S. consumer demand for

[4] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 134-137.
[5] Federal Maritime Commission (FMC), *38th Annual Report*, fiscal year 1999, p. 23.

Figure 16-2
Maritime services: U.S. cross-border exports and trade balance, by major trading partners, 1999

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 137.

computers and other high-tech goods from these markets.[6] The U.S. deficit with Germany increased by 8.1 percent due to a decline in U.S. exports of ocean port services. In contrast, the U.S. surplus in maritime transport services with the Netherlands increased by 39.0 percent, from $41 million in 1998 to $57 million in 1999.[7] Reportedly, U.S. imports of maritime services from Europe are expected to decline in the year 2000 due to recovery in the value of the euro, and a consequent increase in the price of certain European imports.[8]

Summary and Outlook

The U.S. maritime services industry continues to experience a decline in the number of major U.S.-owned shipping lines and in the size of the U.S. commercial fleet. In 2000, Danish firm A.P. Moller acquired the international operations of U.S. firm Sea-Land, and German shipping group Hamburg-Sud purchased the South American operations of U.S. firm Crowley.[9] As a result of these mergers, there are no longer any U.S. shipping lines that rank among the 20 largest containership firms in the

[6] FMC, *38th Annual Report*, p. 38.

[7] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 136-137.

[8] FMC, *38th Annual Report*, p. 23.

[9] Crowley has retained ownership of the portion of its operations that serve Central America and the Caribbean. "Maersk Sealand Up and Running," *American Shipper*, Jan. 2000, p. 64; "Crowley Reorganizes After Sale," *American Shipper*, Mar. 2000, p. 87; and industry representative, telephone interview by USITC staff, July 31, 2000.

shipping lines that rank among the 20 largest containership firms in the world.[10] At the same time, the number of privately-owned, U.S.-flag vessels in the U.S. merchant fleet has decreased by more than 20 percent during the past five years, from 354 ships in 1995 to 277 vessels in 2000.[11] This decline is reportedly due to the fact that U.S. shipping firms increasingly register their vessels in foreign countries in order to reduce employment costs and avoid restrictive labor regulations.[12]

In May 2000, members of the Organization for Economic Cooperation and Development (OECD) met to consider the removal of an antitrust exemption pertaining to the maritime transport industry.[13] Under current antitrust legislation, OECD member countries permit ocean carriers to collectively discuss and establish freight rates charged to shippers through participation in conferences and discussion agreements.[14] Antitrust authorities maintain that this allows carriers to engage in anticompetitive behavior.[15] While the United States, Japan, and the European Union have decided, for the time being, to retain antitrust immunity for their ocean carriers,[16] other countries, including Australia, New Zealand, and the Netherlands, have indicated that they may support gradual reform of maritime competition policy.[17]

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[10] Currently, leading global shipping lines include Taiwan's Evergreen Group, newly-combined firm Maersk Sealand, British firm P&O Nedlloyd, and Hanjin Shipping Group of South Korea. Simon Heaney, "World's Top 20 Container Lines," *American Shipper*, Aug. 2000, pp. 64-65; and industry representative, telephone interview by USITC staff, Nov. 7, 2000.

[11] These numbers include self-propelled oceangoing vessels of 1,000 tons and above. U.S. Department of Transportation (USDOT), Maritime Administration, "Merchant Fleets of the World," Jan. 1, 1995 and Jan. 1, 2000.

[12] Philip Damas, Chris Gillis, and Robert Mottley, "Maritime Flags Unravel," *American Shipper*, Mar. 2000, p. 78; and USDOT, Bureau of Transportation Statistics, Maritime Administration, and U.S. Coast Guard, *Maritime Trade & Transportation '99*, pp. 6-7.

[13] In the United States, antitrust immunity is granted to U.S. ocean carriers under an amendment to the Shipping Act of 1916 (P.L. 87-346, 75 Stat. 762, enacted Oct. 3, 1961). Industry representative, telephone interview by USITC staff, Oct. 18, 2000.

[14] A shipper refers to a party that procures maritime transport services. "Re-examining Antitrust," *Journal of Commerce*, May 23, 2000, found at Internet address *http://www.joc.com/*, retrieved Sept. 1, 2000.

[15] Tony Beargie, "Shippers Target Antitrust Immunity in 2000," *American Shipper*, Jan. 2000, pp. 6-7; and industry representative, telephone interview by USITC staff, Oct. 18, 2000.

[16] The Ocean Shipping Reform Act (P.L. 105-258, 112 Stat. 1902, enacted Oct. 14, 1998) retained antitrust immunity for U.S. ocean carriers and, in return, granted shippers the ability to enter into one-on-one confidential service contracts with shipping lines. "One Small Step for the OECD," *American Shipper*, July 2000, pp. 8-15.

[17] "One Small Step for the OECD," *American Shipper*, July 2000, pp. 8-15.

China is currently the United States' largest trading partner in terms of liner trade.[18] China's admission to the WTO would likely increase U.S.-China merchandise trade, thus benefitting U.S. shipping lines that carry U.S. merchandise exports to China.[19] Progress toward China's entry into the WTO has renewed U.S. interest in removing Chinese restrictions that adversely affect the operation of U.S. and other foreign shipping lines. These restrictions prohibit non-Chinese entities from establishing wholly-owned subsidiaries or branch offices in certain locations in China, and limit foreign carriers' ability to perform freight forwarding, port services, and other auxiliary maritime transport activities.[20] Because recent negotiations between the United States and China failed to resolve these issues, it is reported that the U.S. Federal Maritime Commission likely will be directed to impose sanctions on Chinese shipping firms.[21] U.S. negotiators also have indicated that they do not intend to establish a new maritime agreement with China until Chinese restrictions on foreign shipping lines are removed.[22]

[18] Liner trade refers to containerships, or vessels carrying containerized cargo, that provide scheduled transport service. In 1998, the volume of U.S. merchandise exports and imports transported on containerships to and from China equaled 2.2 million TEUs (20-foot equivalent units, a standard unit of measurement used to indicate container vessel capacity), compared to 1.7 million for Japan, and 1.2 million for Hong Kong. FMC, *38th Annual Report*, p. 47.

[19] "Cargo Expected to Soar if Taiwan, China Are Admitted to WTO," *Journal of Commerce*, Mar. 28, 2000, found at Internet address *http://www.joc.com/*, retrieved Sept. 1, 2000.

[20] FMC, *38th Annual Report*, p. 80.

[21] For example, U.S. sanctions may prohibit Chinese vessels from calling at U.S. ports or impose fines of up to $1.1 million for each Chinese ship that visits the United States. FMC, *38th Annual Report*, p. 80.

[22] Since 1998, trade between the United States and China has been conducted in the absence of a U.S.-China maritime agreement. "U.S.-China Maritime Talks in Limbo," *American Shipper*, May 2000, p. 21.

CHAPTER 17
RETAIL SERVICES

Introduction

Retailers serve as intermediaries between wholesalers or manufacturers, and ultimate consumers, who may be individuals, households, or businesses. Retailers may take title to merchandise or they may hold merchandise through a contractual arrangement. Although international trade in retail services is increasingly taking place across borders through catalogue shopping and the Internet, most transactions currently take place through foreign-based affiliates. For this reason, data collection agencies have focused solely on affiliate transactions. Such trade data capture sales of all services provided by retailers, whether incidental or nonincidental to retailing. Nonincidental services could include installation and repair services, credit services, warranty services, or promotion and advertising services. In the case of computer retailers, nonincidental services may also include systems integration and support services.

Recent Trends in Affiliate Transactions, 1993-98

Data reflecting sales of services by foreign-based retailing affiliates of U.S. firms were suppressed by BEA in order to avoid disclosure of individual company data.[1] However, data for total sales of goods and services by retailing affiliates of U.S. firms provide some insight regarding the relative importance of certain markets. In 1998, total sales of goods and services by foreign-based retailing affiliates of U.S. firms totaled $57.2 billion. Canada-based retailing affiliates of U.S. firms sold goods and services worth $19.0 billion, accounting for 32.2 percent of total sales by foreign based retailing affiliates in 1998. Other markets which accounted for substantial shares of sales by U.S-owned retailing affiliates in 1998 include the United Kingdom, with $7.4 billion or 13.0 percent of sales, and France, with $3.5 billion or 6.1 percent of sales. Overall, Europe-based retailing affiliates accounted for sales of $26.7 billion, or 46.7 percent of sales by U.S.-owned retailing affiliates, while Latin America-based affiliates and Africa-based affiliates accounted for $5.4 billion and $167 million, respectively.[2] U.S.-owned retailing affiliates are successful in these markets, in part, as a result of demand for U.S. merchandise.

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[1] Data for the Netherlands were not suppressed, but Netherlands-based affiliates of U.S. retailing firms did not record any sales in 1998. U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, Oct. 2000, p. 159.

[2] Data for Germany, the Netherlands, Mexico, the Middle East, the Asia-Pacific region, Australia, and Japan were suppressed. USDOC, BEA, *U.S. Direct Investment Abroad, Preliminary 1998 Estimates*, Table III.E 4, found at Internet address *http://www.bea.doc.gov/*, retrieved Oct. 31, 2000.

U.S. purchases of services from U.S.-based retail affiliates of foreign firms totaled $410 million in 1998. During 1997-98, U.S. purchases of services from such affiliates decreased by 13.0 percent.[3] This decrease was largely the product of a 78.1-percent decrease in purchases from U.S.-based affiliates of Canadian firms. U.S. purchases of services from Canadian-owned affiliates totaled $73 million, or 15.5 percent of total U.S. purchases of retail services in 1997, but accounted for only $16 million or 3.9 percent of such purchases in 1998 (figure 17-1).[4] In comparison, affiliates of Japanese firms accounted for $97 million, or 23.7 percent, of U.S. affiliate purchases of retail services in 1998, while affiliates of British firms accounted for $79 million, or 19.3 percent, of such purchases.[5]

Summary and Outlook

Economic expansion in the United States has given U.S. retailers the opportunity to experiment with new formats. As many "pure-play"[6] Internet retailers struggle, other retailers are pursuing a multichannel strategy, encompassing brick-and-mortar, mail order, and Internet formats. This strategy has proven successful for many retailers, including Federated Department Stores, which acquired Fingerhut's Internet and mail-order operations in 1999 and established macys.com in 1998 and bloomingdales.com in 2000.[7]

Some U.S. retailers are consolidating or acquiring new companies to maximize their revenues and market share. For example, Wal-Mart's entry into the grocery segment prompted Kroger's to merge with Ralphs and Fred Meyer.[8] Consequently, Kroger's is now the second-largest retailer in the United States. U.S. retailers with an international presence have continued their global expansion. Although there are

[3] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

[4] USDOC, BEA, *Survey of Current Business*, Oct. 2000, pp. 160-161.

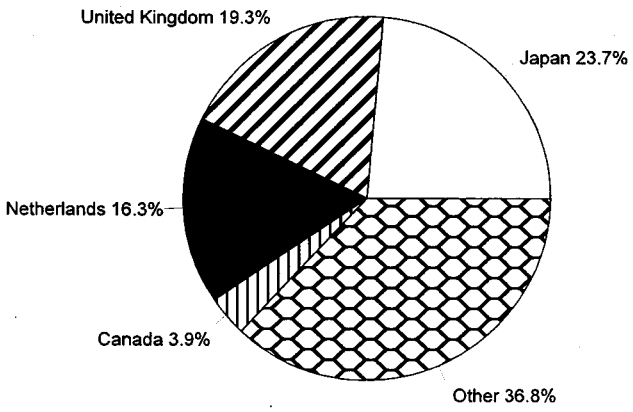
[5] Ibid., p. 161.

[6] "Pure-play" Internet retailers are those with Internet operations only, such as Amazon.com. A Forrester Research report predicts that many pure-play Internet retailers will go out of business during 2001 due to weak financial results, competitive pressure, and investor concerns. The report cites three types of on-line retailers that are expected to consolidate: companies selling commodity products, specialty merchants, and branded merchandise retailers. "Upfront: Forrester Predicts Pure-Play Woes," *Stores*, May 2000, p. 18.

[7] David P. Schulz, "Top 100 Retailers: The Nation's Biggest Retail Companies," *Stores*, July 2000, pp. S3-S4.

[8] Ibid., p. S4.

Figure 17-1
Retail affiliates: Purchases from majority-owned affiliates of foreign firms, by country of ultimate beneficial owner,[1] 1998



Total = $410 million

[1] An ultimate beneficial owner of a U.S. affiliate is the entity, proceeding up the affiliate's ownership chain, that is not owned more than 50 percent by another person.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 161.

relatively few global retail brands, a survey of the top six international brands found that over the past 10 years, these firms have increased their international presences by 20 percent to 50 percent.[9]

The top 200 global retailers control approximately 31 percent of the global retail market, and many are establishing B2B[10] alliances in an effort to maintain and increase their market share by sourcing goods globally over the Internet.[11] Eleven of the world's top retailers (Ahold, Albertson's, Auchan, Casino, Kmart, Target, Tesco, Safeway, CVS, Marks and Spencer, and Kingfisher) formed the Worldwide Retail Exchange (WRE) in April 2000.[12] The exchange enables these retailers to communicate and do business with suppliers over the Internet. WRE competes with GlobalNetXchange, a B2B online exchange for goods and services, comprising Carrefour, Oracle, Metro, Sainsbury, and Kroger's.[13] Larger retailers are likely to develop their own purchasing systems such as Wal-Mart's Retail Link system.[14]

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[9] Alexandra Jardine, "Retailers Go On International Shopping Trip," *Marketing*, Jan. 20, 2000, found at Internet address *http://proquest.umi.com/*, retrieved Sept. 12, 2000.

[10] Business-to-business.

[11] "On-line Buying's Brave New World Emerges," *DSN Retailing Today*, May 22, 2000, found at Internet address *http://www.proquest.umi.com/*, retrieved Sept. 12, 2000.

[12] WRE brings together 30,000 stores with $300 billion in annual sales.

[13] Len Lewis, "The Next Killer App," *Progressive Grocer*, May 2000, found at Internet address *http://www.proquest.umi.com/*, retrieved Sept. 12, 2000; and "Upfront: Retailers Plan B2B Exchange," *Stores*, May 2000, p. 18.

[14] "On-line Buying's Brave New World Emerges."

CHAPTER 18
TELECOMMUNICATION SERVICES

Introduction

Telecommunication services trade encompasses basic[1] and value-added[2] services, both of which can be provided across national borders and through foreign-based affiliates. Cross-border trade, which involves the placement of a call in the home market and the termination of the call in a foreign market, is the dominant mode of trade. However, affiliate transactions are increasing in importance as U.S. trading partners continue to privatize state-owned monopolies and liberalize foreign ownership restrictions, thereby creating more opportunities for foreign direct investment by U.S. carriers. Cross-border trade data are essentially a product of the accounting rate system fashioned by European carriers in the latter half of the nineteenth century. Under this system, telecommunication carriers bilaterally negotiate fees, called accounting rates, for carrying international traffic, measured in calling minutes. Each carrier's portion of the accounting rate is referred to as the settlement rate, which in almost all cases is equal to one-half of the negotiated accounting rate. As bilateral imbalances in international calling traffic occur, the carrier whose outbound calling minutes exceed its inbound calling minutes makes a net settlement payment to its foreign counterpart. The net settlement payment is essentially calculated by multiplying the settlement rate by the number of imbalanced calling minutes.[3] Net settlement payments are recorded as imports in the balance of payments, whereas net settlement receipts are recorded as exports.

Recent Trends

Cross-Border Trade, 1994-99

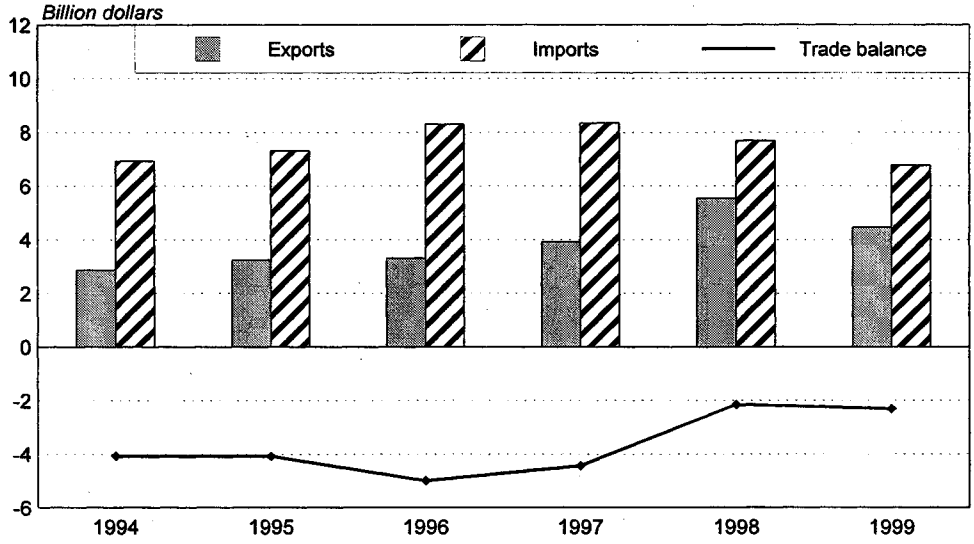
In 1999, U.S. exports of telecommunication services totaled $4.5 billion, while U.S. imports totaled $6.8 billion, resulting in a $2.3-billion deficit (figure 18-1). Exports decreased by 19.5 percent during 1999, in sharp contrast to the 17.9-percent average annual increase registered during 1994-98. Likewise, U.S. imports declined by 12.0 percent during 1999, in contrast to the 2.6-percent annual average increase recorded during 1994-98. Because exports declined faster than imports, the deficit in

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

[2] Value-added services include services such as electronic mail, electronic data interchange, electronic funds transfer, enhanced facsimile, and on-line database access.

[3] Settlement payments may also reflect surcharges that some countries impose on collect and country-direct calls.

Figure 18-1
Telecommunication services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 130-131.

telecommunication services trade increased by 7.3 percent in 1999, in contrast to the 14.7-percent average annual decrease recorded during 1994-98.

The decline in imports and exports of telecommunication services largely reflects a reduction in settlement rates, which the Federal Communications Commission (FCC) moved to lower with its 1997 Benchmark Order.[4] The order established a five-year time frame during which settlement rates would be reduced to $0.15 per minute for upper income countries, $0.19 per minute for middle income countries, and $0.23 per minute for lower income countries.[5] During the first two years of the staged reductions, which commenced January 1, 1998, the average settlement rate declined from $0.43 per minute to less than $0.30 per minute.[6]

The persistent U.S. deficit in cross-border telecommunication services trade during 1994-99 is primarily a result of the relatively large number of international calls that originate in the United States, which obligates U.S. carriers to remit payments to foreign carriers. Other factors that affect the U.S. cross-border trade balance include the relative wealth of the United States and 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 in the United States.

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[4] Federal Communications Commission (FCC), *Benchmark Order*, 12 FCC Rcd 19,806 (1997).

[5] Ibid.

[6] FCC, *Report on International Telecommunications Markets*, 1997-1998, Dec. 7, 1998; and FCC, *Trends in the U.S. International Telecommunications Industry*, Sept. 1999.

The United Kingdom, Mexico, Canada, Japan, and Brazil were the top five export markets for U.S. telecommunication services in 1999 (figure 18-2). The United Kingdom remained the largest U.S. export market, despite the fact that U.S. exports of telecommunication services to that country declined by 30.2 percent, from $1.0 billion in 1998 to $720 million in 1999. Mexico remained the second-largest U.S. export market, accounting for exports of $380 million in 1999. Canada moved past Japan on the top-five list, as exports to Canada fell by only 1.3 percent, while exports to Japan declined by 33.0 percent. Additionally, Brazil replaced Hong Kong as the fifth largest U.S. export market, as exports to Brazil decreased by 19.9 percent, while exports to Hong Kong declined by 61.3 percent. These decreases in telecommunications exports may be attributable, in part, to the continuing decrease in settlement rates, which has consistently exceeded the increase in the volume of incoming calls. Mexico continues to be the top recipient of U.S. settlement payments, accounting for 12.2 percent, or $827 million, of U.S. telecommunication service imports in 1999.[7]

Affiliate Transactions, 1993-98

In 1998, sales of services by foreign telecommunication affiliates of U.S. parent firms totaled $15 billion (figure 18-3). This represents a 79.1-percent increase over 1997, significantly higher than the 33.5-percent average annual growth rate registered during 1993-97. The significant increase in affiliate sales is partly attributable to the continuing privatization and liberalization of foreign telecommunication markets, which enables U.S. firms to establish affiliates in new markets.[8] The United Kingdom continues to be the largest foreign market for affiliate sales, accounting for 24.4 percent of all sales by U.S.-owned telecommunication affiliates (figure 18-4). Canada, the second-largest foreign market for affiliate sales, accounted for 12.1 percent of sales by U.S.-owned telecommunication affiliates. Data on purchases of services from U.S.-based telecommunication affiliates of foreign parents were suppressed by BEA in order to avoid disclosure of individual company data.

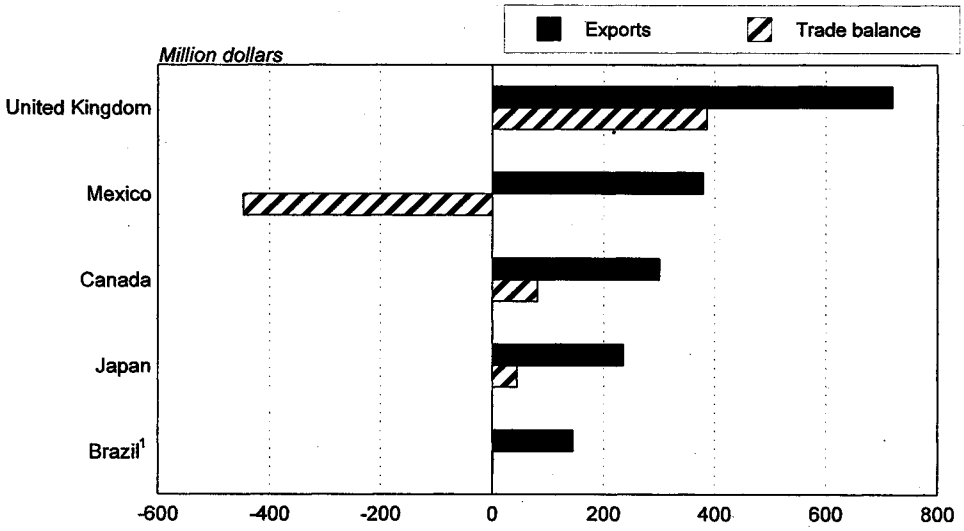
Summary and Outlook

Rapid technological advancements and the proceeding liberalization of foreign markets likely will continue to drive growth in the U.S. telecommunication services industry. Telecommunication companies' capital investment in advanced technologies, such as

[7] U.S. Department of Commerce, (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, Oct. 2000, pp.146-149.

[8] Pekka Tarjanne, "Preparing for the Next Revolution in Telecommunications: Implementing the WTO Agreements," *Telecommunications Policy*, vol. 23, No. 1 (1999).

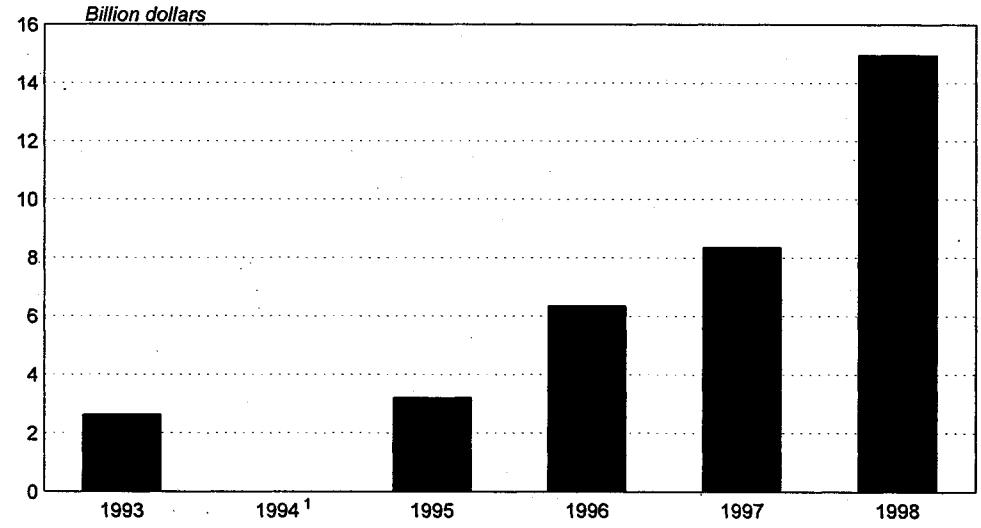
Figure 18-2
Telecommunication services: U.S. cross-border exports and trade balance, by major trading partners, 1999



[1] In 1999, the United States recorded a surplus of $1 million in telecommunication services trade with Brazil.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 148-149.

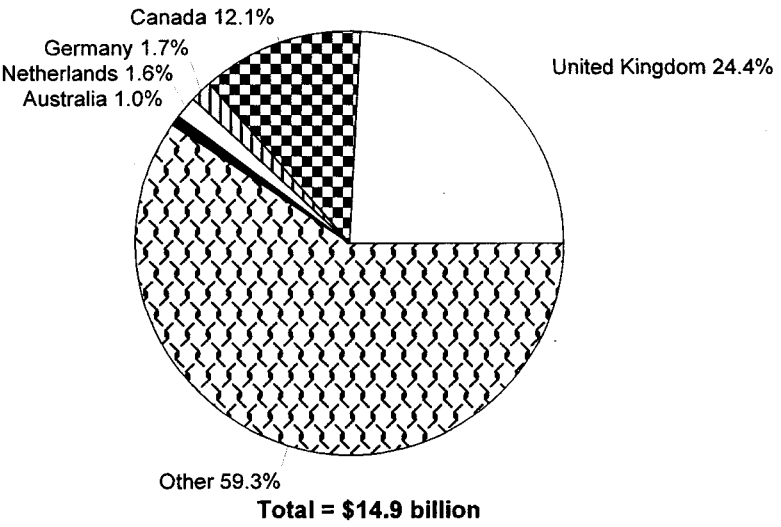
Figure 18-3
Telecommunication affiliates: Sales of services by majority-owned affiliates of U.S. firms, 1993-98



[1] Not available.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 159; Oct. 1999, p. 93; Oct. 1998, p. 115; Oct. 1997, p. 137; and Nov. 1996, p. 111.

Figure 18-4
Telecommunication affiliates: Sales by majority-owned affiliates of U.S. firms, by principal markets, 1998[1]



[1] Total may not equal 100 percent due to rounding.
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

technologies, such as fiber optics[9] and network equipment based on Internet Protocol (IP),[10] has expanded such companies' capabilities in the data and information services segment, where demand continues to rise.[11] For example, the percentage of U.S. households that are connected to the Internet increased from approximately 10 percent in 1995 to an estimated 30 percent in 1999,[12] and worldwide, the number of users that access the Internet regularly is expected to reach 503 million by 2003, an increase of 170 percent over 1999 levels.[13] The shift to an IP-based network likely will encourage further convergence of voice and data services.[14] Rising demand for converged services may provide an additional source of revenue to

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[9] Fiber-optic technologies use light to transport information along thin filaments of glass. Fiber optics enable telecommunication carriers to efficiently provide high bandwidth services at relatively low costs. Harry Newton, *Newton's Telecom Dictionary* (New York: Telecom Books, Feb. 1999), p. 250.

[10] Internet Protocol (IP) is network communication language that controls the routing of data over the Internet.

[11] Organization of Economic Cooperation and Development (OECD), "OECD Economic Surveys - United States," found at Internet address *http://www.lexis-nexis.com/*, retrieved Oct. 12, 2000.

[12] Ibid.

[13] Standard & Poor's, *Industry Surveys—Computers: Consumer Services & the Internet*, Sept. 28, 2000, p. 11.

[14] Voice and data convergence will allow telecommunication carriers to bundle service offerings together, enabling consumers to pay one bill each month for local, long distance, and cellular telephone service; Internet access; and, in some cases, cable television. The Economist Intelligence Unit (EIU), *Vision 2010: New Strategies for Communications Enterprises*, report published in cooperation with Andersen Consulting, 1999, p. 4.

increasingly important as such companies continue to lose customers in their core communication businesses.[15] Additionally, early efforts to provide converged bundled services in the United States may improve U.S. carriers' competitive position in the global market.

Growth in the U.S. telecommunications industry also depends on liberalization in foreign markets. With the exception of China, the world's major foreign telecommunication services markets generally permit some level of competition.[16] As such, U.S. telecommunication providers that possess the necessary financial resources are investing in foreign markets in order to extend the reach and effectiveness of their networks. For example, in 1998, AT&T and British Telecom agreed to create a $10-billion joint venture through which the two companies will invest in an IP-based network spanning more than 100 cities worldwide. The planned network is expected to reduce telecommunication costs and expand the number of services available to the companies' multinational customers. Additionally, AT&T recently announced that it will invest $2.5 billion in Latin America over the next 5 years. Approximately $500 million of this investment will be dedicated to the Argentine market,[17] where the government opened its domestic telecommunication market to full competition on November 9, 2000. With only moderate growth anticipated in the domestic telecommunications market, U.S. carriers likely will continue to look abroad for high growth opportunities.[18]

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[15] Standard & Poor's, *Industry Surveys—Telecommunications: Wireline*, Mar. 30, 2000, p. 7.

[16] USDOC, International Trade Administration (ITA), "Telecommunications Services, Economic and Trade Trends," ch. in *U.S. Industry & Trade Outlook, 2000* (Washington, DC: USDOC/ITA and the McGraw-Hill Companies, 2000), p. 30-2.

[17] "Panorama," *Latin Trade*, Oct. 2000, p. 14.

[18] Standard & Poor's, *Industry Surveys—Telecommunications: Wireline*, p. 15.

CHAPTER 19
TRAVEL AND TOURISM SERVICES

Introduction

Trade in travel and tourism services encompasses expenditures made by travelers while abroad, such as for lodging and meals. Foreign visitors' expenditures in the United States are recorded in the U.S. balance of payments as exports, while U.S. residents' expenditures in foreign countries are recorded as imports. Although passenger fares may be considered a component of travel and tourism revenues, such fares fall outside the scope of this discussion. Passenger fares are addressed in the previous discussion of air transport services. Travel and tourism services are traded mainly through cross-border channels, although transactions also transpire through affiliates.

Recent Trends

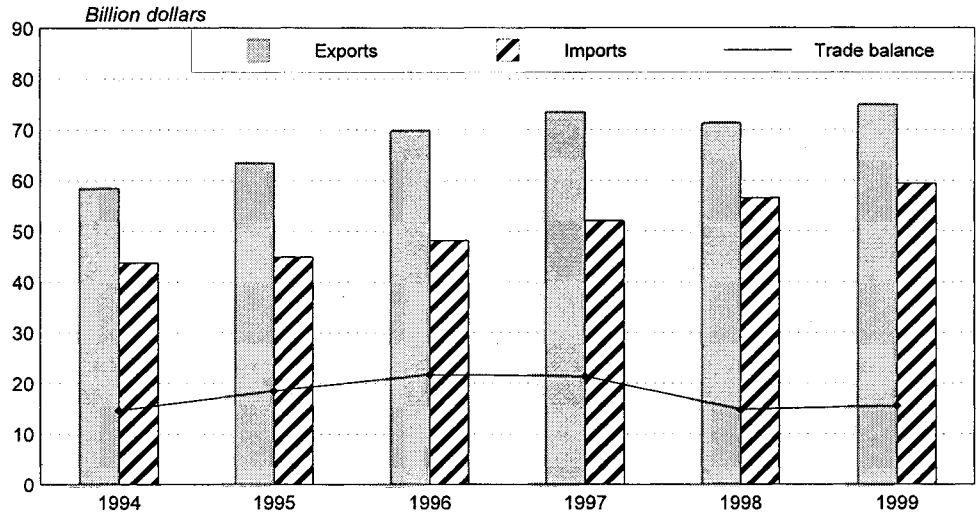
Cross-Border Trade, 1994-99

In 1999, the United States earned $74.9 billion from exports of travel and tourism services (figure 19-1), representing 29.4 percent of total U.S. cross-border service exports. Cross-border exports of travel and tourism services grew by 5.0 percent, almost matching the 5.1-percent average annual growth rate of such exports during 1994-98. Conversely, the United States paid foreign countries $59.4 billion for cross-border imports of travel and tourism services in 1999. Such imports increased by 5.0 percent, somewhat slower than the 6.6-percent average annual growth rate registered during 1994-98. The resulting U.S. surplus grew by 5.1 percent to $15.5 billion in 1999, faster than the average annual growth rate of 0.2 percent recorded during 1994-98.

As a whole, visitors to the United States from Japan, the United Kingdom, Canada, Germany, and Mexico, ranked in descending order by expenditures in the United States, accounted for 44.5 percent of U.S. cross-border exports of travel and tourism services in 1999 (figure 19-2). The United States recorded a surplus in such services with all of these countries except Mexico. Japan accounted for $6.9 billion, or 44.2 percent, of the U.S. surplus in such services.[1] Improvement in the value of the yen

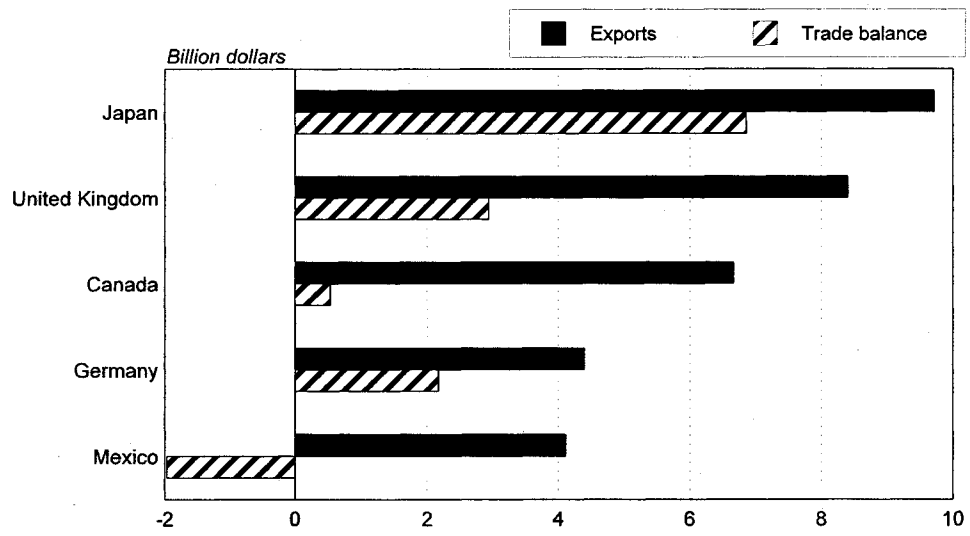
[1] U.S. Department of Commerce (USDOC), International Trade Administration (ITA), Tourism Industries, May 2000, found at Internet address *http://tinet.ita.doc.gov/*, retrieved Sept. 29, 2000.

Figure 19-1
Travel and tourism services: U.S. cross-border exports, imports, and trade balance, 1994-99



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, pp. 130-131.

Figure 19-2
Travel and tourism services: U.S. cross-border exports and trade balance, by major trading partners, 1999



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 137.

against the U.S. dollar during the peak summer travel season,[2] among other factors in the Japanese economy, appeared to have stimulated travel by Japanese tourists in the second half of 1999. Also in 1999, U.S. travel and tourism surpluses with the United Kingdom, Canada, and Germany increased by 19.7 percent, 9.6 percent, and 3.6 percent, respectively. Strong growth in arrivals from the United Kingdom have benefitted the U.S. surplus with that country for half a decade. Following two years of declining travel to the United States from Canada in 1997-98, arrivals from Canada grew by 5 percent, to 14.1 million visitors, in 1999. The U.S. deficit with Mexico decreased by 23.9 percent to $2.0 billion in 1999. This reduction resulted from a 7.7-percent increase in U.S. exports, coupled with a 5.0-percent decrease in U.S. imports.[3] In 1999, the number of Mexican travelers arriving in the United States increased by 7 percent, while the number of U.S. travelers arriving in Mexico decreased by 3 percent.[4] In 1999, Canada, Mexico, the United Kingdom, France, and Italy, ranked in descending order, were the five leading providers of U.S. travel and tourism imports. The position of the top two suppliers was reversed in 1998.

Affiliate Transactions, 1993-98

Official data on sales by U.S.-owned foreign affiliates in the travel and tourism industry are available only for lodging affiliates, while data on purchases from foreign-owned U.S. affiliates in this industry are available only for lodging, food service, and drinking place affiliates. In 1998, U.S.-owned foreign affiliates in the travel and tourism industry generated sales of $3.2 billion (figure 19-3). Such sales decreased by 3.9 percent in 1998, in contrast to the 13.4-percent average annual growth rate recorded during 1993-97. Sales by foreign affiliates of U.S. firms declined in most leading markets in 1998, although sales by affiliates in Canada rose by 9.6 percent due, in part, to an 8.2-percent higher asset base than in the previous year.[5] Canada accounted for 18.7 percent of total sales by U.S.-owned travel and tourism services affiliates, followed by the United Kingdom (12.8 percent), France (7.1 percent), Australia (5.9 percent), and Germany (5.1 percent) (figure 19-4).

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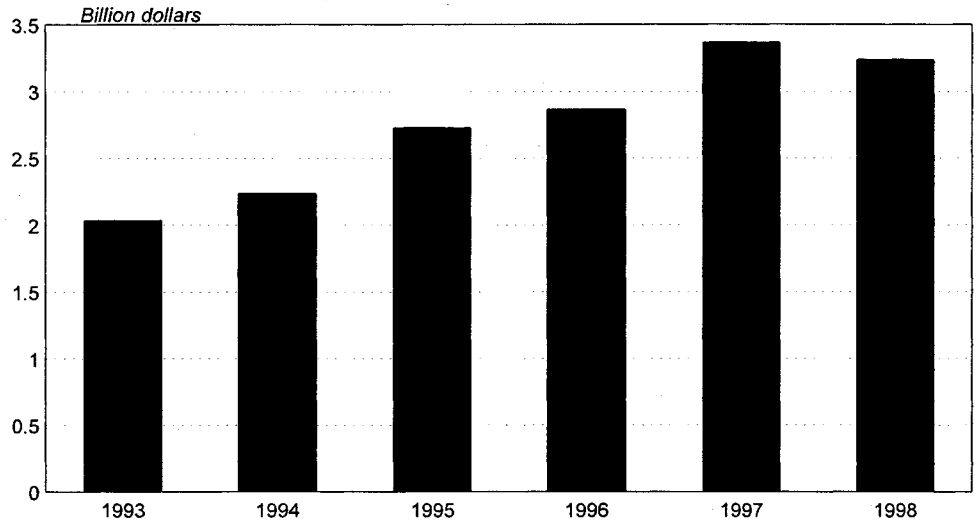
[2] Appreciation in the value of foreign currencies against the U.S. dollar makes travel in the United States more affordable to foreign consumers. USDOC, Bureau of Economic Analysis (BEA), *Survey of Current Business*, Apr. 2000, p. 147.

[3] These shifts were largely attributable to an improvement in the value of the Mexican peso against the U.S. dollar.

[4] USDOC, ITA, Tourism Industries, Oct. 2000, found at Internet address *http://tinet.ita.doc.gov/*, retrieved Nov. 7, 2000.

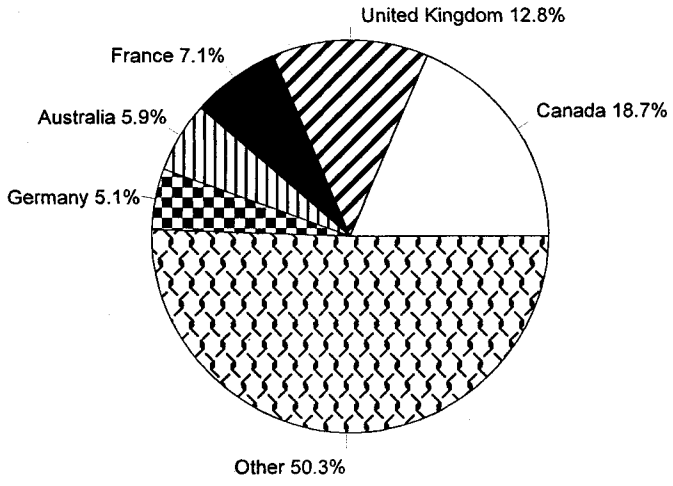
[5] USDOC, BEA, *U.S. Direct Investment Abroad*, preliminary 1998 estimates and revised 1997 estimates, table III.B.6.

Figure 19-3
Travel and tourism affiliates: Sales of services by majority-owned affiliates of U.S. firms, 1993-98



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159; Oct. 1999, p. 93; Oct. 1998, p. 115; and Nov. 1996, p. 111.

Figure 19-4
Travel and tourism affiliates: Sales by majority-owned affiliates of U.S. firms, by principal markets, 1998[1]



Total = $3.2 billion

[1] Total may not equal 100 percent due to rounding.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

U.S. customers purchased travel and tourism services valued at $10.9 billion from U.S.-based, foreign-owned affiliates in 1998.[6] This marked a 2.8-percent reduction compared with the previous year, as purchases from European-owned affiliates fell by 15.5 percent. The decline may be attributed, in part, to a 3.2-percent reduction in foreign direct investment in the U.S. lodging industry in 1998, continuing a gradual decline in the book value of such investments recorded since the mid-1990s.[7] U.S.-based affiliates owned by Japanese parent firms accounted for the largest share of U.S. purchases (30.4 percent), followed by affiliates of French firms (8.2 percent).[8]

Summary and Outlook

Foreign travel to the United States is expected to grow by 6.3 percent, to 51.5 million arrivals, in 2000. Thereafter, growth in such travel could slow for several years,[9] as sharply higher fuel costs worldwide, among other factors, may inhibit tourism. The 20.9 million arrivals in the United States recorded for the first six months of 2000 represented a 9-percent increase over the first six months of the previous year.[10] Similarly, U.S. exports of travel services were 9 percent higher during the first five months of 2000 than during the comparable period in 1999.[11] Meanwhile, 61.8 million U.S. citizens were expected to travel abroad in 2000, a 6-percent increase over the previous year.[12] During January through May 2000, U.S. imports of travel services were 10 percent higher than imports recorded during that same five-month period in 1999.[13]

In the near term, the United States is expected to host a growing number of visitors and collect increasing receipts from its leading trading partners in the travel and tourism services industry. Factors expected to result in a higher number of foreign visitors to the United States include favorable exchange rates and improved economic

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[6] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

[7] USDOC, BEA, *Survey of Current Business*, Sept. 2000, p. 59.

[8] Data for Australia, Canada, the Netherlands, and the United Kingdom were suppressed by BEA in order to avoid disclosure of individual company data.

[9] USDOC, ITA, Tourism Industries, "International Travel and Forecast for the U.S.," May 2000, found at Internet address *http://tinet.ita.doc.gov/*, retrieved Sept. 29, 2000.

[10] USDOC, ITA, Tourism Industries, monthly tourism statistics, table C: Non-resident arrivals to the U.S. by world region/country of residence, Oct. 13, 2000, found at Internet address *http://tinet.ita.doc.gov/*, retrieved Oct. 13, 2000.

[11] USDOC, BEA, *Survey of Current Business*, Sept. 2000, p. D-51.

[12] USDOC, ITA, Tourism Industries, "International Travel and Forecast for the U.S.," May 2000, found at Internet address *http://tinet.ita.doc.gov/*, retrieved Sept. 29, 2000.

[13] USDOC, BEA, *Survey of Current Business*, Sept. 2000, p. D-51.

conditions, especially in Japan, Korea, Brazil, and Canada.[14] Following several years of decreasing travel to the United States, a 7-percent increase in arrivals from Japan, the largest U.S. export market for travel and tourism services, was recorded in the first half of 2000.[15] Moreover, higher-than-expected economic growth in Mexico and a relatively rapid return to peso stability may account, in part, for a 14-percent increase in arrivals from Mexico during January-June 2000.[16] In the near term, favorable economic conditions in the United Kingdom could sustain growth in the number of its residents traveling to the United States. Growth in the number of visitors from France and Italy in 2000 is expected to surpass that recorded in 1999, despite a multi-year decline in the euro's value. In contrast, the number of visitors from Germany declined during the first half of 2000.[17]

Beginning in 2000, travelers to the United States will likely encounter the largest increase in the number of U.S. hotel rooms in 13 years.[18] Although occupancy rates may decline, as the supply of rooms is expected to exceed demand in the near term, revenues per available room and room rates are expected to increase through 2000, before slowing in subsequent years.[19]

Believing Asia to be under-supplied with hotels,[20] major U.S. hotel firms reportedly are planning to buy, build, or manage hotels in Japan, China, Korea, and Indonesia.[21] U.S. firms are also active in Europe, Latin America, and other regions. For example, Starwood is introducing the Westin name, familiar in the United States, in nine upscale European hotels that it recently acquired. Marriott plans to open upscale properties such as jw Marriott and Ritz-Carlton in gateway cities and introduce its moderate-rate and extended-stay properties in secondary cities.[22]

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[14] USDOC, ITA, Tourism Industries, "International Travel and Forecast for the U.S.," May 2000, found at Internet address *http://tinet.ita.doc.gov/*, retrieved Sept. 29, 2000.

[15] USDOC, ITA, Tourism Industries, monthly tourism statistics, table C: Non-resident arrivals to the U.S. by world region/country of residence, Oct. 13, 2000, found at Internet address *http://tinet.ita.doc.gov/*, retrieved Oct. 13, 2000.

[16] Ibid.

[17] USDOC, ITA, Tourism Industries, "International Travel and Forecast for the U.S.," May 2000, found at Internet address *http://tinet.ita.doc.gov/*, retrieved Sept. 29, 2000.

[18] "Hotel Revenue Growth Expected to Slow," *Wall Street Journal*, May 5, 2000, p. A3.

[19] Standard & Poor's, *Industry Surveys: Lodging and Gaming*, Aug. 17, 2000, p. 3.

[20] "Going Global," *Lodging*, Sept. 2000, found at Internet address *http://www.lodgingnews.com/*, retrieved Oct. 12, 2000.

[21] "Western Investors Step Up Asia Hotel Hunt," *Wall Street Journal*, Feb. 16, 2000, p. B16.

[22] "Going Global," *Lodging*, Sept. 2000, found at Internet address *http://www.lodgingnews.com/*, retrieved Oct. 12, 2000.

Foreign hotel companies are demonstrating increased interest in the hotel management segment of the U.S. market. For example, in February 2000, British firm Bass plc purchased Bristol Hotels and Resorts of Dallas, which leases or manages 112 hotels.[23] Sustained U.S. economic growth and more than 9 years of increased revenues in the U.S. lodging industry underlie European hotel firms' attraction to the U.S. market.[24]

[23] "Consolidation Push Weds Bass, Bristol," *Hotel and Motel Management*, Mar. 20, 2000, found at Internet address *http://www.proquest.umi.com/*, retrieved Oct. 12, 2000.

[24] "Will This Be the British Invasion of 2000?" *Cornell Hotel and Restaurant Administration Quarterly*, Apr. 2000, found at Internet address *http://www.proquest.umi.com/*, retrieved Oct. 12, 2000.

CHAPTER 20
WHOLESALE SERVICES

Introduction

Wholesalers serve as intermediaries, purchasing merchandise from manufacturers that they subsequently resell to retailers.[1] The majority of wholesaling transactions take place through foreign-based affiliates. For this reason, data collection agencies focus solely on such transactions. These data capture sales of all services, whether incidental or nonincidental to wholesaling. Nonincidental services provided by wholesalers could include the provision of credit management services; extension of credit; assembly, installation, and delivery of products; maintenance and repair services; and, with respect to computer wholesalers, systems integration services. Affiliate transactions data do not reflect the sales of goods.

Recent Trends in Affiliate Transactions, 1993-98

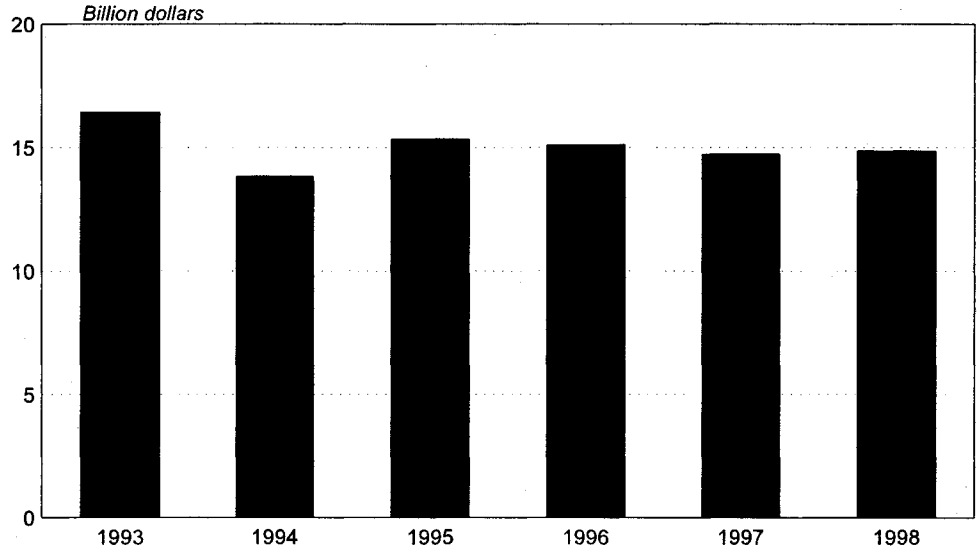
In 1998, sales of wholesale services by foreign-based affiliates of U.S. firms totaled $14.9 billion, accounting for 4.8 percent of total services sales by U.S.-owned foreign affiliates.[2] Sales of wholesaling services increased by 0.9 percent in 1998, reversing the average annual decline of 2.7 percent registered during 1993-97 (figure 20-1). Depreciation of currencies in key foreign markets,[3] which reduced growth in the dollar value of U.S. sales in these markets, was largely responsible for slow growth. In 1998, the top five markets for U.S.-owned wholesaling affiliates were the United Kingdom, Canada, Japan, Switzerland, and the Netherlands (figure 20-2). The United Kingdom and Japan accounted for 10.5 percent and 7.7 percent of total U.S. sales of wholesaling services, respectively. However, sales in these markets decreased during 1998, with sales in Japan falling by 17.0 percent and sales in the United Kingdom falling by 8.7 percent. Thus, the 1998 increase in total sales by wholesaling affiliates is largely a result of increased demand in other key markets. Canada accounted for 7.7 percent of total sales by wholesaling affiliates, while Switzerland and the Netherlands each accounted for 6.7 percent. Sales by U.S.-owned affiliates in each of these markets increased in 1998, with sales in Canada increasing by 9.5 percent, sales

[1] Frequently established by parent manufacturing concerns, wholesaling affiliates often act as representatives of the parent firm in foreign markets. On behalf of the parent, wholesaling affiliates also may license patents and trademarks to foreign firms in exchange for royalties and license fees. See discussion of intangible intellectual property, chapter 14.

[2] U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business*, Oct. 2000, p. 159.

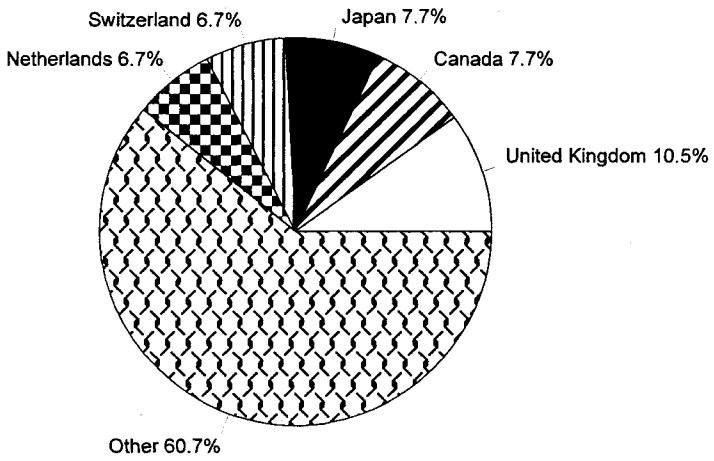
[3] In 1998, the U.S. dollar appreciated 8 percent against an index of the currencies of 23 major host countries. USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 128.

Figure 20-1
Wholesale affiliates: Sales of services by majority-owned affiliates of U.S. firms, 1993-98



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business,* Oct. 2000, p. 159; Oct. 1999, p. 93; Oct. 1998, p. 115; Oct. 1997, p. 137; and Nov. 1996, p. 111.

Figure 20-2
Wholesale affiliates: Sales by majority-owned affiliates of U.S. firms, by principal markets, 1998



Total = $14.9 billion

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 159.

in Switzerland increasing by 29.0 percent, and sales in the Netherlands increasing by 26.1 percent. In fact, largely as a result of the strong sales growth in Switzerland and the Netherlands, and despite the decline noted in the United Kingdom, total sales by Europe-based affiliates increased by 5.8 percent in 1998. Latin America-based affiliates of U.S. firms also reported strong sales growth in 1998, with sales increasing by 14.8 percent.

Purchases[4] of wholesaling services from U.S.-based affiliates of foreign firms totaled $11.6 billion in 1998, accounting for 4.6 percent of all purchases of services from U.S.-based affiliates.[5] Purchases of wholesaling services from foreign-owned affiliates increased by 17.0 percent during 1998, likely as a result of appreciation of the U.S. dollar, which made foreign goods and services more affordable to U.S. consumers.[6] Affiliates of Japanese parent firms accounted for $5.2 billion, or 44.9 percent, of U.S. purchases of wholesaling services (figure 20-3). Although the data were suppressed to avoid disclosure of individual company data, it is likely that the majority of these services were sold by wholesalers of motor vehicles and motor vehicle parts and supplies, due to strong U.S. demand for Japanese vehicles.[7] Japanese-owned wholesaling affiliates in the professional and commercial equipment segment sold services valued at $1.4 billion. U.S.-based affiliates with parents in the United Kingdom, the Netherlands, France, and Switzerland also accounted for significant portions of U.S. wholesaling purchases in 1998, with the United Kingdom accounting for purchases valued at $854 million, followed by the Netherlands ($484 million), France ($470 million), and Switzerland ($159 million).[8]

Summary and Outlook

Wholesaling affiliates established by U.S. manufacturers of commercial equipment, including computers, computer peripherals, and medical equipment, have experienced strong growth in foreign markets. Foreign markets account for more than half of sales by U.S. information technology wholesalers, and sales by such wholesalers are

[4] BEA reported data on 1997 and 1998 affiliate purchases using the NAICS (North American Industry Classification System), not the SIC (Standard Industrial Classification) system used to report 1997 and 1998 affiliate sales data and all affiliate transactions prior to 1997. Consequently, it is not feasible to calculate historical trends or an analytically sound affiliate transactions balance. For more information on the transition from the SIC to the NAICS, see text box 2-1.

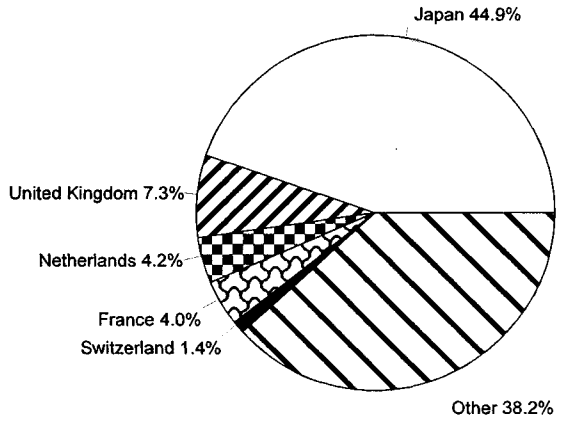
[5] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 161.

[6] Ibid., p. 128.

[7] In 1998, U.S.-based automobile manufacturers with parents in Japan sold 2.4 million motor vehicles in the United States, and the United States imported an additional 1.3 million vehicles from Japan. Overall, Japanese-owned automobile manufacturers capture a larger U.S. market share than any other foreign producer, accounting for 16 percent of U.S.-produced vehicles and 8 percent of U.S. imports, for total market share of 24 percent. Alan K. Binder, ed., *Ward's 2000 Automotive Yearbook*, (Michigan: Ward's Communications, 2000), p. 242.

[8] USDOC, BEA, *Survey of Current Business*, Oct. 2000, p. 161.

Figure 20-3
Wholesale affiliates: Purchases from majority-owned affiliates of foreign firms, by country of ultimate beneficial owner,[1] 1998



Total = $11.6 billion

[1] An ultimate beneficial owner of a U.S. affiliate is the entity, proceeding up the affiliate's ownership chain, that is not owned more than 50 percent by another person.

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, Oct. 2000, p. 161.

wholesalers are increasing more rapidly than total sales by the wholesaling industry.[9] Computer product manufacturers rely on distributors with a global presence to help manage fragmented global distribution channels,[10] and computer products wholesalers have expanded their worldwide presence to meet this need. For example, Ingram Micro (United States) recently established IMICRO, a subsidiary in Portugal, and increased its ownership stake in Walton Networking KFT in Hungary, making it the company's first wholly-owned subsidiary in Eastern Europe. The company plans to continue to improve and increase its operations in foreign markets in order to diversify and achieve worldwide economies of scale.[11] Tech Data (United States), another computer products wholesaler, also has a significant international presence, with affiliates in Europe, the Middle East, North America, and Latin America.[12]

The Internet continues to provide computer and computer peripherals wholesalers with new opportunities to provide services to both manufacturers and resellers.[13] For example, manufacturers are now better able to build to order for end-users, and more

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[9] Ingram Micro, Inc., Form 10-K, found at Internet address *http://www.sec.gov/*, retrieved Oct. 20, 2000.

[10] Ibid.

[11] Ibid.

[12] Tech Data Corp., Form 10-K405, found at Internet address *http://www.sec.gov/*, retrieved Oct. 20, 2000.

[13] Resellers sell to end-users or other resellers, such as retailers, franchisors, direct marketers, systems intergrators, and value-added resellers. Ingram Micro, Inc., Form 10-K, found at Internet address *http://www.sec.gov/*, retrieved Jan. 16, 2001.

wholesalers to increase efficiency and reduce costs as a result of targeted orders, smaller inventory requirements, and shorter response time. At the same time, direct sales have created new opportunities in the areas of logistics and order fulfillment.[14]

Other segments of the wholesaling industry, such as the plumbing, heating and cooling, and piping (PHCP) segment, are relying on consolidation to capture market share. For example, French firm Rexel recently acquired Westburne, a PHCP wholesaler with affiliate operations in Canada and the United States.[15] In addition, Home Depot, a do-it-yourself building supply retailer, acquired Apex Supply Co., a wholesale distributor of plumbing supplies and other products, in order to better reach professional tradespeople.[16] Apex is one of the largest plumbing suppliers in the United States.[17]

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[14] Tech Data Corp., Form 10-K405, found at Internet address *http://www.sec.gov/*, retrieved Oct. 20, 2000; and Ingram Micro, Inc., Form 10-K, found at Internet address *http://www.sec.gov/*, retrieved Oct. 20, 2000.

[15] "Wholesalers Acquired by French Company," *Contractor*, Aug. 2000, found at Internet address *http://proquest.umi.com/*, retrieved Sept. 20, 2000.

[16] "Upfront: Home Depot Acquires Plumbing Distributor," *Stores*, Jan. 2000, p. 19.

[17] Marjie O'Conner, "Home Depot Buys Wholesaler," *Contractor*, Jan. 2000, found at Internet address *http://proquest.umi.com/*, retrieved Sept. 20, 2000.

CHAPTER 21
SERVICE SECTOR PRODUCTIVITY

Introduction

Service sector productivity is currently an area of intense interest due to the sector's large share of employment and gross domestic product (GDP) (see chapter 1). This chapter demonstrates that services are diverse in terms of productivity, harboring both some of the highest and lowest productivity industries in the economy. The chapter first uses estimates of labor productivity growth to explore broad relationships between growth in productivity, employment, wages, and inflation. Afterward, the chapter examines total factor productivity growth and offers reasons as to how growth has been achieved in certain industries.

Data Sources

To develop productivity indicators, this chapter uses newly available estimates of gross output, gross product, and intermediate inputs published by the Bureau of Economic Analysis (BEA).[1] These data represent significant improvements over previous data. The data include recently developed estimates of gross output for the banking, nondepository institution, real estate, holding company, and business service industries,[2] and improved estimates of gross output for the agricultural services, forestry, fishing, telecommunication and telegraph, utilities, and securities industries. The data reflect the reclassification of software purchases as fixed investment, which reduces estimates of intermediate inputs,[3] principally affecting wholesale, retail, finance, and business services data. In addition, the data reflect the extension of double deflation techniques, which account for inflation in both input and output markets. The new data are also integrated with national income and product accounts and input–output accounts, thereby enabling improved analysis of individual industries, broad economic sectors, and the economy as a whole.[4]

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[1] Gross product by industry is equal to gross output minus intermediate inputs. Gross output comprises sales receipts, other operating income, commodity taxes, and inventory change. Intermediate inputs comprise energy, raw materials, semifinished goods, and services purchased from external sources. USDOC, BEA, *Survey of Current Business*, "Improved Estimates of Gross Product by Industry for 1947-98," June 2000, pp. 24-54.

[2] Business services principally include computer programming, data processing, and other computer related services; advertising services; credit reporting services; mailing, reproduction, and commercial art services; equipment rental and leasing services; and personnel supply services.

[3] Software has been reclassified as investment to reflect that it produces a flow of services that lasts more than one year. USDOC, BEA, *Survey of Current Business*, Aug. 1999, p. 8.

[4] USDOC, BEA, *Survey of Current Business*, June 2000, pp. 24-54.

This chapter examines labor productivity and total factor productivity during the period 1990-98. Labor productivity is computed by dividing real gross product by industry (a measure of value-added) by full-time equivalent employees (see technical appendix).[5] Total factor productivity is computed by dividing an index of real gross output by a weighted index of labor, real capital stock, and real intermediate inputs. The principal industries addressed in this chapter include infrastructure services (i.e., air and maritime transportation; telecommunication;[6] electric, gas, and sanitary utilities; banking; securities; and insurance), distribution services (i.e., wholesaling and retailing), and a range of professional and other labor-intensive service industries (i.e., legal, health, education, business, motion picture, construction, hotel, and "other" services[7]).

Labor Productivity

Examination of the service sector quickly reveals diversity with respect to labor productivity growth. Figure 21-1 depicts relative labor productivity growth[8] along the vertical axis and relative employment growth[9] along the horizontal axis.[10] The figure demonstrates that in service industries above the horizontal axis, including banking, securities, utilities, telecommunication, maritime transportation, wholesale trade, and retail trade, labor productivity increased at a faster rate than private sector labor productivity as a whole during 1990-98. For example, the data point for banking services demonstrates that the industry's average annual growth rate in labor productivity exceeded that of the private sector by 0.7 percentage points, while the data point for the securities industry demonstrates that the industry's average annual growth rate in labor productivity exceeded that of the private sector as a whole by 8.7 percentage points. Non-service sectors that also exhibited relatively

[5] USDOC, BEA, *Survey of Current Business*, July 1994, p. 89; Jan.-Feb. 1996, p. 75; Apr. 1997, p. D-32; Aug. 1998, p. 80; and Apr. 2000, p. 83.

[6] Communication services include telephone, telegraph, radio, and television services.

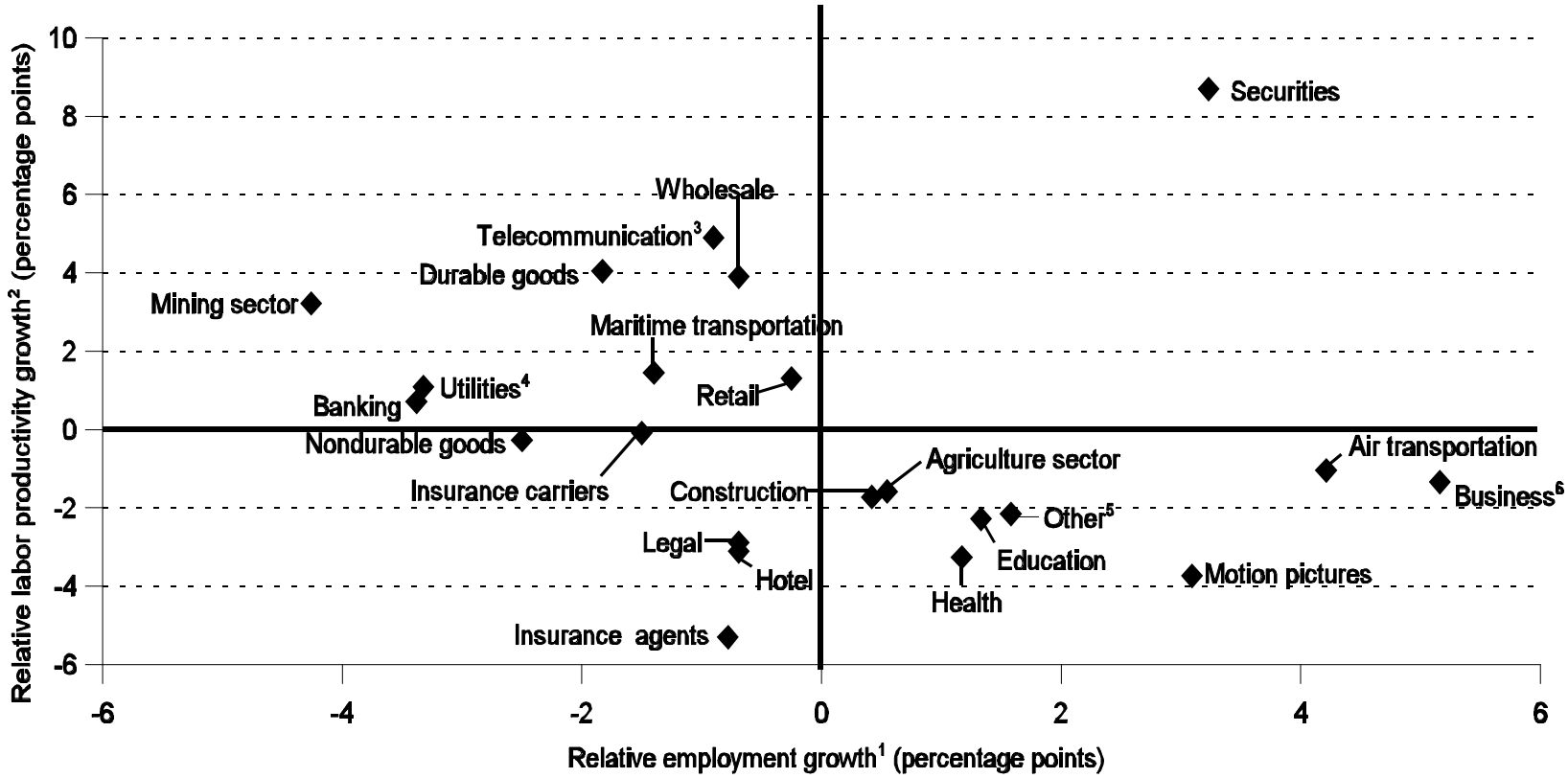
[7] "Other" services principally comprise professional services such as engineering, architecture, accounting, and consulting.

[8] Relative labor productivity growth is calculated by subtracting the average annual labor productivity growth rate in the private sector from the average annual labor productivity growth rate in each industry. Data on the public sector, which are separately delineated in BEA reports, are excluded altogether.

[9] Relative employment growth is calculated by subtracting the average annual employment growth rate in the private sector from the average annual employment growth rate in each industry. Data on the public sector, which are separately delineated in BEA reports, are excluded altogether.

[10] The axes represent the position of the private sector. Data points for specific industries depict the extent to which that industry's labor productivity or employment grew faster or slower than that of the private sector as a whole.

Figure 21-1
Relative labor productivity growth and relative employment growth in the United States, 1990-98



[1] Relative employment growth is calculated by subtracting the average annual employment growth rate in the private sector from the average annual employment growth rate in each industry.
[2] Relative labor productivity growth is calculated by subtracting the average annual labor productivity growth rate in the private sector from the average annual labor productivity growth rate in each industry.
[3] Includes telecommunications and telegraphy.
[4] Includes electric, gas, and sanitary services.
[5] Principally includes engineering, architecture, accounting, and consulting services.
[6] Principally includes computer programming, data processing, and other computer related services; advertising; credit reporting services; mailing, reproduction, and commercial art services; equipment rental and leasing services; and personnel supply services.

Source: Compiled by the Commission.

high labor productivity growth rates were the mining and durable goods manufacturing sectors.[1]

Service industries that lagged behind the private sector in terms of labor productivity growth included the air transportation, insurance (both carriers and agents), and the labor-intensive hotel, motion picture, legal, health, education, construction, business, and "other" service industries. Non-service sectors that also lagged behind the private sector in terms of labor productivity included the agriculture and nondurable manufacturing sectors.[2]

Figure 21-1 also reveals that relative employment growth in many industries with high relative productivity growth tended to increase slowly or decline (represented in the upper left quadrant), whereas employment in industries with low productivity growth tended to increase faster than overall private sector employment (represented in the lower right quadrant). For instance, employment in the banking industry declined by 1.4 percent per annum, on average, while private-sector employment increased by 2.0 percent per annum, on average, during 1990-98, placing employment growth in the banking industry 3.4 percentage points behind that of the private sector. Average employment growth in the business service industry, on the other hand, exceeded the private-sector average by 5.2 percentage points per annum.

Recognizing this pattern, some observers, most notably William Baumol in his "unbalanced growth" or "cost-disease" model, have expressed a two-fold concern.[3] First, due to unbalanced labor productivity growth, Baumol suggests that labor will continue to flow from high productivity-growth industries into low productivity-growth industries, eventually reducing labor productivity growth in the entire private sector. Continued migration is based on Baumol's assumption that output shares among the two industry

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[1] The durable goods manufacturing sector comprises lumber and wood products; furniture and fixtures; stone, clay, and glass products; primary metal industries; fabricated metal products; industrial machinery and equipment; electronic and other electric equipment; motor vehicles and equipment; other transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

[2] The nondurable manufacturing sector comprises food and kindred products, tobacco products, textile mill products, apparel and other textile products, paper and allied products, printing and publishing, chemicals and allied products, petroleum and coal products, rubber and miscellaneous plastics products, and leather and leather products.

[3] See, for instance, William Baumol and William Bowen, *Performing Arts: The Economic Dilemma* (Cambridge, MA: MIT Press, 1966); William J. Baumol, "Macroeconomics of Unbalanced Growth: The Anatomy of Urban Crisis," *American Economic Review*, May 1967, pp. 415-426; William J. Baumol, Sue Anne Blackman, and Edward N. Wolff, *Productivity and American Leadership: The Long View* (Cambridge, MA: MIT Press, 1992); Jeff Huther, "Relating Labor Productivity to Wages in Service Sectors: A Long-Run Approach," *Economic Inquiry*, Jan. 2000, pp. 110-122; Alan Peacock, "Manifest Destiny of the Performing Arts," found at Internet address *http://www.ebs.hw.ac.uk/publications/Peacock* retrieved Dec. 1, 2000; and Eric A. Hanushek, "The Productivity Collapse in Schools," *Developments in School Finance 1996*, found at Internet address *http://nces.ed.gov/pubs97/97535.html*, retrieved Dec. 1, 2000.

groups remain constant.[4] The flow of labor into low productivity-growth industries would follow naturally from the ability of high productivity-growth industries to increase output while reducing employment. Labor released from high productivity-growth industries would flow into low productivity-growth industries, which would be in need of additional labor in order to maintain output share.

Although the share of total full-time equivalent workers employed in labor-intensive, low productivity-growth industries has increased steadily, reaching 35 percent of the workforce in 1998,[5] data spanning the years 1948-96 offer little support for the view that the labor force migration entailed in the unbalanced growth model has reduced labor productivity growth in the private sector. The correlation coefficient between the private sector labor productivity growth rate and the share of GDP accounted for by BEA's "services" category, which houses most of the labor-intensive, low productivity-growth service industries,[6] is very low, at -0.08, suggesting that there is little or no relationship between the variables.[7] One reason for this result, however, could be that labor productivity gains in the "services" category reported by BEA are larger than measured. Despite recent improvements in source data and estimation techniques, it remains difficult to identify and measure the output of industries like business services, for instance, which encompass well over two hundred separate industries, ranging from advertising to yacht brokering. Further, because a large share of business services are consumed as intermediate products, it is possible that undetected productivity gains experienced in business services are being credited to firms classified in other industries.

Second, Baumol suggests that the movement of labor into low productivity-growth industries would increase the relative cost and price of low productivity-growth output; i.e., inflation in low productivity-growth industries would increase faster than overall private sector inflation. This follows from Baumol's assumptions that wages are equal in high productivity-growth and low-productivity growth industries, and that wages in both groups increase at the same rate as productivity growth in the former. Under these circumstances, labor costs per unit of output would remain unchanged in high productivity-industries because productivity and wages rise at equal rates, but labor costs per unit of output would increase in low productivity-growth industries because productivity growth in these industries lags behind wage growth. Taking this line of reasoning further, it could be asserted that the service sector's growing share of GDP has been illusory, with comparatively higher inflation in low productivity-growth services alone explaining the sector's rising share of gross domestic product.

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[4] Constant output shares means that the share of total economic output accounted for by the low productivity-growth industries and the high productivity-growth industries would remain unchanged. This could be encouraged by public policy, which for instance may have as its objectives greater access to health services, education, and performing arts.

[5] USDOC, BEA, *Survey of Current Business*, July 1994, p. 89; Jan.-Feb. 1996, p. 75; Apr. 1997, p. D-32; Aug. 1998, p. 80; and Apr. 2000, p. 83.

[6] The "services" category contains hotels and other lodging places, personal services, business services, auto repair services and parking, miscellaneous repair services, motion pictures, amusement and recreation services, health services, legal services, education services, and other services. Labor productivity declined in virtually all these industries during 1990-98. Where productivity growth occurred, it lagged behind overall labor productivity growth in the private sector.

[7] USDOC, BEA, *Survey of Current Business*, Nov. 1997, pp. 20-34.

On this point, the data offer mixed support. Figure 21-2[8] demonstrates that real wage growth in low productivity-growth industries (shown in the lower left quadrant) tended to increase slower than real wage growth in the private sector as a whole, and that real wage growth in high productivity-growth industries (shown in the upper right quadrant) tended to increase faster than real wage growth in the private sector. In fact, the positive relationship between relative labor productivity growth and relative wage growth was relatively strong, with a correlation coefficient of 0.72. This is consistent with microeconomic theory, but inconsistent with Baumol's assumption regarding uniform wage growth. However, figure 21-3 shows that relative inflation rates in low productivity-growth industries (shown in the lower right quadrant) appear to have been higher than those in other private-sector industries, which appears to support the cost-disease model. The correlation coefficient between relative labor productivity growth and relative inflation growth was -0.53, meaning that as relative labor productivity increased, relative inflation growth tended to decrease, and vice versa. This, too, is consistent with microeconomic theory.

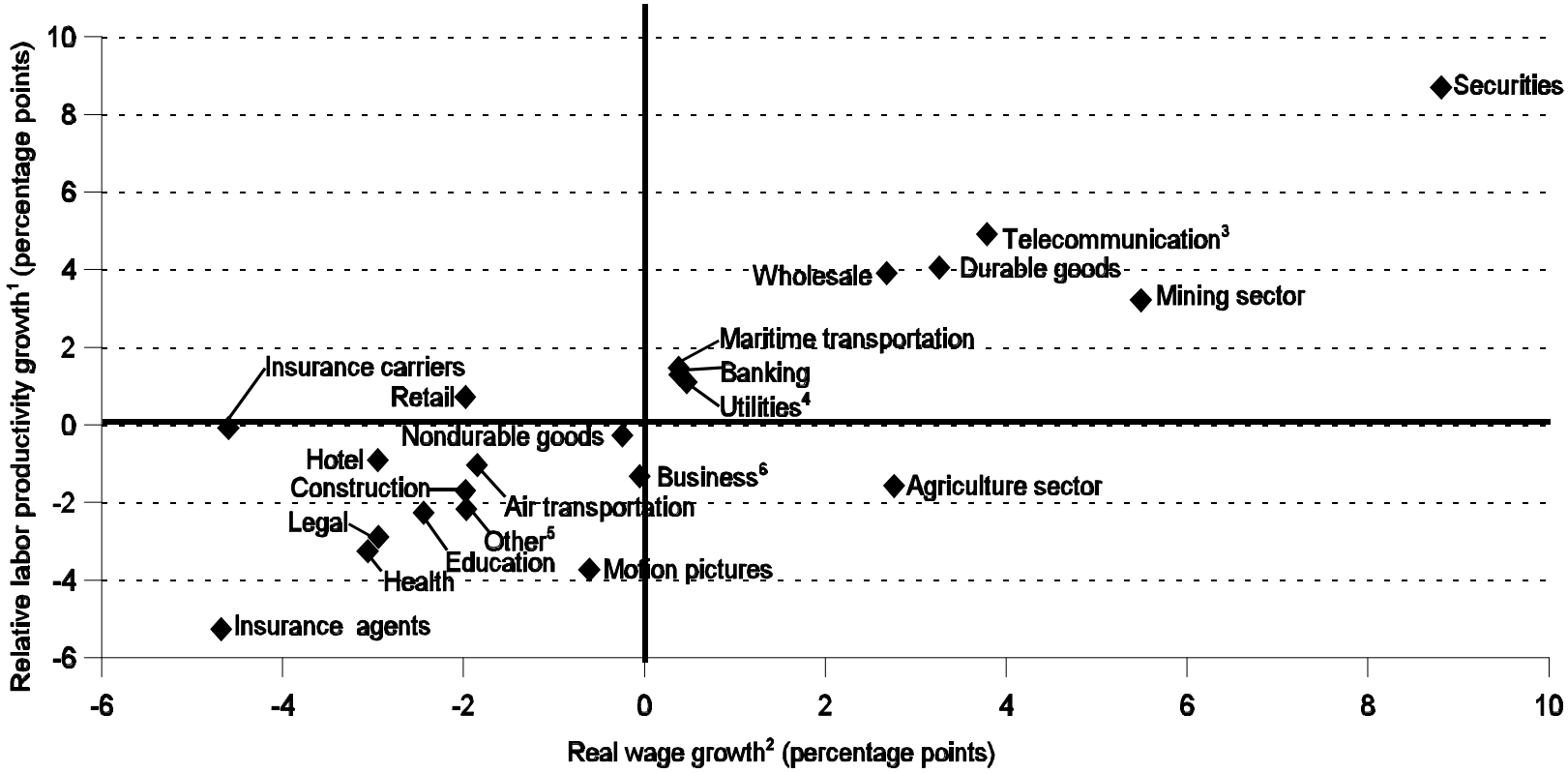
In sum, the data used in this analysis do not support the concern that service sector growth reduces overall private sector productivity growth, but the data do support the concern that service sector growth, and in particular the growth among low productivity-growth industries, may drive inflation rates higher. However, inflation seems to be explained principally by low productivity growth, rather than by the wage increases anticipated in the cost disease model.

Total Factor Productivity

Estimates of total factor productivity growth broadly correspond with estimates of labor productivity growth in regard to identifying high productivity-growth and low productivity-growth industries (figure 21-4). Mining, durable goods manufacturing, telecommunication services, maritime transportation services, wholesale trade, retail trade, and securities services continue to appear among high productivity-growth industries. Construction, education services, health services, motion picture services, business services, and "other" services continue to appear among low productivity-growth industries. It still appears that much of the labor released by high productivity-growth industries is absorbed by several of the low productivity-growth industries.

[8] Figures 21-2 through 21-4 are constructed in the same way as figure 21-1, and can be interpreted similarly.

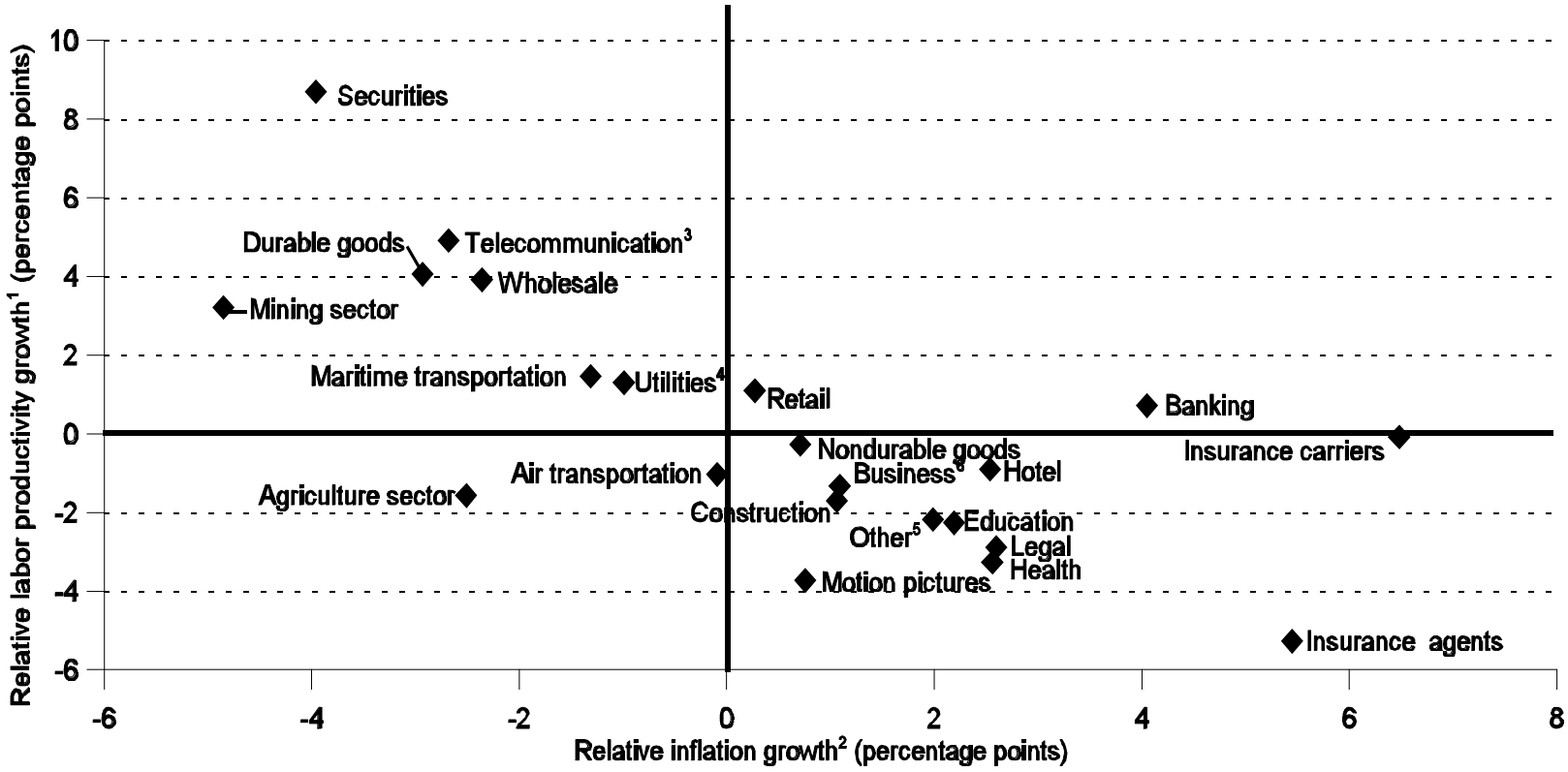
Figure 21-2
Relative labor productivity growth and real wage growth in the United States, 1990-98



[1] Relative labor productivity growth is calculated by subtracting the average annual labor productivity growth rate in the private sector from the average annual labor productivity growth rate in each industry.
[2] Relative real wage growth is calculated by subtracting the annual average growth rate of wages in the private sector from the annual average growth rate of wages in each industry.
[3] Includes telecommuncations and telegraphy.
[4] Includes electric, gas, and sanitary services.
[5] Principally includes engineering, architecture, accounting, and consulting services.
[6] Principally includes computer programming, data processing, and other computer related services; advertising; credit reporting services; mailing, reproduction, and commercial art services; equipment rental and leasing services; and personnel supply services.

Source: Compiled by the Commission.

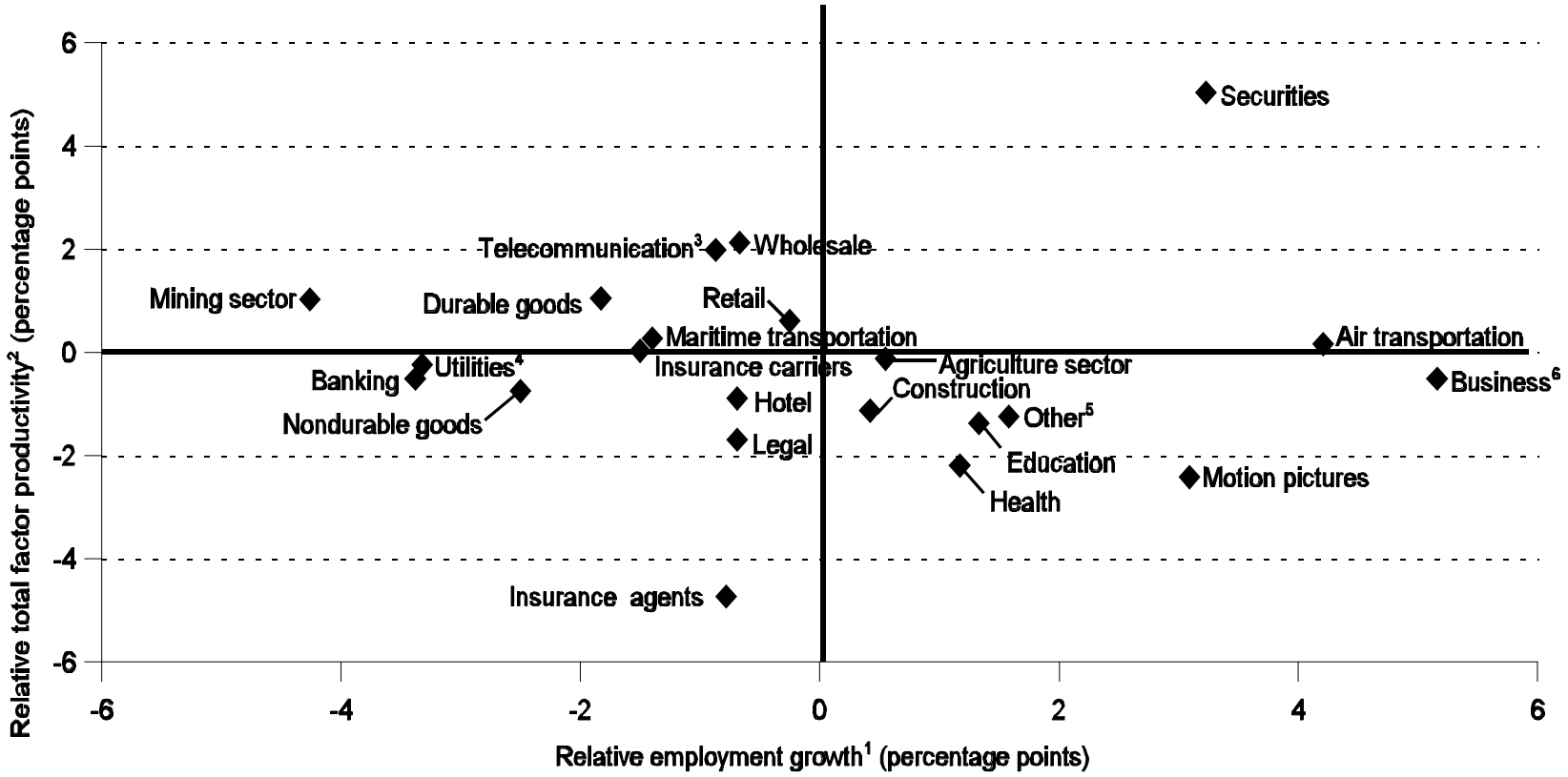
Figure 21-3
Relative labor productivity growth and relative inflation growth in the United States, 1990-98



[1] Relative labor productivity growth is calculated by subtracting the average annual labor productivity growth rate in the private sector from the average annual labor productivity growth rate in each industry.
[2] Relative inflation growth is calculated by subtracting the average annual growth rate of inflation in the private sector from the average annual growth rate of inflation in each industry.
[3] Includes telecommuncations and telegraphy.
[4] Includes electric, gas, and sanitary services.
[5] Principally includes engineering, architecture, accounting, and consulting services.
[6] Principally includes computer programming, data processing, and other computer related services; advertising; credit reporting services; mailing, reproduction, and commercial art services; equipment rental and leasing services; and personnel supply services.

Source: Compiled by the Commission.

Figure 21-4
Relative total factor productivity growth and relative employment growth in the United States, 1990-98



[1] Relative employment growth is calculated by subtracting the average annual employment growth rate in the private sector from the average annual employment growth rate in each industry.
[2] Relative total factor productivity growth is calculated by subtracting the average annual total factor productivity growth rate in the private sector from the average annual total factor prodictivity growth rate in each industry.
[3] Includes telecommuncations and telegraphy.
[4] Includes electric, gas, and sanitary services.
[5] Principally includes engineering, architecture, accounting, and consulting services.
[6] Principally includes computer programming, data processing, and other computer related services; advertising; credit reporting services; mailing, reproduction, and commercial art services; equipment rental and leasing services; and personnel supply services.

Source: Compiled by the Commission.

One of the principal advantages of using total factor productivity estimates is that, when decomposed,[9] they provide some insight into factors driving increases in gross output. Specifically, decomposition of the estimates allows one to attribute gross output increases to productivity growth, reflecting efficiency gains, or to increases in inputs, including labor, capital, and intermediate goods and services. Decomposition of the total factor productivity estimates is the principal focus of the remaining discussion.

Such analysis suggests that only distribution services - wholesale trade and retail trade - derived the largest part of their increases in gross output from actual productivity increases; i.e, increases that are not attributable to increases in capital, labor, or intermediate inputs (table 21-1). It is estimated that approximately 55 percent of productivity growth in the wholesale trade industry was independent of growth in inputs during 1990-98. The comparable share in the retailing trade industry was 37 percent.

In these industries, gross output appeared to increase as a result of significantly higher sales volumes and slightly higher gross margins. Nominal sales by wholesale trade establishments increased by 42 percent during 1990-98, while gross margins increased from 20.7 percent to 21.9 percent.[10] Nominal sales by retail trade establishments increased by 49 percent, while gross margins increased from 31.9 percent to 32.1 percent.[11] It is believed that higher sales volumes and gross margins stemmed in large measure from extensive investment in computers and information technology, which reportedly improved logistics, inventory management, and delivery speed. Indicative of this are figures on U.S. firms' capital expenditures in 1998, which show that wholesalers and retailers invested $7.5 billion and $9.1 billion on information processing equipment, accounting for about 9 percent of such expenditures that year.[12] It is also believed that higher sales volumes and gross margins reflected strong economic growth,[13] increasing investment,[14] and increasing disposable incomes[15] during 1990-98.

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[9] Decomposition of total factor productivity estimates basically entails the comparison of growth in actual productivity, labor, capital, and intermediate inputs, the latter three of which are weighted by their share of compensation in output. All of these are expressed as a share of growth in gross output, with the element found to have the highest share interpreted as the principal influence on gross output. For more detail, see the technical appendix that follows this chapter.

[10] U.S. Census Bureau, *Annual Benchmark Report for Wholesale Trade, January 1990 to February 2000*, May 2000, pp. 7 and 23-24.

[11] U.S. Census Bureau, *Annual Benchmark Report for Retail Trade, January 1990 to December 1999*, June 2000, pp. 4, 20, and 34.

[12] U.S. Census Bureau, *Annual Capital Expenditures, 1998*, Apr. 2000, p. 21.

[13] Despite the recession in 1991, real U.S. gross domestic product increased by 3.0 percent per annum, on average, during 1990-98. USDOC, BEA, *Survey of Current Business*, June 2000, p. 46.

[14] Real net stock of private fixed assets increased by 2.4 percent per annum, on average, during 1990-98. USDOC, BEA, *Survey of Current Business*, Apr. 2000, p. 23.

[15] Real disposable personal income increased by 1.2 percent per annum, on average, during 1990-98. U.S. Census Bureau, *Statistical Abstract of the United States*, 1999, p. 464.

Table 21-1
Probable factors underlying increases in gross output[1]

Productivity increase	Labor	Intermediate inputs
Wholesaling	Construction	Utilities
Retailing	Health	Banking
	Education	Telecommunications
	Air transportation	Maritime transportation
		Hotels and lodging
		Legal
		Motion pictures
		Securities
		Business
		Other

[1] Higher inputs of capital assets did not appear to underlie increases in gross output in any industry. This is principally due to the small share of gross output represented by property-type income. This result was robust, as adding indirect business taxes and nontax liabilities to property-type income to fully capture the capital share of production yielded essentially the same results.

Source: Compiled by the Commission.

Several industries, including banking, securities, telecommunications, utilities, maritime transportation, hotel and lodging, legal, motion picture, business, and "other" service industries appeared to derive most of their increases in gross output from increased intermediate inputs. This does not mean that these industries did not experience increases (or decreases) in total factor productivity, but rather that increases in intermediate inputs explained the largest share of increases in gross output.[16] It is estimated that between 50 percent and 100 percent of increased gross output in these industries was attributable to increases in intermediate inputs. Heavy reliance on intermediate inputs may reflect efforts to concentrate on core competencies and to outsource goods and services that are provided more efficiently or less expensively by others. In the manufacturing sector, this could be reflected in distributed manufacturing, which entails more purchases of semifinished goods, while in services it could be reflected in growing purchases of infrastructure equipment such as telecommunication switches, raw materials such as coal, and services provided by telecommunication, computer and data processing, advertising, legal, and accounting firms.

The telecommunication service industry, for instance, derives 45 percent of its gross output from intermediate inputs. Telecommunication service firms' purchases of intermediate inputs increased by 10.0 percent per annum, on average, during 1990-98.[17] Input-output tables maintained by BEA reveal that, in 1997, the industry's largest expenditures for intermediate inputs comprised telecommunication services provided by second parties ($44.6 billion); maintenance, repair, and construction services ($12.6 billion); legal, engineering, and accounting services ($11.0 billion);

[16] It is estimated, for instance, that total factor productivity increases explained 12 percent of the increase in banks' gross output, 30 percent of the increase in securities firms' gross output, 33 percent of the increase in telecommunication firms' gross output, 38 percent of the increase in maritime transportation firms' gross output, and 3 percent of the increase in business service providers' gross output.

[17] USDOC, BEA, *Survey of Current Business*, June 2000, p. 52.

audio, video, and communication equipment ($7.2 billion); and electronic components and accessories ($5.9 billion).[18] It is believed that these purchases largely reflect the construction of digital networks.[19]

Firms in the finance industry derive 42 percent of their gross output from intermediate inputs.[20] In the banking and securities industries, intermediate inputs increased at average annual rates of 6 and 24 percent, respectively, during 1990-98.[21] Financial firms' largest purchases of intermediate inputs included financial services provided by second parties ($131.9 billion), business and professional services ($26.8 billion), legal services ($18.0 billion), computer and data processing services ($15.6 billion), and advertising services ($11.3 billion).[22] Rapidly increasing purchases of intermediate inputs by the securities industry was largely a reflection of the long stock market boom of the 1990s, which increased the volume and value of traded securities.[23]

Electric service utilities derive 31 percent of gross output from intermediate inputs, and gas production and distribution utilities derive 83 percent of gross output from intermediate inputs.[24] Intermediate purchases by utilities increased by 1.5 percent, per annum, on average, during 1990-98.[25] The largest purchases of intermediate inputs by firms in these industries were those of crude petroleum and natural gas ($48.2 billion); gas production and distribution services provided by second parties ($29.0 billion); maintenance, repair, and construction services ($23.5 billion); and coal ($13.7 billion).[26]

The air transport, construction, education, and health service industries appeared to derive the largest part of gross output increases from increasing labor inputs. Once again, this does not mean that these industries did not experience total factor productivity increases or decreases, but rather that increases in labor inputs explained the largest share of increases in gross output.[27] It is estimated that between 50 and 70 percent of the increase in these industries' gross output is attributable to increased labor. Employment in these industries increased by average annual rates of between 2.4 percent and 7.1 percent during 1990-98, in contrast to private sector average annual employment growth of 2 percent. Reliance on greater numbers of employees to generate increases in gross output stems from the nature of certain services, especially those that require direct contact between service providers and consumers. Health and education services are among these. In addition, it has been suggested that the high cost of accidents in certain services can result in greater reliance on labor to perform and ensure the quality of these services. The costs associated with accidents in the health and air transport services, for instance, may drive medical practices and airlines to maintain high staffing levels.[28] In addition, managers in high value-added market

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[18] USDOC, BEA, *Survey of Current Business*, Jan. 2001, p. 31.

[19] OECD, "OECD Economic Surveys - United States," found at Internet address *http://www.lexis-nexis.com/*, retrieved Oct. 12, 2000.

[20] USDOC, BEA, *Survey of Current Business*, Jan. 2001, pp. 31-33.

[21] USDOC, BEA, *Survey of Current Business*, June 2000, p. 52.

[22] USDOC, BEA, *Survey of Current Business*, Jan. 2001, pp. 31-33.

[23] Jack E. Triplett and Barry P. Bosworth, "Productivity in the Services Sector," paper presented at a meeting of the American Economic Association, Boston, MA, Jan. 7-9, 2000, p. 6.

[24] USDOC, BEA, *Survey of Current Business*, Jan. 2001, pp. 31-33.

[25] USDOC, BEA, *Survey of Current Business*, June 2000, p. 52.

[26] USDOC, BEA, *Survey of Current Business*, Jan. 2001, pp. 31-33.

[27] It is estimated, for instance, that total factor productivity increases explained 22 percent of the increase in air transportation firm's gross output.

[28] Further, individuals who consume these services may demonstrate willingness to pay the high prices associated with low productivity in order to ensure access to high quality service providers. Huther, p. 119.

segments may focus more on providing high quality, highly differentiated services than on improving productivity. This may well be the case in any number of business services, such as advertising or computer programming, where creativity is necessary to win clients and market share.[39] The inability to capture differences in service quality speaks for exercising caution when interpreting productivity estimates.

[39] Brent Keltner, David Finegold, Geoff Mason, and Karin Wagner, "Market Segmentation Strategies and Service Sector Productivity," *California Management Review*, Summer 1999, pp. 84-102.

Technical Appendix

Labor productivity was calculated as follows:

$$LP = \frac{VA}{L}$$

Where

VA = real value-added, or real gross product by industry (Source: USDOC, BEA, "Improved Estimates of Gross Product by Industry for 1947-98," *Survey of Current Business*, p. 46.)

L = full-time equivalent employees (Source: USDOC, BEA, "National Income and Product Accounts (NIPAs)," *Survey of Current Business*, July 1994, p. 89; Jan.-Feb. 1996, p. 75; Apr. 1997, p. D-32; Aug. 1998, p. 80; and Apr. 2000, p. 83.)

Total factor productivity was calculated as follows:

$$\frac{Q}{L^{\beta_L} K^{\beta_K} M^{1-\beta_L-\beta_K}}$$

Where

Q = chain-type quantity index for gross output (Source: USDOC, BEA, "Improved Estimates," *Survey of Current Business*, p. 50.)

L = indexed full-time equivalent employees (Sources: USDOC, BEA, "National Income and Product Accounts (NIPAs)," *Survey of Current Business*, July 1994, p. 89; Jan.-Feb. 1996, p. 75; Apr. 1997, p. D-32; Aug. 1998, p. 80; and Apr. 2000, p. 83.)

$\hat{a}_L$ = share of labor compensation in gross output, or nominal compensation of employees by industry divided by nominal gross output (Sources: USDOC, BEA, "National Income and Product Accounts (NIPAs)," *Survey of Current Business*, July 1994, p. 89; Jan.-Feb. 1996, p. 75; Apr. 1997, p. D-32; Aug. 1998, p. 80; and Apr. 2000, p. 83; and USDOC, BEA, "Improved Estimates," *Survey of Current Business*, p. 48.)

K = chain-type quantity index of net stock of private fixed assets (Source: USDOC, BEA, *Survey of Current Business*, "Fixed Assets and Consumer Durable Goods," Apr. 2000, pp. 24-25).

$\hat{a}_K$ = share of capital returns in output, or nominal property-type income divided by nominal gross output (Sources: http://www.bea.doc.gov/bea/dn2/gpo.htm; and USDOC, BEA, "Improved Estimates," *Survey of Current Business*, p. 48.)

M = chain-type quantity index of intermediate inputs (Source: USDOC, BEA, "Improved Estimates," *Survey of Current Business*, p. 52.)

Total factor productivity estimates are decomposed using the following calculations:

$$Q_{AAG} = A_{AAG} + \ominus_L(L_{AAG}) + \ominus_K(K_{AAG}) + (1-\ominus_L-\ominus_K)(M_{AAG})$$

Where

Q_{AAG} = average annual growth in gross output

A_{AAG} = average annual growth in productivity

$\ominus_L$ = average $\hat{a}_L$

L_{AAG} = average annual growth in full-time equivalent employees

$\ominus_K$ = average $\hat{a}_K$

K_{AAG} = average annual growth in net stock of private fixed assets

M_{AAG} = average annual growth in intermediate inputs

and

A_{AAG}/Q_{AAG} = growth in gross output attributable to productivity increase

$\ominus_L(L_{AAG})/Q_{AAG}$ = growth in gross output attributable to increase in labor inputs

$\ominus_K(K_{AAG})/Q_{AAG}$ = growth in gross output attributable to increase in capital inputs

$(1-\ominus_L-\ominus_K)(M_{AAG})/Q_{AAG}$ = growth in gross output attributable to increase in intermediate inputs

APPENDIX A

ACTIVITIES CAPTURED IN OFFICIAL U.S. DATA ON CROSS-BORDER TRADE IN SERVICES BY INDUSTRY

Appendix A
Activities captured in official U.S. data on cross-border trade in services, by industry

Service	U.S. Exports	U.S. Imports
Accounting and management consulting	Includes accounting, auditing, bookkeeping, management, consulting, and public relations services provided to foreign clients. Excludes management of health care facilities, consulting engineering services related to actual or proposed construction or mining services projects, computer consulting, data processing and tabulating services, and public relations services integral to an advertising campaign.	Same
Air transportation		
Passenger fares	Includes receipts by U.S. ocean and air carriers from foreign residents traveling between the United States and foreign countries and between two foreign points.	Includes payments to foreign ocean and air carriers by U.S. residents traveling between the United States and foreign countries.
Freight	Includes receipts of U.S.-operated air carriers for the international transportation of U.S. exports, and receipts of U.S.-operated carriers transporting foreign freight between foreign points.	Includes payments to foreign-operated air carriers for international transportation of U.S. imports.
Port	Includes goods and services purchased in U.S. airports by foreign-operated carriers.	Includes goods and services purchased in foreign airports by U.S.-operated carriers.
Architectural, engineering, and construction	Includes construction, engineering, architectural, and mining services, including oil and gas field services. Architectural services include services mainly for businesses, but exclude landscape architecture and graphic design services. Engineering services relate to construction and mining services projects only, and exclude industrial engineering services, such as product design services. Land-surveying services are included, as are services of general contractors in the fields of building and heavy construction, and construction work by special trade contractors, such as erection of structural steel for bridges and buildings and on-site electrical work. Data are reported for services purchased in connection with proposed projects (i.e., feasibility studies) as well as projects contracted or underway, but exclude contractors' expenditures on merchandise and labor.	Same, except data include contractors' expenditures on merchandise and labor.
Audiovisual	Includes nonresidents' rentals of films and tapes from U.S. residents.	Includes U.S. residents' rentals of films and tapes from nonresidents.

Appendix A--*Continued*
Activities captured in official U.S. data on cross-border trade in services, by industry

Service	U.S. Exports	U.S. Imports
Banking and securities	Includes brokerage services, private placement services, underwriting services, financial management services, credit card services, credit-related services, financial advisory and custody services, securities lending services, and other financial services. Excludes deposit taking and lending services.	Same
Computer and data processing	Includes data entry, processing (both batch and remote), and tabulation; computer systems analysis services, design, and engineering services; custom software and programming services; systems integration services; and other computer services (e.g., timesharing, maintenance, and repair). Excludes general use computer software royalties and license fees.	Same
Education	Includes tuition and living expenses of foreign students enrolled in U.S. colleges, universities, and other institutions of higher education.	Includes tuition and living expenses of U.S. students studying in foreign colleges, universities, and other institutions of higher education through "study abroad" programs sponsored by U.S. institutions.
Energy	Not available.	Not available.
Environmental	Not available.[1]	Not available.[1]
Health care	Inpatient and outpatient fees charged to foreign residents; excludes fees for ambulatory treatment or drugs provided outside a hospital.[2]	Not available.
Insurance	Includes primary and reinsurance premiums (net of claims paid) purchased by foreign persons from U.S. carriers operating in the U.S. market.	Includes primary and reinsurance premiums (net of claims receipts) purchased by U.S. persons from foreign carriers operating in their home markets.

See footnotes at end of table.

Appendix A--*Continued*
Activities captured in official U.S. data on cross-border trade in services, by industry

Service	U.S. Exports	U.S. Imports
Intangible intellectual property	Includes management services and intangible intellectual property provided to foreign-based entities. Management services essentially include administrative, professional, and managerial services rendered by parent companies to their foreign affiliates. Intangible intellectual property consists of four primary elements: (1) the right to use patented and unpatented processes and formulas used in the production of goods; (2) the right to use copyrights, trademarks, franchises, and broadcast rights; (3) the right to distribute, use, and reproduce computer software; and (4) the right to sell products under a particular trademark, brand name, or signature.	Same
Legal	Includes legal advice or other legal services.	Same
Maritime[3]		
Freight	Includes receipts of U.S.-operated ocean carriers for the international transportation of U.S. exports, and receipts of U.S.-operated carriers transporting foreign freight between foreign points.	Includes payments to foreign-operated ocean carriers for international transportation of U.S. imports.
Port	Includes goods and services purchased in U.S. sea ports by foreign-operated carriers.	Includes goods and services purchased in foreign sea ports by U.S.-operated carriers.
Retail	Not available.	Not available.
Telecommunication	Predominantly includes net settlement receipts of U.S. carriers for terminating inbound foreign calls. Also includes telex, telegram, and other basic telecommunication services; value-added services, such as electronic mail, management of data networks, enhanced facsimile, and electronic funds transfer; telecommunication support services, such as repair, ground station services; and the launching of communications satellites.	Same, except predominantly includes net settlement payments by U.S. carriers to compensate foreign carriers for terminating outbound U.S. calls.
Travel and tourism	Includes expenditures in the United States by foreign travelers (except foreign government personnel and their dependents, and other foreign citizens residing in the United States) for lodging, food, and transportation within the United States, and recreation and entertainment, personal purchases, gifts, and other outlays associated with travel in the United States.[4]	Includes expenditures abroad by U.S. travelers (excluding U.S. Government personnel and their dependents, and other U.S. citizens residing abroad) for lodging, food, and transportation within foreign countries, and recreation and entertainment, personal purchases, gifts, and other outlays associated with travel abroad.[5]

See footnotes at end of table.

Appendix A--*Continued*
Activities captured in official U.S. data on cross-border trade in services, by industry

Service	U.S. Exports	U.S. Imports
Wholesale	Not available.	Not available.

[1] Data reported in ch.11 are from industry sources. Activities include hazardous and solid waste management services, environmental consulting and engineering services, remediation and industrial services, analytical services, and water treatment works.

[2] BEA revised its methodology and used newly available source data to determine total medical exports. Inpatient estimates were obtained by data collected from State regulatory agencies, hospital associations, hospitals with international medical centers, and emergency rooms. Inpatient fees include all hospital staff physician fees, tests, drugs, and room and board. Outpatient charges include outpatient surgery, physical rehabilitation and therapy, dermatology, AIDS treatments, and consultations. USDOC, BEA, *Survey of Current Business*, July 1999, p. 69.

[3] With regard to "other transportation" services, the October 1998 *Survey of Current Business* states that the estimates for operational leasing of transportation equipment without crew were reclassified from the "other transportation" accounts to "other private services" accounts. At the same time, operational leasing of transportation equipment with crew was retained in the "other transportation" account, but was reclassified to the freight component. Consequently, "other transportation" receipts and payments each now have only two components, freight services and port services. USDOC, BEA, *Survey of Current Business*, Oct. 1998, p. 76.

[4] Expenditures are estimated by the USDOC, BEA, based on data principally supplied by the USDOC, International Trade Administration, Tourism Industries, in conjunction with the U.S. Department of Justice, Immigration and Naturalization Service, and by Statistics Canada and the Banco de Mexico. Officials of BEA and Tourism Industries, telephone interviews with USITC staff, Oct. 22 and 23, 1998.

[5] Ibid. Tourism imports were revised based on the results of a one-time survey that compared expected travel expenditures to post-trip expenditures. The survey results indicate that U.S. travelers' expected expenditures understate post-trip expenditures in Latin America and the Asia-Pacific region. Accordingly, data for 1998 were revised upward, increasing travel payments by $1.7 billion. Data for 1997 were adjusted using one-half the value of the adjustments in 1997. Estimates for the years prior to 1997 were not adjusted. USDOC, BEA, *Survey of Current Business*, July 1999, pp. 69-70.

Sources: USDOC, BEA, *U.S. International Transactions in Private Services: A Guide to the Surveys Conducted by the Bureau of Economic Analysis*, Mar. 1998; Environmental Business International (EBI); USDOC, International Trade Administration, Tourism Industries, in conjunction with the U.S. Department of Justice, Immigration and Naturalization Service, and Statistics Canada and the Banco de Mexico; OECD, *Services Statistics on International Transactions*, p. 119; USDOC, BEA, *Survey of Current Business*, July 1999, pp. 69-70.

APPENDIX B

ACTIVITIES CAPTURED IN OFFICIAL U.S. DATA ON AFFILIATE TRANSACTIONS BY INDUSTRY

Appendix B
Activities captured in official U.S. data on affiliate transactions by industry

Service	Sales	Purchases
Accounting and management consulting	Accounting, bookkeeping, and related auditing services; performing day-to-day management activities; providing operating counsel and assistance, including strategic, financial, information systems, and personnel planning; public relations services; facilities support management activities; and other business consulting.	Accounting, tax preparation, bookkeeping, and payroll services; other accounting services; management of companies and enterprises; management, scientific, and technical consulting services, such as providing advice and assistance to businesses and other organizations on management, environmental and other scientific and technical issues.
Architectural, engineering, and construction	Architectural and engineering services, such as civil, electrical, industrial, mechanical, petroleum, marine, and design engineering; land, water, and aerial surveying; and construction services, such as building construction, heavy construction, and construction by specialized trade contractors.	Architectural services, such as planning and designing residential, institutional, leisure, commercial, and industrial buildings and structures; landscape architectural services; engineering services, such as advice, preparation of feasibility studies and designs, provision of tech services during construction or installation, and inspection and evaluation; drafting services; building inspection services; geophysical surveying and mapping services; surface surveying and mapping services; analytical testing services; building, developing, and general contracting; heavy construction; and special trade construction.
Audiovisual	Motion picture, television tape, and film production, distribution and associated services; operating motion picture theaters; and video tape and disk rentals.	Motion picture, video, television program, and commercial production and distribution; exhibition of motion pictures and videos; post-production services, such as editing, film/tape transfers, subtitling, credits, closed captioning, computer-produced graphics, animation and special effects, and developing and processing motion picture film; musical recording production and distribution; music publishing; and sound recording and related services.
Air transportation	Not available.	Not available.

Appendix B--*Continued*
Activities captured in official U.S. data on affiliate transactions by industry

Service	Sales	Purchases
Banking and securities	Non-deposit-taking financial services, such as financial leasing; mortgage banking and brokering; securities and commodity brokering and dealing; originating, underwriting, and distributing securities; buying and selling commodity contracts; operating security and commodity exchanges; providing clearinghouse services; operating investment management companies, unit investment trusts, and face-amount certificate offices; and miscellaneous investment activities. Excludes lending services.	Non-depository credit intermediation such as credit card issuing, sales financing, cash loans or credit through credit instruments, consumer lending, real estate credit, international trade financing, secondary market financing, and other nondepository credit intermediation; activities related to credit intermediation, such as mortgage and nonmortgage loan broking, financial transactions processing, reserve, and clearinghouse activities, and other activities related to credit intermediation; securities, commodity contracts, and other financial investments and related services; funds, trusts, and other financial vehicles.
Computer and data processing	Computer and data processing services, such as processing and preparing reports using consumer supplied data; providing data entry and processing services; and providing time-sharing services.	Electronic data processing services, such as processing and preparing reports using consumer supplied data, automated data entry services, and providing time-sharing services; computer systems design services such as writing, modifying, testing, and supporting software, planning and designing computer systems that integrate computer hardware, software, and communication technologies; on-site management and operation of clients' computer systems and/or data processing facilities; and professional and technical computer-related advice and services; other computer-related advice and services.
Education	Not available.	Instruction and training provided by specialized establishments such as schools, colleges, universities, professional schools, and training centers; includes management on a contractual basis if the establishment both manages the operation and provides the operating staff.

Appendix B--*Continued*
Activities captured in official U.S. data on affiliate transactions by industry

Service	Sales	Purchases
Energy	*Petroleum*[1] Producing, transporting, and distributing petroleum products, such as oil and gas field service activities; petroleum wholesaling; operating petroleum tankers; operating petroleum and natural gas pipelines; storing petroleum for hire; and operating gasoline service stations. *Electricity* Generating, transmitting, and/or distributing electrical energy. *Gas* Distributing natural gas for sale, except for pipeline transportation of natural gas from the extracting site, which is captured under petroleum services. *Sanitary* Distributing water for sale; and sanitary services including irrigation systems.	*Mining* Oil and gas extraction, including those establishments that operate and/or develop oil and gas field properties either for themselves or for others on a fee or contract basis, and all activities related to the preparation of oil and gas up to the point of shipment; developing, mining, and preparing anthracite, bituminous coal, or lignite; support activities for oil and gas field services and coal mining on a contract or fee basis. *Transportation* Pipeline transportation of crude oil, refined petroleum products, and natural gas. The pipeline transportation of natural gas includes storage. *Utilities* Electric power generation, transmission, and distribution; natural gas distribution.
Environmental	Not available.[2]	Not available.[2]
Health care	Services by hospitals, nursing, and personal care facilities, medical and dental laboratories, offices of physicians, etc.; miscellaneous health services, such as home health care, kidney dialysis, and specialty outpatient services; and management of hospitals and nursing homes.	Ambulatory health care services provided directly or indirectly to ambulatory patients; hospital services, including medical, diagnostic, and treatment services provided to inpatients; nursing and residential care facilities; and social assistance.

See footnotes at end of table.

Appendix B--*Continued*
Activities captured in official U.S. data on affiliate transactions by industry

Service	Sales	Purchases
Insurance	Insurance services, such as providing life, accident, health, fire, marine, casualty, surety, title, deposit, and share insurance; managing pension, health, and welfare funds; providing hospital and medical services plans; and providing other insurance services through brokers, insurance agents, and independent organizations.	Insurance services such as underwriting annuities and insurance policies and investing premiums to build assets used against future claims, as provided by insurance carriers such as direct life, health, and medical insurance carriers, direct property and casualty insurance carriers, direct title insurance carriers, other direct insurance carriers, and reinsurance carriers; the sale of insurance policies or annuities through agencies or brokerages; and the provision of employee benefits and other insurance related services, such as claims adjustment and third-party administration.
Legal	Legal advice or legal services.	The provision of legal expertise in various areas of the law; includes notary services; specialized legal or paralegal services provided by legal practitioners other than lawyers and attorneys; title abstract and settlement services; and other legal services.
Maritime	Not available.	Not available.
Retail	Retailing services include selling merchandise to the general public for personal or household consumption, such as the retailing of general merchandise; food products; apparel and accessories; prepared food and drink; building materials and mobile homes; new and used automobiles, boats, and recreational vehicles; computers and computer software; and other miscellaneous goods.	Retailing services include selling merchandise to the general public, businesses, or institutional consumers through fixed point-of-sale store locations or nonstore outlets. These businesses include motor vehicles and parts dealers; furniture and home furnishings stores; electronics and appliance stores; building material and garden equipment and supplies dealers; food and beverage stores; health and personal care stores; gasoline stations; clothing and clothing accessories stores; sporting goods, hobby, book, and music stores; general merchandise stores; miscellaneous stores, such as florists, office equipment and supplies retailers, pet stores, stationery and gift stores, used merchandise stores, art dealers, and mobile home dealers; and nonstore retailers such as electronic shopping and mail order houses, vending machine operators, and direct selling establishments.
Telecommunication	Radiotelephone communication services, including cellular telephone, paging and beeper services; local and long-distance telephone services; message communication services, including telegraph, cablegram, electronic mail, and facsimile transmissions; radio and television broadcasting; and other communication services activities.	Operating, maintaining, or providing access to facilities for the transmission of voice, data, text and full motion picture video between network points, and includes telecommunications reselling services provided through wired and wireless networks.

See footnotes at end of table.

Appendix B--*Continued*
Activities captured in official U.S. data on affiliate transactions by industry

Service	Sales	Purchases
Travel and tourism	Commercial lodging services, including the provision of meals by hotels and motels, rooming and boarding houses, camps and recreational vehicle parks, and membership hotels and lodging houses.	Travel arrangement and reservation services, including travel agency services such as the sale of travel, tour, and accommodation services; tour operator services, such as arranging and assembling tours; other travel arrangement and reservation services; convention and visitors bureau services; accommodation services including traveler accommodations, recreational vehicle parks and recreational camps, and rooming and boarding houses; food and drinking services as provided by full-service restaurants, limited-service eating places and restaurants, food service contractors, caterers, and mobile food service providers; and alcoholic beverage drinking places.
Wholesale	Wholesale services include selling merchandise to retailers, businesses or other wholesalers, such as the wholesaling of new and used motor vehicles and equipment; lumber and construction materials; professional equipment and supplies; ferrous and nonferrous metal semifinished products, coal and other minerals and ores; electrical goods; hardware, and plumbing and heating equipment and supplies; machinery, equipment, and supplies; other durable goods; and nondurable goods.	Wholesale services include selling goods for resale, capital and durable non-consumer goods, and raw and intermediate goods to wholesalers, retailers, and other businesses. These goods include new and used motor vehicles and motor vehicle parts and supplies; furniture and home furnishings; lumber and other construction materials; professional and commercial equipment and supplies; metals and minerals;[3] electrical goods; hardware, and plumbing and heating equipment and supplies; machinery, equipment and supplies; and miscellaneous durable and nondurable goods.

[1] For affiliate sales, petroleum services do not exist as a separate ISI category, but rather incorporate elements of Transportation, Communication, and Public Utilities (Petroleum tanker operations - ISI 441, Pipelines, petroleum and natural gas - ISI 461, Petroleum storage for hire - ISI 470); Wholesale Trade (Petroleum and petroleum products -ISI 517); and Retail Trade (Gasoline Services Stations - ISI 554). Under the new North American Industry Classification System (NAICS), affiliate purchases of petroleum are no longer treated as a separate data category. Instead, petroleum related activities are distributed among Mining, Utilities, Transportation, Wholesale Trade, and Retail Trade. USDOC, BEA, *Survey of Current Business*, Aug. 1999, p. 24.

[2] Data reported in chapter 11 are from industry sources. Affiliate purchases data on waste management and remediation services were suppressed by BEA to avoid disclosure of individual company data. Activities for affiliate sales and purchases include hazardous and solid waste management services; environmental consulting and engineering services; remediation and industrial services; analytical services; and water treatment works.

[3] This industry also includes metal service centers that perform value added functions such as sawing, shearing, bending, leveling, cleaning or edging on a custom basis as part of a sale.

Sources: USDOC, BEA, *U.S. Direct Investment Abroad: 1989 Benchmark Survey, Final Results*, "Guide to Industry and Foreign Trade Classifications for International Surveys," Oct. 1992, pp. 1-20; and USDOC, BEA, *Guide to Industry and Foreign Trade Classifications for International Surveys*, Oct. 1997, pp. 1-49.