

Recent Trends in U.S. Services Trade

2007 Annual Report

**June 2007
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**Investigation No. 332-345
United States International Trade Commission**



U.S. International Trade Commission

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ABSTRACT

The report *Recent Trends in U.S. Services Trade, 2007 Annual Report* finds that the services sector is the largest component of the U.S. economy and that the United States is the world's largest market for and exporter of services. Official data on U.S. cross-border services trade in 2005 indicate more substantial growth in both directions than that recorded in the preceding 5 year period. Separately, services supplied to foreign consumers by foreign-based affiliates established by U.S. multinational parent companies also experienced strong recent growth. Even so, the report found that U.S. service firms encountered impediments to trade in particular services in various forms, degrees, and countries. The report summarizes the provisions of bilateral and regional free trade agreements intended to ease such impediments for U.S. service firms. The report reviews the status of multilateral services trade negotiations at the World Trade Organization, and members' exchanges on cross-cutting issues, which are proceeding informally.

The report highlights the services and geographic markets that contributed most substantially to recent services trade performance. Separate chapters on particular services—architectural, engineering, and construction (A/E/C), audiovisual, computer and related, electricity, health care, retail, securities, and telecommunication services—describe how each service is traded, compare recent trade performance to historical trends, identify trends and issues affecting competitive conditions in the industry, and summarize WTO members' positions on the selected services as submitted for consideration at WTO negotiations.

PREFACE

This report is the eleventh in a series of annual reports on recent trends in U.S. services trade that the U.S. International Trade Commission (“The Commission” or USITC) has published under investigation No. 332-345. The Commission also publishes an annual companion report, under this investigation number, on U.S. merchandise trade, entitled *Shifts in U.S. Merchandise Trade*. These annual reports are the product of an investigation instituted by the Commission in 1993 under section 332(b) of the Tariff Act of 1930 (19 U.S.C. 1332(b)).¹ A significant amount of the information contained in this recurring report reflects basic research that is required by staff to maintain a high level of trade and industry expertise. The knowledge, industry contacts, and analytic skills developed in this report enable the Commission to provide timely, expert analysis of multiple service industries. The Commission has found such expertise to be essential in its statutory investigations and in apprising its varied customers of global industry trends, regional developments, and competitiveness issues.

In recent years, the Commission has published several reports on the services sector outside of the *Recent Trends* series. These include *Express Delivery Services: Competitive Conditions Facing U.S.-based Firms in Foreign Markets* (USITC publication 3678, April 2004), *Solid and Hazardous Waste Services: An Examination of U.S. and Foreign Markets* (USITC publication 3679, April 2004), *Remediation and Nature and Landscape Protection Services: An Examination of U.S. and Foreign Markets* (USITC publication 3727, October 2004), *Air and Noise Pollution Abatement Services: An Examination of U.S. and Foreign Markets* (USITC publication 3761, April 2005), *Logistic Services: An Overview of the Global Market and Potential Effects of Removing Trade Impediments* (USITC publication 3770, May 2005), and *Renewable Energy Services: An Examination of U.S. and Foreign Markets* (USITC publication 3805, October 2005).

¹ 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 USITC instituted investigation No. 332-345, *Annual Reports on U.S. Trade Shifts in Selected Industries*. On December 20, 1994, the Commission on its own motion expanded the scope of this report to include more detailed coverage of service industries. Under the expanded scope, the Commission publishes two annual reports, *Shifts in U.S. Merchandise Trade* and *Recent Trends in U.S. Services Trade*. 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 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 developments, by product, and with leading U.S. trading partners, in services, agriculture, and manufacturing sectors.

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EXECUTIVE SUMMARY

The services sector is the largest component of the U.S. economy, accounting for 83 percent of private-sector gross domestic product and 85 percent of private-sector employment in 2005. The United States has the world's largest services market and is also the largest exporter and importer of services. In 2005, U.S. cross-border exports of private services increased by 10 percent to \$360.5 billion, while U.S. imports rose by 9 percent to \$280.6 billion. As a result, the U.S. trade in services surplus grew to \$79.9 billion, its highest level since 1999. The United States continues to have the largest services surplus of any country in the world. Both U.S. exports and imports grew more rapidly in 2005 than in the previous 5 year period, indicating heightened capacity of both U.S. and foreign service firms to compete in supplying services across borders.

U.S. firms' sales of services through foreign affiliates are no less dynamic. Affiliate sales data reflect the importance of a commercial presence abroad to many U.S. services, including the A/E/C, computer and related, retail, and securities services analyzed in this report. Sales of services by the foreign-based affiliates of U.S. parent companies increased by 8 percent to \$489.6 billion in 2004 (latest available), the second consecutive year of accelerated growth. Economic growth in certain major markets and currency-exchange effects of a depreciated dollar contributed to this strong performance. The growth in sales through affiliates based abroad illustrates the ability of U.S. multinational firms to compete effectively. In comparison, domestic purchases of services from U.S.-based affiliates of foreign parent firms only increased 2 percent to \$382.8 billion in 2004, continuing the slow-growth trend witnessed in recent years.

Inadequate enforcement of intellectual property laws, such as those affecting audiovisual services, and equity limitations on foreign investments by U.S. securities firms continue to be significant impediments to U.S. services trade exports. Moreover, trade in computer and telecommunication services could expand further if there were consensus that new technologies are subject to countries' commitments on trade liberalization as set forth in the General Agreement on Trade in Services (GATS) of the World Trade Organization (WTO).

WTO negotiations toward resolving various cross-cutting issues affecting trade in all services achieved little progress as of the first half of 2007, due in part to suspension of formal negotiations on services in July 2006. Members continue to exchange positions and proposals intended to improve domestic regulation, facilitate greater participation from least-developed countries, and shape potential emergency safeguard measures and subsidy disciplines. Elsewhere, as of the second quarter of 2007, the United States continued to craft bilateral and regional free trade agreements with some of its trading partners to improve market access and transparency for U.S. service providers.

CHAPTER 1

Introduction

Scope

The U.S. International Trade Commission (USITC or “Commission”) routinely monitors trade developments in the services, agricultural, and manufacturing sectors. This annual report examines U.S. services trade, both in the aggregate and for selected industries; identifies leading service industries and important U.S. trading partners; and briefly analyzes global competitive conditions in service industries. Services that significantly affect the entire economy—infrastructure services such as finance and telecommunications—receive the most frequent analysis (usually annually). Analysis of other service industries—such as selected professional, business, and distribution services—are rotated based on expressed interest, industry activity, and professional development. By rotating coverage of such industries, the Commission attempts to analyze, at least every 2 years, all industries that may be of interest.

Data and Organization

Services trade comprises cross-border trade and sales through foreign affiliates, with the latter predominating. The Commission draws much of its services trade data from the U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA).¹ In many cases, such data are supplemented with information drawn from primary sources identified by the BEA, or from primary and secondary sources identified independently. Sources include individual service firms, trade associations, industry journals and reports, electronic media, international organizations, and other government agencies.

Chapter 2 of this report examines cross-border services trade from 2000 through 2005 and affiliate sales from 2000 through 2004, comparing trade during the most recent year to previous trends.² Chapter 2 also describes the nature and extent of cross-border trade and affiliate transactions. Chapters 3 through 10 provide analysis of the following industries: architecture, engineering, and construction (A/E/C); audiovisual; computer and related services; electricity; health care; retail; securities; and telecommunication services. Infrastructure services in this report, in addition to telecommunication services, include electricity and securities.³ A brief definition of each industry and the activities captured by

¹ The BEA’s data are compiled from surveys directed to specific service industries or types of investment. For more information about the BEA’s methodologies, see USDOC, BEA, *Survey of Current Business* 86, no. 10, 27.

² Data on affiliate transactions lag those on cross-border services trade by one year. Analyses of cross-border trade data compare performance in 2005 to trends from 2000 through 2004. Similarly, analyses of affiliate sales compare performance in 2004, the most recent year for which affiliate sales data are available, to trends from 2000 through 2003.

³ The focus on securities in this report complements the substantial recent work undertaken by the Commission in examining banking services. For more information, see U.S. International Trade Commission. *U.S.-Colombia Trade Promotion Agreement: Potential Economy-wide and Selected Sectoral Effects*, USITC Publication 3896, Washington, DC: USITC, 2006, 4-7-4-8, app. J, http://hotdocs.usitc.gov/docs/pubs/2104F/pub_3869.pdf, and a forthcoming article in the *Journal of World Trade*.

trade data precede an examination of recent trends in cross-border trade and/or affiliate transactions, as appropriate. Thereafter, the chapters provide an analysis of the global competitive landscape in each industry. Finally, the chapters summarize the extent to which World Trade Organization (WTO) members have addressed these services specifically in written positions or proposals at the most recent round of WTO negotiations on services.

Chapter 11 features a review of selected aspects of services negotiations. In recent years, services negotiations have occurred under both the WTO General Agreement on Trade in Services (GATS) and free trade agreements (FTAs) between the United States and its trade partners. This chapter describes cross-cutting issues that members have continued to address in WTO services negotiations, such as emergency safeguard measures, subsidies, the recognition of professional qualifications, and increasing the participation of least-developed countries in global trade. The chapter also summarizes services provisions in FTAs and identifies particular services for which FTAs accord improved market access, compared to that accorded under the GATS.

Services Trade in Context⁴

Cross-border services trade accounted for 21 percent of the value of total U.S. cross-border trade in 2005 (figure 1.1).⁵ Including both public- and private-sector transactions, U.S. cross-border trade in services generated a \$66.0 billion surplus in 2005, in contrast to a U.S. merchandise trade deficit of \$782.7 billion.⁶ Services accounted for 83 percent of U.S. private-sector gross domestic product⁷ and 85 percent of private-sector employment in 2005 (figures 1.2 and 1.3).⁸ While the cross-border services trade surplus increased in 2005 to its highest level since 2001, the merchandise trade deficit widened in 2005 to the largest recorded up to that time. Services gross domestic product (GDP) increased by 7 percent in 2005, slightly faster than the 5 percent average annual growth rate from 2000 through 2004. Merchandise GDP also increased by 7 percent in 2005, outpacing the 2 percent average annual growth rate for the preceding 5 year period. Employment in services increased by 3 percent in 2005, surpassing its average annual growth rate (1 percent) from 2000 through 2004. Employment in the goods sector fell by 0.4 percent in 2005 but not as rapidly as the average annual decrease during the preceding 5 year period (4 percent).

According to data reported by the WTO, global cross-border exports of services totaled \$2.4 trillion in 2005.⁹ The United States was by far the largest services exporter, accounting for 15 percent of such exports worldwide (figure 1.4). Other significant services exporters included the United Kingdom (8 percent), Germany (6 percent), and France (5 percent).¹⁰ Among those countries for which 2005 trade data were reported by the WTO, the United

⁴ The main sources for this section are the BEA's *Survey of Current Business* and World Trade Organization (WTO), *International Trade Statistics 2005*. See bibliography for full citations.

⁵ Total trade value is the sum of the value of imports and exports.

⁶ USDOC, BEA, *Survey of Current Business* 86, no. 10, 75, "Table A. Summary of U.S. International Transactions." For purposes of comparison with the merchandise trade deficit, the figure cited here for the services trade surplus reflects public-sector as well as private-sector transactions. Elsewhere in this report, beginning with chapter 2, services trade data reflect private-sector transactions only.

⁷ USDOC, BEA, *Annual Industry Accounts: Gross Domestic Product (GDP) by Industry*.

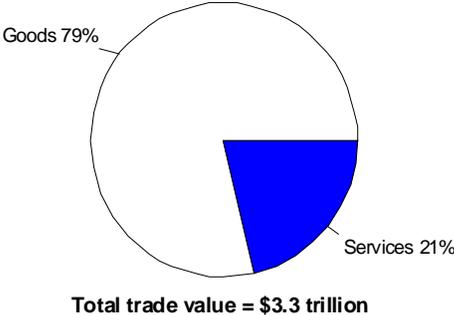
⁸ USDOC, BEA, *Survey of Current Business* 86, no. 8, 142, "Full-Time Equivalent Employees by Industry," table 6.5D.

⁹ WTO, "World Exports of Commercial Services by Region, 2005," table III.4.

¹⁰ *Ibid.*

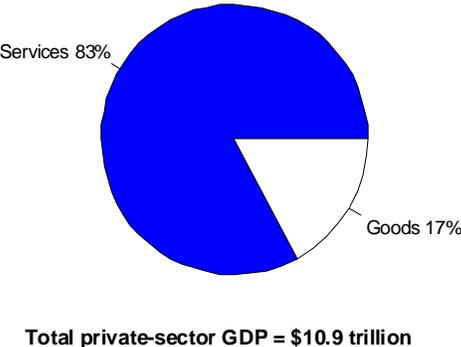
States posted the largest services trade surplus (\$73 billion), whereas Germany posted the largest services trade deficit (\$53 billion) (figure 1.5).¹¹

Figure 1.1 U.S. cross-border trade value, by sector, 2005



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 75.

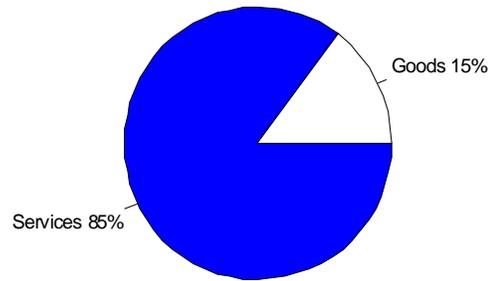
Figure 1.2 U.S. private-sector gross domestic product, by sector, 2005



Source: USDOC, BEA, *Industry Economic Accounts database*, "Gross Domestic Product by Industry," October 2006.

¹¹ The \$73 billion surplus calculated by the WTO is presented only for the purpose of cross-country comparison. Because the WTO treats trade in insurance services differently than the BEA does, this number is not comparable with BEA data used in all following chapters.

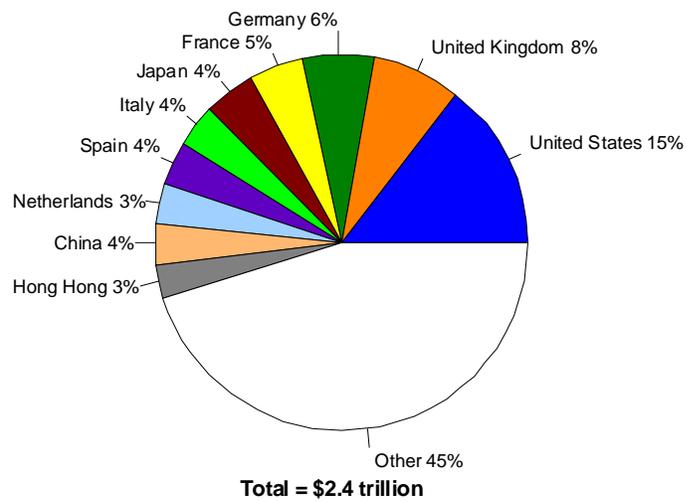
Figure 1.3 U.S. private-sector employment, by sector, 2005



Total full-time equivalent employees = 106.9 million workers

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Industry Economic Accounts database*, "Full-Time Equivalent Employees by Industry," February 2007.

Figure 1.4 Global cross-border exports of services, by exporting country, 2005^a

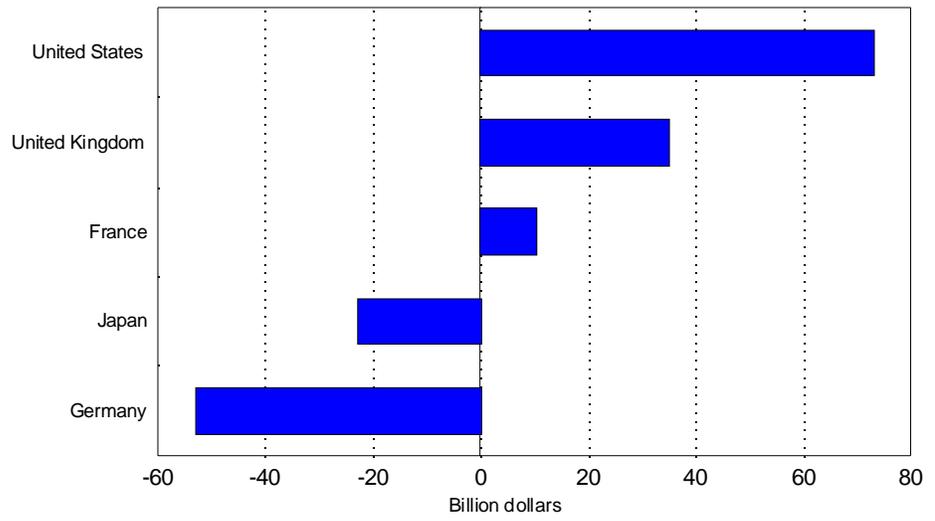


Source: World Trade Organization, *International Trade Statistics, 2006*, "World Exports of Commercial Services," 2006.

Note: Excludes public-sector transactions.

^aTotal may not equal 100 percent due to rounding.

Figure 1.5 Services trade balances of leading exporting countries, 2005



Source: World Trade Organization, *International Trade Statistics, 2006*, "Leading Exporters and Importers in World Trade in Commercial Services, 2005."

CHAPTER 2

U.S. Trade in Services

Summary

The \$79.9 billion surplus in U.S. cross-border services trade in 2005, counting private-sector transactions only, was the largest since 1999.¹ Business, professional, and technical services contributed the most to the expansion of services trade in 2005. U.S. cross-border services exports and imports grew faster in 2005 than the annual average during the preceding 5 year period.

Posting a record-high \$106.9 billion in 2004, sales of services by foreign-based affiliates of U.S. parent firms exceeded domestic purchases of services from U.S.-based affiliates of foreign parent companies. Sales by foreign affiliates of U.S. parent firms increased considerably faster than did domestic purchases from U.S. affiliates of foreign parent firms due, in large part, to economic growth in many major foreign markets and currency exchange rates.

Introduction

Firms in one country may sell services to consumers in another country, with people, information, or money crossing national boundaries in the process. National accounts refer to these as “cross-border transactions,” and they appear explicitly as imports and exports in the balance of payments. Firms also provide services to foreign consumers through affiliates established in host countries, with the income generated by “affiliate transactions” appearing as investment income in the balance of payments. The channel of delivery used by service providers depends primarily on the nature of the service. For example, many financial services, such as commercial banking services, are supplied most effectively by affiliates that are in close proximity to the consumer. Conversely, trade in education services predominantly takes the form of cross-border transactions, with students traveling abroad to study in foreign universities.

Since 1986, when the U.S. Department of Commerce (USDOC) began collecting statistics on U.S. services trade, the relative importance of cross-border trade and affiliate transactions has shifted significantly.² For example, in the 10 year period from 1986 through 1995, U.S. cross-border exports of services consistently exceeded sales by majority-owned foreign affiliates of U.S. firms by average annual margins of approximately 18 percent. Since 1996,

¹ The \$73 billion surplus calculated by the WTO (reported in ch. 1) is presented only for the purpose of cross-country comparison. Because the WTO treats trade in insurance services differently than the BEA does, the WTO’s data for the trade surplus are not comparable with BEA data used in this and subsequent chapters.

² U.S. Department of Commerce, Bureau of Economic Analysis (BEA), *Survey of Current Business* 86, no. 10, 20–21. “Sales of services delivered through cross-border trade cannot be precisely compared with sales through affiliates because of differences in coverage, measurement, and classification. Despite these differences, the large gap between sales through cross-border trade and sales through affiliates suggests that the latter is the larger channel of delivery for both U.S. sales of services abroad and foreign sales of services in the United States.”

however, sales by U.S. firms' foreign affiliates have exceeded cross-border services exports (figure 2.1). In 2004, sales by U.S. firms' affiliates abroad (\$489.6 billion) exceeded U.S. cross-border exports of services (\$328 billion) by approximately 49 percent, or \$161.6 billion. Similarly, U.S. purchases of services from foreign-owned affiliates have exceeded cross-border services imports since 1989. In 2004, sales to U.S. citizens by the U.S. affiliates of foreign companies (\$382.8 billion) exceeded services imports (\$257.2 billion) by 49 percent, or \$125.6 billion.³ The predominance of affiliate transactions largely reflects the global spread of service firms, facilitated by the liberalization of investment and services trade regimes, which first occurred in developed countries and more recently in a growing number of developing countries. The liberalization of services trade regimes, in turn, is largely rooted in the growing recognition that efficient infrastructure industries—telecommunications, finance, energy, and transportation—improve performance throughout a country's economy. Governments in many countries have been especially active in removing or reducing impediments to trade and investment in telecommunication services and financial services.

Cross-Border Trade⁴

In 2005, U.S. services exports and imports increased more slowly than in 2004 but faster than the annual average in the 5 year period beginning in 2000. The expansion of two-way trade in business, professional, and technical services led all other services in 2005. U.S. exports of private services⁵ totaled \$360.5 billion, while U.S. imports totaled \$280.6 billion, resulting in a \$79.9 billion trade surplus, the largest since 1999 (figure 2.2).⁶ Exports increased by 10 percent in 2005, markedly higher than the 4 percent average annual growth rate recorded from 2000 through 2004. Export growth in 2005 was broadly dispersed across service industries, led by increases in financial services and transportation services (i.e., freight transport and port services) (13 percent each); business, professional, and technical services (12 percent); passenger fares⁷ (11 percent); travel services⁸ (10 percent); and royalties and license fees⁹ (9 percent). U.S. imports of services grew by 9 percent in 2005, faster than the 6 percent average annual growth rate in 2000–2004. Import growth in 2005 was accounted for chiefly by accelerated growth rates in business, professional, and technical services (17 percent), transportation (15 percent), and passenger fares (10 percent).¹⁰

³ Ibid., 20.

⁴ The main source for this section is the BEA's *Survey of Current Business*. See bibliography for full citations.

⁵ 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. However, because public-sector transactions are not considered to reflect U.S. service industries' competitiveness and may introduce anomalies resulting from events such as international peace-keeping missions, this report will focus solely on private-sector transactions, except where noted.

⁶ USDOC, BEA, *Survey of Current Business* 72, no. 6, 68–70. Values are reported before deductions for expenses and taxes, as gross values are most directly comparable across countries, industries, and firms.

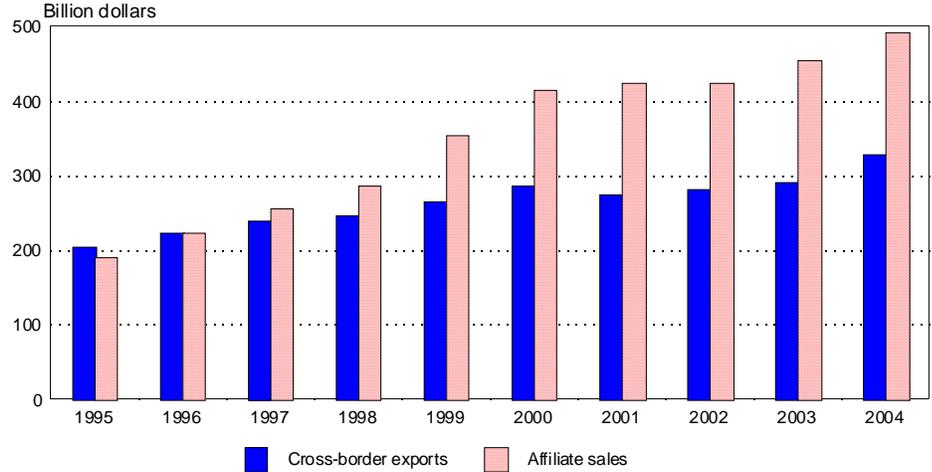
⁷ Passenger fares consist of fares paid by residents of one country to airline and vessel operators (carriers) that reside in another country.

⁸ The travel category consists of expenditures, excluding passenger fares, by individuals who travel to foreign countries.

⁹ These services principally include management services and sales of rights to industrial processes; broadcasts and recordings of live events; books, records, and tapes; business format franchises; trademarks; and distribution, use, and reproduction of computer software.

¹⁰ USDOC, BEA, *Survey of Current Business* 86, no. 10, 43.

Figure 2.1 U.S. cross-border exports^a of services and U.S.-owned foreign affiliates sales of services, 1995-2004^b

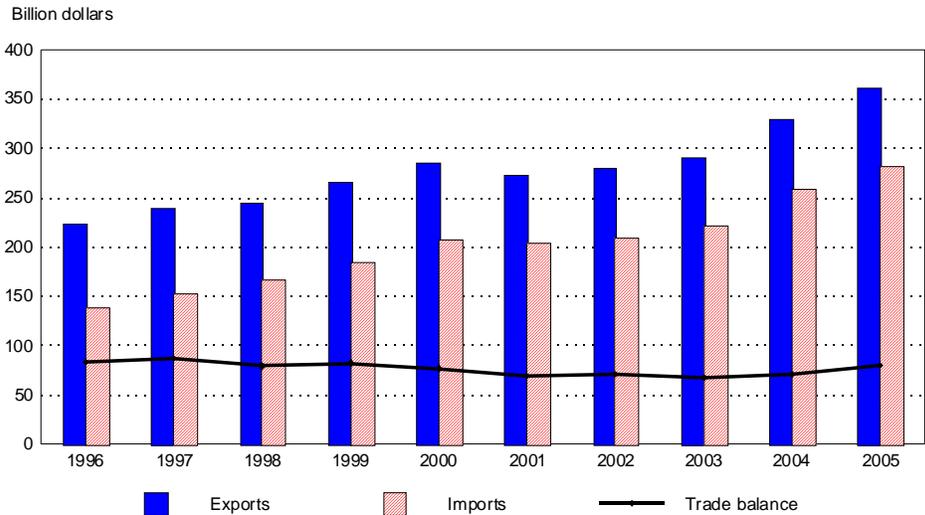


Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 20.

^aTrade data exclude public-sector trade.

^bBeginning in 1999, sales data for foreign affiliates of U.S. parent firms were reported under a new industry classification system, which resulted in a net gain in transactions reported for such affiliates reclassified in service industries in contrast to a net loss in transactions reported for such affiliates reclassified in goods industries.

Figure 2.2 U.S. cross-border trade in private services: Exports, imports, and trade balance, 1996-2005



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 42-43.

The leading U.S. services exported, which were travel services and business, professional, and technical services, accounted for 23 percent and 22 percent, respectively, of total services exports in 2005 (figure 2.3). Other industries representing large shares of total U.S. services exports in 2005 were royalties and license fees (16 percent); financial services (9 percent); and passenger fares (6 percent).¹¹

Intrafirm exports,¹² which largely reflect transactions between U.S. parent firms and their foreign affiliates, accounted for a slowly increasing portion of total services exports in the past decade, and reached 26 percent of such exports in 2005.¹³ The largest component of intrafirm exports in 2005, royalties and license fees, accounted for 45 percent of such exports.¹⁴ Royalties and license fees from affiliates in the wholesale trade and auto manufacturing industries grew fastest.¹⁵

Travel services also accounted for the largest share (25 percent) of U.S. services imports in 2005 (figure 2.3). Other services with large shares of total services imports included business, professional, and technical services (17 percent); passenger fares (9 percent); and royalties and license fees (9 percent).¹⁶ In 2005, intrafirm imports accounted for approximately 22 percent of total cross-border services imports,¹⁷ with royalties and license fees again making up the largest component (33 percent) of intrafirm imports.¹⁸

As in most years, the majority of U.S. service industries registered cross-border trade surpluses in 2005. Services that netted the largest surpluses in 2005 included business, professional, and technical services¹⁹ (\$33.1 billion) and royalties and license fees (\$32.9 billion). Additionally, financial services (\$21.7 billion), travel (\$12.5 billion), education (\$10.1 billion), and audiovisual services (\$9.5 billion) registered cross-border trade surpluses in 2005. By contrast, services with notable trade deficits included insurance (\$21.7 billion), transportation (\$19.9 billion), and passenger fares (\$5.1 billion). The deficit in insurance services principally reflects U.S. primary insurers' payments to European reinsurers in return for assuming a portion of large risks. The deficit related to transportation services (i.e., freight transport and port fees) largely reflects the asymmetrical nature of trade in manufactured goods between the United States and its trading partners; U.S. importers pay foreign shippers for carrying freight to the United States. For example, Chinese shipments of manufactured goods to the United States vastly exceed U.S. shipments of goods to China.

¹¹ Ibid., 42.

¹² Ibid., 26. Intrafirm exports represent U.S. parents' receipts from foreign affiliates and U.S. affiliates' receipts from a foreign parent. Intrafirm imports represent U.S. parents' payments to foreign affiliates and U.S. affiliates' payments to foreign parents.

¹³ Ibid., 26, 42.

¹⁴ Ibid.

¹⁵ Ibid., 28.

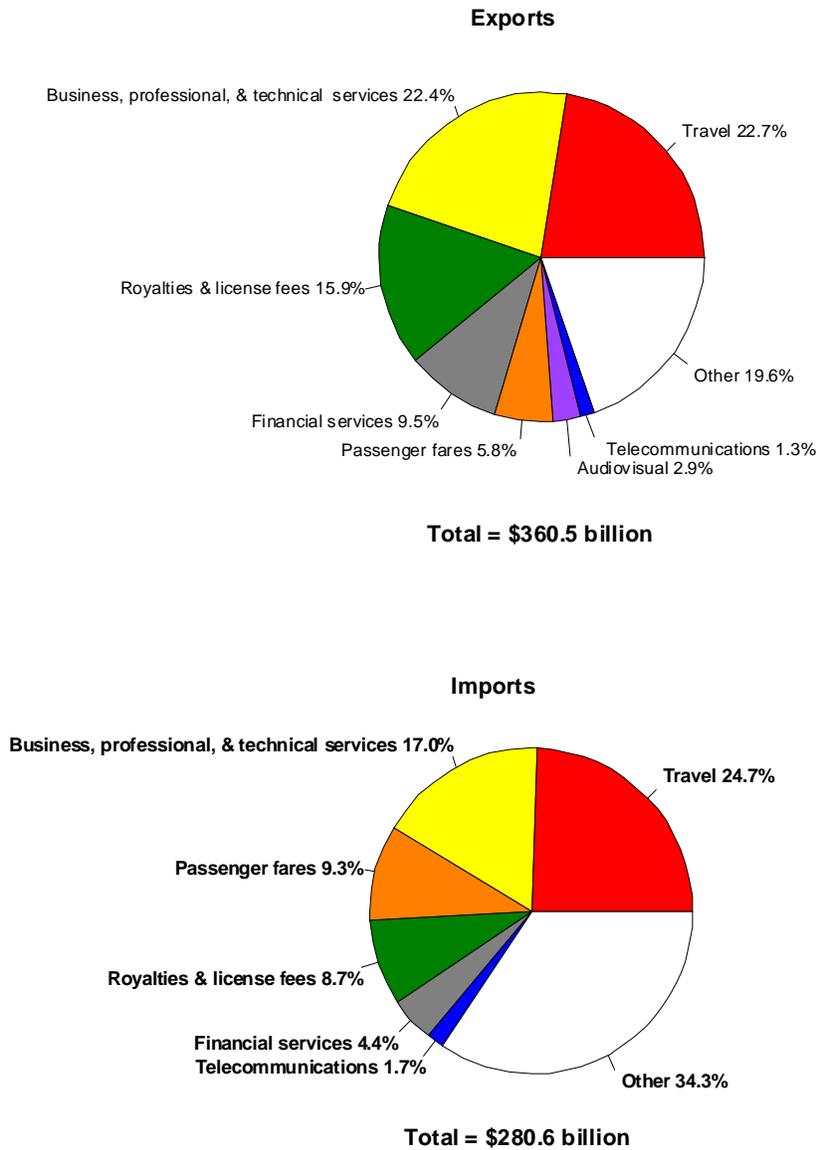
¹⁶ Ibid., 46.

¹⁷ Ibid., 26, 43.

¹⁸ Ibid., 26.

¹⁹ The overall trade surplus for business, professional, and technical services obscures wide variations in trade balances for subsets of such services. For example, trade between unaffiliated entities engaged in operational leasing; installation, maintenance, and repair services; architectural, engineering, and other technical services; legal services; and medical services posted surpluses, while trade in advertising; accounting, auditing and bookkeeping services; and computer and information services posted deficits.

Figure 2.3 U.S. cross-border exports and imports of services,^a by industry, 2005^b



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 42–43.

Note: Trade data exclude public-sector transactions.

^aSee appendix A for a description of service industries separately identified.

^bTotals may not equal 100 percent due to rounding.

The United Kingdom, Japan, and Canada were the largest single-country U.S. export markets in 2005, accounting for 13 percent, 12 percent, and 9 percent, respectively, of total U.S. services exports (figure 2.4). The United Kingdom (13 percent) and Japan and Canada (8 percent each) were also the largest single-country suppliers of U.S. services imports. In regional terms, the European Union (EU) was the United States' largest services trading partner, accounting for 35 percent of U.S. exports and 38 percent of imports in 2005.²⁰

In 2005, the United States maintained large bilateral services surpluses with Japan (\$19.5 billion), Canada (\$10.5 billion), the United Kingdom (\$9.8 billion), Mexico (\$5.9 billion), and Korea (\$4 billion), and netted a large regional trade surplus with the EU (\$21.9 billion). In marked contrast to the large U.S. deficit in goods trade with China, the United States recorded a services trade surplus of \$2.6 billion with China in 2005. The United States registered its largest bilateral deficit in services trade in 2005 with Bermuda (\$9.2 billion), which largely reflected payments for insurance and reinsurance services from U.S. and foreign firms that have set up operations there, chiefly for preferential tax treatment.²¹

Affiliate Transactions²²

In 2004, sales of services by the foreign-based affiliates of U.S. companies increased by 8 percent to \$489.6 billion. The rate of increase in such sales in 2004 marks the second consecutive year in which the pace of growth was more than twice the 3 percent average annual rate from 2000 through 2003. Economic growth in certain major markets and currency-exchange effects of a depreciated dollar²³ contributed to the acceleration of sales by foreign affiliates in 2004. U.S.-owned affiliates in the insurance industry accounted for approximately 17 percent of total affiliate sales, the largest single-industry share (figure 2.5). Other industries that accounted for relatively large shares of affiliate sales included computer systems design (9 percent), utilities and telecommunications (7 percent each), and transportation and warehousing (6 percent). The largest host-country markets for sales by U.S.-firms' foreign affiliates included the United Kingdom (22 percent), Japan and Canada (10 percent each), and Germany and France (6 percent each) (figure 2.6). Regionally, the EU accounted for 51 percent of U.S. firms' affiliate sales in 2004.²⁴

In 2004, purchases of services from majority-owned, U.S.-based affiliates of foreign firms increased by 2 percent to approximately \$382.8 billion. The proportional increase in 2004 was similar to the 3 percent average annual growth rate for such purchases from 2000 through 2003. Services purchased from U.S.-based insurance affiliates accounted for 21 percent of such transactions, the largest single-industry share in 2004. Other industries' U.S.-based affiliates that accounted for significant shares of domestic purchases in 2004 included transportation and warehousing (8 percent), and advertising, securities, and

²⁰ USDOC, BEA, *Survey of Current Business* 86, no. 10, 43.

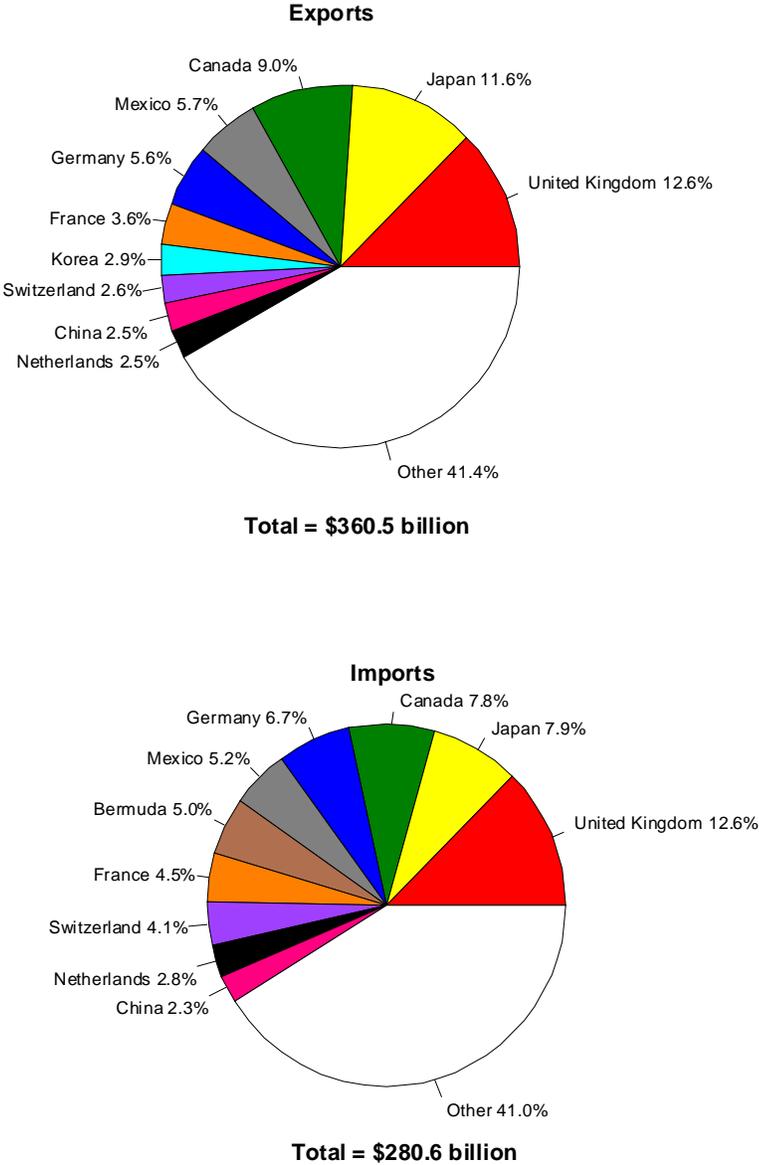
²¹ *Ibid.*, 44–45, 60.

²² The main source for this section is the BEA's *Survey of Current Business*. See bibliography for full citations. The data on affiliate transactions reported by BEA that are summarized and discussed in this chapter understate transactions with respect to distributive services provided by wholesalers and retailers. See ch. 8 for a discussion of how distributive services in retailing may be estimated, using retail affiliates' total sales and gross margin data.

²³ Depreciation of the dollar increased the dollar value of sales denominated in foreign currencies.

²⁴ USDOC, BEA, *Survey of Current Business* 86, no. 10, 71–72.

Figure 2.4 U.S. cross-border exports and imports of services, by country, 2005^a



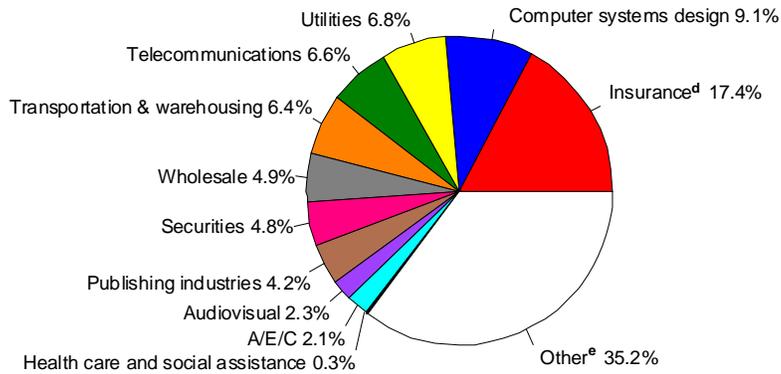
Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 44-45.

Note: Trade data exclude public-sector transactions.

^aTotals may not equal 100 percent due to rounding.

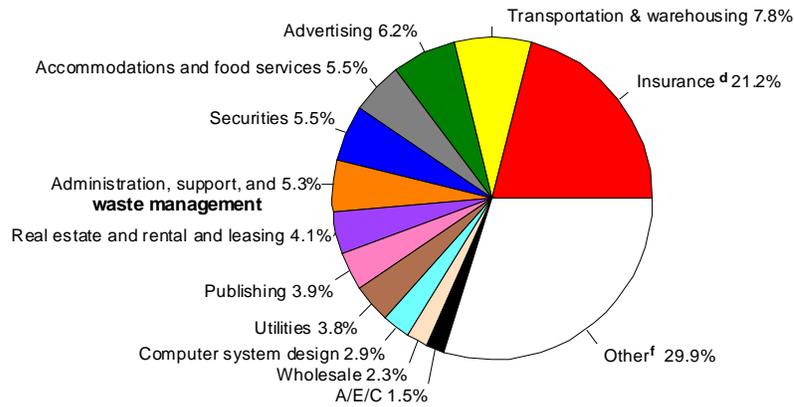
Figure 2.5 Affiliate service transactions: U.S. sales^a and purchases,^b by industry, 2004^c

Affiliate sales



Total = \$489.6 billion

Affiliate purchases



Total = \$382.8 billion

Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 72-74.

^aSales of services by majority-owned foreign affiliates of U.S. parent firms.

^bPurchases of services from majority-owned U.S. affiliates of foreign parent firms.

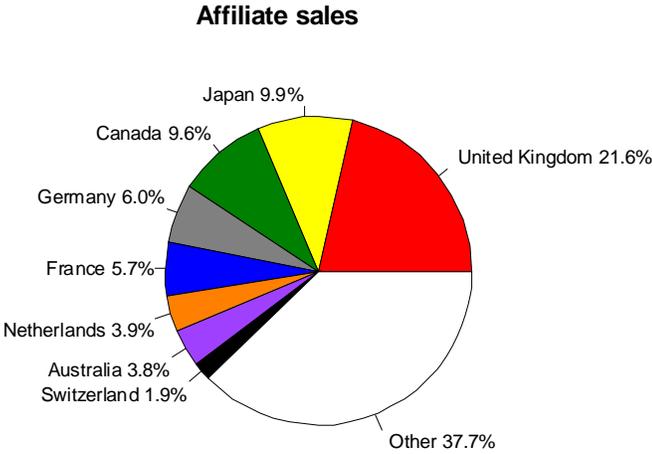
^cTotals may not equal 100 percent due to rounding.

^dIncludes insurance carriers, agencies, brokerages, and other insurance related activities.

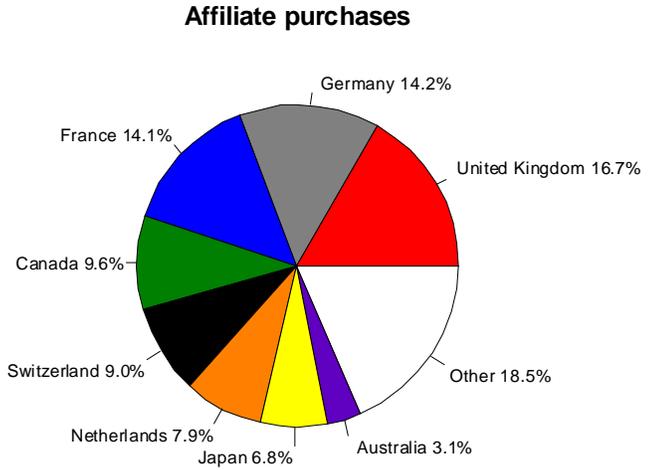
^eReflects sales of services by manufacturers, retailers, real estate firms, and all other service firms.

^fReflects purchases of services from manufacturers, audiovisual firms, retailers, and all other service firms.

Figure 2.6 Affiliate service transactions: U.S. sales^a and purchases,^b by country, 2004^c



Total = \$489.6 billion



Total = \$382.8 billion

Source: U.S. Department of Commerce, Bureau of Economic Analysis *Survey of Current Business* 86, no. 10, 72, 74.

^aSales of services by majority-owned foreign affiliates of U.S. parent firms.
^bPurchases of services from majority-owned U.S. affiliates of foreign parent firms.
^cTotals may not equal 100 percent due to rounding.

accommodations and food services (6 percent each). In 2004, U.S.-based affiliates of British parent firms accounted for 17 percent of total U.S. services purchased from foreign-owned affiliates. German- and French-owned affiliates followed, each accounting for 14 percent of services purchased from affiliates, while Canadian-owned affiliates accounted for 10 percent.²⁵

Services Trade and the General Agreement on Trade in Services (GATS)

Cross-border trade and affiliate transactions reported by the BEA do not correspond exactly to the channels of services delivery reflected in the GATS of the World Trade Organization (WTO), which are discussed subsequently in this report.²⁶ The GATS identifies four modes of delivery through which services are traded between WTO members: cross-border supply (mode 1), which is not synonymous with BEA's data for cross-border trade, in which a service is supplied by an individual or firm in one country to an individual or firm in another (i.e., the service crosses national borders); consumption abroad (mode 2), in which an individual from one country travels to another country and uses a service in that country; commercial presence (mode 3), in which a firm based in one country establishes an affiliate, branch or subsidiary in another country and supplies services from that locally established affiliate, branch or subsidiary; and the temporary presence of natural persons (mode 4), in which an individual service supplier from one country travels to another country on a short-term basis to supply a service there, for example, as a consultant, contract employee, or intra-company transferee at a branch or subsidiary established by that individual's firm in another country.²⁷ BEA notes that modes of supply 1, 2, and parts of 4 generally are included in its data on cross-border trade, while mode 3 transactions are included, with some exceptions, in affiliate transactions.

²⁵ Ibid., 73–74.

²⁶ Ibid., 38–40.

²⁷ For more information on modes of supply under the GATS, see WTO, GATS Training Module, “Chapter 1: Basic Purpose and Concepts.”

CHAPTER 3

Architectural, Engineering, and Construction Services

Summary

Trade in architectural, engineering, and construction (A/E/C) services occurs mainly through the operations of affiliates. In the most recent years for which there are affiliate data, both sales by foreign affiliates of U.S. firms and purchases from U.S. affiliates of foreign firms declined, with sales experiencing the largest decline in absolute terms. Cross-border exports rose sharply whereas imports fell sharply. Multinational A/E/C firms accounted for nearly one-third of the value of nonresidential building and construction worldwide in 2005. Top A/E/C firms, many of which are located in the United States, are among the fastest growing, most technologically adept firms in the industry. These firms employ technologies such as Building Information Modeling (BIM) and collaborative online project management tools to increase productivity, control prices, and improve quality for their customers in a worldwide market that has grown slowly in recent years. Impediments to trade in A/E/C services vary in nature, although conditions of establishment, operating requirements, and the technical equivalency of foreign practitioners' education and experience are among the issues of principal concern to the industry.

Introduction

A/E/C services encompass three different but interrelated services activities that are required for the construction or reconstruction of a building or structure. A/E/C services are supplied by a wide range of firms, which may specialize in providing only one or a combination of the services.¹ Architectural firms provide blueprint or computer-drafted designs for buildings and public works, and may oversee the construction of projects.² Engineering firms provide planning, design, construction, and management services for projects such as civil engineering works and residential, commercial, industrial, and institutional buildings.³ Construction services include pre-erection work;⁴ new construction⁵ and repair; and alteration, restoration, and maintenance work. All of these construction services may be provided by general contractors, who oversee all construction work for project owners,⁶ or

¹ In this chapter, firms may be identified by the range of services they provide. Firms that provide architectural, engineering, and construction services will be identified as A/E/C firms; firms that provide architectural and engineering services will be identified as A/E firms; and firms that provide engineering and construction services will be identified as E/C firms.

² Architectural services also include preliminary site study, schematic design, design development, final design, contract administration, and post-construction services.

³ 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.

⁴ Pre-erection work can be excavating, earthmoving, land drainage, and other land preparation.

⁵ Such construction can be of buildings and other structures, or heavy construction, including infrastructure such as highways, power plants, and pipelines.

⁶ Project owners are those who are awarding the contract for the design and construction of a structure or project.

by specialty subcontractors, who perform discrete tasks associated with an overall project. Under the traditional ‘design-bid-build’ project delivery method, project owners hire firms to provide architectural, engineering, and construction services under separate contracts. Increasingly prevalent, however, is the ‘design-build’ method, whereby all A/E/C services are provided under a single contract.

A multinational (“global”) A/E/C firm is one that earns revenues from projects both in its home country and abroad.⁷ As noted previously, trade in A/E/C services is predominantly undertaken by affiliates in foreign markets.⁸ In general, firms that engage in international trade in such services establish a subsidiary, joint venture, or representative office in foreign markets, typically because a local presence and knowledge of local building regulations are often determining factors in contract awards.⁹ Although cross-border trade in A/E/C services does occur, it is generally limited to the transportation or transmission of items such as blueprints and designs across national borders via express delivery/mail services, telecommunication networks, and the Internet. Data on cross-border exports of A/E/C services are presented net of U.S. merchandise exports and outlays abroad for labor, materials, purchased services, and taxes, while cross-border imports of A/E/C services are presented on a gross basis, as payments for merchandise, labor, and other inputs are included. The size of the surplus in A/E/C services is therefore understated. Data on A/E/C affiliates’ transactions include sales of various A/E/C and other services, but exclude the value of construction.¹⁰

Trade Trends

Cross-Border Trade

In 2005, U.S. cross-border exports of A/E/C services totaled \$4.1 billion,¹¹ while imports totaled \$422 million, yielding a trade surplus of \$3.7 billion (figure 3.1). U.S. exports of A/E/C services increased by 18 percent in 2005, faster than the 13 percent average annual

⁷ This description follows the pattern used by *Engineering News-Record* in its Top Lists, where, as noted, the top multinational (“global”) firms are ranked by revenues generated both at home and abroad, and the top “international” firms are ranked by revenues generated from projects outside their home country. A/E/C and E/C firms earn design and construction revenues, whereas A/E firms earn design revenues only.

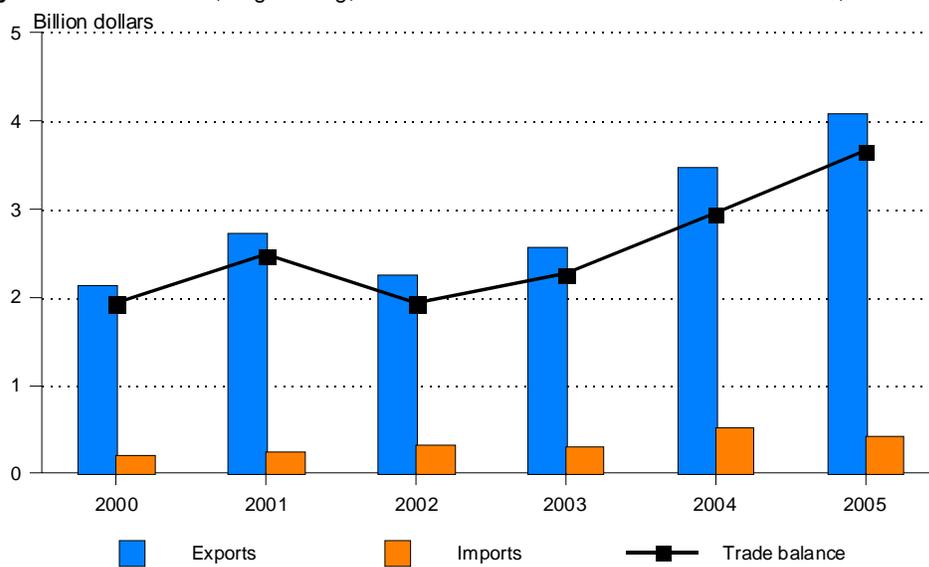
⁸ Affiliates’ gross operating revenues are recorded as sales.

⁹ Reina and Tulacz, “The Top 225 International Contractors,” 40–41. In developing countries, construction services firms may be required to provide financing to win large government procurement contracts. Most often, these contracts are for infrastructure building. As of August 2005, larger companies in the international construction industry were beginning to form consortia with international funding agencies for build-operate-transfer projects. This could intensify competitive pressure on international contractors working on a smaller scale with less access to funding.

¹⁰ Whichard and Borga, “Selected Issues in the Measurement of U.S. International Services,” 49. Such data are in keeping with the U.S. Department of Commerce (USDOC), Bureau of Economic Analysis’s (BEA) measure of gross industry product as the value of construction put in place, or the value of the tangible structure. Conversely, any cross-border trade of construction is regarded as the sale of a service, in keeping with the International Monetary Fund’s rules for balance of payments accounting.

¹¹ This is the combined figure for architectural, engineering, and other technical services, and construction.

Figure 3.1 Architectural, engineering, and construction services:^a Cross-border trade, 2000–2005



Sources: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 61–66; 85, no. 10, 64–65; 84, no. 10, 63–64; and 83, no. 10, 108–109.

^aReceipts for A/E/C services are published net of merchandise exports, outlays abroad for wages, services, materials, and other expenses. Payments for A/E/C services are published on a gross basis, and include payments for merchandise, labor, and other inputs. The size of the surplus in construction services is therefore understated.

growth rate from 2000 through 2004. Export growth could be explained by increased building and construction activity in developing countries such as India, as well as in China and Mexico.¹² U.S. cross-border imports of A/E/C services decreased by 19 percent in 2005, after increasing by an average of 27 percent per year from 2000 through 2004 and by 71 percent in 2004 alone. This change in direction for U.S. cross-border imports of A/E/C services includes both a 33 percent decrease in imports of construction services and a 17 percent increase in architectural, engineering, and other technical services.

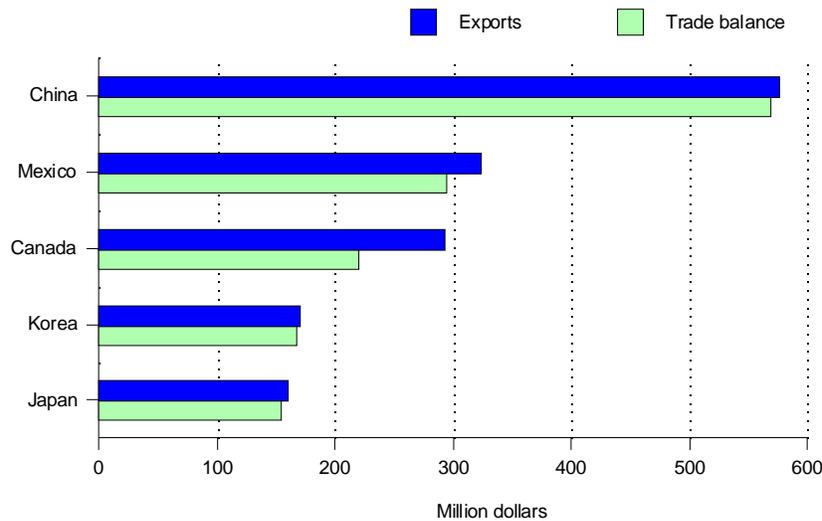
China maintained its position as the largest market for U.S. exports of A/E/C services in 2005 (figure 3.2). A/E/C exports to China, valued at \$575 million, increased by 63 percent in 2005 and accounted for 14 percent of U.S. exports of such services that year.¹³ This may be due to the continued growth of residential construction and the development of infrastructure in China’s western region, as well as the completion of sports venues and related facilities and infrastructure for the 2008 Summer Olympics in Beijing.¹⁴ Mexico was the second-largest market for U.S. A/E/C services exports, receiving \$322 million in exports in 2005, an increase of 222 percent over the previous year. Canada remained the third-largest foreign market for U.S. A/E/C services in 2005, as exports increased by 75 percent, to \$291 million. Korea registered as the fourth largest export market, although receipts from

¹² *Engineering News-Record*, “Fast Growth Propels India to the Top”; USDOC, U.S. Commercial Service (USCS) China, “Architecture, Engineering, Construction: Industry Overview”; and USDOC, USCS Mexico, “Building & Construction in Mexico.”

¹³ USDOC, BEA, *Survey of Current Business* 86, no. 10, 66. BEA data on cross-border receipts and purchases of A/E/C services reported by country are grouped together as construction, architectural, and engineering services.

¹⁴ USDOC, USCS China, “ACE Services Market in China,” 1, 6.

Figure 3.2 Architectural, engineering, and construction services:^a U.S. cross-border exports and trade balance, by major trading partners, 2005



Sources: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 61–66; 85, no. 10, 64–65; 84, no. 10, 63–64; and 83, no. 10, 108–109.

^aReceipts for A/E/C services are published net of merchandise exports, outlays abroad for wages, services, materials, and other expenses. Payments for A/E/C services are published on a gross basis, and include payments for merchandise, labor, and other inputs. The size of the surplus in construction services is therefore understated.

that country decreased by 16 percent, to \$169 million, in 2005. U.S. exports of A/E/C services to Japan in 2005 increased by 108 percent, totaling \$158 million. Significant suppliers of U.S. imports of A/E/C services in 2005 included Canada and the United Kingdom, which accounted for \$72 million, or 17 percent, and \$38 million, or 9 percent, respectively, of all U.S. imports of A/E/C services.

Affiliate Transactions

Sales of services by foreign A/E/C affiliates of U.S. parent firms decreased by 14 percent, to \$10.2 billion, in 2004.¹⁵ U.S.-owned affiliates based in the United Kingdom accounted for 46 percent of sales by affiliates in 2004, largely reflecting the activity of three firms.¹⁶ Subsidiaries of KBR (then Halliburton) engaged in private-public partnerships for road construction, and provided design, installation, and construction services for wind farms in the United Kingdom;¹⁷ EMCOR provided mechanical and electrical engineering for several institutional facilities and led large-scale design-build rail projects;¹⁸ and Fluor Corp. worked on contracts that included engineering and construction for chemical process plants.¹⁹ Data for years 2003 and 2004 suggest that affiliates in Canada and Australia also accounted for significant sales, although individually both accounted for less than 10 percent of the total in each of these years.

¹⁵ USDOC, BEA, *Survey of Current Business* 86, no. 10, 71–72. Sales of services by construction industry affiliates represent sales in secondary, nonconstruction industries.

¹⁶ Bureau van Dijk, *Orbis database*, accessed February 28, 2007. Based on operating revenues and turnover reported for 2004.

¹⁷ Halliburton, “KBR Consortium Awarded Rathcormac-Fermoy DBFO” and “KBR and Vestas Consortium Awarded Offshore Windfarm Contract.”

¹⁸ EMCOR UK, “EMCOR Rail Adds to CTRL Work with £11 Million Contract Win,” “EMCOR Drake & Scull Wins Off Competition to Win NHS Contract,” and “EMCOR on Track With £1.4m Rail Contract.”

¹⁹ Fluor Corp., “Fluor Wins UK Chemical Project” and “Fluor to Build Chemical Plant in the UK.”

In 2004, purchases of services from foreign-owned A/E/C affiliates in the United States fell by 6 percent to \$5.9 billion (figure 3.3). This rate of decrease was slightly faster than the 4 percent average annual decrease from 2000 through 2003. Affiliates owned by European parent firms accounted for \$4.5 billion, or 77 percent, of total purchases in 2004.²⁰

Competitive Conditions in the Global A/E/C Services Market

A significant portion of A/E/C services providers are multinational firms, conducting business both in their home markets and abroad (tables 3.1 and 3.2). In 2005, multinational A/E/C firms generated revenues of \$634.1 billion.²¹ These global revenues represent 32 percent of the worldwide market for nonresidential building and construction services, which stood at an estimated \$1.8 trillion²² in 2005.²³

Leading E/C and A/E firms engaged in business abroad exhibited faster growth in 2005 than average annual growth trends for the 5 previous years. Revenues for the top A/E/C and E/C contractors providing services both in their home markets and abroad in 2005 increased by 12 percent,²⁴ faster than revenue growth of 7 percent per year, on average, from 2000 through 2004. Similarly, revenues for the top multinational design firms increased by 12 percent in 2005,²⁵ compared to an average annual growth rate (AAGR) of 8 percent from 2000 through 2004. The leading firms with design and/or construction revenues abroad also grew faster than the industry as a whole. Total world revenues for non-residential building and construction firms increased by only 4 percent in 2005, though faster than the 1 percent AAGR for such revenues for the period 2000–2004.

Approximately one-third (34 percent) of total worldwide nonresidential building and construction (E/C) project revenues²⁶ were generated in the Asia-Pacific region, including China, in 2005.²⁷ Other major regions included Europe (33 percent) and the United States (27 percent).²⁸ Prior to 2004, however, the pattern of regional segmentation in the world E/C market differed, with the United States generating 38 percent of world E/C revenues; Asia-Pacific, 26 percent; and Europe, 19 percent.

²⁰ To avoid disclosing data from individual companies, BEA suppressed most individual country data in 2004.

²¹ This figure represents global revenues for the top multinational contractors and top multinational design firms as listed in *Engineering News-Record*, “The Top 225 Global Contractors,” August 21/28, 2006, 46–53 and “The Top 150 Global Design Firms,” July 24, 2006, 46–51.

²² Datamonitor, *Global Construction & Engineering*, May 2006, 7. This figure represents total revenues generated by companies working on nonresidential building and construction projects in their home countries and (perhaps) abroad. These companies are typically civil engineering companies and large-scale contractors.

²³ *Ibid.*, 3, 9.

²⁴ From company revenue data from *Engineering News-Record*, “The Top 150 Global Contractors,” August 22/29, 2005, 58–63.

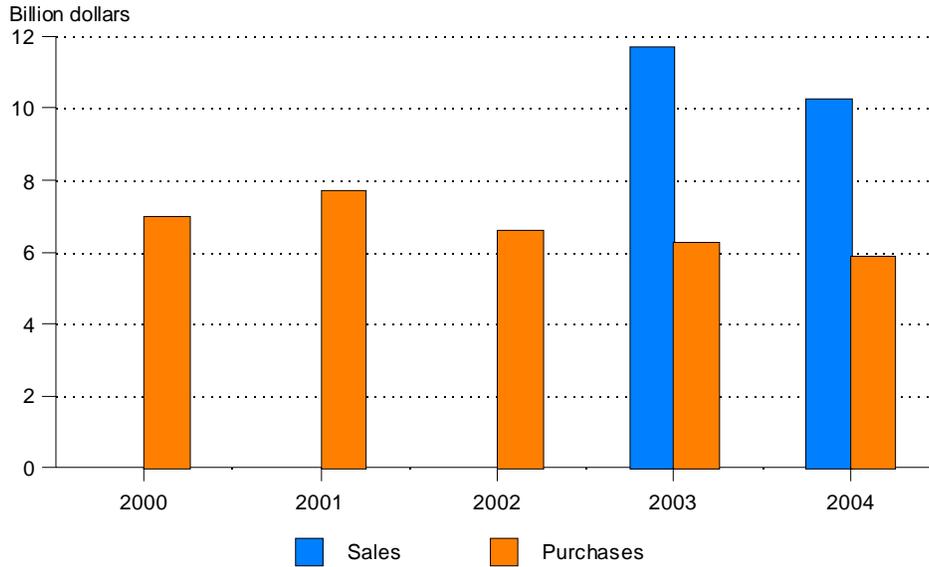
²⁵ From company revenue data from *Engineering News-Record*, “The Top 150 Global Contractors,” July 25, 2005, 49–54.

²⁶ Datamonitor, *Global Construction & Engineering*, May 2005, 11.

²⁷ *Ibid.*, 8.

²⁸ Datamonitor, *Global Construction & Engineering*, May 2006, 10–11.

Figure 3.3 Architectural, engineering, and construction services: Sales by U.S firms' majority-owned affiliates abroad,^a and purchases from foreign firms' majority-owned affiliates in the United States, 2000–2004



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business*, 86, 10, 71–74; 85, 10, 76; 84, 10, 75; and 83, 10, 117.

^aThe BEA did not report several years of data for sales of services by foreign A/E/C affiliates of U.S. parent firms, in order to avoid disclosing information on individual firms.

Table 3.1 Top 10 multinational design firms and revenues, 2005 (millions of U.S. dollars)

Company	Country	Total revenues
URS	United States	3,303.0
SNC-Lavalin International, Inc.	Canada	3,130.4
Atkins	United Kingdom	2,663.9
AECOM Technology Corp.	United States	2,588.0
Jacobs	United States	2,487.5
Fluor Corp.	United States	2,103.6
CH2M Hill Cos.	United States	2,047.8
KBR	United States	1,733.8
Bechtel	United States	1,576.0
AMEC, PLC	United Kingdom	1,435.0

Source: *Engineering News-Record*, "The Top 500 Design Firms Sourcebook 2006," July 2006.

Table 3.2 Top 10 multinational contractors and revenues, 2005 (millions of U.S. dollars)

Company	Country	Total revenues
Vinci	France	26,810.0
Bouygues	France	19,760.0
Hochtief, AG	Germany	17,014.7
China Railway Engineering Corp.	China	15,359.8
Skanska AB	Sweden	14,983.9
Bechtel	United States	14,606.0
China Railway Construction Corp.	China	14,432.3
Grupo ACS	Spain	14,290.7
Kajima Corp.	Japan	13,343.5
Taisei Corp.	Japan	13,138.0

Source: *Engineering News-Record*, "The Top 400 Contractors Sourcebook 2006," October 2006.

One construction sector that is characteristically global, incorporating both foreign and domestic A/E/C services on a particular project, is transportation. One reason for heightened international participation in this type of construction is the large scale of major infrastructure projects. For example, while construction labor may be plentiful locally, project owners may import foreign construction management services to ensure that the project is smoothly executed.²⁹ Because transportation construction projects are also among the most costly heavy construction projects, international financing for transportation projects is often necessary. For example, Spanish firm Cintra, a subsidiary of Grupo Ferrovial, has signed a 50 year contract with the Texas Department of Transportation to develop, build, and maintain certain segments of the Trans-Texas Corridor. The corridor is the largest infrastructure project in the history of the United States, requiring a total investment of as much as \$36.7 billion. Through an international public-private partnership, Grupo Ferrovial and Cintra will provide concessions of approximately \$1.3 billion during the construction phase of the first two segments. For the design and construction work itself, Cintra has formed a consortium with Texas construction firm Zachary. Cintra also heads public-private partnerships for the operation of the Chicago Skyway under a 99 year concession (\$1.8 billion) and the Indiana Toll Road under a 75 year concession (\$3.8 billion).³⁰

The A/E/C industry is implementing new technologies to increase productivity, control prices,³¹ and improve quality for their customers. Some A/E/C firms have discovered that adopting online collaborative project management technology to organize the timing, information, and communications on a construction project decreases document exchange costs and increases efficiency.³² A similar technology is Building Information Modeling (BIM), which improves productivity by integrating all the information required for the

²⁹ Wright, "Roadbuilding in China's Mountains in a Tall Order."

³⁰ Grupo Ferrovial, "Cintra Lands the First Concession for a Toll Road."

³¹ A/E/C services providers' use of technology to control prices works to maintain firm competitiveness as well as to mitigate against price increases over the course of a project, for which A/E/C firms, their customers, or both, might be responsible.

³² Becerik and Pollalis, "Computer Aided Collaboration in Managing Construction," 51.

erection of a building or structure, from conceptualization to completion. BIM can also aid in the future maintenance of a structure.

Myriad factors influence the global or international competitiveness of A/E/C firms. Any project, whether local or international, requires not only funding, but also natural resources, fabricated or manufactured materials, a skilled work force, extensive planning and coordination, management, maintenance, and repair after the project is built.³³ All these factors can present challenges and opportunities, which may be amplified for A/E/C firms working in foreign markets. For example, a construction firm large enough to provide funding for an international Public-Private Partnership may have a competitive advantage, but such a firm is likely to face greater risk and contractual uncertainties outside its home market.³⁴ Shifts in prices and availability of building materials such as structural steel, cement, lumber, or copper for wire and cable are common.³⁵ In addition, the formulation of partnerships with local firms is often deemed critical for A/E/C companies working on international projects,³⁶ whether it be through a joint venture, a strategic alliance, or a close working relationship with local subcontractors. In particular, local partners can help international firms understand legal issues and labor practices.

Recognizing the equivalency of a foreign practitioner's education and experience is at the forefront of many discussions about the provision of international architectural services, with the International Union of Architects encouraging the continued standardization and expansion of mutual recognition agreements for the international practice of architecture.³⁷ Other impediments to trade in construction and engineering services may vary widely among countries. For example, substantial impediments to trade in construction services exist in China, where U.S., Japanese, and Spanish firms cite the adverse impacts³⁸ of China's regulations requiring foreign construction companies seeking projects in China to establish a permanent residence there. In certain Middle Eastern countries, such as Saudi Arabia, foreign construction companies must employ a local agent in order to procure labor and materials.³⁹ Limitations on the recognition of foreign engineering licenses and limited transparency in bidding and appraisal processes have also been identified as prevalent impediments to trade in certain countries.⁴⁰ For example, in China, only firms holding a license may certify construction documents as official.⁴¹ Contractors may also encounter difficulties in countries with lower transparency in their legal and political structures.⁴² The architectural services industry in the United States has identified additional barriers abroad to trade in architectural services such as compulsory fee scales, which mandate the amounts

³³ Associated Owners and Developers, 2006 National Conference, "Building & Managing Major Construction Projects," October 23–24, 2006, in Washington, DC.

³⁴ Cho and Rubin, "Other People's Money," 24–27. For example, the level of involvement of the private and public sectors tends to differ between the United States and Europe, with the European public sector more involved in planning the project than the U.S. public sector.

³⁵ Grim and Searle, "Design-Build Developments, Challenges and Future Prospects in Developing Countries."

³⁶ Ibid.

³⁷ American Institute of Architects, International Committee, "AIA International Affairs Update," 8–11.

³⁸ USDOC, U.S. Commercial Service China, "Architecture Construction Engineering Industry Overview."

³⁹ Grim and Searle, "Design-Build Developments, Challenges and Future Prospects in Developing Countries."

⁴⁰ From a list of impediments assembled by Hirai, "Impediments in Construction and Engineering Services," table 4-2.

⁴¹ USDOC, U.S. Commercial Service China, "Architecture Construction Engineering Industry Overview," 3. Such a license is difficult for foreign firms to obtain.

⁴² Grim and Searle, "Design-Build Developments, Challenges and Future Prospects in Developing Countries."

to be charged for particular architectural services, and limitations on the legal form of a foreign architectural firm. For example, limitations include restricting architectural firms' activities to participation in joint ventures only, or restricting the registration of a foreign architectural firm as a partner to a local firm.⁴³

WTO Members' Positions on A/E/C Services in WTO Trade Negotiations

In the World Trade Organization (WTO), issues concerning trade negotiations for A/E/C services are addressed to the WTO's Council for Trade in Services (CTS). At the WTO, A/E/C services fall under two sectoral areas: construction and related engineering services, and professional services, of which architectural and engineering services are subsectors. Positions and proposals exchanged among WTO members encourage unimpeded cross-border supply of engineering services, and stress the importance of expanding provisions for the movement of independent professionals and professionals under contract supplying engineering services. For the construction and related engineering services sector, WTO members have expressed common interest in eliminating limitations on foreign equity; operating requirements for joint ventures; discriminatory licensing or registration procedures; restrictions on the types of projects that can be undertaken by foreign service suppliers; and restrictions on the movement of natural persons.⁴⁴

Between March 2001 and March 2002, Australia, Brazil, Cuba, the European Union, Korea, and New Zealand submitted proposals to the CTS on construction and related engineering services.⁴⁵ In 2005, Cuba issued a communication updating the CTS on the progress of negotiations in the construction and related engineering services sector, citing the importance of the construction industry for job creation and sustainable growth in developing countries. In the communication, Cuba noted that restrictions on the movement of natural persons exist in the form of limitations on the number of foreign workers allowed and licensing, standards, and qualification requirements; and that restrictions on the establishment of commercial presence exist in the form of nationality requirements for foreign personnel, including skilled labor and professional staff.⁴⁶ Overall, Cuba asserted that many offers for commitments on construction and related engineering services fall short of facilitating increased developing country participation in world trade in services.⁴⁷

⁴³ Coalition of Service Industries, "Written Testimony on the Free Trade Agreement Between the United States and Malaysia," 21. These barriers to trade were raised as concerns by the American Institute of Architects' International Committee in the context of the negotiation of the U.S.-Malaysia Free Trade Agreement and were presented to the United States Trade Representative in a report by the Coalition of Service Industries in May 2006.

⁴⁴ WTO, Council for Trade in Services - Special Session (CTS-SS), "Special Session of the Council for Trade in Services: Report by the Chairman,," November 28, 2005, 9-11.

⁴⁵ For an overview of these members' positions, see USITC, *Recent Trends in U.S. Services Trade*, May 2002, 4-7-4-8.

⁴⁶ WTO, "Communication from Cuba: Review of Progress in the Negotiations," submitted June 17, 2005.

⁴⁷ *Ibid.*

From 2004 through 2006, several countries, including Australia, Japan, and the United States, expressed concerns about certain regulations governing the construction and engineering sectors in China, including China's Decrees 113 and 114.⁴⁸ Decrees 113 and 114 require general licenses for foreign firms, prohibit foreign firms from providing construction and engineering services on a project-by-project basis, and set minimum capital and asset requirements for firms that seek licensure. Additionally, Decree 114 requires foreign technical and management personnel employed by foreign construction and engineering firms to live in China for a minimum of three months, and sets minimum requirements for Chinese nationals employed as architects and engineers at joint ventures and wholly foreign-owned enterprises.⁴⁹

⁴⁸ WTO, CTS, "Communication from the United States: Transitional Review Mechanism," submitted September 26, 2006, 8-9; "Communication from Japan: Transitional Review Mechanism," submitted September 29, 2006, 2-4; "Communication from Australia: Transitional Review Mechanism," submitted September 19, 2005, 2-3; "Communication from Japan: Transitional Review Mechanism," submitted September 2, 2005, 2-3; and "Communication from the United States: Transitional Review Mechanism," submitted November 9, 2004, 5.

⁴⁹ European Union Chamber of Commerce, "European Business in China Position Paper 2004" and U.S. Chamber of Commerce, "China's WTO Implementation and Other Issues of Importance."

CHAPTER 4

Audiovisual Services

Summary

The audiovisual services industry in the United States produces and distributes motion pictures that are consumed all over the world. U.S. cross-border exports of audiovisual services as well as sales by foreign audiovisual services affiliates of U.S. firms far exceed U.S. cross-border imports and purchases from U.S. affiliates of foreign firms. Overall box office revenues both globally and in the United States have either remained flat or declined in recent years. Several factors underlie this stall, including increasing movie production costs, which affect the quality and quantity of films produced; the proliferation of high quality consumer electronics and digital distribution technologies such as flat-panel televisions, high-definition television signals, and broadband; economic sluggishness in several important markets; a shortage in the number of internationally popular films; and, most prominently, growing intellectual property piracy. As a result of these challenges, the industry is reorganizing, consolidating, and expanding into more international markets.

Introduction

For the purpose of this discussion, audiovisual services refer to the production and distribution of motion pictures, comprised primarily of feature films and documentaries.¹ These services are distributed to consumers through projection in theaters, commercial flights, and other public venues; rental or sale of prerecorded works; broadcast, cable, and satellite television, including movies-on-demand; and the Internet. Providers of audiovisual services collect royalties, rental fees, license fees, and sales revenue in return for granting rights to display, broadcast, reproduce, or distribute audiovisual works. International transactions occur both across borders and through foreign affiliates. Data on cross-border trade in audiovisual services reflect payments for rights to display, reproduce, or distribute motion pictures and television programs.² In other words, cross-border trade data reflect the exchange of limited intellectual property rights. They do not reflect global box office receipts, although such receipts broadly measure demand for movie-going, which may in turn affect cross-border trade. Affiliate data reflect sales to foreign consumers of motion pictures, television tapes, and films by U.S.-owned production and distribution affiliates and purchases by U.S. consumers from foreign-owned motion picture affiliates located in the United States.³

¹ Sound recording industries have been excluded from this discussion since most of its official trade data are either unavailable or have been suppressed to avoid disclosure of data of individual companies.

² U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business* 86, no. 10, 34.

³ *Ibid.*, 71–74.

Trade Trends

Cross-Border Trade

U.S. exports substantially exceeded imports of cross-border trade in audiovisual services in 2005. U.S. cross-border exports of audiovisual services amounted to \$10.4 billion, reflecting a growth rate of 2 percent over 2004 (figure 4.1).⁴ This was below the trend from 2000 through 2004, when U.S. exports increased by 4 percent annually, on average. This reduction in export growth is likely related to the worldwide decline in box office revenues observed in 2005. Industry sources link declining box office receipts to several factors, including slow growth in several economies and a dearth of strong feature films from Hollywood and other film industries.⁵ By a wide margin, the United Kingdom was the largest U.S. export market for audiovisual services in 2005, accounting for revenues of \$2.7 billion (26 percent). Other important export markets included Germany (\$1.0 billion), Japan (\$938 million), Canada (\$726 million), and France (\$683 million) (figure 4.2). The European Union, by far the most significant regional consumers of U.S. audiovisual services exports, accounted for 64 percent of such exports in 2005.

Although imports more than doubled in 2005,⁶ foreign films and television programs, in general, continued to capture only a relatively small share of the U.S. market when compared to the demand for U.S. motion pictures internationally.⁷ Cross-border imports in 2005 totaled \$924 million, a 118 percent increase over the previous year. By comparison, imports grew at an average annual rate of 33 percent from 2000 through 2004. Canada accounted for \$161 million, or 17 percent, of U.S. audiovisual services imports in 2005, while imports from the United Kingdom and Japan totaled \$73 million (8 percent) and \$34 million (4 percent), respectively.⁸ In contrast to its high importance as a regional market for U.S. exports, the European Union supplied only 13 percent of U.S. imports of audiovisual services in 2005.

Affiliate Transactions

In 2004, sales for motion picture affiliates of U.S. multinational companies abroad totaled \$10 billion, a decrease of 4 percent from the previous year, with foreign affiliates of U.S. parent companies recording sales of \$6.8 billion in Europe and \$510 million in Latin America.⁹ By contrast, cumulative U.S. direct investment abroad in the motion picture industry increased by 23 percent to \$6.7 billion in 2004, surpassing the 13 percent average annual growth rate from 2000 through 2003.¹⁰ This divergence is likely due to a combination of below average global box office receipts and an increasing propensity among U.S. firms to produce motion pictures abroad.

⁴ Ibid., 68–69.

⁵ Screen Digest, *Global Cinema Exhibition Trends*, 333 and industry representative, telephone interview by Commission staff, November 17, 2006.

⁶ USDOC, BEA, *Survey of Current Business* 86, no. 10, 34. Payments to Australia have accounted for most of the increases since 2003.

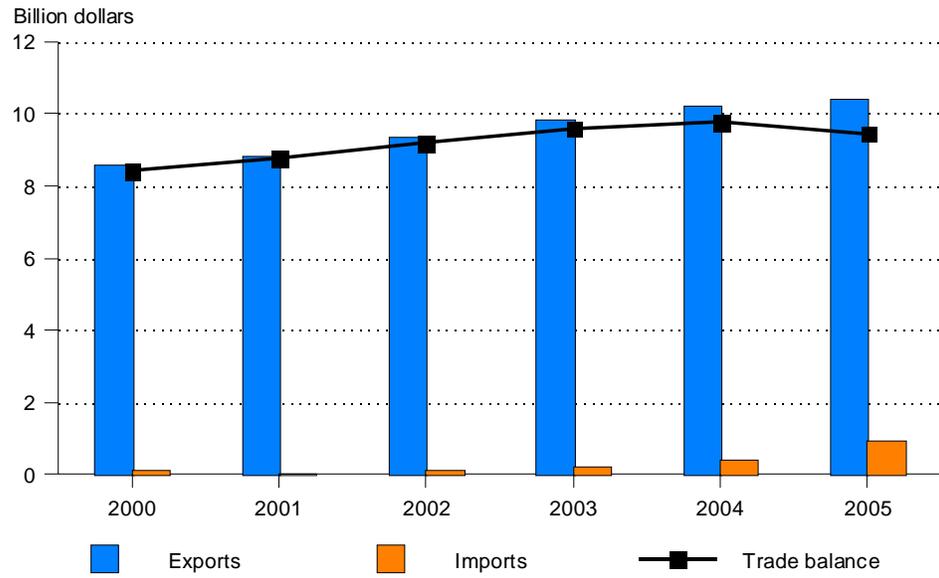
⁷ Ibid.

⁸ Ibid., 69.

⁹ Ibid., 72.

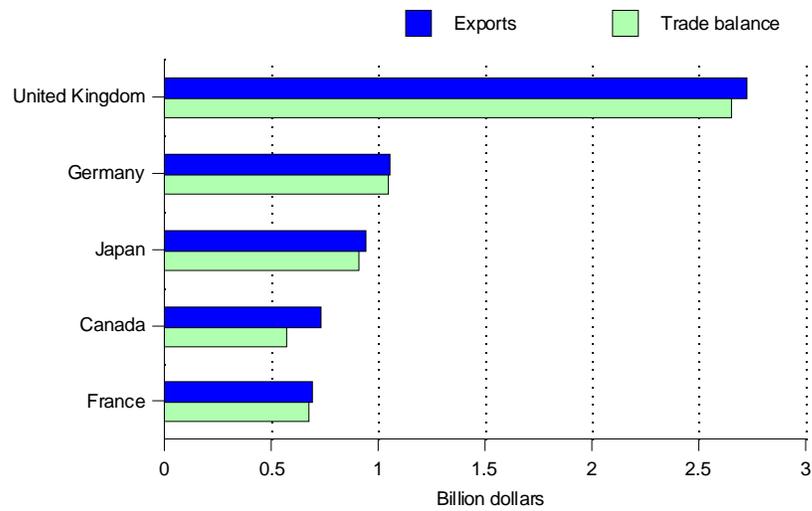
¹⁰ USDOC, BEA, *Survey of Current Business* 86, no. 9, 126.

Figure 4.1 Motion picture and video services: Cross-border trade, 2000–2005



Sources: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 67–69; 85, no. 10, 70; 84, no. 10, 69; and 83, no. 10, 96–99.

Figure 4.2 Motion picture and video services: U.S. cross-border exports and trade balance, by major trading partners, 2005



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 69.

To illustrate, U.S. movie production abroad has grown rapidly since 1998, as U.S. studios have increasingly opted to shoot movies outside the United States because of lower production costs. According to an industry study, in 2005, worldwide feature film production reached \$1.2 billion in Canada, an increase of nearly 300 percent from 1998. Although Canada remains the most popular foreign production site for U.S. companies, other important markets for production in 2005 included the United Kingdom and Ireland (\$809 million); Australia and New Zealand (\$717 million); and Eastern Europe (\$308 million).¹¹ Overall, the U.S. share of global feature film productions with budgets equal to or greater than \$50 million fell from 76 percent in 1998 to 43 percent in 2005.¹²

Official data reporting total U.S. purchases from U.S.-based motion picture affiliates of foreign multinationals were suppressed in 2000, 2001, 2003, and 2004, as such data could disclose information regarding the operations of Sony Pictures and Columbia TriStar, owned by Japanese firms, and Universal, partially owned by a French firm. Sales data for affiliates with parent firms in other countries were relatively small. In 2004, for example, U.S. purchases from British-owned motion picture and video affiliates in the United States totaled \$27 million; Canadian-owned affiliates, \$9 million; and German-owned affiliates, \$8 million.¹³ Similarly, official statistics describing foreign direct investment in the U.S. motion picture industry have been suppressed to prevent disclosure of individual company operations from 2000 through 2004.¹⁴ However, data from other sources suggest that U.S.-based affiliate transactions and investment have increased in recent years due to acquisitions by foreign media companies.¹⁵

Competitive Conditions in the Global Audiovisual Services Market

Box office revenues both globally and in the United States have waned in recent years. In 2005, worldwide box office revenue fell by 8 percent to \$23.2 billion, while U.S. box offices recorded a 6 percent decrease in receipts totaling \$8.9 billion.¹⁶ Box office revenue totaled \$9.7 billion in North America, \$6.2 billion in Europe, and \$5.3 billion in Asia.¹⁷ From 2002 through 2005, global box office receipts fluctuated narrowly between \$20 billion and \$25 billion annually, while U.S. box office revenue hovered around \$9 billion.¹⁸ In 2005, India, the European Union, the United States, Japan, and China were the top five film producing markets by volume.¹⁹ Nevertheless, the motion picture industry remains dominated by a handful of large U.S.-based movie studios. The production and distribution of only 10 films, or 0.2 percent of the total produced worldwide in 2005, attracted one-fourth of world box office receipts, and seven of the larger studios produced films responsible for

¹¹ The Center for Entertainment Industry Data and Research (CEIDR), *The Global Success of Production Tax Incentives and the Migration of Feature Film Production from The U.S. to the World, Year 2005 Production Report*, 2–3.

¹² *Ibid.*, 3.

¹³ USDOC, BEA, *Survey of Current Business* 86, no. 10, 74.

¹⁴ *Ibid.*, 83.

¹⁵ Standard & Poor's, *Movies & Home Entertainment*, 6.

¹⁶ Motion Picture Association, *2005 International Theatrical Market*.

¹⁷ Screen Digest, *World Film Production/Distribution*, 210.

¹⁸ Motion Picture Association, *2005 Domestic Theatrical Market*.

¹⁹ Screen Digest, *World Film Production/Distribution*, 206.

about 69 percent of such receipts.²⁰ In 2005, the top seven studios in terms of box office revenue were all located in the United States (table 4.1).²¹

A proliferation of alternative means by which consumers may watch films has contributed to box office receipts' moderate-to-declining growth in recent years,²² as evidenced by advancements in consumer electronics and video delivery technologies such as flat-panel screens, advanced sound systems, high-definition television signals, and movies-on-demand.²³ Consequently, as traditional media markets begin to show signs of saturation, major movie studios are merging or creating strategic partnerships to better leverage these new technologies. As the availability of digital content over the Internet grows, major studios are partnering with website operators to make their content available online. For example, in August 2006, Twentieth Century Fox, Warner Brothers, Universal Pictures, and Sony Pictures created an agreement with AOL Video to offer downloadable movies. Earlier in 2006, in May, Warner Brothers partnered with BitTorrent Inc. to distribute its movies over the latter company's peer-to-peer computer file sharing network,²⁴ providing Internet users a direct distribution channel for Hollywood content.²⁵

While ticket sales and DVD sales growth have declined,²⁶ the cost of producing and marketing a major Hollywood film has increased steadily.²⁷ In 2005, Motion Picture Association of America (MPAA) members²⁸ spent an average of \$96 million to produce and market each film, an increase of \$20 million since 2001.²⁹ In light of this trend, and because few movies return their investment, movie studios have sought partners with which to share creative talent and financial resources, resulting in greater industry concentration.³⁰ To illustrate, notable recent acquisitions include Disney's purchase of Pixar Animation Studios Inc. in May 2006 for \$7.4 billion in stock and debt, and Paramount Pictures' acquisition of DreamWorks SKG in February 2006 for more than \$1.6 billion.³¹ Major movie studios have also entered into investment partnerships with hedge funds and private equity firms to share increasing production costs. In October 2006, Paramount and investors brought together by investment bank Dresdner Kleinwort agreed to a \$300 million investment to fund the production of 30 movies.³²

²⁰ Ibid., 206, 210.

²¹ ShowBiz Data, *Worldwide Global Theatrical Marketshares for 2005*.

²² Standard & Poor's, *Movies & Home Entertainment*, 13.

²³ Arnold, "Windows Continue to Shrink." In addition, shrinking theatrical-to-video windows have made alternative modes of content delivery more marketable (e.g., the Internet, movies-on-demand, DVDs). In 2002, the theatrical-to-video window for a movie that grossed at least \$25 million at the box office averaged 171 days compared to about 142 days in 2005.

²⁴ BitTorrent, "About Us." The company states that BitTorrent provides a peer-assisted, digital content delivery platform that rapidly and efficiently distributes large, high-quality files on the Internet.

²⁵ Standard & Poor's, *Movies & Home Entertainment*, 1.

²⁶ Ibid., 14. DVD sales growth fell from 269 percent in 2001, to 57 percent in 2003, to 4.5 percent in 2005.

²⁷ Wolf, "Netflix Makes the Grade." In contrast, online DVD renters such as Netflix have experienced significant growth recently. The company accounted for 6.3 million subscribers at the end of 2006, an increase of 654,000 subscribers over the previous quarter.

²⁸ Members include Buena Vista Pictures, MGM Studios, Paramount Pictures, Sony Pictures, Twentieth Century Fox, Universal, and Warner Brothers. The MPAA represents the interests of its members in the United States, while its international counterpart, the Motion Picture Association (MPA), represents member interests worldwide.

²⁹ *Financial Times*, "Hollywood's Blockbuster Budgets Leave the Chests Bare."

³⁰ IBISWorld, *Global Movies Production and Distribution*, 25.

³¹ Standard & Poor's, *Movies & Home Entertainment*, 4.

³² *Financial Times*, "Paramount in \$300m Dresdner Film Deal."

Table 4.1 Ten largest motion picture firms, by estimated global box office revenue and market share, 2005

Company	Country	Estimated revenue (millions of U.S. \$)	Estimated market share (%)
Warner Brothers	United States	3,674	15.8
Twentieth Century Fox	United States/Australia	3,393	14.6
Buena Vista (Disney)	United States	2,697	11.6
United International Pictures ^a	United States	2,316	10.0
Sony Pictures	Japan	1,386	6.0
Universal	United States/France	1,300	5.6
Paramount	United States	1,179	5.1
DreamWorks Pictures ^b	United States	743	3.2
New Line Cinema	United States	607	2.6
Columbia TriStar ^c	Japan	425	1.8
Top 10 total		17,720	76.2
All others		5,520	23.8
Grand total		23,240	100.0

Source: ShowBiz Data

Note: Total may not add due to rounding.

^aJoint venture of Universal and Paramount.

^bAcquired by Paramount in February 2006.

^cOwned by Sony Pictures.

Currently, U.S. movie studios lead the world in terms of box office revenue, budget, and access to technology and skilled labor.³³ Despite declining ticket sales, overall, consumers worldwide spent more than \$40 billion in 2005 to view U.S. movies, which included the aforementioned \$23.2 billion spent on movie theater tickets.³⁴ Films produced in the United States had higher production budgets, on average, when compared to other major film producing markets. When all movie studios, large and small, are considered, U.S. film budgets averaged \$45 million in 2004 versus about \$13.5 million in the United Kingdom and \$6–7 million in France.³⁵ Larger U.S. production budgets allow for greater use of special effects technologies such as computer animation and computer generated imagery, and access to the most well-known and marketable movie actors.³⁶ With the predominance of English as an international language, U.S. movies are distributed globally at lower cost compared to non-English films since dubbing is usually unnecessary.³⁷

³³ IBISWorld, *Global Movies Production and Distribution*, 13.

³⁴ Standard & Poor's, *Movies & Home Entertainment*, 7.

³⁵ IBISWorld, *Global Movies Production and Distribution*, 20.

³⁶ *Ibid.*, 18.

³⁷ Standard & Poor's, *Movies & Home Entertainment*, 11.

France, Germany, Spain, the United Kingdom, and Italy are the most prominent film producing nations in Europe.³⁸ In France, Europe's largest film producer by volume, total investment in its film industry reached \$1.5 billion in 2005, with foreign investment accounting for \$116 million, a two-fold increase since 2000.³⁹ The United Kingdom was second to France in total domestic and foreign film production investment in Europe (\$982 million) in 2005.⁴⁰ However, foreign investment in films in the United Kingdom fell from \$963 million in 2004 to \$548 million in 2005.⁴¹ Uncertainty in the fiscal environment, competition from countries with lower costs, and an unfavorable exchange rate all contributed to the investment decline. However, in response, the UK government introduced a tax credit program in December 2005, which provides graduated tax rebates based on total movie production cost, including co-productions.⁴²

India and China are emerging as important global players in audiovisual services consumption and production.⁴³ India, the world's leader in movie production by volume (1,041 feature films in 2005),⁴⁴ has begun to expand movie distribution beyond its domestic market to attract box office receipts from its large diaspora population. Indian films are exported to around 95 countries, with the highest concentrations in the Middle East, the United States, the United Kingdom, Canada, and neighboring South Asian countries.⁴⁵ Recent improvements in equipment and facilities have been made in production centers such as Ramoji Film City (RFC) in Hyderabad,⁴⁶ whose studios are on the same scale as some of those in Hollywood.⁴⁷ Further, in an effort to harness Indian technical expertise and reduce production costs, advanced post-production and visual effects companies such as SIBAR Media and Entertainment Ltd. (India) have set up studios in India with the goal of becoming a central post-production outsourcing hub for major film producers.⁴⁸

In 2005, China produced 260 films, an increase of 18 percent from 2004.⁴⁹ As state control over the sector wanes and overall production levels increase, opportunities grow for foreign firms to invest in China's film industry. For example, in a joint venture with China Film Group, Warner Brothers created Warner Film China in 2004 to produce, market, and distribute Chinese-language feature films, television movies, and animation, with production budgets in the \$1.5 million to \$6.0 million range.⁵⁰ In 2004, according to China's State Administration of Radio, Film, and Television, private or foreign companies funded

³⁸ Screen Digest, *World Film Production/Distribution*, 205. In 2005, France produced 240 feature films, Germany 146 films, Spain 142 films, the United Kingdom 123 films, and Italy 98 films. There may be some double counting due to co-productions.

³⁹ *Ibid.*, 205.

⁴⁰ *Ibid.*, 212. The United Kingdom recorded total box office revenue of \$1.4 billion in 2005, which marked a new high in gross box office receipts.

⁴¹ *Ibid.*, 205.

⁴² *Ibid.*

⁴³ *Economist*, "Chinese Cinema: No Direction," Screen Digest, *Global Cinema Exhibition Trends*, 338, and industry representative, telephone interview by Commission staff, November 17, 2006. Box office receipts in India reached an estimated \$1.2 billion in 2005, an increase of 19 percent from the previous year. China's box office receipts increased by 33 percent to reach \$244 million in 2005.

⁴⁴ Screen Digest, *World Film Production/Distribution*, 205.

⁴⁵ Nielson and Taglioni, "Services Trade Liberalization," 23.

⁴⁶ IBISWorld, *Global Movies Production and Distribution*, 35. RFC is the world's largest integrated film studio complex with around 500 set locations.

⁴⁷ Nielson and Taglioni, "Services Trade Liberalization," 24.

⁴⁸ *Ibid.*

⁴⁹ Screen Digest, *World Film Production/Distribution*, 209.

⁵⁰ *Ibid.*

approximately 80 percent of the 212 films produced in China that year.⁵¹ However, a major obstacle to future growth and investment in audiovisual services in China is its high rate of intellectual property piracy.⁵² According to a Motion Picture Association (MPA) study, China has the highest overall piracy rate of all countries examined, wherein 90 percent of the market consists of pirated films.⁵³

Major global movie producers perceive intellectual property rights violations as the greatest challenge to trade in the industry. MPA estimates that major U.S. motion picture studios lost \$6.1 billion in 2005 due to piracy,⁵⁴ of which \$2.3 billion was attributed to digital film piracy.⁵⁵ Advancements in broadband, downloading, and file sharing technologies have made obtaining movies illegally from the Internet much simpler. Consequently, if this trend continues, estimated losses due to digital piracy could reach \$8 billion annually, or 10 percent of international film revenue, by 2015.⁵⁶ In response, the MPA has taken steps to better protect movie studios' intellectual property rights. Notable goals include encouraging governments to establish and enforce legal protections against illegal peer-to-peer computer file sharing, adopting effective anti-camcording legislation, and supporting greater compliance with existing trade and World Intellectual Property Organization agreements.⁵⁷

WTO Members' Positions on Audiovisual Services in WTO Trade Negotiations

Brazil, Switzerland, and the United States are the only countries in the current round to have submitted detailed written statements on audiovisual services to the Council for Trade in Services (CTS), a subsidiary body of the World Trade Organization (WTO).⁵⁸ These statements address the issues of subsidies and the sector's role in fostering cultural identity and diversity. In their submissions, the three countries: (1) recognize the nature of audiovisual services as a vehicle for cultural expression; (2) recognize that government funding of audiovisual services may be appropriate as a means to promote cultural policy objectives; and (3) agree that subsidies should be narrowly focused to achieve specific objectives, and that trade distorting effects of subsidies should be minimized.

Brazil and Switzerland propose that attention be devoted to an examination of anti-competitive business practices with a view toward alleviating possible market distortions. Both Brazil and Switzerland express concern over competition and the potential for dominant firms to abuse their position. The Swiss proposal expresses concern about the effects of vertical integration on competition, while Brazil's proposal indicates a need to address possible unfair trade practices. Switzerland also highlights the public service aspects

⁵¹ *Chinadaily.com*, "Private, Foreign Investment to Boost Chinese Film Industry."

⁵² USTR, "United States Files WTO Cases Against China." In April 2007, the United States filed two requests for WTO dispute settlement consultations with China that address the need for stronger anti-piracy laws and the elimination of market access barriers on U.S. audiovisual products in China. Under WTO rules, if the parties do not resolve the matter within a 60-day consultation period, the complaining party may refer the matter to a WTO dispute settlement panel.

⁵³ Motion Picture Association/L.E.K. Consulting, *The Cost of Movie Piracy*.

⁵⁴ *Ibid.*

⁵⁵ The majority of pirated goods comprise DVDs and videocassettes.

⁵⁶ *Financial Times*, "Hollywood Warned About Piracy."

⁵⁷ MPA, *Trade Barriers to Exports of U.S. Filmed Entertainment*, 1-3.

⁵⁸ WTO, CTS, "Communication from Brazil, Audiovisual Services," submitted July 9, 2001; "Communication from Switzerland, GATS 2000," submitted May 4, 2001; and "Communication from the United States, Audiovisual and Related Services," submitted December 18, 2000.

of the audiovisual sector and proposes discussions of regulations intended to protect public morality. Switzerland suggests that a definition of cultural diversity is needed in order to develop appropriate measures and safeguards. The proposal submitted by the United States calls for a review of the scope of audiovisual services, indicating that technological developments since the Uruguay Round have introduced new types of audiovisual works and new means of producing and distributing them. The U.S. proposal urges that countries develop a comprehensive list of audiovisual services and prepare to schedule trade liberalizing commitments while respecting the principle of technological neutrality.

Additionally, a more general Joint Statement on the Negotiations on Audiovisual Services⁵⁹ was submitted by Hong Kong China, Japan, Mexico, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, and the United States supporting the further opening of domestic markets to audiovisual services trade, which, as they highlight, would likely encourage investments in new technologies and promote greater transparency and stability in such services. Moreover, the parties asserted that beneficial spill-over effects into other services, particularly in tourism and education services, could result from further liberalization. Regarding further liberalization under consideration by participants in the Doha Round, out of the 61 initial or revised offers submitted by July 2006, 26 include offers in audiovisual services, mainly in motion picture and video tape production and distribution services and motion picture projection services.

⁵⁹ WTO, CTS - Special Session, "Special Session of the Council for Trade in Services: Communication from Hong Kong China, Japan, Mexico, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, and the United States, Joint Statement in the Negotiations on Audiovisual Services," submitted June 30, 2005.

CHAPTER 5

Computer and Related Services

Summary

Trade in computer and related services occurs primarily through the operation of affiliates. In 2004, sales of services to foreign consumers by this industry's foreign affiliates of U.S. parent firms far surpassed purchases by U.S. consumers from U.S. affiliates of foreign firms. In 2005, project-based services (e.g., consulting, development, and integration services) and software support outpaced overall information technology (IT) services market growth. Outsourcing and offshoring have also been considerable growth engines in recent years, as both customers and service providers increasingly rely on global sourcing and delivery to gain a competitive advantage. Currently, the United States and Europe generate 42 percent and 28 percent of the global industry's revenues, respectively. However, growth in these mature markets is relatively stagnant compared to developing markets in the Asia-Pacific region. While the Asia-Pacific region currently accounts for less than 20 percent of the global computer services market, economic expansion in countries such as India and China is likely to generate substantial demand for computer services. Consulting, development, and integration services are expected to remain in high demand due to the worldwide proliferation of IT applications that include components of hardware, software, and communication technologies.¹ Also, as more individuals and firms conduct business electronically, the need for customized e-commerce applications and supporting services as well as for network and data security services will likely increase.

Introduction

Computer and related services are a subset of the IT services market, and comprise a wide range of activities including consultancy services related to the installation of computer hardware, software implementation services, data processing services, and data base services.² Services that fall under these top tier classifications include computer systems analysis, design, development, integration, and maintenance services;³ project management; software development; network design and development; custom programming services; maintenance and repair of computer-related machinery; and other computer-related services such as hardware and software technical support. Many of these services overlap considerably and therefore fall under multiple industry classifications.⁴ For example, many new or technically evolving IT services often include characteristics of information,

¹ U.S. Department of Labor, Bureau of Labor Statistics, "Computer Systems Design and Related Services."

² As defined in the Provisional Central Product Classification (CPC) (United Nations, 1991), used as the basis for the World Trade Organization (WTO) services classification system, *MTN.GNS/W/120*.

³ Systems design service providers plan and design computer systems that may integrate any combination of computer hardware, software, and communication technologies. The firms may also install the system and train and support its users.

⁴ International Business Machines Corp. (IBM), "Computer Services and Management Consulting: Opportunities in the World Trade Organization."

computer, audiovisual, and telecommunication services.⁵ Given the unclear distinction between such services, quantifying IT market segments is increasingly difficult and generally requires some degree of subjective interpretation.⁶

U.S. firms sell computer and related services in foreign markets primarily through foreign-based affiliates. U.S. services most often provided to foreign clients include computer consulting, systems integration, outsourcing, and custom programming. Cross-border delivery of these services continues to benefit from the Internet and other long-distance electronic transmission technologies. As these technologies have continued to extend into new markets and have expanded within existing markets, and as they have become more efficient and economical, multinational computer services firms have increased the volume and diversity of their cross-border transactions.

Trade Trends

Cross-Border Trade

In 2005, U.S. cross-border exports of computer and data processing services⁷ totaled \$3.5 billion, while imports totaled \$2.0 billion, yielding a trade surplus of \$1.6 billion (figure 5.1).⁸ U.S. exports decreased by 7 percent in 2005, a change from the 4 percent average annual rate of increase from 2000 through 2004. In recent years, Europe has increased importance as the largest market for U.S. computer services (figure 5.2). In 2005, Europe accounted for 62 percent of total exports, up from 53 percent in 2003. The increase may be explained, in part, by the decline in exports to Canada. In 2003, U.S. receipts from Canadian purchases totaled \$751 million and accounted for 23 percent of total U.S. exports of computer services. However, in 2005, exports to Canada fell to \$368 million, or 10 percent of total U.S. exports. The decline may be explained, in part, by the Canadian IT services industry's ongoing growth. In recent years, Canadian exports of IT services have increasingly outpaced imports, suggesting that the Canadian IT industry may also be able to supply services to the home market to a greater extent.⁹ The United Kingdom remained the largest single-country export market for U.S. exports of computer and related services, accounting for 39 percent of total exports and 62 percent of exports to Europe. U.S. exports of computer services to Australia have outpaced those to other leading markets such as France and the Netherlands in recent years, positioning Australia as the fifth largest purchaser of such services in 2005.

⁵ Organization for Economic Cooperation and Development (OECD), "Broadband Audio-visual Services: Market Developments in OECD Countries." As high-speed broadband Internet allows increasingly sophisticated entertainment content, telecommunication and broadcasting applications are starting to converge.

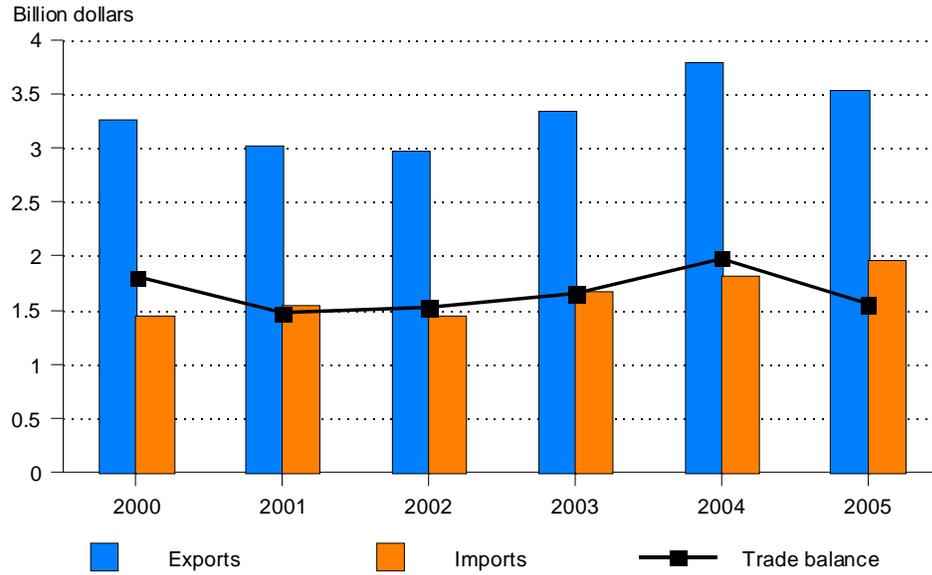
⁶ WTO, Council for Trade in Services (CTS), "Computer and Related Services, Background Note by the Secretariat."

⁷ U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA) combines computer and data processing services within a single industry sector, and does not provide a breakout of trade data for each component. In practice, many firms provide both services, to varying degrees. Furthermore, the distinction between the two is often fairly vague, as in the case of consulting services. However, to achieve a more focused analysis, this chapter emphasizes firms that primarily provide computer services other than those relating to data processing.

⁸ USDOC, BEA, *Survey of Current Business* 86, no. 10, 65–66. Data for services to unaffiliated parties only. Trade values are rounded. The actual value of the surplus is \$1.56 billion.

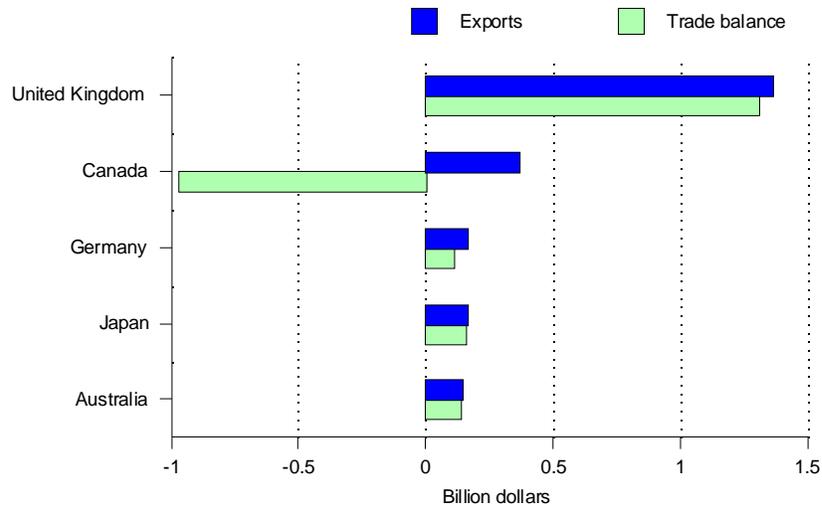
⁹ Industry Canada, *Information and Communications Technologies (ICT) Statistical Overview*.

Figure 5.1 Computer and data processing services: Cross-border trade, 2000–2005



Sources: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 61–66; 85, no. 10, 64–65; 84, no. 10, 63–64; and 83, no. 10, 108–109.

Figure 5.2 Computer and data processing services: U.S. cross-border exports and trade balance, by major trading partners, 2005



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 65–66.

U.S. cross-border imports of computer and data processing services increased by 9 percent in 2005, surpassing the 6 percent average annual rate of growth from 2000 through 2004. The increase in 2005 was primarily due to a 9 percent increase in imports from Canada, the largest supplier of computer and data processing services to the United States. Also contributing to the overall increase was the rapid rise in imports from India. In 2005, U.S. purchases of computer and data processing services from India increased by 38 percent, reaching \$381 million, which surpassed the total from all of Europe. IT services from India supplied to markets worldwide increased by 37 percent in fiscal year 2004–5, reaching \$10.0 billion, with Europe and the Americas accounting for more than 90 percent.¹⁰ Both the volume and value of U.S. imports from India continued to increase in 2005, as more services were purchased and as the portfolio of services sourced from India continued expanding into higher-value, more complex activities. Such services sourced from India are expected to experience further growth in large established markets, as well as in markets that currently do not account for significant purchases of Indian IT services, but are believed to have potential.¹¹ Cultivating new markets such as these reflects the Indian industry’s emphasis on diversifying its client base.¹²

Affiliate Transactions

Affiliate transactions represent the largest share, by far, of international trade of computer services.¹³ U.S. parent firms’ foreign affiliate sales were \$44.4 billion in 2004.¹⁴ However, historical data are less complete for affiliate transactions of computer services than for cross-border trade, precluding a complete quantitative analysis of recent trends of U.S. affiliate sales.¹⁵ Nevertheless, the U.S. Department of Commerce, Bureau of Economic Analysis (BEA) notes in general that a large increase occurred in sales through foreign affiliates in the computer systems design and related services industry in 2004, indicating favorable performance of the overall industry.¹⁶ Purchases of computer systems design and related services by U.S. consumers from affiliates of foreign firms operating in the United States increased by 3 percent in 2004, to \$11.1 billion.¹⁷ From 2000 through 2002, such purchases were 45–55 percent below the level of 2004 and were fairly consistent, reflecting contraction of the computer services industry during the period. In 2003, however, purchases more than doubled those in 2002 as the industry started to recover.

¹⁰ National Association of Software & Service Companies (NASSCOM), “Indian IT Industry: Nasscom Analysis.”

¹¹ Mahapatra, “TCS Says Outsourcing Deals Helped Profit.” Many Indian IT companies are increasingly looking outside the United States and Europe for a more diverse client base. China, Australia, and Latin America are seen as potential new markets.

¹² NASSCOM, “Indian IT Industry: Nasscom Analysis.”

¹³ The classification definitions used by BEA for computer services differ slightly between cross-border and affiliate transactions, so an exact comparison is not possible. However, the overlap between the two classifications is likely significant, allowing generalized inferences to be made.

¹⁴ USDOC, BEA, *Survey of Current Business* 86, no. 10, 72.

¹⁵ Trade data for sales of computer and data processing services by U.S.-owned affiliates in foreign markets, both the worldwide total and for many individual countries, are suppressed to avoid disclosing information on individual companies from 2000 through 2003.

¹⁶ USDOC, BEA, *Survey of Current Business* 86, no. 10, 36.

¹⁷ *Ibid.*, 74.

Competitive Conditions in the Global Computer Services Market

Worldwide IT services revenue, a major component of which is computer and related services, totaled \$624 billion in 2005, up 6 percent from 2004.¹⁸ The market is expected to continue to expand at that same average annual rate through 2010.¹⁹ Growth in 2005 resulted from strong spending across key markets such as the United States and Western Europe, and rapid growth in IT services supply and demand in emerging markets. Despite the generally favorable market conditions and widespread opportunity, the global computer services market remains extremely competitive. U.S. firms are well represented among the leading international providers of such services (table 5.1). IBM Global Services remains the largest IT services provider in the world and accounts for approximately 8 percent of the global IT services market.²⁰ While the global revenues for the largest multinational computer services firms remain substantial, many such firms are encountering increasingly stagnant growth, as they often operate predominately in mature markets. In the case of IBM, the firm's revenues continued to grow in 2005, although at a slower pace due to a decrease in backlog work and a slowdown in new contract signings.²¹

Computer and related services accounted for 61 percent of trade in information and telecommunication services combined in OECD countries in 2004.²² Faced with the growth limitations inherent in maturing markets, some of the large U.S. computer services firms have sought opportunities beyond the major business centers in Europe and the United States. An example is Accenture, which has offices and operations in more than 150 cities in 48 countries. While most of the firm's business originates in the Americas and Europe, the Asia-Pacific region, which accounted for 8 percent of Accenture's total revenues in 2006, had the highest rate of growth, at 17 percent.²³ IT firms have also focused on strategic growth areas within IT services, such as business process outsourcing. Also, to compete with lower-cost service providers, U.S. IT firms are rapidly expanding their offshore operations. In recent years, overseas firms, most notably the largest IT firms based in India, have developed internationally successful businesses, often at the expense of larger multinational service providers. In response, many U.S. firms are continuing to develop their own offshore IT capabilities in regions offering lower costs so as to remain competitive. For example, Accenture recently announced plans to hire up to 30,000 employees in China, the Philippines, and India. IBM also plans to invest \$6 billion over 3 years in software, services, and customer-support work in India.²⁴ To counter this strategy, several of the largest Indian IT services suppliers are working to position their own higher-level consulting capabilities directly in the United States and other markets.

¹⁸ Gartner, Inc., "Gartner Says Worldwide IT Services Revenue Grew 6 Percent in 2005."

¹⁹ Gartner Dataquest, *Forecast: IT Services, Worldwide*.

²⁰ Gartner, Inc., "Gartner Says Worldwide IT Services Revenue Grew 6 Percent in 2005."

²¹ IBM, *IBM Annual Report 2005*.

²² OECD, *OECD Information Technology Outlook 2006*, 71–72.

²³ Accenture, "Fact Sheet."

²⁴ IBM, "IBM Opens Development Center in Russia."

Table 5.1 Top 10 computer services providers, worldwide, 2005 (millions of U.S. dollars)

Company name	Country	Revenue, services
International Business Machines Corp.	United States	47,357
Electronic Data Systems Corp.	United States	19,757
Fujitsu	Japan	19,232
Accenture	Bermuda	17,094
Hewlett-Packard Company	United States	15,536
Computer Sciences Corp.	United States	14,616
Cap Gemini	France	8,643
Atos Origin	France	6,785
Siemens Business Services	Germany	6,678
Unisys Corp.	United States	4,789

Sources: Annual reports and Bureau Van Dijk, *Orbis database*, accessed January 29, 2007.

India remains a highly competitive option for U.S., European, and other major global clients seeking lower-cost IT services. Nevertheless, wage inflation in India and the emergence of IT service industries in countries with even lower costs than India may serve to decrease its overall advantage.²⁵ Even so, competition from lower-cost countries may be limited as India continues to focus on more advanced services higher up the value chain.²⁶ Consequently, low-end processing work is likely to shift to lowest-cost suppliers such as Vietnam, despite that country being constrained by a lack of fluent English speakers and an inadequate telecommunications infrastructure.²⁷ The range of Central and Eastern European countries offering low-cost services to Western European markets continues to move eastward, with Bulgaria, Slovakia, and Romania emerging as viable suppliers. Several Latin American countries, such as Chile and Brazil, have also continued to develop regional export markets and affiliate networks.²⁸ At least in the near future, China's position in the global IT services market is likely to be more complementary to India rather than competitive, in that the Chinese IT industry is expected to focus on basic back-office processes and IT services less dependent on English language skills.²⁹ Further, many Indian vendors are establishing centers in China to take advantage of its lower costs and complementary skill-base.

WTO Members' Positions on Computer Services in WTO Trade Negotiations

Delegates to the Council for Trade in Services (CTS) of the WTO have sought the reduction or elimination of certain limitations on market access and national treatment with respect to trade in computer and related services, as included in various WTO members' Schedule of

²⁵ NASSCOM and Hewitt Associates, *NASSCOM Hewitt Total Rewards Study 2005*. While Indian IT wages have increased significantly in recent years, the Indian technology trade association NASSCOM asserts that the Indian IT sector will remain competitive on the basis of total cost at least until 2015.

²⁶ Mattoo and Wunsch, "Pre-empting Protectionism in Services."

²⁷ Balfour, "Vietnam's Growing Role in Outsourcing."

²⁸ United Nations Conference on Trade and Development, *Changing Dynamics of Global Computer Software and Services Industry*. Chile is the leading software exporter in Latin America and Chilean software companies have established subsidiaries in several Latin American countries, including Argentina, Colombia, and Venezuela.

²⁹ Tata Consultancy Services Ltd. (TCS), "TCS Signs Shareholder Promoters Agreement."

Specific Commitments under the General Agreement on Trade in Services (GATS).³⁰ Such limitations included foreign equity limits, residency requirements, and prerequisites on establishing a commercial presence. Additionally, members have sought the reduction or removal of limitations on the provision of computer and related services by the cross-border supply mode of delivery (mode 1), particularly with respect to members reserving the right to retain or establish restrictions in this mode in the future without having to provide compensation.

In February 2005, delegations from a number of WTO members issued a joint statement emphasizing the importance of the computer and related services sector to the global economy.³¹ The statement noted that liberalization of such services allows economies to expand existing market activities and to develop new export markets both inside and outside the IT services sector. Other recent WTO communications regarding computer and related services include those that address classification and industry definition concerns. Specifically, members have noted the need to clarify the scope of coverage of Central Product Classification (CPC) code 84 to avoid possible misunderstandings and confusion regarding the scope of members' commitments made under the classification.³² The proposals share numerous positions, including concern over whether existing GATS commitments will be able to adequately accommodate the increasingly imprecise distinction between computer, information, telecommunication, audiovisual, and related services. The European Union proposed that WTO members should clearly define the scope of coverage of computer and related services and continually revise the scope to reflect advances in information technology.

³⁰ WTO, CTS - Special Session, "Special Session of the Council for Trade in Services: Report by the Chairman," November 28, 2005.

³¹ Australia, Canada, Chile, the European Union, Hong Kong China, India, Japan, Korea, Mexico, New Zealand, Norway, Singapore, the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu, and the United States collaborated on the communication, submitted February 25, 2005.

³² Within the United Nations' CPC system, CPC 84, *Computer and Related Services*, covers the basic functions used to provide all computer and related services.

CHAPTER 6

Electricity Services

Summary

The United States remained a net importer of electricity from both Canada and Mexico in 2005. Net imports from Canada continued to increase in 2005 for a second consecutive year, reversing the trend of declining net imports from 2000 through 2003. Net imports also increased from Mexico, continuing the trend during which the United States turned from a net exporter of electricity to Mexico from 2000 through 2002 to a net importer from 2003 through 2005. On a global level, cross-border trade in electricity continued to grow in 2004, the latest year of available data, albeit at a slightly slower pace than from 2000 to 2003.

An increasing share of world electricity production is generated in Asia, especially China, where production has surged in recent years. Growth in electricity generation has been relatively modest in developed countries and more robust in developing countries. Increasing production has fueled concerns regarding energy prices and environmental consequences, sparking greater interest in deploying renewable energy technologies. Cross-border trade in electricity depends on conducive geographic and infrastructure conditions, while affiliate transactions are limited to countries with favorable domestic regulations, such as those allowing third-party access to vital infrastructure (e.g., transmission facilities). World Trade Organization (WTO) negotiations on electricity services trade liberalization have been hindered by a lack of consensus regarding the classification of the industry in international agreements.

Introduction

The electric power industry generates and supplies electricity to consumers. There are several functionally distinct aspects of the industry. Generation¹ is the production of electricity from a raw energy source. Transmission involves the transportation of electricity over high-voltage transmission lines from the generation facility to substations in the vicinity of electricity consumers. Distribution delivers lower voltage electricity from the substations to the final electricity consumers. Finally, there are incidental services such as marketing, system operation services, metering, and billing.

Electricity services can be traded across borders or sold by foreign affiliates to host country consumers. For example, if electric power is transported from Canada to a customer located in the United States, the owner of the Canadian portion of the transmission network receives payment for a cross-border export. Alternatively, if a Canadian affiliate of a U.S. parent company owns an electricity generation, transmission, or distribution facility in Canada, services provided by that facility constitute sales through a foreign affiliate. Cross-border trade in electricity is feasible only between contiguous countries, and affiliate transactions may be subject to significant regulatory oversight. Therefore, the degree to which cross-

¹ For the purposes of this chapter, electricity generation is considered to be a service activity, rather than a manufacturing process. However, there is no international consensus regarding the classification of this activity.

border or affiliate transactions predominate between any two given countries depends primarily on geographic and regulatory factors.

Trade in electricity is often hindered by the fact that certain segments of the industry are natural monopolies, while others are not. It is not economically feasible to duplicate transmission and distribution networks, making competition in these services difficult to implement. In the generation of electricity, however, competition is feasible but depends on the ability of third-party generators to obtain the rights to interconnect with network infrastructure, such as transmission and distribution lines, as well as with other energy infrastructure, such as natural gas pipelines and liquified natural gas terminals.²

Trends in Cross-Border Trade³

The United States conducts cross-border trade in electricity only with adjacent countries Canada and Mexico. Cross-border trade with Canada is much greater in terms of volume, due to the extent of integration between U.S. and Canadian electricity grids⁴ versus the much more limited number of transmission lines between the United States and Mexico.⁵ Imports from Canada totaled 42.9 billion kilowatt-hours (KWh) in 2005, while exports to Canada totaled 19.3 billion KWh, leaving the United States with net imports of 23.6 billion KWh. U.S. imports from Canada grew by 30 percent in 2005, in stark contrast to an average decline of 9 percent per year from 2000 through 2004. U.S. exports to Canada, on the other hand, declined by 14 percent in contrast to the 15 percent average annual growth rate from 2000 through 2004.⁶ The declining net imports from Canada, prior to the recent reversal of the trend, were partially due to increasing Canadian demand, with no corresponding increase in Canadian generation capacity.⁷ Additionally, due to the heavy reliance on hydro-power for electricity generation in Canada, net imports from Canada are partially explained by precipitation levels in Canada, which were historically low in 2003 and 2004, turning some of Canada's leading electricity producing provinces from net exporters to the United States into net importers.⁸ In contrast, 2005 saw historically high levels of precipitation in Canada,⁹ which resulted in increased hydro-electric production and net electricity exports to the United States.¹⁰

The United States was also a net importer of electricity from Mexico in 2005, importing 1.6 billion KWh while exporting 0.5 billion KWh, leaving the United States with net imports of 1.1 billion KWh. In 2005, imports from Mexico grew by 33 percent, which was substantially lower than the average annual growth rate of 99 percent from 2000 through 2004.¹¹ U.S. exports to Mexico also grew in 2005, by 13 percent, compared to an average annual decline in exports of 34 percent from 2000 through 2004. Growth rates over this period, however, varied substantially from year to year, again partially as a result of the

² Evans, *Liberalizing Global Trade in Energy Services*, 45.

³ Official data for affiliate sales are not available.

⁴ U.S. Department of Energy (USDOE), Energy Information Administration (EIA), "Country Analysis Brief: Canada."

⁵ USDOE, EIA, "Country Analysis Brief: Mexico."

⁶ USDOE, EIA, "U.S. Electricity Imports from and Electricity Exports to Canada and Mexico."

⁷ Canadian National Energy Board, *Canadian Electricity Exports and Imports*, 10.

⁸ Canadian National Energy Board, *Outlook for Energy Markets 2005–2006*, 3.

⁹ Environment Canada, "Temperature & Precipitation in Historical Perspective."

¹⁰ Statistics Canada, "Energy Supply and Demand, by Fuel Type."

¹¹ The use of this average rate for comparison purposes, however, is inadvisable because imports started from a relatively low base in 2000.

rather small base. As a result of these trends, the United States turned from a net exporter of electricity to Mexico from 2000 through 2002 to a net importer from Mexico since then.¹² The steady increase in imports from Mexico is largely due to the construction of several electricity generation facilities in Mexico near the U.S. border, which were built specifically for the export market. Several private companies have been issued permits by the Mexican government to build additional export oriented plants totaling 2.2 billion KW capacity. Consequently, growth in imports from Mexico is expected to continue.¹³

Globally, 3 percent of electricity generated in 2004 was exported.¹⁴ This has remained largely unchanged from 2000. Global exports of electricity increased by 1 percent in 2004, down from a 4 percent average annual increase from 2000 through 2003. European countries accounted for over half of worldwide electricity trade,¹⁵ and 9 percent of all electricity generated in European countries was exported in 2004. Countries within the former Soviet Union, Africa, and Central and South America exported roughly 6 percent of total electricity generated, while countries in North America, the Middle East, and the Asia and Oceania region exported 1 percent or less of total electricity generated. This share has remained essentially unchanged since 2000 for Europe, Central and South America, North America, the Middle East, and the Asia and Oceania region. The share exported has increased for countries in the former Soviet Union and Africa.¹⁶

Figure 6.1 shows the largest importing and exporting markets for electricity. In addition to the importance of intra-European trade, and U.S.-Canada bilateral trade, this figure also highlights the high volume of electricity trade between Paraguay, which exported 87 percent of the electricity it generated in 2004, and Brazil, which jointly control the largest hydroelectric facility in the world.¹⁷

Competitive Conditions in the Global Electricity Services Market

Worldwide, electric utilities generated 16,599 billion kilowatt hours of electricity in 2004, up 5 percent from 2003. From 2000 through 2003, the annual growth rate of electricity generation averaged 3 percent,¹⁸ about the same as global GDP growth over the same period.¹⁹ Recent years have witnessed Asia and Oceania's steadily increasing share of total global generation. The region's share of global production increased from 27 percent in

¹² USDOE, EIA, "U.S. Electricity Imports from and Electricity Exports to Canada and Mexico."

¹³ USDOE, EIA, "Country Analysis Brief: Mexico."

¹⁴ Latest year of available data.

¹⁵ Including intra-EU trade.

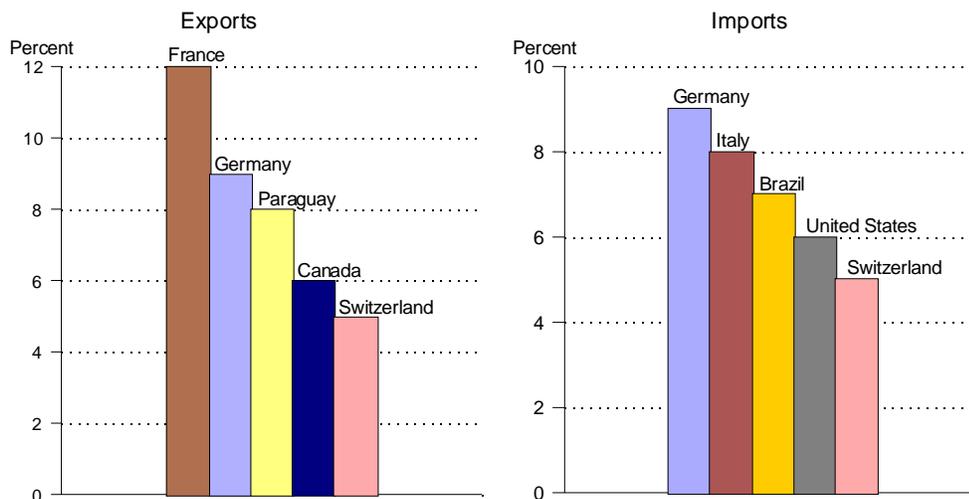
¹⁶ USDOE, EIA, "International Electricity Exports, All Countries, 1980–2004" and "Net Electricity Generation, All Countries, 1980–2004."

¹⁷ USDOE, EIA, "Country Analysis Brief: Paraguay/Uruguay."

¹⁸ USDOE, EIA, "International Electricity Generation Tables."

¹⁹ World Bank, *World Development Indicators Online*.

Figure 6.1 Top electricity services importers and exporters, share of world, 2004



Sources: U.S. Department of Energy (USDOE), Energy Information Administration, (EIA) *International Electricity Exports, All Countries, 1980-2004*, July 7, 2006 and USDOE, EIA, *International Electricity Imports, All countries, 1980-2004*, July 7, 2006.

2000 to 31 percent in 2004, wresting world leadership from North America, whose share declined from 31 percent to 29 percent.²⁰ The share of world production also dropped in Europe from 22 to 21 percent, but remained constant in all other regions, including the former Soviet Union with 8 percent, Central and South America with 5 percent, and the Middle East and Africa with 3 percent each.²¹

Tables 6.1 and 6.2 report the largest global and U.S. electric utilities, respectively. The top 10 global electric utilities in terms of operating revenue were all in Europe or Asia as of 2005, with the top four all located in Europe. In the United States, each of the largest electric utilities is dominant in its own geographically distinct region.

Fueled in part by strong corporate profits and legal efforts by the European Union (EU) to create a common electricity market, several large international mergers have been proposed recently, which could dramatically change the international rankings of the largest electric utilities. These attempts have sparked opposition in some cases, most notably in France, where the government intervened in an attempt to prevent Enel, an Italian electricity firm, from taking over French energy giant Suez. In addition, the Spanish government has intervened to attempt to block the takeover of its largest electricity firm, Endesa, by German rival E.On.²²

²⁰ These trends were primarily driven by China, whose share of world production increased from 9 percent to 13 percent, and the United States, whose share of world production dropped from 26 percent to 24 percent.

²¹ USDOE, EIA, "Net Electricity Generation, All Countries, 1980–2004."

²² *Economist*, "To the Barricades."

Table 6.1 Top 10 world electric utility companies, by operating revenue, 2005 (millions of U.S. dollars)

Company	Country	Revenue
E.ON AG	Germany	70,102
Electricite de France SA - EDF	France	62,187
Suez	France	50,075
RWE AG	Germany	49,372
Tokyo Electric Power Co.	Japan	44,538
Enel SPA	Italy	40,180
Gestore Del Sistema Elettrico - GRTN S.P.A.	Italy	28,215
RAO Unified Energy System of Russia	Russia	26,647
Korea Electric Power Corp.	Korea	25,153
The Kansai Electric Power Co. Inc.	Japan	21,856

Source: Bureau Van Dijk, *Orbis database*, accessed February 8, 2007.

Table 6.2 Top 10 U.S. electric utility companies, by operating revenue, 2005 (millions of U.S. dollars)

Company	Revenue
Dominion Resources, Inc.	18,209
Constellation Energy Group, Inc.	17,195
Duke Energy Corp.	16,746
Exelon Corp.	15,361
Southern Co.	13,596
Public Service Enterprise Group, Inc.	12,782
American Electric Power Co., Inc.	12,478
Edison International	12,246
FirstEnergy Corp.	12,207
FPL Group, Inc.	12,132

Sources: Edison Electric Institute, "EEI Profiles and Ranking of U.S. Shareholder-Owned Electric Companies," May 2006, 113 and Bureau Van Dijk, *Orbis database*, accessed February 8, 2007.

As acknowledged by President Bush in his State of the Union address,²³ there is growing public concern about the environmental effects of increasing worldwide energy production as well as its volatile and generally increasing price.²⁴ The debate regarding climate change has generated particularly strong concern regarding the carbon dioxide released by burning

²³ President George W. Bush, State of the Union address, January 23, 2007.

²⁴ USDOE, EIA, "International Electricity Price and Fuel Cost Tables." For instance, from 2000 through 2005, electricity prices per household increased by 15 percent in the United States, 43 percent in Mexico, and 39 percent in the United Kingdom.

fossil fuels to produce electricity. Policymakers have developed several international efforts, such as the European Emissions Trading Scheme (ETS), to curtail these emissions. The ETS aims to induce reductions by capping emissions, allocating carbon allowances to individual generators, and allowing firms to trade these allowances. Theoretically, by developing a market-based cost for carbon dioxide emissions, electricity generated from high-emissions sources becomes relatively more expensive while electricity generated from low-emissions sources becomes relatively less expensive. This creates trading opportunities for countries with different capacities to produce clean energy.²⁵ However, analysts have raised questions regarding the effectiveness of the ETS. In particular, carbon allowances are considered to be overly generous and may depress the price of allowances, thus decreasing the incentives to switch technology. In addition, the ETS has a relatively short 3 year time horizon that may constrain investment decisions.²⁶

According to U.S. industry sources, electric utilities are ambivalent about the adoption of national legislation regulating the production of carbon dioxide in the United States.²⁷ On the one hand, the imposition of caps on the production of carbon dioxide may increase the costs of electricity production because of the need to install new technology or switch to a less-carbon-intensive fuel, if possible. However, many in the industry state that some sort of national legislation regulating the production of carbon dioxide is inevitable because of growing concerns from the public regarding climate change. Uncertainty as to the U.S. government's policy response to such concerns makes investment decisions more difficult. Additionally, sources favor a national policy regulating carbon dioxide emissions rather than a patchwork of state and regional level policies that appear to be developing in lieu of a national policy.

The costs and supply of certain fossil fuels used as inputs in the production of electricity have shown a significant amount of volatility in recent years. For instance, the average price of natural gas for electricity producers increased by 39 percent from 2000 through 2004 (a period during which the average price of electricity rose by 12 percent).²⁸ Certain EU member states, which are heavily dependent on Russian natural gas, raised objections when in January 2006, following a price dispute with the Ukrainian government, the Russian state-owned energy giant Gazprom temporarily halted the supply of natural gas to Europe via Ukraine. This route accounts for 20 percent of the EU gas supply.²⁹ Similarly, Brazil, which imports a significant amount of its natural gas from Bolivia and is heavily involved in natural gas extraction in the country as well, faced uncertainties after the nationalization of the Bolivian natural gas industry in May 2006.³⁰

The combination of supply and environmental concerns has produced pressure in many countries to develop a greater reliance on domestically available energy inputs. For certain countries, where supply concerns outweigh environmental concerns, there is interest in more coal-generated electricity, as many countries have relatively abundant supplies of coal. For instance, China, which is already the second largest producer of electricity in the world, increased its generation output from conventional thermal electricity generation plants by over 217 billion kilowatt-hours in 2004, an increase of 15 percent.³¹ At the same time, many

²⁵ Point Carbon, *Carbon 2006: Towards a Truly Global Market*.

²⁶ *Economist*, "Gaming Gases."

²⁷ Industry officials, interview by Commission staff, Miami, FL, April 24–26, 2006.

²⁸ USDOE, EIA, "International Electricity Price and Fuel Cost Tables."

²⁹ BBC News, "Ukrainian Gas Row Hits EU Supplies."

³⁰ BBC News, "Bolivia Gas Under State Control."

³¹ USDOE, EIA, "Net Electricity Generation, All Countries, 1980–2004."

countries are turning increasingly to renewable sources of energy—a move which decreases dependence on foreign energy inputs while addressing environmental concerns by producing very low or no emissions.

Worldwide, renewable electricity has experienced rapid growth. Excluding hydro power, worldwide generation of electricity from renewable sources increased by 38 percent from 2000 to 2004, substantially higher (albeit from a much lower base) than the growth rate of electricity from conventional thermal sources, which increased by 18 percent over the same period. Growth in generation from renewable energy was especially strong in several countries such as Germany, where production more than doubled over this period, and Spain, where production more than tripled.³² According to industry sources, this growth has been driven by the decreasing costs of generating power from renewable sources as technologies mature, and by governmental support programs in certain countries. In the United States, for instance, industry sources see state-level renewable portfolio standards³³ as being a key driver in the development of renewable generation capacity.³⁴ In Germany, however, the rapid growth in solar-generated capacity is attributed to legislation such as the 100,000 Solar Roofs Program in which business and residential customers may sell solar-generated power back to the grid for a relatively high fixed rate, and receive low-interest loans for installation costs.³⁵

The growth of renewable electricity generation has significant trade implications for electricity services. Countries and firms that began producing relatively early have developed an expertise and comparative advantage in the generation of electricity from a particular renewable source. Firms that gain domestic experience in producing energy from renewable sources are often able to compete successfully for projects abroad. For instance, Denmark, which has been generating electricity from wind for over 20 years, has developed the world's largest wind industry, with its firms operating throughout the world.³⁶ Similarly for solar power, German and Japanese firms, having gained domestic experience, control a large share of the world solar market.³⁷ Thus, as demand for electricity from renewable sources grows as a result of consumer interest and as more countries adopt policies designed to encourage its use, trade and investment opportunities for renewable energy services firms originating in countries with long-standing renewable energy policies are likely to grow.

WTO Members' Positions on Electricity Services in WTO Trade Negotiations

Negotiations regarding trade in electricity have been complicated by the lack of an international consensus on how to classify the industry. Certain countries consider the generation of electricity a good, while others consider it a service. Transmission and distribution are considered services by most countries. However, the WTO Services Sectoral Classification List (W120) does not include a listing for these categories, but rather includes

³² Ibid.

³³ USDOE, "States with Renewable Portfolio Standards." Renewable Portfolio Standards are standards in which a state mandates that a certain percentage of electricity generated within a state is to come from renewable sources by a certain date. Over 20 U.S. states currently have such regulations in place.

³⁴ Industry official, interview by Commission staff, Washington, DC, June 20, 2006.

³⁵ U.S. International Trade Commission, *Renewable Energy Services: An Examination of U.S. and Foreign Markets*, 5-9.

³⁶ Danish Wind Industry Association, "Did You Know?"

³⁷ USITC, *Renewable Energy Services: An Examination of U.S. and Foreign Markets*, 9-2.

a listing for ‘services incidental to energy distribution.’ It is unclear whether the latter category includes energy distribution and transmission services themselves or only incidental services such as metering and billing. As a consequence, only eight countries scheduled commitments on ‘services incidental to energy distribution’ during the Uruguay Round, and two of these countries specified that their commitments applied only to consultancy services.³⁸

In response to the classification issue, several WTO members including the United States, Canada, the European Union, Japan, and Venezuela have met in order to work out proposals for new guidelines or possibly a new classification system for the scheduling of energy services commitments. Certain countries such as Japan have suggested that a new classification system should be devised in order to facilitate energy services negotiations, while other countries such as Canada have stated that the current classification system is sufficient.³⁹ In its initial General Agreement on Trade in Services offer presented at the Doha Round, Norway included draft commitments on wholesale and retail sales of electricity, but due to the absence of similar offers by others, stated in its revised offer that these proposed commitments would be withdrawn unless other countries reciprocated.⁴⁰

³⁸ WTO, Council for Trade in Services (CTS), “Energy Services: Background Note by the Secretariat,” September 9, 1998.

³⁹ WTO, CTS, “Communication from Canada: Initial Negotiating Proposal,” submitted March 14, 2001 and “Communication from Japan: Negotiating Proposal,” submitted October 4, 2001.

⁴⁰ WTO, “Norway: Revised Offer,” June 28, 2005.

CHAPTER 7

Health Care Services

Summary

The United States is the world leader in basic and specialty health care services. U.S. cross-border exports of health care services are much greater than cross-border imports, due in part to medical tourists who visit the United States seeking treatment at prestigious specialty clinics and hospitals. Sales by affiliates of U.S. firms in foreign markets, however, are lower than purchases by U.S. customers from affiliates of foreign firms. This is a reflection of the difficulty U.S. firms sometimes face abroad due to national health care policies and safety concerns related to health provision, which often create impediments to foreign market entry.¹

The U.S. health services industry has demonstrated strong growth in recent years. However, similar to many developed countries, the United States faces escalating health care costs due to factors such as low productivity growth, increased costs of litigation, a large number of uninsured patients, and an aging population. In response to rising costs, the U.S. health care services industry has launched a number of initiatives seeking to enlarge or create new revenue streams. These initiatives would leverage U.S. reputation and knowledge to export telemedicine; promote inbound medical tourism; create new programs to address demographic trends, such as establishing assisted living and retirement facilities; and increase presence in foreign markets through partnerships and investment.

Introduction

International trade in health care services encompasses medical and other health service transactions between residents and nonresidents. Health care services are general or specialized medical care such as diagnostic services; surgery; specialty treatments; nursing care; rehabilitation and health-related personal care; home health care; dental services; kidney dialysis; ambulance and helicopter transport services; blood and organ banks; and blood analysis and clinical testing. Providers of health care services include hospitals; nursing and residential care facilities; offices of physicians, dentists, and other health practitioners; home health care service providers; outpatient care centers; other ambulatory health care service providers; and medical and diagnostic laboratories.

Trade in health care services occurs in various ways. U.S. cross-border exports of health care services principally occur when foreign consumers receive medical treatment in the United States. This includes instances in which foreign tourists receive care after becoming ill or suffering injury while in the United States, as well as instances in which foreign consumers visit the United States for the express purpose of receiving medical care. Exports can also entail the provision of medical advice or diagnostics through international electronic communication systems (i.e., telemedicine) or postal services (e.g., laboratory diagnostics), as well as the provision of health services by U.S. medical professionals outside the United

¹ Adlung and Carzaniga, "Health Services under the General Agreement on Trade in Services," 356.

States.² Health care services can also be provided through U.S.-owned affiliates established in a consumer's home market.

U.S. imports of health care services occur when U.S. citizens receive medical treatment abroad or medical advice from practitioners abroad via telemedicine. Imports also include treatment provided to U.S. citizens by a large number of foreign-born and foreign-educated physicians and nurses who reside in the United States on a temporary basis, as well as transcription and diagnostic support services provided to U.S. facilities by foreign firms. Health care services are also provided to U.S. consumers by foreign-owned affiliates established in the United States.

Trade Trends

Cross-Border Trade

In 2005, U.S. cross-border exports of health care services totaled \$2.0 billion, an increase of 18 percent from 2004. This growth is six times the average annual growth of 3 percent experienced from 2000 through 2004 (figure 7.1). Although U.S. cross-border exports of health care services have historically mirrored trends in U.S. tourist admissions,³ this relationship was significantly weaker in 2000–2004 as health care services exports rebounded from temporary post-September 11 decreases sooner than did tourism exports.⁴ This trend could indicate that the U.S. health care industry has enjoyed some success in enticing foreign individuals to enter the United States for the express purpose of receiving medical treatment.⁵

U.S. cross-border imports of health care services increased by 10 percent in 2005, to \$203 million. The pace of growth in 2005 was more than double the average annual growth rate of 4 percent from 2000 through 2004.⁶ Recent growth is likely fueled not only by the increased provision of medical treatment to U.S. citizens abroad by foreign providers, but by offshoring support services, such as medical transcription.

Affiliate Transactions

Affiliate transactions are common means of providing health care services to foreign consumers, due in part to the need for continuous proximity in the provision of certain services. Affiliate establishment is often a method of expanding into countries where national public health policy results in barriers to the cross-border provision of medical services.

² U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business* 86, no. 10, 40. Services by medical professionals outside their home country are only included in cross-border trade data when the health services provider is self-employed and a nonresident of the host country.

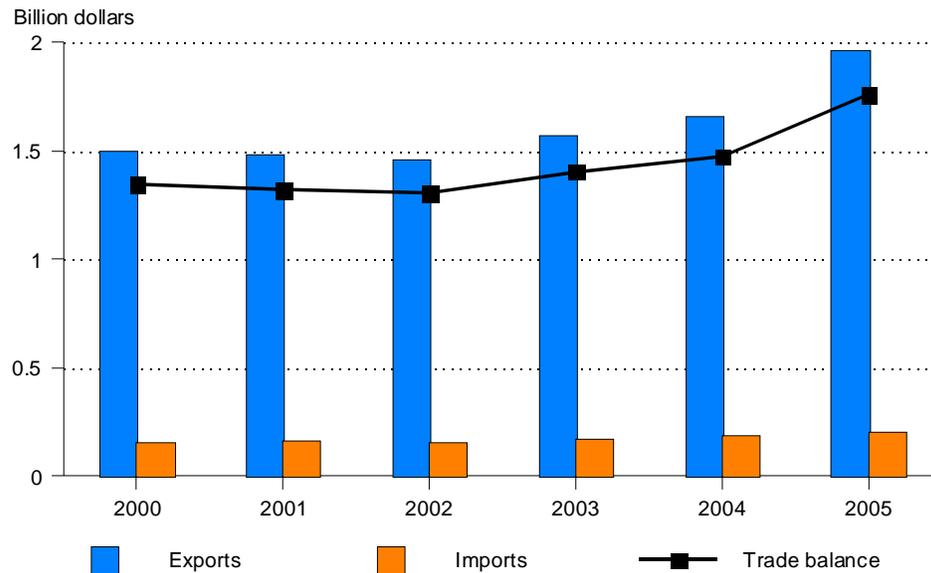
³ From 1992 through 2005, the correlation coefficient for exports of health care and tourism services was 0.78. A coefficient of 1.0 would indicate perfect correlation.

⁴ From 1992 through 2000, the correlation coefficient for exports of health care and tourism services was 0.97; from 2000 through 2005, the correlation coefficient was 0.5.

⁵ Greico, *2005 Annual Flow Report*. Foreign individuals temporarily visiting the United States for pleasure or medical treatment both enter under either a B-2 tourist nonimmigrant visa or, if from qualifying countries, the visa waiver program.

⁶ USDOC, BEA, *Survey of Current Business* 86, no. 10, 43.

Figure 7.1 Health and medical services: Cross-border trade, 2000–2005



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, 10, 42–43.

U.S. parent firms’ foreign affiliate sales of health care services to foreign persons continued to increase slowly in 2004, growing by 0.6 percent to \$1.4 billion.⁷ Growth in 2004 was slower than the average annual growth rate of 31 percent from 2000 to 2003. Earlier growth was likely the result of increased or new direct investment by U.S. health care firms in foreign markets, such as Universal Health Services’ acquisition of an 80 percent stake in France’s largest hospital management company, Sante Finance, in March 2001.⁸ Europe is the major market for sales by foreign health care affiliates of U.S. firms, accounting for \$1.2 billion (85 percent) of such sales in 2004.

U.S. consumers’ purchases from U.S. affiliates of foreign companies are higher than sales to foreign consumers by foreign affiliates of U.S. firms. Health care purchases from U.S. affiliates increased from \$5.9 billion in 2000 to \$6.7 billion in 2002, the latest year for which data are disclosed.⁹ Growth can likely be attributed to both medical inflation and the increasing profit incentives that the U.S. health care market presents to foreign companies, in combination with few regulations limiting market entry.¹⁰ As a result, the U.S. health care market provides investment opportunities for firms such as Allied Capital, a UK investment firm which purchased Housecall Medical Resources in 2002.¹¹ Most foreign-owned affiliates located in the United States appear to be European or Canadian.

⁷ Data for 2004 are the most recent available from the BEA for sales of services by affiliates classified in the health care and social assistance industry.

⁸ Bureau van Dijk, *Zephyr database*.

⁹ USDOC, BEA, *Survey of Current Business* 83, no. 10, 117, and 85, no. 10, 76.

¹⁰ Frostin, “No End In Sight to Medical Inflation”; Docteur and Oxley, “Health-Care Systems: Lessons from the Reform Experience,” 37; and Dranove and Satterthwaite, “The Industrial Organization of Health Care Markets.”

¹¹ Bureau van Dijk, *Zephyr database*.

Competitive Conditions in the Global Health Care Services Market

Global private expenditures¹² on health care totaled \$1.4 trillion in 2003.¹³ The United States is the largest market for private health care services, accounting for \$870 billion, or 62 percent, of private expenditures in 2003 (table 7.1).¹⁴ European Union (EU) member states are also leading consumers of private health care services, altogether accounting for \$180 billion,¹⁵ followed by growing Asian markets, such as China, as discussed below.

From 2000 through 2003, the world health care market increased at an average annual rate of 5 percent, driven by increasing expenditures in leading markets. The pace of growth in China's market for health care services led all major countries, with private expenditures growing at an average annual rate of 14 percent, almost triple the world average.¹⁶ The increase in Chinese expenditures on health care services from \$37.7 billion in 2000 to \$55.7 billion in 2003 resulted, in part, from partial privatization of the industry. Such growth resulted from both increased volume of services provided, as well as higher prices charged by private providers. U.S. private expenditures on health care also increased more quickly than the world average, growing at an annual rate of 6 percent, in large part due to escalating costs and new procedures.¹⁷ Private health care expenditures also increased in Germany, France, and Japan, although more slowly than the world average.

The U.S. health care industry is the largest single sector in the U.S. economy in terms of expenditures¹⁸ and employment.¹⁹ U.S. private health care expenditures increased from 8 percent of the U.S. economy in 2000 to 9 percent in 2003.²⁰ Industry output increased by 8 percent in 2005, consistent with the trend from 2000 through 2004, when the annual growth rate averaged 7 percent.²¹ Home health care services demonstrated the fastest growth rate in 2005, at over 10 percent, followed by other ambulatory health care services, encompassing services such as emergency transportation or blood and organ banks, which increased by 8 percent.²² Growth in the home health care services sector is likely to

¹² World Bank, *World Development Indicators (WDI) Online*. Expenditure data are presented to characterize the global health services market due to the lack of consistent and comprehensive revenue data. Private expenditures include direct household (out-of-pocket) spending, private insurance, charitable donations, and direct service payments by private corporations on health care services.

¹³ Data for 2003 are the most recent available from the World Bank, *WDI Online*.

¹⁴ World Bank, *WDI Online*.

¹⁵ Statistic is calculated including the EU-15 countries (Belgium, the Netherlands, Luxembourg, France, Italy, Germany, Denmark, Ireland, the United Kingdom, Greece, Portugal, Spain, Austria, Finland, and Sweden).

¹⁶ U.S. International Trade Commission (Commission) staff calculations based on statistics from World Bank, *WDI Online*.

¹⁷ Commission staff calculations based on statistics from World Bank, *WDI Online*.

¹⁸ U.S. Department of Health and Human Services, "NHE Summary Including Share of GDP, CY 1960–2005" and USDOC, BEA, National Income and Product Accounts Data, tables 1.5.6 and 2.3.6.

¹⁹ Mergent Online, *The North America Healthcare Sectors*, 11.

²⁰ Commission staff calculations based on World Bank, *WDI Online*.

²¹ Commission staff calculations were based on BEA Industry Economic Accounts data, which utilize the North American Industry Classification System 2002 codes, segmenting the health services industry into: Offices of physicians, dentists, and other health practitioners; Home health care services; Other ambulatory health care services; Hospitals; and Nursing and residential care facilities.

²² Commission staff calculations based on BEA Industry Economic Accounts data.

Table 7.1 Top 10 national private health care expenditures, 2003

Country	Expenditures (billions of U.S. \$)	Share (%)
United States	870	62.1
Japan	72	5.1
China	56	4.0
Germany	47	3.4
France	33	2.4
Brazil	26	1.9
Italy	23	1.6
Canada	23	1.6
Mexico	20	1.4
India	20	1.4
Rest of world	211	15.1
Total	1,401	100.0

Source: World Bank, *World Development Indicators database*, 2003.

continue, as demand for home nursing services and elderly care increases due to the aging of the U.S. population and growing preference for in-home care.

The health care sector's growing share of gross domestic product reflects, in part, escalating costs. One factor in the escalation of health care costs is the industry's slow productivity growth. Sectors with slow productivity growth, such as health care services, will experience increasing labor costs per unit of output as labor released from high productivity growth industries flows into low productivity growth industries.²³ Although the health services sector may achieve some productivity improvements from new technologies such as electronic health records, the continued need for one-on-one patient-doctor contact likely limits productivity gains. Recent research shows that a major component of the high cost of health care is the high price of labor.²⁴ Another major contributing factor in the escalation of health care costs is increased demand for expensive medical technologies such as coronary stents and defibrillators, and for orthopedic surgical procedures.²⁵ Other reasons underlying escalating health care costs include liability issues, which likely drive up malpractice premiums and increase the frequency of diagnostic tests as a precaution against lawsuits; a large uninsured population, some of whose inability to pay results in price increases for those who can pay; and demographic trends reflecting higher numbers of elderly patients in need of higher levels of health care.²⁶

²³ Baumol and Krueger, "An Interview with William J. Baumol," 216–7 and Heilbrun, "Baumol's Cost Disease," 91. Productivity is defined as physical output per hour of work. Baumol's model presupposes that output shares of high productivity growth industries and low productivity growth industries remain constant, and that wage growth in the latter matches wage growth in the former.

²⁴ Moody's, "Medical Services," 73.

²⁵ U.S. industry representatives and market analysts, personal and telephone interviews by Commission staff, United States, June 15–16 and October 11, 2006.

²⁶ PricewaterhouseCoopers, "The Factors Fueling Rising Healthcare Costs 2006"; U.S. Department of Health and Human Services, "Confronting the New Health Care Crisis"; and Moody's, "Medical Services."

As costs for both providing and consuming health care services have increased worldwide, governments have attempted to control costs in various ways. However, governments face a trade-off between lower prices and industry innovation. In countries with universal health insurance, such as Japan, governments generally control health care costs through price mandates. However, the impact of these measures can be diminished by provider responses. For instance, Japan's fee-for-service reimbursement system creates incentives to increase patient volume, resulting in a high level of doctor consultations per capita.²⁷ Germany's public health care system, by comparison, motivates greater use of expensive diagnostic testing.²⁸ In the United States, the prices of health care services provided under Medicaid, Medicare, and other government programs are set by the federal government. Expenditures under these programs equated to 45 percent of U.S. health care expenditures in 2004.²⁹ Attempts to introduce competition in publicly provided markets have not yielded the quality of service found in the private U.S. market, likely because of differences in market and regulatory conditions.³⁰ The U.S. health care market is characterized by relatively unregulated local competition in urban areas, in comparison to other health care markets, and a large supply of providers. Prices are negotiated by large purchaser organizations possessing the research resources and market power necessary to balance the asymmetry of information inherent in the health care market,³¹ and thereby attain lower prices.³²

In the face of escalating health care costs, increased purchasing power by insurance companies, and more active regulators, U.S. health care services providers have looked beyond U.S. borders to find new sources of revenue. However, entry to foreign health care markets is difficult. In particular, foreign providers are usually ineligible to receive the subsidies that enable competing domestic physicians to provide health care services at lower cost.³³ Firms may also face limitations on forms of establishment, which include restrictions on foreign ownership and educational or licensing requirements. Because U.S. health care firms have encountered difficulty in entering many foreign markets, they have focused on drawing health care consumers to the United States. The United States has historically been the top global destination for expert medical care. Foreign patients arrive seeking U.S. expertise in specialty care as well as the latest advances in medical technology.³⁴ These patients are generally wealthy, have no health insurance, and often come from developing countries where advanced care is not available.³⁵ Initially offered only through a few elite hospitals, such as the Mayo Clinic, a growing number of U.S. hospitals have established international health care programs specifically targeted to attract these foreign patients. For example, Philadelphia International Medicine is an organization that markets health care services to foreign patients and assists in coordinating their visits to nine leading Philadelphia hospitals. Medical tourism by these patients provides an increased stream of

²⁷ Hurst and Jeong, "An Assessment of the Performance of the Japanese Health Care System," 15, 40, 459.

²⁸ Busse and Riesberg, "Health Care Systems in Transition: Germany," 156.

²⁹ Insurance Information Institute, *The I.I.I. Insurance Fact Book 2007*, 11.

³⁰ Docteur and Oxley, "Health-Care Systems: Lessons from the Reform Experience," 36.

³¹ Dranove and Satterthwaite, "The Industrial Organization of Health Care Markets," 1095, and Pavignani, "Analyzing Disrupted Health Sectors: A Toolkit." Information asymmetry occurs because in the health care market information is not equally shared between providers and consumers. Providers possess medical information unavailable to health care consumers, thus giving providers influence over price and level of consumption.

³² Docteur and Oxley, "Health-Care Systems: Lessons from the Reform Experience," 37.

³³ Adlung and Carzaniga, "Health Services Under the General Agreement on Trade in Services," 356.

³⁴ Baker, Birnbaum, Geppert, Mishol, and Moyneur, "The Relationship Between Technology Availability and Health Care Spending."

³⁵ IBISWorld, *General Medical and Surgical Hospitals in the US*, 7.

income and decreases average overhead costs by increasing facility utilization rates for U.S. health care providers.

Medical tourism to destinations outside the United States is also increasing. Countries such as Thailand and India have begun promoting their health care services by advertising medical tourism packages, combining medical treatment with traditional vacation activities. Increased marketing of medical tourism has created demand for new support services. One such specialty support firm is IndUSHealth, a medical tourism agency that specializes in coordinating travel between the United States and India, and arranging medical appointments, accommodations, and interpreters by maintaining relationships with leading Indian hospitals and physicians.³⁶

Health care providers are also beginning to turn to telemedicine to reduce costs and increase revenues.³⁷ Initially, infrastructure limitations confined telemedicine to radiology or transcription services, such as the transcription of digital recordings by firms in South Africa or India. However, telemedicine increasingly enables trade in more complex health care services, such as making medical diagnoses and offering second opinions.³⁸ As a result, the U.S. health care industry is increasingly able to utilize telemedicine to both expand service provision to new consumers, as well as manage costs by offshoring support services to lower-cost locations. For example, Johns Hopkins International (a branch of U.S.-based Johns Hopkins Medicine) offers physician and patient consultations to the international community via a variety of methods, such as e-mail and video-conferencing.³⁹ A more extreme example of the capabilities of telemedicine is presented by a trans-Atlantic surgery performed in 2001. Dr. Jacques Marescaux, of the Institute for Research into Cancer of the Digestive System/European Institute of Telesurgery, directed robotic controls in New York to remove the gallbladder of a woman in France.⁴⁰

Health care services providers also recognize the opportunities presented by aging populations. Both U.S. and foreign health care service providers are offering alternatives to traditional care-giving arrangements, such as residential care facilities or family-provided care. For example, the U.S. industry has offered nursing home services on cruise ships and some foreign firms have established elder-care facilities in tropical locales.⁴¹ In both cases, service providers are able to offer competitive pricing as a result of lower overhead. For instance, tropical locales such as Central America offer lower cost-of-living and labor expenses. Cruise ships are designed to offer services such as housekeeping and meals, and staff-to-client ratios exceed those in the average nursing home, so offering nursing services on cruise ships can be cost effective.⁴²

The primary challenge facing the global health care industry is a growing provider shortage, forecast to affect the supplies of both physicians and nurses. Although the supply of health care workers is low worldwide, the ability of developed countries to recruit and attract

³⁶ IndUSHealth, "What Patients Often Ask Us."

³⁷ American Telemedicine Association, "Telemedicine, Telehealth and Health Information Technology," 6-7.

³⁸ Chanda, "Trade in Health Services," 35.

³⁹ Johns Hopkins International, "JHI Telehealth Programs," and Versweyveld, "Surgeons Perform Successful Near Real Time Telesurgery From New York on Patient in France."

⁴⁰ Merrell, "Telemedicine in Surgery" and Versweyveld, "Surgeons Perform Successful Near Real Time Telesurgery From New York on Patient in France."

⁴¹ *Economist*, "Till Death Us Do Part."

⁴² *Ibid.*

workers from poorer, developing countries, coupled with aging populations in developed countries, is expected to further exacerbate the current shortage in developing countries. In the United States, the economy is expected to experience a nationwide scarcity of health workers by the year 2020.⁴³ States with large rural populations, such as Alaska, are currently under-served by physicians, and shortages are expected in states with large elderly populations, such as Florida.⁴⁴ In an effort to address the approaching labor shortage, the United States has passed visa legislation⁴⁵ to facilitate the entry of foreign health care workers. In response, the American Nurses Association and other industry groups are lobbying for changes in the educational structure and in health care facilities in an effort to increase the supply of domestic health care workers.⁴⁶ Some U.S. health care facilities affiliated with medical schools have temporarily alleviated their employment difficulties by using staff recruited through international programs, such as partnerships with foreign nursing schools. For example, Johns Hopkins Medicine International has partnered with India's Apollo Hospital Group to facilitate the training of Indian nurses who wish to work in the United States.⁴⁷

WTO Members' Positions on Health Care Services in WTO Trade Negotiations

Under the General Agreement on Trade in Services (GATS), negotiations on trade in health care services occur in two sectors—medical and dental services (within the professional services sector), and hospital and other human health services (within the health related and social services sector). To date, few World Trade Organization (WTO) members have made offers under the GATS to liberalize either of these health and medical sectors. However, recent technological innovations in the health care field have expanded the potential scope of health services trade, which may yield GATS commitments in modes of delivery where the provision of health services was previously infeasible. For example, during the Uruguay Round few countries had the infrastructure to support telemedicine. As a result, a number of countries did not make commitments on cross-border supply for the two health care services sectors, citing a lack of technical feasibility. However, prior to the Doha round of negotiations, the United States noted that cross-border supply of health care services widely exists now as a result of the build-out of foreign communication systems, and urged WTO members to recognize this in their schedules.⁴⁸

⁴³ Johnson, "Doctors Predict Family Physician Shortage."

⁴⁴ Association of American Medical Colleges (AAMC), "Help Wanted: More U.S. Doctors" and "AAMC Statement on the Physician Workforce," 7.

⁴⁵ U.S. Library of Congress, *H.R. 1285, Nursing Relief for Disadvantaged Areas Reauthorization Act of 2005*.

⁴⁶ Kaiser Family Foundation, "Capital Hill Watch."

⁴⁷ Evans, "Help From India Inc.," 28, 30.

⁴⁸ WTO, Council for Trade in Services, "Communication From the United States: Health and Social Services," submitted October 20, 1998.

CHAPTER 8

Retail Services

Summary

The global retail services market grew by approximately 4 percent in 2005 to an estimated \$11.3 trillion, with the U.S. and European markets each representing about one-quarter of the total. The global industry remains fragmented, with the five largest retailing firms accounting for approximately 6 percent of the global market. Though new technologies increasingly provide for cross-border retailing, international trade in retail services is principally conducted through affiliates. In 2004, estimated retail services sales by foreign affiliates of U.S. parent firms and U.S. affiliates of foreign parents were approximately equal. From 2000 through 2004, sales by foreign affiliates of U.S. firms increased at a rate twice that of purchases from U.S. affiliates of foreign firms. Superstores such as Wal-Mart (U.S.), Carrefour (France), Metro (Germany), and Tesco (United Kingdom) continue to be the dominant players in the global market, and their share of the global market continues to grow at the expense of more specialized stores. Increased mergers and acquisitions activity among specialized retailers has been used to divest valuable real estate holdings, oftentimes purchased by expanding superstores, or to combine firms in order to build the scale economies necessary to compete with superstores. Multilateral negotiations on trade liberalization in retail services focus on the elimination of investment restrictions and the clarification of licensing procedures.

Introduction

Retailers serve as intermediaries between wholesalers or manufacturers, and consumers, who may be individuals, households, or businesses. The primary distributive service provided by retailers is the storage and display of a selection of goods in a manner and location accessible to consumers. The value of these distributive services is calculated as the difference between retailers' gross sales and the cost of goods sold.

Although international trade in retail services is increasingly taking place across borders, especially via the Internet, most international retailing transactions take place through foreign-based affiliates. For this reason, data collection agencies traditionally have focused solely on estimating and reporting affiliate transactions.

Official data on affiliate sales of retailing services capture only the value of services incidental to retailing, such as repair services,¹ rather than their distributive services. Consequently, official data understate affiliates' retailing transactions. In order to provide more comprehensive coverage of the industry, this chapter provides estimates of retailers' distributive services, such as merchandise handling, stocking, selling, and billing. The value

¹ U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business* 86, no. 10, 23. Other services incidental to retailing include assembly, installation, and maintenance; credit services; warranty services; promotion and advertising services; and delivery services.

of distributive services is estimated on the basis of official data on retailing margins and sales.²

Trends in Affiliate Transactions

In 2004, sales of goods and services by foreign-based retail affiliates of U.S. parent firms totaled \$128.2 billion.³ In combination with the U.S. Census Bureau's estimate that U.S. retail margins average 28 percent of sales, retail services provided by foreign affiliates of U.S. firms totaled an estimated \$35.9 billion (figure 8.1).⁴ Sales by U.S. firms' retail affiliates based abroad increased by 14 percent in 2004, slightly faster than the 12 percent average annual growth rate registered from 2000 through 2003.⁵ Much of the increased growth over the period 2001–4 was attributable to one U.S. company, Wal-Mart. Wal-Mart affiliates' sales over the period 2001–4 accounted for approximately 46 percent of total sales by foreign-based retail affiliates of U.S. firms.⁶ Wal-Mart affiliates' average annual rate of growth in sales over the period was 15 percent, exceeding the 11 percent growth rate for foreign-based retail affiliates overall. Wal-Mart and other large U.S. retailers have been expanding abroad in an effort to continue growth, as the domestic market for their stores approaches saturation. Furthermore, Wal-Mart asserts that the pace of expansion is necessary to attain the scale needed to conform to the company's business model as a discount retailer.⁷

Purchases of goods and services from U.S.-based retail affiliates of foreign parent firms totaled \$129.7 billion in 2004.⁸ Estimating U.S. retail margins as about 28 percent of sales, retail services provided by U.S.-based retail affiliates totaled an estimated \$36.3 billion.⁹ Purchases from U.S.-based retail affiliates increased by 7 percent in 2004, faster than the 4 percent average annual growth rate registered from 2000 through 2003. Recent growth is likely attributable to the continuing recovery of the U.S. economy where overall U.S. retail sales grew by over 6 percent in 2004, and expansion in the U.S. market by specialized European retailers, including H&M (Sweden) and Sephora (France).¹⁰ The size of the U.S. retail market is the primary attraction for foreign retailers in expanding affiliate networks.

² This estimate is meant to provide an approximation of the level of trade flows only. Data include both sales of distributive services and sales of services incidental to retailing, but also incorporate sales from non-retail activities for retail firms operating in secondary activities, and exclude retail sales by businesses whose primary business activity is in an industry other than retailing. Additionally, estimates of retailing margins for foreign and U.S. retail affiliates are assumed to be the same, based on industry analysis.

³ USDOC, BEA, *U.S. Direct Investment Abroad, Financial and Operating Data*, table III.F.3. Data do not include \$3.7 billion in sales by foreign retail affiliates of U.S. parents to U.S. buyers.

⁴ U.S. Census Bureau, *Annual Benchmark Report for Retail Trade and Food Services: January 1992 Through February 2005*, 49.

⁵ USDOC, BEA, *U.S. Direct Investment Abroad, Financial and Operating Data*, table III.F.3.

⁶ *Ibid.*, and Planet Retail, "Wal-Mart." Sales reported by Planet Retail are "Banner Sales," which include the value of taxes on goods sold. Values for total sales of affiliates reported by the USDOC do not include such taxes. As such, percentage estimates of individual retailers' market shares are biased upwards.

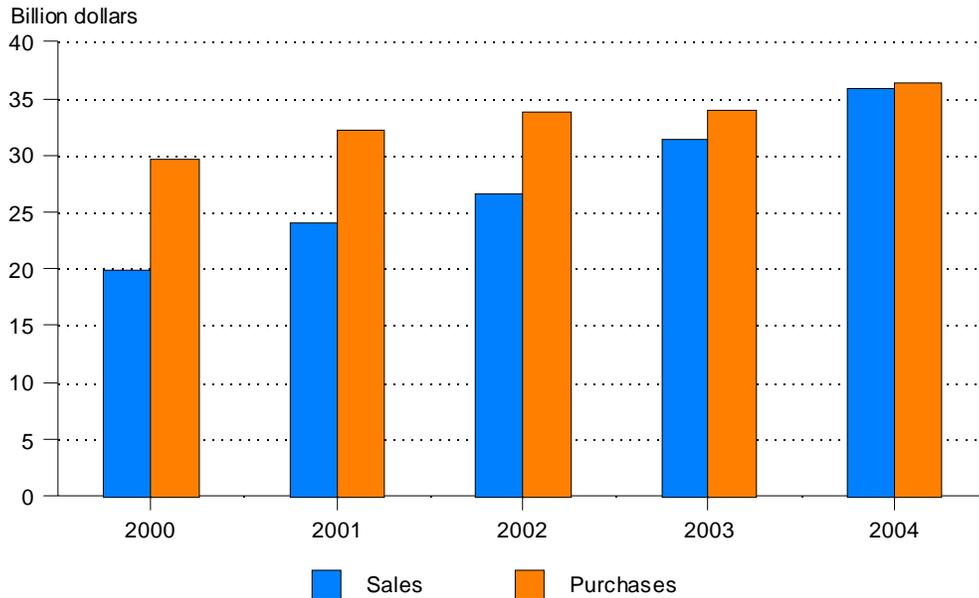
⁷ Industry representative, telephone interview by Commission staff, October 23, 2006.

⁸ USDOC, BEA, *Foreign Direct Investment in the U.S., Financial and Operating Data*.

⁹ U.S. Census Bureau, *Annual Benchmark Report for Retail Trade and Food Services: January 1992 Through February 2005*, 49.

¹⁰ U.S. Census Bureau, *Advance Monthly Sales for Retail and Food Services*; Hennes & Mauritz, AB, *Annual Report, 2005*, 29–31; and LVMH Group, *LVMH 2005 Annual Report*, 50.

Figure 8.1 Retail services: Sales by U.S. firms' majority-owned affiliates abroad, and purchases from foreign firms' majority-owned affiliates in the United States, 2000–2004



Sources: U.S. Department of Commerce (USDOC) Bureau of Economic Analysis, (BEA) U.S. Direct Investment Abroad, Financial and Operating Data, table III.F.3 2000–2004; USDOC, BEA, Foreign Direct Investment in the U.S., Financial and Operating Data; and U.S. Census Bureau, Annual Benchmark Report for Retail Trade and Food Services: January 1992 Through February 2005, 49.

A significant portion of total purchases from U.S.-based retail affiliates was attributable to a select group of European and Japanese parent firms. In 2004, affiliates of Dutch retailers accounted for the largest share of goods and services purchased from U.S.-based retail affiliates of foreign parents, as the affiliates of Koninklijke Ahold¹¹ accounted for \$48.0 billion, or approximately 37 percent of total purchases.¹² Affiliates of German retailers placed second, totaling \$18.5 billion, or 14 percent of total purchases from U.S.-based affiliates.¹³ Purchases from affiliates of German retailers Tengelmann¹⁴ and Aldi¹⁵ accounted for \$7.6 billion and \$7.4 billion, respectively.¹⁶ U.S.-based affiliates of Belgian firms placed third, as affiliates of Delhaize Group¹⁷ accounted for \$16.6 billion, or 13 percent of total purchases.¹⁸ Affiliates of Japanese retailers placed fourth, at \$13.4 billion, or 10 percent of the total, with affiliates of the Japanese retailer Seven & I¹⁹ accounting for \$12.4 billion.²⁰

¹¹ Koninklijke Ahold's U.S. affiliates include Giant and Stop and Shop, among others.

¹² USDOC, BEA, *Foreign Direct Investment in the U.S., Financial and Operating Data* and Planet Retail, "Ahold."

¹³ USDOC, BEA, *Foreign Direct Investment in the U.S., Financial and Operating Data*.

¹⁴ Tengelmann's U.S. affiliates include A&P, among others.

¹⁵ Aldi operates in the United States as Trader Joe's and under its own trademark.

¹⁶ Planet Retail, "Tengelmann" and Planet Retail, "Aldi."

¹⁷ Delhaize Group's U.S. affiliates include Food Lion, among others.

¹⁸ USDOC, BEA, *Foreign Direct Investment in the U.S., Financial and Operating Data* and Planet Retail, "Delhaize."

¹⁹ Ito-Yokado Group and Seven-Eleven merged in 2005 to create Seven & I. Seven & I's U.S. affiliates include White Hen and Seven-Eleven.

²⁰ USDOC, BEA, *Foreign Direct Investment in the U.S., Financial and Operating Data* and Planet Retail, "Seven & I."

Competitive Conditions in the Global Retail Services Market²¹

The global retail services market increased by approximately 4 percent to an estimated \$11.3 trillion in 2005.²² This exceeded the approximate 2 percent average annual real growth rate in retail services from 2000 through 2004.²³ Much of the increase in growth is attributable to historically low interest rates, which encouraged consumers to make purchases on credit.²⁴ Additionally, in recent years, increasing incomes in developing countries have stimulated global growth in retail sales.

In terms of revenue, the U.S. retailing market was the world's largest in 2003, with sales totaling \$2.4 trillion, or approximately one-quarter of the global market total.²⁵ The European Union (EU) was the second largest market, with sales of \$2.2 trillion in 2003.²⁶

Overall, the global retail industry is fragmented. In 2005, the five largest retailers accounted for approximately 5 percent of total worldwide sales (table 8.1).²⁷ The degree of fragmentation varies both geographically and by retail segment. For example, the top five retailers accounted for approximately 15 percent of U.S. retail sales in 2005.²⁸ By contrast, in India, the top five retailers accounted for approximately 2 percent of retail sales.²⁹ In 2005, thousands of franchised dealers, each with small nationwide market shares, constituted the \$8.2 billion U.S. motor vehicle dealers market,³⁰ whereas the top five grocers accounted for 71 percent of the \$255 million German grocery market.³¹

²¹ Data used in the analysis of global retail competitive conditions encompass total retail sales rather than estimates of retail margins. Such basis for analysis is necessary because firm-level data for the cost of goods sold are unavailable and margins at individual firms vary.

²² Economist Intelligence Unit (EIU), *World Consumer Goods and Retail Forecast: End to Easy Money*. Percentage increase estimates are adjusted for inflation and exchange rate fluctuations. The total size of market is based on sales from 60 reporting countries for which the EIU provides analysis.

²³ *Ibid.*, and EIU, *World Consumer Goods and Retail Forecast: Pastures New*.

²⁴ EIU, *World Consumer Goods and Retail Forecast: End to Easy Money*.

²⁵ U.S. Census Bureau, "Estimated Annual Retail and Food Services Sales by Kinds of Business: 1992 Through 2005" and EIU, *World Consumer Goods and Retail Forecast: End to Easy Money*. Data exclude motor vehicle and parts dealers.

²⁶ European Commission, *Eurostat*, "NACE Division 52: Retail Trade, Except of Motor Vehicles, and Motorcycles; Repair of Personal and Household Goods—output indicators" and EIU, *World Consumer Goods and Retail Forecast: End to Easy Money*.

²⁷ EIU, *World Consumer Goods and Retail Forecast: End to Easy Money* and Bureau van Dijk, *Orbis database*. The five largest global retailers are Wal-Mart, Carrefour, Metro, Home Depot (U.S.), and Tesco. Global retail sales in 2004 were \$10.5 trillion.

²⁸ U.S. Census Bureau, "Estimated Annual Retail and Food Services Sales by Kinds of Business: 1992 Through 2005" and Bureau van Dijk, *Orbis database*.

²⁹ Planet Retail database. This estimate includes only retailers in the grocery, drug, gasoline, and general merchandise categories; a universal sample of the Indian retail sector would likely find it even more fragmented.

³⁰ Datamonitor, *Global Automotive Retail*.

³¹ Planet Retail database.

Table 8.1 Top 10 foreign and U.S. retail services companies, by operating revenue, 2001–5 (millions of U.S. dollars)

Company name	Country	2001	2002	2003	2004	2005
Foreign						
Carrefour SA	France	61,807	72,650	89,353	100,396	89,077
Tesco PLC	United Kingdom	33,727	40,958	56,975	65,094	68,024
Metro AG	Germany	45,426	55,642	69,497	74,249	67,072
Koninklijke Ahold NV	Netherlands	48,023	65,733	70,811	60,763	52,492
Aeon Co. Ltd.	Japan	21,916	26,212	32,534	40,063	38,258
Seven & I Holdings Co. Ltd. ^a	Japan	24,888	28,391	32,514	34,616	33,642
Rallye SA	France	20,244	24,834	30,019	30,081	28,096
J Sainsbury PLC	United Kingdom	24,440	26,981	31,446	28,659	27,866
Coles Group Ltd.	Australia	12,487	14,571	18,071	22,736	25,184
Woolworths Ltd.	Australia	11,000	14,250	17,990	19,725	24,679
Total foreign		303,958	370,221	449,209	476,383	454,391
United States						
Wal-Mart Stores Inc.		205,823	231,577	258,681	288,132	315,654
Home Depot Inc.		53,553	58,247	64,816	73,094	81,511
Kroger Co.		50,098	51,760	53,791	56,434	60,553
Costco Wholesale Corp.		34,797	38,762	42,546	48,110	52,952
Target Corp.		39,826	37,410	42,025	46,839	52,620
Sears, Roebuck and Co.		34,180	29,352	23,253	19,843	49,124
Lowe's Companies, Inc.		21,714	26,112	30,838	36,464	43,243
Walgreen Co.		24,623	28,681	32,505	37,508	42,202
Albertson's LLC ^b		36,605	35,316	35,019	39,810	40,358
Safeway Inc.		34,301	34,917	35,727	35,823	38,416
Total U.S.		535,520	572,135	619,201	682,057	776,633

Sources: Bureau van Dijk, *Orbis database* and Economist Intelligence Unit (EIU), *World Consumer Goods and Retail Forecast: End to Easy Money*.

Note: Totals may not add due to rounding.

^aSales shown for Seven & I over the period 2001–4 are sales of Ito-Yakado Company, the largest of the corporations merged to create Seven & I in 2005.

^bAlbertson's was purchased by Supervalu in July 2006.

Recently, large superstores, including Wal-Mart (U.S.), Carrefour (France), Metro (Germany), and Tesco (UK), have transformed the global retail market, selling merchandise in multiple retail segments, such as clothing, housewares, and groceries at the expense of more specialized retailers.³² In the United States, for example, from 2000 through 2005, grocers' sales grew at an average annual rate of 2 percent and department stores' sales decreased at an average annual rate of 1 percent, while "other general merchandise stores," a category that includes superstores, grew at an annual average of 10 percent.³³ Worldwide, department stores' share of apparel and shoe sales fell from approximately 59 percent in 2000 to 48 percent in 2005, while food stores' share of food sales fell from 49 percent in 2000 to 43 percent in 2005.³⁴

Superstores have increased market share by competing on price through adeptness at utilizing scale economies and through technological advances in inventory management that lead to lower costs. Superstores' large networks enable them to negotiate for high-volume discounts from suppliers.³⁵ High volume purchasing also allows superstores to control their own supply chains, integrating various technologies to further reduce costs. Technologies include quick response systems that link retailers' point of sale scanners to vendors or distribution centers through electronic data interchange, allowing the retailer to order new supplies without delay once an item is sold, while avoiding costs associated with overstocking.³⁶ Superstores are also beginning to implement radio frequency identification (RFID), a substitute for bar coding, enabling closer tracking of inventory.³⁷ Superstores' implementation of inventory management technologies such as RFID provides a significant cost advantage relative to competing retailers in developing countries, where such technologies have not been widely implemented.³⁸

From the beginning of 2005, mergers and acquisitions (M&A) activity in the global retail market has been high. Total M&A activity in the 17 months from January 2005 through May 2006 was \$86.7 billion, whereas M&A activity from 2000 through 2004, a 60 month period, totaled \$51.0 billion.³⁹ M&A in the retail market can be divided into two segments: financial investments and strategic consolidations. Financial investments in the retail sector are generally short-term investments, involving restructuring and the sale of assets. Strategic consolidations are often mergers whereby companies can gain economies of scale, better enabling them to compete with superstores.

Recent financial investment in the retail sector has primarily occurred in the United States with private equity firms as purchasers. Acquisitions include Vornado Realty Trust, Kohlberg Kravis Roberts & Co., and Bain Capital's acquisition of Toys "R" Us (\$6.6 billion) in July 2005; Bain Capital's acquisition of Burlington Coat Factory Warehouse (\$2.1 billion)

³² EIU, *World Consumer Goods and Retail Forecast: End to Easy Money*. The size of superstores' individual retail operations varies, with most superstores operating multiple store formats, ranging from neighborhood markets/convenience stores to super-centers/hypermarkets.

³³ U.S. Census Bureau, "Estimated Annual Retail and Food Services Sales by Kinds of Business: 1992 Through 2005."

³⁴ Steidtmann, "Consumer Business Challenges: The Case for Going Global."

³⁵ Industry representative, telephone interview by Commission staff, September 26, 2006.

³⁶ Standard & Poor's, *Retailing: Specialty*, 11.

³⁷ RFID utilizes miniature microprocessors attached to store inventory, which communicate information along a magnetic field created by a "reader." The technology is already widely used in toll collection on U.S. highways.

³⁸ EIU, *World Consumer Goods and Retail Forecast: End to Easy Money*.

³⁹ Retail Industry Leaders Association (RILA) Panel Discussion, "Key Drivers Behind Recent Retail Acquisitions."

in April 2006; Leonard Green & Partners and private investors' acquisition of Sports Authority (\$1.3 billion) in May 2006; and Apollo Management's acquisition of Linens 'n Things (\$1.3 billion) in March 2006.⁴⁰ An impetus for these acquisitions was the enhancement of the acquired firms' values by selling off some real estate holdings.⁴¹ Superstores were among the ultimate purchasers of divested properties.⁴²

Strategic consolidation activity has also been significant since early 2005. In the grocery sector, Supervalu (U.S.) purchased Albertsons (U.S.) for \$17.4 billion in July 2006. In the general merchandise sector, Federated Department Stores (U.S.) purchased May Department Stores (U.S.) for \$16.3 billion in June 2005 and Kmart (U.S.) purchased Sears (U.S.) for \$10.6 billion in March 2005.⁴³ Finally, in the convenience store sector, Seven-Eleven (Japan) purchased Ito-Yakado Company (Japan) for \$12.9 billion in September 2005, creating Seven & I Holdings (Japan).⁴⁴

India and China have recently moved to liberalize retail services. Such liberalization is likely to have a significant impact on the future of international trade in retail services, as the relative population size and rapid economic development of both these countries suggests significant market potential. Since February 2006, India has allowed foreign companies to own up to 51 percent of single-brand stores,⁴⁵ though the other portions of the retail sector, including the type of general merchandising associated with superstores, remains closed to foreign participation.⁴⁶ China, as part of the gradual liberalization negotiated in its World Trade Organization (WTO) accession agreement, has continued opening its retail sector to trade. For instance, beginning in August 2005, previously established nonretail foreign-invested enterprises, such as manufacturers, received permission to commence retail operations. In another development, direct sales were legalized in China beginning in December 2005.⁴⁷

WTO Members' Positions on Retail Services in WTO Trade Negotiations

Retail services negotiations have proceeded in connection with the Doha Round, though there have been no recent negotiating proposals. Eight WTO members have tabled communications expressing interest in further liberalizing the retail sector.⁴⁸ Communications have focused on removing barriers to foreign direct investment and

⁴⁰ Standard & Poor's, *Retailing: Specialty*, 4.

⁴¹ RILA Panel Discussion, "Key Drivers Behind Recent Retail Acquisitions."

⁴² *Ibid.*

⁴³ K-Mart's purchase of Sears created Sears Holding Corporation.

⁴⁴ Bureau van Dijk, *Zephyr database* and Planet Retail database.

⁴⁵ Single-brand stores sell goods exclusively of one brand; examples include Coach (U.S.), Polo Ralph Lauren (U.S.), and Adidas (Germany).

⁴⁶ Standard & Poor's, *Retailing: Specialty*, 9.

⁴⁷ US-China Business Review, "Moving Forward on Distribution." Direct sales occur when products are sold through personal explanations, frequently in the customer's home. Major direct sales companies include Amway (U.S.), Mary Kay (U.S.), and Chilitina (Taiwan).

⁴⁸ Specifically, these are Australia, Canada, Colombia, the European Union, Korea, the countries of Mercosur, Switzerland, and the United States. These members submitted communications from 2000 through 2002 concerning the retail sector.

improving the transparency of licensing procedures, particularly in markets using economic needs tests.⁴⁹

At present, many WTO members restrict foreign equity participation, requiring foreign retailers entering their markets to form a joint venture with a domestic partner, oftentimes as a minority shareholder. Some foreign retailers object to joint venture requirements, indicating that such ventures reduce their control over business decisions and necessitate sharing proprietary business information. Consequently, several member countries propose ending such restrictions.⁵⁰

The establishment of retail outlets in most economies requires obtaining a business license, and in many countries the domestic processes by which applicants are granted or denied approval are opaque. Unless these internal processes are made more transparent, it can be unclear whether foreign and domestic applicants are receiving equal treatment, as required under the WTO principle of national treatment.⁵¹ Furthermore, many members note that lack of transparency is particularly difficult to monitor in countries where licenses are granted only after an economic needs test has been performed. For this reason, some countries support the abolition of economic needs testing.⁵² The principal opponent of abolition is the EU, which holds that economic needs testing is legitimate for determining the location and size of proposed department stores.⁵³

⁴⁹ Organization for Economic Cooperation and Development (OECD), *Assessing Barriers to Trade in Services*, 4. Economic needs tests are designed to safeguard a country's domestic industry. These tests analyze the potential impact of additional market participants and determine, based on public policy objectives, if market access will be granted.

⁵⁰ WTO, Council for Trade in Services - Special Session (CTS-SS), "Communication from Australia: Negotiating Proposal," submitted March 7, 2002; "Communication from Canada: Initial Negotiating Proposal on Distribution Services," submitted March 14, 2001; "Communication from Colombia: Distribution Services," submitted November 27, 2001; "Communication from Korea: Negotiating Proposal for Distribution Services," submitted May 11, 2001; "Communication from Mercosur: Distribution Services," submitted May 4, 2001; and "Communication from the United States: Distribution Services," submitted December 18, 2000.

⁵¹ Discussion of this aspect of licensing is found in the communications from Australia, Canada, Colombia, Korea, and Switzerland.

⁵² Notable proponents include Australia, Colombia, and the countries of Mercosur.

⁵³ WTO, CTS-SS, "Communication from the European Communities and their Member States: GATS 2000: Distribution," submitted December 22, 2000.

CHAPTER 9

Securities Services

Summary

U.S. cross-border exports and foreign affiliate sales of securities services have been on the rise in recent years, following declines resulting from weakened financial markets in 2001. Trade data for 2005 indicate that U.S. firms are benefitting from stronger global debt and equity markets by capturing new business abroad. In fact, global stock market capitalization in 2005 reached record highs, enabling firms to grow through mergers and acquisitions (M&A) and expanded stock offerings, while encouraging investors to increase participation in financial markets. As a result, securities services firms—primarily investment banking and brokerage firms, and asset management firms—experienced a higher volume of business. U.S. firms are highly competitive in the global market, and as such experienced substantial gains both domestically and abroad in 2005.

The financial services industry, to include securities services, generally faces few trade barriers in developed countries where markets are mature. However, in emerging markets where firms increasingly seek new growth opportunities, trade barriers are more prevalent. The most common obstacles to market entry tend to be equity limitations, joint venture requirements, and limitations on the types of services foreign firms are allowed to provide. Negotiations in the Doha Round are focused on eliminating many such barriers.

Introduction

For the purposes of this discussion, securities-related services include brokerage services; securities lending services;¹ securities clearance and settlement services; securities trading services; private placements;² and securities underwriting services. Such services are typically performed by investment banking and brokerage firms, and asset management firms. These services can be traded across borders or sold through affiliates, though the latter is the predominant mode by which trade occurs.

Trade Trends

Cross-Border Trade

In 2005, U.S. cross-border exports of unaffiliated securities services³ amounted to \$8.5 billion, while imports totaled \$1.9 billion, resulting in a \$6.6 billion surplus (figure 9.1).⁴ Exports in 2005 increased at the same 9 percent rate as the average annual

¹ Fitch, *Dictionary of Banking Terms*, 172. A securities loan is made by broker-dealers, banks, or other organizations to finance the purchase of securities.

² Ibid., 481–482. A private placement is the sale of an entire issue of securities to a small group of investors.

³ Official data are not reported for cross-border trade of securities services with affiliates.

⁴ U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business* 86, no. 10, 30.

growth rate from 2000 through 2004, marking the fourth consecutive year of growth. U.S. imports in 2005, up 20 percent, increased for the second consecutive year, reversing the 10 percent average annual decrease from 2000 through 2004. The increase in exports in recent years was largely attributable to expanded securities underwriting and private placement services for foreign securities issued in the United States, while the rise in imports reflected growth in securities lending services and increased trading in foreign securities.⁵ While cross-border trade data are not reported by trading partner for securities services, the top five markets for U.S. exports of all financial services⁶ in 2005 remained the United Kingdom, Bermuda, Canada, Japan, and Belgium-Luxembourg, which purchased services valued at \$5.8 billion, \$1.9 billion, \$1.6 billion, \$1.3 billion, and \$1.1 billion, respectively. Similarly, the leading sources of imports in 2005 were the United Kingdom, France, Canada, Japan, and Germany, registering \$1.9 billion, \$511 million, \$342 million, \$334 million, and \$300 million, respectively.

Affiliate Transactions⁷

In 2004, sales by foreign securities services affiliates of U.S.-owned companies were valued at \$23.4 billion. The direction and pace of such transactions by foreign affiliates in 2004 are unknown, as data on such sales in 2002 and 2003 were suppressed to avoid disclosing information on particular companies. Nevertheless, data from 2001 and 2004 indicate that such sales by foreign affiliates increased at an average annual rate of 3 percent. The increase most likely reflects increased trading and underwriting activity resulting from the strengthening of global equity markets. The United Kingdom and Japan, with the largest stock exchanges in Europe and Asia, accounted for 56 percent (\$13.0 billion) and 24 percent (\$5.7 billion), respectively, of foreign affiliate sales in 2004. U.S. purchases of services from U.S. securities affiliates of foreign parents remained virtually unchanged at \$20.9 billion in 2004, after decreasing at an 11 percent annual rate, on average, from 2000 through 2003 following the downturn of financial markets in 2001. U.S. affiliates of European firms accounted for 88 percent of U.S. purchases from affiliates in 2004.

Competitive Conditions in the Global Securities Services Market

Global stock market capitalization reached a record high of \$43.6 trillion in 2005, representing a 12 percent increase over the previous year.⁸ This increase marked the fourth consecutive year of growth following downturns in 2000 and 2001. Of total capitalization, developed countries accounted for 84 percent and emerging markets, 16 percent in 2005.

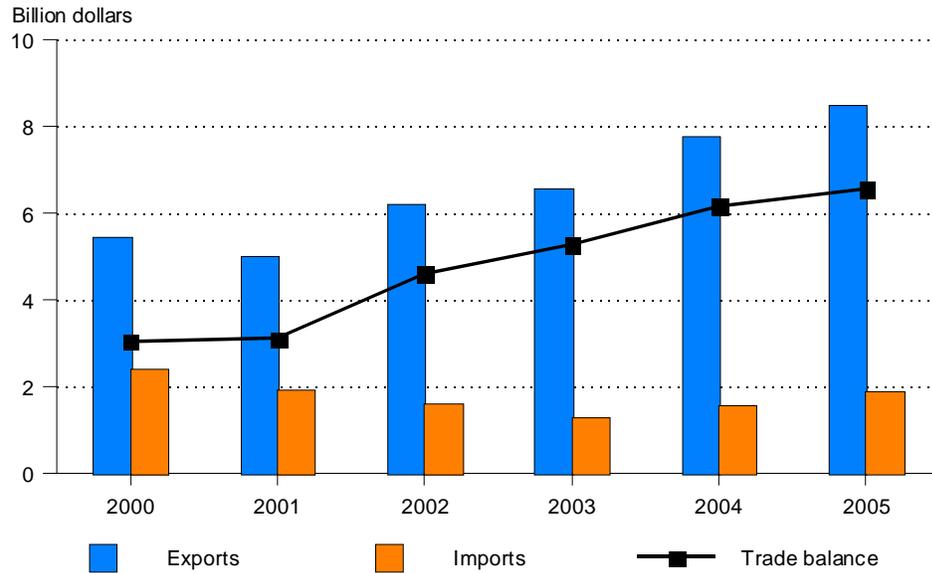
⁵ Ibid., 30–31.

⁶ The share of all financial services attributed to securities services is not available.

⁷ Trade data in this section are derived from USDOC, BEA, *Survey of Current Business* 86, no. 10, 72–74; 84, no. 10, 73; and 83, no. 10, 117.

⁸ Securities Industry Association (SIA), *Securities Industry Factbook 2006*, 5.

Figure 9.1 Securities services: Cross-border trade, 2000–2005



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, no. 10, 30.

The United States held the greatest share of the global total with 40 percent, while Japan and the United Kingdom followed most closely behind with 11 and 7 percent, respectively.⁹ The resurgence of investor confidence has resulted in higher transaction and management fees for investment services firms, benefitting the investment banking, brokerage, and asset management sectors.

Investment Banking and Brokerage

The global investment banking and brokerage sector is predominantly led by U.S. firms, though competition from European and Japanese companies is significant. In 2005, the top 10 financial advisors worldwide—8 of which were U.S. firms—held assets valued at \$5.3 trillion (table 9.1). Industry concentration varies by region. The United States has the most consolidated industry, with the 10 largest New York Stock Exchange member firms generating 63 percent of revenues in 2004.¹⁰

⁹ *Ibid.*, 87.

¹⁰ Standard & Poor's, *Investment Services*, May 4, 2006.

Table 9.1 Top financial advisors worldwide, 2005 (billions of U.S. dollars)

Company	Parent company	Value
Goldman Sachs	United States	867.3
Morgan Stanley	United States	726.8
JP Morgan	United States	659.4
Merrill Lynch	United States	597.9
Citigroup	United States	560.1
UBS	Switzerland	495.6
Lehman Brothers	United States	433.7
Deutsche Bank	Germany	368.6
Lazard	United States	309.4
Credit Suisse First Boston	United States	308.5

Source: Standard & Poor's, *Investment Services*, May 4, 2006.

The primary activities contributing to industry growth in 2005 were increased trading revenues, M&A underwriting, and equity and debt underwriting. With global trading on the rise in 2005, the value of shares traded increased 20 percent over the previous year, to \$47.3 billion.¹¹ This figure represents growth in both U.S. and foreign markets, with all of the major geographic markets posting gains.¹² Such gains are likely a result of investors' growing desire to expand and diversify holdings. Emerging markets also recorded a substantial increase of 39 percent in the value of shares traded in 2005, likely reflecting the continued development of emerging markets' financial systems. The increased value of shares traded resulted in higher commissions for brokerage firms.

Worldwide M&A activity increased by 38 percent, to \$2.7 trillion, in 2005. Europe led the market with \$1.2 trillion in deals, followed by the United States with \$1.1 trillion, and Japan with \$168 billion. These values represented significant proportional increases over 2004 levels for the three principal geographic markets, namely 40 percent, 38 percent, and 109 percent, respectively.¹³ The increases were not chiefly the result of a substantially greater volume of deals—up only 4 percent over 2004—but, rather, higher value deals overall, largely concentrated in the energy, telecommunications, financial services, technology, media, and real estate sectors.¹⁴ The higher transaction values lent a competitive edge to some of the more prominent investment banks with greater capacity for underwriting.

¹¹ SIA, *Securities Industry Factbook 2006*, 88.

¹² Data include the value of shares traded in Australia, Canada, France, Germany, Hong Kong, Italy, Japan, the Netherlands, Singapore, Switzerland, the United Kingdom, the United States, and certain emerging markets.

¹³ Standard & Poor's, *Investment Services*, May 4, 2006.

¹⁴ *Ibid.*

Global equity and debt underwriting totaled \$6.5 trillion in 2005, a 12 percent increase over the previous year, generating \$32.2 billion in fees for investment banks.¹⁵ The rise in equity underwriting mainly took place in Europe and Japan, as U.S. companies netted just \$165.9 billion from equity issues in 2005, a 5 percent drop from the previous year. Debt underwriting experienced large increases in 2005, with Europe, Japan, and the United States experiencing gains of 13 percent, 10 percent, and 8 percent, respectively, over 2004 levels.¹⁶

With so many opportunities for growth in underwriting in 2005, large investment banking and brokerage firms increasingly sought new opportunities in foreign markets. One of the most attractive markets for firms at present is China,¹⁷ with many of the world's market leaders entering into partnerships with the large state-owned banks as such opportunities become available. For example, Goldman Sachs, Allianz AG, and American Express have all acquired stakes in the Industrial and Commercial Bank of China, one of the country's four largest banks. Many of China's other large investment and brokerage operations are also allowing foreign firms to buy shares, creating a highly competitive environment among U.S. and European firms.¹⁸

One significant impediment to trade in investment services is equity limitations in some of the most dynamic emerging markets. For example, in China foreign ownership in financial services firms is limited to 49 percent,¹⁹ requiring firms with interest in that market to enter into joint ventures with local companies. In some cases multinational firms are reluctant to enter into such arrangements for fear that proprietary technologies or practices may be compromised, though with respect to China, firms are willing to take on such risks in favor of gaining a foothold in that rapidly expanding market.

The investment banking and brokerage sector faces increasing challenges from other members of the financial services industry. Commercial banks are increasingly attempting to gain market share in this sector, threatening traditional market leaders' shares and driving smaller firms out of business. For example, in recent years banking giants such as Citigroup, HSBC, and JP Morgan Chase have acquired investment banks in an effort to substantially penetrate the market and leverage the investment business of corporate banking clients.²⁰ Further, discount brokerages such as TD Ameritrade are increasingly drawing clients away from large investment banks with lower commissions and flat-rate pricing.²¹ Even competition among such discount brokerage firms, however, is prompting consolidation. Two of the largest discount firms—E*Trade and TD Ameritrade—acquired large competitors in the past two years to expand their market shares.²² Such trends are also prevalent in the European market where several large banks such as UBS and Deutsche Bank have sold off portions of their fund management operations in order to focus on more profitable business segments.

¹⁵ Standard & Poor's, *Investment Services: Asia*, 2.

¹⁶ Standard & Poor's, *Investment Services*, May 4, 2006.

¹⁷ The Economist Intelligence Unit, "Country Finance: China," August 2006.

¹⁸ Deloitte, *Global Asset Management Industry Outlook: Top 10 Issues*, 2005.

¹⁹ The Economist Intelligence Unit, "Country Finance: China," August 2006. The previous limit of 33 percent was raised to 49 percent in 2005 and will increase again to 51 percent in 2007.

²⁰ Standard & Poor's, *Investment Services*, May 4, 2006.

²¹ *Ibid.*

²² In 2005, E*Trade acquired BrownCo. and Harrisdirect, while in 2006 Ameritrade acquired TD Waterhouse USA.

Asset Management

In 2005, the global mutual fund market was valued at \$17.8 trillion, with the United States holding the largest share at 50 percent, followed by Europe and the Asia Pacific region with 34 percent and 11 percent, respectively.²³ In the same year, 8 of the top 10 money managers worldwide were U.S. firms (table 9.2).

The number of mutual funds in the United States has declined since 2000, while total net assets increased, reflecting a consolidation in the U.S. market. In 2000, average net assets per mutual fund equaled \$854 million, compared to \$1.1 billion in 2005, a 30 percent increase.²⁴ The asset management industry is fairly concentrated in the United States, with the top 25 of more than 600 U.S. firms controlling 71 percent of assets in 2005.²⁵ Even so, consolidation is the global trend in the investment management segment as companies try to increase assets under management (and average assets per fund) and thereby profitability. Firms are finding that increased competition, as well as the costs associated with more stringent regulatory requirements such as the Sarbanes-Oxley Act,²⁶ demand new approaches to cutting costs and increasing market share. As such, many firms are merging with competitors. For example, Merrill Lynch announced in 2006 that it would merge its asset management business with that of Black Rock to create one of the top 10 asset management firms worldwide with more than \$1 trillion in assets under management.²⁷ Other firms are foregoing their asset management businesses altogether in an effort to focus more resources on investment banking operations. Citigroup, for example, announced in 2005 that it would relinquish its asset management division to Legg Mason in exchange for that firm's brokerage operations.²⁸

The European and Asian asset management sectors are more fragmented than in the United States, due in large part to differing regulatory environments among countries that make it difficult to trade a single fund in multiple markets. In the European Union, for example, efforts are underway to create a single market for mutual fund investing, but several countries still maintain regulatory restrictions that limit cross-border merging of funds. As a result, European mutual funds tend to be smaller, resulting in firms' assets under management averaging less than one-third of their U.S. counterparts and subsequently earning smaller management fees. Asian asset management firms are also somewhat hampered by operating in smaller individual country markets, in many of which financial markets are still emerging. While significant opportunities exist in such markets, U.S. companies, which tend to enjoy greater profit margins at home and control much of the global industry, are often better able to leverage resources and expertise to capture market share.

²³ Standard & Poor's, *Investment Services: Asia*, 8.

²⁴ Investment Company Institute, *2006 Investment Company Factbook*, 114–115.

²⁵ Investment Company Institute, "Competition in the Mutual Fund Business," 2.

²⁶ Under the Sarbanes-Oxley Act, companies are required, among other things, to conduct comprehensive audits of their financial statements and accounting systems, and provide detailed reports to the government, which are subject to more rigorous regulatory oversight.

²⁷ Merrill Lynch, "Black Rock and Merrill Lynch Investment Managers to Combine."

²⁸ Standard & Poor's, *Investment Services*, May 4, 2006.

Table 9.2 Top money managers worldwide, 2005 (billions of U.S. dollars)

Company	Parent country	Assets under management
Barclays Global	United Kingdom	1,513
State Street Global	United States	1,439
Fidelity Investments	United States	1,422
Vanguard Group	United States	958
Legg Mason	United States	864
Capital Research	United States	858
JPMorgan Asset Mgmt.	United States	842
Mellon Financial	United States	781
Deutsche Asset Mgmt.	Germany	633
Northern Trust Global	United States	618

Source: Pensions & Investments Online, "Top 250 Firms Ranked By Worldwide Assets," accessed November 15, 2006.

WTO Members' Positions on Securities Services in WTO Trade Negotiations

The financial services industry, inclusive of securities services, generally faces few trade barriers in developed countries where markets are mature. However, prominent investment banking and brokerage firms, and increasingly asset management firms, are progressively seeking growth opportunities in emerging markets where barriers are more prevalent and World Trade Organization (WTO) commitments are more inconsistent. The U.S. objective for financial services during the Doha Round of negotiations has been to persuade key developing countries to make commitments in areas that are already liberalized in practice; strengthen regulatory transparency and domestic regulations; and adopt new and/or expanded commitments that would create opportunities and eliminate existing barriers such as equity limitations, joint venture requirements, and limitations on the types of services foreign firms are allowed to provide. Both the bilateral and plurilateral²⁹ negotiating tracks seek these concessions. Industry representatives contend that sound financial services markets are critical to successful economic growth, and developing countries must allow foreign firms with demonstrated expertise to operate in those markets in order for them to thrive.³⁰

²⁹ As part of the services negotiations in the Doha Round, the Hong Kong Declaration mandates that in addition to bilateral efforts, groups of WTO members adopt a plurilateral approach to the request/offer negotiations. Plurilateral requests are made by a group of demandeurs to a group of target countries, and focus on a particular service sector or mode of supply. Due February 28, 2006, a total of 22 requests were tabled.

³⁰ Financial Leaders Group, "Financial Leaders Group Calls Further Financial Services Liberalization Essential.

CHAPTER 10

Telecommunication Services

Summary

In 2005, cross-border imports and exports of U.S. telecommunication services increased faster than the average annual growth rate of such services over the previous five years. Competition in the global telecommunications industry was revolutionized by the combined emergence of the Internet and regulatory liberalization in the late 1990s. During this period, many telecommunication services firms borrowed heavily to develop new services and build new networks capable of carrying growing Internet traffic. Simultaneously, regulatory liberalization initiatives in many countries led to high levels of competition between incumbent operators and new entrants, resulting in large price declines in many geographic markets and product segments. The combination of high debt payments and declining revenues forced many companies to file for bankruptcy, while solvent firms underwent an extended period of cost-cutting and balance sheet write-offs.

Since the late 1990s, dramatic price declines, the emergence of Voice over Internet Protocol (VoIP) technologies, and migration to mobile services led to declining numbers of subscribers to fixed line services and eroding profitability. Ongoing competition and declining profitability in wireline and other services have led many telecommunication firms to focus on the delivery of mobile services, particularly the development of so-called “Third Generation” mobile services. Telecommunication services companies around the world are also focusing on developing and delivering “quadruple play” services designed to offer consumers a volume-discounted bundle of fixed line services, mobile services, broadband Internet services, and multichannel television services. The drive to assemble a “quadruple play” portfolio as well as the maturation of many product lines in home country markets have driven mergers and acquisitions (M&A) activity, both in home markets and abroad.

Introduction

Telecommunication services trade encompasses both basic¹ and value-added services,² both of which can be provided across national borders and through foreign-based affiliates. Cross-border trade in telecommunication services involves placing a call that terminates abroad. Cross-border trade data are principally derived from an international system under which telecommunication carriers negotiate accounting rates, or bilateral fees, for carrying and terminating international traffic, which is measured in minutes. Each carrier’s portion of the accounting rate, known as the settlement rate, is typically equal to one-half of the negotiated accounting rate. Since international calls are typically billed in the originating country, carriers whose outbound calling minutes exceed inbound calling minutes make a net settlement payment to their counterparts abroad. Net settlement payments are recorded as

¹ World Trade Organization (WTO), “Coverage of Basic Telecommunications Services and Value-Added Services.” Basic services entail the transmission of voice and data services without change in form or content. Examples of such services include domestic and international telephone calls and frame relay data services.

² Ibid. Examples of value-added services include e-mail and voice mail services.

imports in the balance of payments, whereas net settlement receipts are recorded as exports. In addition to basic and value-added services, cross-border trade data also include receipts and payments between U.S. and foreign telecommunication companies for leased channel services, online access services, and telecommunication support services.³

Trends in Cross-Border Trade⁴

In 2005, U.S. cross-border exports and imports of telecommunication services each totaled approximately \$4.7 billion (figure 10.1). Exports increased by approximately 6 percent in 2005, slightly faster than the 4 percent average annual growth rate recorded from 2000 through 2004. By contrast, U.S. imports grew by 3 percent in 2005, reversing the 4 percent average annual decline registered between 2000 through 2004.⁵ Growth in imports and exports of telecommunication services is attributed to the combination of rising traffic volumes and recent retail price increases on major routes.⁶ Historically, the United States maintained a trade deficit in telecommunication services, because U.S. households and businesses placed more international calls than they received, necessitating large net settlement payments by U.S. carriers to foreign carriers. Actions by the U.S. Federal Communications Commission (FCC)⁷ have led to declining bilateral accounting rates worldwide. For example, the average per minute accounting rate declined from \$0.54 in 1998 to \$0.32 in 2002. Declining accounting rates and increased call volumes to the United States, spurred by large competition-based per-minute price decreases, have led to the gradual reduction of the telecommunication services trade deficit in recent years.

In 2005, as in 2004, the leading export markets for U.S. telecommunication services were Canada (\$588 million), the United Kingdom (\$529 million), Mexico (\$258 million), the Netherlands (\$196 million), and Germany (\$181 million). The top sources of U.S. telecommunication services imports in both 2004 and 2005 included Mexico (\$540 million), Canada (\$337 million), the United Kingdom (\$276 million), and India and the Philippines (\$245 million each).⁸

³ Private leased channel services are those offered over a channel that is rented from a facilities-based telecommunication company for exclusive use by the customer; support services include telecommunication equipment repair and maintenance, ground station services capacity leasing, and satellite launching services; online access services include Internet backbone services, router services, and broadband services.

⁴ In 2004, sales by the affiliates of U.S.-owned telecommunication companies totaled approximately \$32.2 billion. Affiliate transactions predominantly reflect payment of network access fees by fixed-line and wireless telecommunication services providers, and capacity leasing fees charged to resellers and other telecommunication services providers. Further information on trends in affiliate sales is unavailable for telecommunication services because several years of data were suppressed, for reason of confidentiality, from 2000 through 2004.

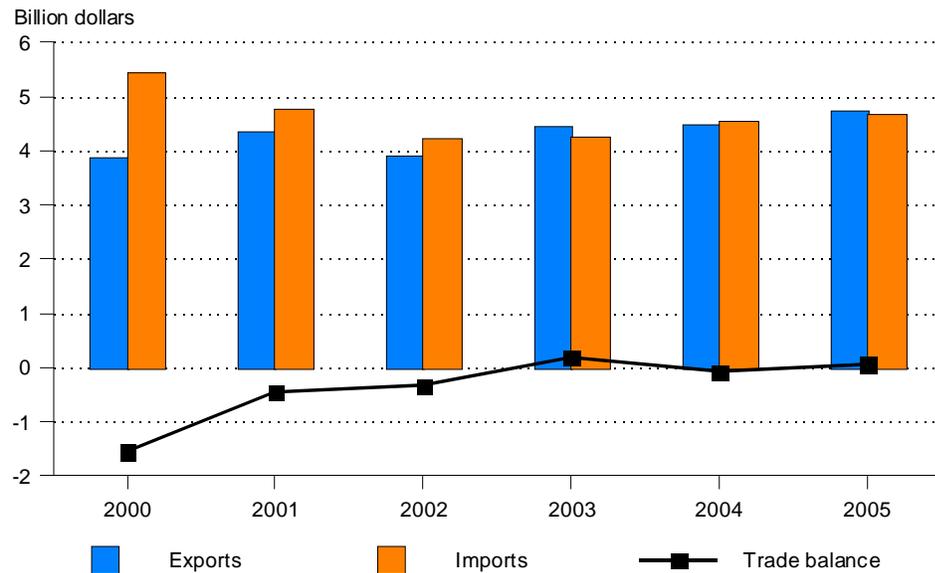
⁵ U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *Survey of Current Business* 86, no. 10, 42–43.

⁶ Primetrica, Inc., *TeleGeography* 2007.

⁷ FCC, Benchmark Order. The Order established a 5-year time frame during which settlement rates were targeted at \$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.

⁸ USDOC, BEA, *Survey of Current Business* 86, no. 10, 42–43.

Figure 10.1 Telecommunication services: Cross-border trade, 2000–2005



Source: U.S. Department of Commerce, Bureau of Economic Analysis, *Survey of Current Business* 86, 10, 61–66.

Competitive Conditions in the Global Telecommunication Services Market

The global telecommunications industry grew by approximately 10 percent in 2005 to \$1.2 trillion. From 2001 through 2004 the global market grew at a compound annual rate⁹ of approximately 11 percent. In dollar terms, the Asia-Pacific region accounted for 34 percent of the global telecommunication services market in 2005, while Europe and the United States each accounted for 27 percent. From 2005 through 2010, the global telecommunication services market is projected to grow about 8 percent annually, reaching \$1.7 trillion by the end of 2010.¹⁰ The largest telecommunication firms worldwide typically include well-known companies such as AT&T (U.S.), BT Group (UK), Deutsche Telekom (Germany), France Télécom (France), and Verizon (U.S.) (table 10.1).¹¹

Competition in the international telecommunications industry was revolutionized by regulatory liberalization efforts at the end of the 1990s, aided in large part by the World Trade Organization's (WTO) Basic Telecommunications Agreement. In 1995, for example, only 15 countries had opened their international long-distance markets to competition. By the end of 2005, however, more than 89 countries, accounting for approximately 94 percent of international voice minute traffic worldwide, had liberalized their international long-distance markets. Such liberalization efforts often led to intense competition, particularly in the United States and Europe, as new entrants proliferated. Since incumbent firms had traditionally priced international telephone calls substantially above underlying costs, aggressive pricing on the part of new entrant firms, enabled in large part by their lower cost

⁹ Datamonitor used this method in calculating growth for the period.

¹⁰ Datamonitor, *Global Telecommunication Services*, 9, 11, 16.

¹¹ Eastwood, *The Top 10 Telecoms Operators*, 15.

Table 10.1 Top 10 telecommunication services companies worldwide

Company	Country	Business	Revenue, 2005 (billions of U.S. \$)	Outgoing international minutes (billions)
NTT Corp.	Japan	Integrated	101.0	...
Verizon Communications	United States	Integrated	75.1	15,244.4
Deutsche Telekom	Germany	Integrated	74.2	5,866.7
Vodafone	United Kingdom	Mobile	64.5	...
France Télécom	France	Integrated	58.1	4,648.0
Telefónica	Spain	Integrated	44.9	3,381.9
AT&T	United States	Integrated	43.9	18,196.7
BT Group	United Kingdom	Integrated	35.0	4,261.1
Sprint/Nextel	United States	Integrated	34.7	8,603.9
China Mobile	China	Mobile	30.1	...

Sources: Eastwood, "The Top 10 Telecoms Operators," and Primetrica, Inc., *TeleGeography 2007*.

structures, led to dramatic price decreases on most international routes. The initial reluctance of many incumbent firms to reduce prices led to significant market share declines in many national markets from the late 1990s onward. By 2005–6, incumbent firm pricing largely matched that of new entrant firms, leading to increasingly stable market shares on the part of both incumbent and new entrant firms.¹²

From the late 1990s through 2000, international voice traffic grew dramatically, due largely to substantial price declines on most international routes. Throughout this period, for example, international voice traffic surged by 20 percent annually, outstripping historical averages in the 12–15 percent range. This surge proved short-lived, however, as growth in voice traffic returned to historical ranges in 2001. In 2005, international voice traffic grew by approximately 14 percent, with more than 81 percent of such traffic originating in 20 countries. The United States accounted for approximately 29 percent of the world's originating traffic in 2005, followed by the United Kingdom (8 percent), Germany (6 percent), France (5 percent), and Canada (5 percent). Overall, important drivers of international call volumes include per-capita income; high fixed and mobile penetration rates; competition-induced price declines; historic, geographic, linguistic, and commercial ties between countries; and immigration patterns.¹³

Although traditional fixed-line voice services (i.e., domestic and international telephone calls) have been the core service of telecommunication firms for more than a century, and still represent the dominant share of revenues at most large telecommunication companies worldwide,¹⁴ such services are experiencing a long-term decline. As with international voice services, increasing levels of competition brought on by regulatory liberalization in most countries have led to ongoing declines in domestic per-minute prices and revenues associated with fixed-line voice services. Moreover, in developed countries, the widespread availability of mobile telephones, with inexpensive per-minute prices for telephone calls, has led customers to increasingly shift telephone calls from traditional fixed-line telephones to

¹² Primetrica, Inc., *TeleGeography 2007*.

¹³ *Ibid.*

¹⁴ Deloitte, "TMT Trends," 4.

mobile phones, a process known as fixed-mobile substitution. Additionally, as mobile penetration increases in many developed countries, some consumers, particularly younger consumers, are eliminating their fixed-line service entirely, relying instead upon mobile telephone service for all telephone calls.¹⁵

In many domestic and international markets, the recent emergence of VoIP¹⁶ services is putting further downward pressure on per-minute pricing and encouraging customers to engage in service substitution, largely because VoIP services are perceived by consumers to be free. For example, computer-to-computer VoIP calls are typically offered without charge. Moreover, in many cases, cable companies offer free VoIP calls to subscribers packaged with cable TV and/or broadband Internet access. Although VoIP calls that are terminated on fixed or mobile networks require a fee for termination, such fees often cost no more than a local call.¹⁷

Founded in 2004, one of the best known providers of international VoIP services is Skype. In 2006, Skype had approximately 136 million registered users, whose traffic totaled more than 27 billion minutes, half of which was routed to international locations. Although Skype's international traffic is significant, it was estimated to be only 4 percent of total international traffic by the end of 2006. Overall, international VoIP traffic grew from approximately 10 million minutes in 1997 to more than 45 billion minutes in 2005. In 2004 and 2005 alone, VoIP traffic grew by 36 percent and 42 percent, respectively. In 2005, Latin America attracted 45 percent of the world's VoIP traffic, compared to 28 percent in the Asia-Pacific region, 14 percent in Europe, 7 percent in North America, and 6 percent in Africa.¹⁸

The majority of international VoIP traffic is terminated in developing countries, largely due to high termination fees and/or lagging liberalization efforts associated with both fixed-line and mobile services.¹⁹ The large volumes of VoIP minutes flowing to developing countries effectively displace voice services offered by local companies, affecting the profitability of both incumbents and new entrants. In response, telecommunication operators in some countries are reportedly blocking VoIP services, including those in China, Costa Rica, Jordan, Mexico, Oman, and the United Arab Emirates. Arbitrage opportunities and rapidly developing broadband infrastructures also drive the adoption of VoIP services in many developing countries, particularly in Asia.²⁰

¹⁵ Standard & Poor's, *Telecommunications: Wireline*, 10. According to the FCC, in the United States, nearly 14 percent of households headed by a person under age 25 had no fixed-line phone at the end of May 2006. By contrast, the total number of households in the United States without a fixed line was 7 percent.

¹⁶ VoIP technologies connect two callers by encoding a telephone conversation as a two-way data stream of "packets" over the Internet. Internet technologies utilize two protocols to transmit data between client and host computers. The *Transmission Control Protocol (TCP)*, for example, breaks data into packets, routes such packets over the Internet, and reassembles the packets in the correct order at the receiving computer. By contrast, the *Internet Protocol* performs various checks to ensure that packets are delivered to the intended destination.

¹⁷ Mackenzie, "What Is Voice-over-IP?" and *Economist*, "Taking the Battle Online," "The Phone Call Is Dead; Long Live the Phone Call," and "The End of the Line."

¹⁸ Primetrica, Inc., *TeleGeography 2007*, 44–56.

¹⁹ *Ibid.*, 45 and *Economist*, "The End of the Line."

²⁰ Burton, Nakamoto, "Deregulation Sparks Shift to VoIP in Asian Telecoms"; Lennighan, "Latin Hotspot"; Primetrica, Inc., *TeleGeography*, 44–50; Dickie, "China Blocks Skype Web Phone Service"; Gardner, "Skype Service Is Blocked in Middle East Country"; Herrera, "ICE En Jacque Por Auge Telefonía a Travers de Internet"; and Primetrica, Inc., "VoIP Ban Will Not Be Lifted."

Many industry analysts note that the low-cost nature of VoIP services represents a serious threat to both the fixed-line voice and mobile voice revenues of mainstream telecommunication firms. Initially, many incumbent operators around the globe resisted offering VoIP services out of concern that such services would cannibalize core voice revenues. In 2005 and 2006, however, some incumbent telecommunication services firms began to offer VoIP services, including Telenor (Norway), France Télécom, KPN (Netherlands), and BT. Incumbent firms typically emphasize higher levels of quality compared with VoIP new entrants. In some countries, such efforts are beginning to pay off, as the numbers of subscribers for incumbent VoIP services are beginning to exceed those of new entrant VoIP firms.²¹

The substitution from fixed-line voice services to mobile and VoIP services has led to a decline in the number of fixed lines serviced by fixed-line incumbents in many global markets. At the end of September 2006, for example, the number of access lines serviced by AT&T and Verizon declined by 6 percent and 8 percent, respectively, over the previous year.²² Similarly, China Netcom reported that between September 2006 and January 2007, fixed-line subscribers fell by approximately 4 percent.²³ With revenues from traditional fixed-line voice services either flat or declining in many global markets over the past few years, telecommunication firms expanded into other services, particularly mobile services, to achieve revenue growth. Although mobile telecommunication services have existed for decades, a commercially viable service emerged only in the 1990s. From the mid-1990s, the adoption of mobile services grew very rapidly, due to not only the popularity of the service but also the low starting base in nearly all countries. Moreover, in many developing countries, mobile phone adoption rates were fueled by the lack of available fixed-line alternatives. Indeed, the expense and long lead times associated with building terrestrial fixed-line networks often drives the development of wireless networks in developing countries, which can be deployed much more quickly and with substantially less investment. Despite such rapid growth, mobile penetration rates, defined as the number of subscribers per 100 inhabitants, varied widely across countries and regions in 2005 (table 10.2). In the United States, for example, wireless penetration stood at nearly 70 percent.²⁴ In many European countries, mobile penetration rates hovered around 100 percent.²⁵ In Asia, penetration rates ranged from more than 100 percent in Hong Kong (123 percent) and

²¹ Primetrica, Inc., “BT Claims A Million VoIP Customers”; Wood, “BT Announces 1 Million VoIP Customers”; Mackenzie, “Q&A: What IS Voice-over-IP”; Taylor, et al., “Why VoIP Telephony Is Quickly Coming of Age”; Molony, “Deep Impact”; *Telecom Markets*, “Europe’s Incumbents Begin Closing the Gap on VoIP Rivals”; and *Economist*, “The Phone Call Is Dead; Long Live the Phone Call” and “The End of the Line.” In the United Kingdom, for example, BT reported 400,000 VoIP subscribers in 2006, compared to 370,000 for the UK’s former VoIP market leader, Orange. Moreover, by January 2007, BT claimed to have more than one million VoIP customers. Similarly, in Norway, incumbent Telenor reportedly signed up 88,000 VoIP subscribers by the end of 2006, compared to 87,000 for its main VoIP competitor, Telio.

²² Standard & Poor’s, *Telecommunications: Wireline*, 1.

²³ Poon, “China Netcom Fixed-Line Users Down 3.6 Percent.”

²⁴ Standard & Poor’s, *Telecommunications-Wireless*, 1.

²⁵ Standard & Poor’s, *Telecommunications: Wireless-Europe*, 1.

Table 10.2 Mobile telephone penetration, selected countries in Asia and Latin America, 2005

Asia		Latin America	
Country	Mobile penetration ^a	Country	Mobile penetration ^a
Australia	91	Brazil	46
China	30	Mexico	44
Hong Kong	123	Argentina	57
India	7	Colombia	48
Indonesia	21	Venezuela	47
Japan	74	Chile	68
Malaysia	75	Ecuador	47
New Zealand	88	Peru	20
Pakistan	8		
Philippines	40		
Singapore	101		
South Korea	79		
Taiwan	97		
Thailand	27		

Source: International Telecommunication Union, "World Telecommunications Indicators," 2005.

^aMobile penetration is defined as the number of mobile telephones per 100 inhabitants.

Singapore (101 percent) to approximately 7 percent in India.²⁶ Overall, wireless penetration in the Latin American region was relatively low, but ranged from 20 percent in Peru to 70 percent in Chile.²⁷ By the end of 2005, mobile telephones accounted for approximately 64 percent of worldwide telephones and represented 26 percent and 29 percent of total outgoing and ingoing international calls, respectively.²⁸

In many developed countries, handset subsidies²⁹ and a proliferation of pricing plans are driving increased competition in mobile services. In addition, the emergence of a relatively new breed of mobile service provider, the Mobile Virtual Network Operator (MVNO),³⁰ is further increasing the degree of competition. MVNOs, which essentially resell mobile services offered by mainstream mobile companies, typically offer cut-rate voice services and/or market their services to highly specific market segments/subsegments such as lifestyle or ethnic groups. For example, the MVNO Extreme Mob targets surfers and skate boarders under the age of 24 in the United Kingdom, while Ay Yildiz Mobile targets the Turkish community in Germany. According to market research firms Analysys and Global Insight, there are more than 100 MVNOs in Europe and approximately 30 in the United States. Although the MVNO phenomenon is relatively new, heightened levels of competition have

²⁶ Standard & Poor's, *Telecommunications: Wireless-Asia*, 5.

²⁷ Standard & Poor's, *Telecommunications: Wireless-Latin America*, 5.

²⁸ Primetrix, Inc., Inc., *TeleGeography 2007*, 5.

²⁹ In many countries, mobile service providers subsidize and/or reimburse subscribers for the cost of the mobile phone handset; such subsidies are often contingent on subscription terms of at least one year and often two years.

³⁰ Well-known MVNOs in the United States and Europe include Disney Mobile, ESPN Mobile, and Virgin Mobile.

led to market consolidation either through bankruptcies or acquisitions by larger mobile services firms.³¹

In many developed countries, the increasing maturation of mobile voice services has compelled many companies to upgrade and/or replace existing wireless networks based on second-generation (2G)³² technologies to intermediate 2.5G³³ and third-generation (3G)³⁴ technologies capable of delivering high-speed mobile data services. Such services include mobile short message services (SMS), i.e., text messaging; multimedia message services (MMS);³⁵ Internet/e-mail access services; downloadable music, ringtones, graphics, and audio/video clips; and mobile television.³⁶ While operators in many countries hope that offering a plethora of data-driven services will increase revenues, many industry observers speculate that many users will not use such services, or that user adoption will not be sufficient to provide a return on the significant investment required to build 3G networks.³⁷ In Europe, for example, only 10 percent of mobile subscribers use their phones to access the Internet. Moreover, only 1 percent of mobile subscribers use services such as mobile banking, stock trading, or traffic information.³⁸

In contrast to developed countries, mobile services are growing rapidly in many developing countries, driven in large part by economic growth and rising incomes. In such countries, demand for mobile services focuses on the provision of basic voice services, typically via prepaid plans.³⁹ In Latin America, for example, the number of mobile subscribers grew by 37 percent in 2005, with the highest growth rates in Argentina, Colombia, and Venezuela. In addition to national operators, two large multinational firms, Telefónica (Spain) and América Móvil (Mexico), each operate in eight Latin American countries.⁴⁰ Similarly, in

³¹ Lennighan, "Going To Extremes"; Moloney, "No Frills"; *Economist*, "The Teachings of the Virgin"; Standard & Poor's, *Telecommunications-Wireless*, 14–15; and Standard & Poor's, *Telecommunications-Wireless: Europe*, 2–3.

³² While first generation mobile technologies used analog signals to connect mobile telephones to base station towers, second-generation (2G) technologies use digital signals. 2G technologies support voice services and certain data services. The 2G technology, Global System for Mobile Communications (GSM), is the most common technology worldwide. By contrast, the 2G technology referred to as Code Division Multiple Access (CDMA) is used primarily in China, India, Japan, North America, and South Korea.

³³ Intermediate technologies (2.5G) allow existing 2G networks to offer value-added services such as voice mail, call waiting, text messaging, and online connections. 2.5G technologies also expand voice capacity and enable faster data transfer rates. 2G technologies typically consist of software upgrades to existing 2G hardware, including network switching, base station, power amplifier, and antenna systems. Although customers must purchase new handsets, 2G technologies allow mobile services providers to offer enhanced services over existing networks. Leading 2.5G technologies include GPRS (for GSM systems) and 1xRTT (for CDMA systems).

³⁴ Third-generation (3G) systems, the most advanced mobile technology, enable value-added services such as voice mail, call waiting, text messaging, and online connections; 3G technologies also offer data transfer speeds that are much faster than previous technologies. The main 3G technologies are CDMA2000 1xEV-DO, WCDMA, and UMTS.

³⁵ MMS refers to services that allow users to send digital photographs and other multimedia applications between phones.

³⁶ Eastwood, "The Top 10 Telecom Operators," 28–29; Standard & Poor's, *Telecommunications: Wireless-Asia*, 14; Standard & Poor's, *Telecommunications: Wireless*, 1, 3; and Standard & Poor's, *Telecommunications: Wireless-Europe*, 1, 16.

³⁷ Lennighan, "The Price Is Right" and Morris, "Reverting To Hype."

³⁸ Deloitte, "TMT Trends," 6; Datamonitor, *Global Telecommunication Services*, 13; Molony, "Great Expectations"; and Christensen, et al., "Is the Party Ending for Wireless?"

³⁹ Eastwood, "The Top 10 Telecoms Operators," 31; *Economist*, "Talk Is Cheap"; and Standard & Poor's, *Telecommunications: Wireless-Latin America*, 5.

⁴⁰ Telefónica, "Latin American Countries"; América Móvil, "Description of Group"; and Standard & Poor's, *Telecommunications: Wireless-Latin America*, 5.

Africa, the number of subscribers grew by an average of approximately 40 percent in 2006. In addition to national operators in many countries, five African and Middle Eastern companies are vying to become leading players in the African regional market: MTN (South Africa), MTC (Kuwait), Orascom (Egypt), Etisalat (United Arab Emirates), and Vodacom (UK-South Africa). Through a combination of network development and mergers/acquisitions, these carriers are working to increase their coverage of the African continent. Overall, low mobile penetration rates in most countries (15 percent on average) and high expectations for subscriber and revenue growth make Africa an increasingly attractive market for both foreign and domestic service providers.⁴¹ Because the cost of mobile telephone handsets represents an important barrier to further adoption of mobile services in developing countries, a group of developing-country operators established a tender, in 2005, for the production of 6 million handsets at a price of \$40 or less. The tender winner was Motorola, which signed a contract in 2006 to produce another 6 million handsets at a price of less than \$30.⁴²

High levels of competition in developed markets are also pushing telecommunication companies to offer so-called “converged services.”⁴³ The current trend towards “convergence” is made possible by the increasing technical ability to deliver wireline services, mobile services, broadband Internet services, and television services exclusively over Internet Protocol (IP) networks. Such technical abilities are enabled by the widespread adoption of IP standards and the proliferation of high-speed terrestrial/wireless networks. In turn, technical convergence allows firms in the previously distinct cable television and telecommunications industries to offer the same services, thereby competing in each other’s markets. Although cable companies and telecommunication operators have competed to offer high-speed Internet access to consumers for years, cable companies increased the level of competition by offering a so-called “triple play”⁴⁴ service package which included not only high-speed Internet and cable television, but also voice telephone services in 2005 and 2006.⁴⁵ In response, telecommunication companies are beginning to offer television services in attempts to assemble their own “triple play” package.⁴⁶ Subsequently, competitive interactions between both the cable television and telecommunications industries have induced companies in both industries to begin assembling a so-called “quadruple play” portfolio, which includes: 1) fixed voice services, 2) mobile voice services, 3) broadband Internet services, and 4) multichannel television services, which they plan to “bundle” at a single, volume-discounted price. In general, both telecommunication and cable television companies view “quadruple play” services as the best way to attract and/or retain customers, thereby protecting their core businesses.⁴⁷ Some analysts view the current activity to

⁴¹ LaFranciere, “Cellphones Catapult Rural Africa to 21st Century”; *Economist*, “Out of Africa”; Taaffee, “Africa Walking Tall”; and Kemp and Mason, “Picking Up Speed.” In 2005, for example, MTC bought Celtel, which operates networks in 14 African countries, for \$3.4 billion. By contrast, MTN is currently investing \$1.0 billion in network infrastructure in 14 African countries. Chungwa Telecom (China) and Singapore Telecom are also reportedly interested in acquisition targets in Africa.

⁴² *Economist*, “Connecting the Next Billion.”

⁴³ Industry representatives, *Financial Times* World Communications Conference, London, United Kingdom, November 21–22, 2006, and *Economist*, “Here We Go Again” and “Your Television Is Ringing.”

⁴⁴ A “triple play” service is the marketing term for the provisioning of high-speed Internet access, television, and telephone services over the same broadband connection.

⁴⁵ Meyerson, “Phone, Cable Companies To Battle In 2007.”

⁴⁶ *Total Telecom Magazine*, “The Next Hurdle”; Primetrica, Inc., “TDC Launches IPTV,” “BT Plans IPTV Launch Next Week,” “Verizon Turns On TV,” and “Magyar Telekom To Offer Commercial IPTV”; and Dow Jones Newswires, “Deutsche Telekom Has 25,000 TV Subscribers-Press.”

⁴⁷ *Economist*, “The Teachings of the Virgin,” “Your Television Is Ringing,” “Here We Go Again,” and “Swamp Things.”

assemble a “quadruple play” portfolio with skepticism, noting that there is little evidence that consumers are interested in purchasing a bundle of services from a single provider,⁴⁸ or doubting the ability of companies to offer services outside their area of expertise, particularly the ability of telecommunication companies to offer television services featuring both the content and technical quality of those offered by the cable industry.⁴⁹

The efforts by firms in the telecommunications and television industries to build a “quadruple play” portfolio are prompting some companies to invest in the development of so-called “next generation networks (NGNs)” based entirely upon IP technologies. In the United Kingdom, for example, BT is spending nearly \$20 billion to develop an end-to-end IP-based network, called 21CN. Similarly, in the United States, Verizon is reportedly spending \$20 billion on an IP network designed to serve enterprise customers.⁵⁰ In theory, NGNs will allow firms to reduce costs and increase efficiencies by replacing separate voice, data, and video networks with a single IP network. NGNs also may make it easier for telecommunication companies to add new services, in many cases by simply installing new software.⁵¹ Nonetheless, many industry observers point out that NGNs may not deliver the cost savings or revenues promised by equipment manufacturers and telecommunication operators. Some analysts, for example, point out that the cost savings stemming from economies of scale and simplified network architectures are overstated, and that most cost savings likely will result from headcount reductions, not network efficiencies. Too, other analysts note that there is little evidence pointing to which NGN services, if any, will deliver profits capable of providing a return on the massive amounts of capital invested in such networks.⁵²

Efforts to assemble a quadruple play service portfolio are also fueling M&A activity around the globe. In Europe, for example, Telefónica reabsorbed its mobile unit to fully incorporate mobile services in its portfolio of services offerings. Similarly, Telecom Italia (Italy) and France Télécom also reintegrated their wireless units, while Deutsche Telekom reintegrated its Internet subsidiary T-Online International. In the United Kingdom, cable operator NTL purchased Virgin Mobile. In Japan, Softbank, which offers television, broadband internet access, and fixed-line voice services, bought Vodafone Japan in an effort to assemble a “quadruple play” services package. In the United States, integrated telecommunication firm AT&T bought joint venture partner BellSouth, in part to obtain full control of Cingular Wireless.⁵³

⁴⁸ Taaffe, “On the Defensive,” and *Economist*, “Tuning In to the Future” and “Winners and Losers.”

⁴⁹ Morris, “The Next Wave”; Lennighan, “Telcos Should Think Twice About TV”; Merrick, “IPTV—The Great Service Gamble”; Total Telecom, “The Next Hurdle”; and *Economist*, “Winners and Losers.”

⁵⁰ BT Group, “Delivering the Future: BT’s 21st Century Network”; Verizon via PR Newswire, “Verizon Plugs in New National Broadband Network”; and *Economist*, “Your Television Is Ringing.”

⁵¹ Molony, “On the Line.” BT, for example, estimates that it will save approximately \$2 billion per year; such costs stem from reduced operations and maintenance, property management, network management, and energy costs.

⁵² World Trade Organization, Council for Trade in Services -Special Session (CTS-SS), “Report by the Chairman,” November 28, 2005; *Total Telecom Magazine*, “NGN: The Big Turn Off”; Breed, “The Long Haul”; and *Economist*, “Your Television Is Ringing.”

⁵³ Standard & Poor’s, *Telecommunications: Wireless-Latin America*; *Economist*, “Your Television Is Ringing,” “Swamp Things,” and “Here We Go Again, Sort of”; Standard & Poor’s, *Telecommunications: Wireless-Europe*; Standard & Poor’s, *Telecommunications: Wireless-Asia*; and Eastwood, “The Top 10 Telecom Operators.”

In an effort to offset increasing competition and the maturation in core services in home country markets, some telecommunication services providers are expanding into foreign markets. For example, in 2006, América Móvil paid \$3.7 billion for Verizon Communications telecommunication assets in Venezuela, Puerto Rico, and the Dominican Republic. Similarly, Telefónica obtained substantial investments in Latin America by purchasing Bell South Corporation Latin America in 2004 and 2005. In 2006, Telefónica also announced a 50 percent investment in Colombia Telecom, Colombia's former incumbent telecommunication service provider, and in O2 in the United Kingdom. Similarly, in 2006, South Africa's MTN paid \$5.5 billion for Investcom, which owns stakes in several telecommunication companies in the Middle East. In 2005, Kuwaiti firm MTC purchased Celtel, which operates networks in East Africa, for \$3.4 billion, while United Arab Emirates-based Etisalat purchased a 50 percent share of Atlantique Telecom in West Africa.⁵⁴

WTO Members' Positions on Telecommunication Services in WTO Trade Negotiations

Members of the WTO, in the Council for Trade in Services in Special Session (CTS-SS), have identified several objectives for the telecommunication services sector in the Doha Round. For example, members have proposed the reduction or elimination of limitations on foreign equity, restrictions on the types of legal entity permitted, economic needs tests, and exclusive rights. In general, members have also urged WTO members to commit to all provisions of the Pro-Competitive Regulatory Reference Paper and to eliminate most-favored-nation exemptions.⁵⁵ In a separate communication, the European Union proposed an alternative method of classifying telecommunication services.⁵⁶

⁵⁴ *Economist*, "Out of Africa"; Standard & Poor's, *Telecommunications: Wireless-Europe*; and Standard & Poor's, *Telecommunications: Wireless-Latin America*.

⁵⁵ WTO, CTS-SS, "Report by the Chairman," November 28, 2005 and "Communication from Australia, Canada, et. al.: Liberalization of Telecommunication Services," submitted July 1, 2005.

⁵⁶ WTO, CTS-SS, "Communication from the European Communities: Classification in the Telecom Sector," submitted February 10, 2005.

CHAPTER 11

Principal Issues in Services Negotiations in the WTO and FTAs

Introduction

Services negotiations have progressed in recent years under both the World Trade Organization (WTO) General Agreement on Trade in Services (GATS) and through the signing and, in some cases, ratification of free trade agreements¹ (FTAs) between the United States and some of its trade partners. The most recent round of multilateral negotiations under the GATS began in 2000. Formal negotiations were suspended in July 2006, by which time 69 of the 149 members of the WTO had submitted initial offers,² and 30 of these had submitted revised offers (table 11.1).³ However, these offers have been appraised as lacking substance and, in many cases, have been received from countries with heretofore relatively liberalized markets.⁴ In addition to sector-specific commitments, WTO members have addressed cross-cutting issues that apply to trade in all services. These latter issues include, for example, emergency safeguard measures (ESMs), subsidies, the recognition of professional qualifications, and facilitating the increased participation of least-developed countries (LDCs) in global trade. Nonetheless, WTO members have yet to achieve consensus on most of these issues.⁵ Separately, by April 2007, the United States had signed bilateral FTAs containing services provisions with 9 countries and had commenced

¹ A number of recent free trade agreements are known as trade promotion agreements to conform with language in trade statutes.

² An offer is a response by a WTO member to a request from another WTO member for changes in the former's schedule of commitments under the GATS.

³ WTO, "Understanding Developing Countries: Overview," and "Developments in Services Negotiations." By July 2006, 22 developing countries had not yet submitted an initial offer, and only seven developing countries had tabled revised offers. Developing countries comprise two-thirds of WTO membership.

⁴ WTO, Council for Trade in Services - Special Session (CTS-SS), "Special Session of the Council for Trade in Services: Report by the Chairman,," November 28, 2005.

⁵ Khor, "G-90 Poor Countries Make Advances," and Soares, "G20, G90 and G33: Challenges for Building a New Politics." The formation of special interest groups within the WTO has contributed to slow progress in negotiations. For example, the Group of 90 (G-90), which represents the LDCs, the African Union, and the African, Caribbean and Pacific Group of States (ACP), were established during the Cancún Ministerial in 2003 to advocate the interests of small, developing countries particularly with respect to trade in agricultural commodities. As such, the G-90 opposed certain broad-based liberalization measures, including those in services, introduced by members such as the United States and the European Union on the grounds that such measures harmed the interests of smaller countries.

Table 11.1 Offers submitted by WTO members as of July 2006

Country	Initial offer	Revised offer	Country	Initial offer	Revised offer
Albania	X		Jordan	X	
Argentina	X		Kenya	X	
Australia	X	X	Korea	X	X
Bahrain	X	X	Liechtenstein	X	X
Barbados	X		Macao, China	X	X
Brazil	X	X	Macedonia	X	
Brunei Darussalam	X		Malaysia	X	X
Bulgaria	X		Mauritius	X	
Canada	X	X	Mexico	X	X
Chile	X	X	Morocco	X	
China	X	X	New Zealand	X	X
Chinese Taipei	X	X	Nicaragua	X	
Colombia	X	X	Norway	X	X
Costa Rica	X		Oman	X	
Croatia	X		Pakistan	X	
Cuba	X		Panama	X	
Dominica	X		Paraguay	X	
Dominican Republic	X		Peru	X	X
Egypt	X	X	Philippines	X	
El Salvador	X		Qatar	X	
European Communities and their Member States	X	X	Singapore	X	X
Fiji	X		South Africa	X	
Gabon	X		Sri Lanka	X	
Grenada	X		St. Kitts and Nevis	X	
Guatemala	X		St. Lucia	X	
Guyana	X		St. Vincent and the Grenadines	X	
Honduras	X	X	Suriname	X	X
Hong Kong, China	X	X	Switzerland	X	X
Iceland	X	X	Thailand	X	X
India	X	X	Trinidad & Tobago	X	
Indonesia	X		Tunisia	X	X
Israel	X		Turkey	X	
Jamaica	X		United Arab Emirates	X	
Japan	X	X	United States	X	X
			Uruguay	X	X

Source: World Trade Organization, "Services: Negotiations," accessed November 27, 2006.

negotiations with additional countries.⁶ FTAs contain text and “non-conforming” measures (NCMs) on services which are, in many cases, largely unchanged from WTO members’ services commitments under the GATS.⁷ This chapter highlights several cross-cutting issues recently deliberated in WTO services negotiations and summarizes services-related measures in FTAs.⁸

WTO General Agreement on Trade in Services

The negotiation of cross-sectoral issues on services has been largely conducted under the WTO Council for Trade in Services (CTS) and two of its subsidiary bodies—the Working Party on Domestic Regulation (WPDR) and the Working Party on GATS Rules (WPGR). Under the CTS, two issues that have received focused and ongoing attention as summarized below are LDC modalities, or mechanisms to promote the increasing participation of least-developed countries in services trade, and the expansion of commitments on mode 4, the temporary presence of natural persons.

Council for Trade in Services (CTS)

Negotiations to facilitate the increased participation of least-developed countries in services trade is mandated by Article IV:3 of the GATS, by which members accord special priority to LDCs when negotiating services commitments.⁹ In particular, when issuing requests, members are to consider the difficulty LDCs may have in undertaking certain commitments, taking into account their “special economic situation and their development, trade, and financial needs.” When making offers, members are to target sectors and modes of supply that may be of export interest to LDCs. The objective of Article IV:3 is twofold: to encourage LDCs to participate in services trade by acknowledging the regulatory and human capacity constraints they face in opening their services market to foreign providers, and to help LDC economies grow by promoting their services exports.¹⁰

⁶ United States Trade Representative (USTR), “Bilateral Trade Agreements” and “Statement of USTR Rob Portman on Signing of U.S.-Central American-Dominican Republic Free Trade Agreement.” The nine countries with which the United States has signed free trade agreements that include provisions with respect to services trade are Australia, Bahrain, Chile, Colombia, Jordan, Morocco, Oman, Peru, and Singapore. In addition, the President has notified Congress of his intention to enter into free trade agreements with Korea and Panama. It is anticipated that the President will sign both agreements in June 2007. In addition to the above bilateral agreements, the United States implemented the North American Free Trade Agreement in January 1994 and is in the process of implementing the Central American-Dominican Republic Free Trade Agreement with partner countries. The United States has also commenced talks regarding a free trade agreement with the South African Customs Union and certain countries individually.

⁷ Nevertheless, the approach to specifying such restrictions in the FTAs tends to yield greater transparency and market access than that used in the GATS, as discussed later in this chapter.

⁸ It should be noted that because informal cross-sectoral negotiations under the WTO remain ongoing, there may be new developments that are not reflected here.

⁹ WTO, “Guidelines and Procedures for the Negotiations on Trade in Services.” The principles of promoting the economic growth of all trading partners and giving special priority to LDCs are introduced in this document, adopted by the Council for Trade in Services in March 2001.

¹⁰ *International Trade Forum*, “Trade in Services: Awareness, the First Step,” and WTO, CTS-SS, “Modalities for the Special Treatment for Least-Developed Country Members,” September 5, 2003. By one estimate, services account for approximately 50 percent of the gross domestic product of developing economies.

Although the objective of Article IV:3 is set out in the text of the GATS,¹¹ methods for its implementation are left to the interpretation of WTO members, and it is these methods that have been the subject of negotiations under the CTS. In September 2003, the CTS adopted a proposal outlining ways for WTO members to accord special treatment to least-developed countries in services negotiations, which was thereafter referred to as the LDC modalities.¹² Among other things, the proposal recommended that developed-country members provide technical assistance to help LDCs identify service sectors and modes of supply of export interest to them, and that they undertake market access and national treatment commitments that open these areas of interest to LDC service suppliers. After the proposal's adoption and at the request of LDC members, the United States, Canada, the European Union (EU), and Japan identified ways in which they were currently addressing the LDC modalities. For example, the EU stated that it had expanded its GATS commitments on modes 1 (cross-border supply) and 4, the most common ways in which services are supplied by LDC service providers, and that it had provided both technical and financial assistance to aid LDCs in preparing for services negotiations. The United States stated that it had made new commitments under the Doha negotiating round in sectors and modes of supply of greatest importance to LDCs, while at the same time cautioning against LDCs' emphasis on deeper mode 4 commitments in the absence of broader liberalization of services trade.¹³ The presentation of positions between developed and developing countries on how best to implement the LDC modalities remains ongoing, with recent proposals submitted by the EU favoring a best practices approach and by Zambia recommending that members make binding commitments that effectively "lock in" special priority for LDCs.¹⁴ Although members' intent was to achieve final agreement on formal guidelines to implement the LDC modalities by July 2006, to date this objective has not been reached.

In addition to the LDC modalities, the CTS has overseen the presentation of positions by members on mode 4 supply, or the temporary presence of natural persons. Negotiations on mode 4 have centered on requests by LDC members for broader market access and national treatment commitments concerning professional and non-professional workers.¹⁵ Commitments on mode 4 are made in accordance with Article XVI (market access) and Article XVII (national treatment) of the GATS. Article XVI states that where market access commitments are undertaken (unless otherwise specified in the commitments) members must not impose quantitative measures that limit market access by foreign service providers and must not favor the service suppliers of one member over another. Article XVII requires that members grant foreign service suppliers treatment that is no less favorable than that accorded to their own domestic suppliers. In addition, the GATS Annex on Movement of Natural Persons reaffirms the right of members to regulate the temporary entry and stay of persons

¹¹ WTO, *General Agreement on Trade in Services (GATS)*, Article IV: Increasing Participation of Developing Countries.

¹² WTO, CTS-SS, "Modalities for the Special Treatment for Least-Developed Country Members," September 5, 2003. The proposal emphasized that services play an important role in poverty alleviation and the promotion of sustainable development in LDCs.

¹³ Information provided via e-mail correspondence by the Office of the USTR.

¹⁴ WTO, CTS-SS, "Special Session of the Council for Trade in Services: Report by the Chairman," July 26, 2006; and "Communication from Zambia on Behalf of the LDC Group," submitted March 28, 2006.

¹⁵ WTO, "Movement of Natural Persons: Uruguay Round and Post-Uruguay Round Negotiations"; WTO, CTS-SS, "Report of the Meeting Held on 24 May 2006," June 9, 2006; and "Presence of Natural Persons (Mode 4)," submitted December 8, 1998. Under GATS, the majority of mode 4 commitments currently in force apply to intracorporate transferees generally categorized as executives, managers, and specialists. Intracorporate transferees are linked to commercial presence; that is, they are employed by a foreign subsidiary of a company based in the transferee's home country.

supplying services in their territories, insofar as such regulation does not compromise the implementation of mode 4 commitments under articles XVI and XVII.

In March 2006, Zambia submitted a paper on behalf of the LDC Group¹⁶ recommending that members undertake expanded mode 4 commitments permitting the entry and temporary stay of foreign workers with minimum qualifications, and with no requirement for commercial presence.¹⁷ In particular, Zambia's proposal recommended that, where appropriate, members would agree to permit independent professionals, contractual service suppliers, and business visitors to supply services based on "competence and demonstrated experience" rather than education and professional degree requirements. In addition, the proposal requested new commitments concerning low- and semi-skilled workers, without requiring that such workers be employed by juridical persons.¹⁸ Zambia stated that commitments on the abovementioned areas would address LDCs' primary export interests with respect to mode 4, and would facilitate greater participation by developing countries in services trade as recommended in the LDC modalities. Several countries expressed reservations regarding Zambia's proposal, the elements of which remain under discussion by WTO members.¹⁹ Other longstanding issues on mode 4 that were the subject of negotiations prior to suspension of the Doha Round services negotiations include transparency in the scheduling of mode 4 commitments, the use of economic needs tests (ENTs) to limit market access by natural persons,²⁰ and the refinement of definitions pertaining to mode 4 personnel.²¹

Working Party on Domestic Regulation (WPDR)

Under the WPDR and pursuant to Article VI:4 of the GATS, members have worked to develop disciplines to ensure "that [domestic regulatory] measures relating to qualification requirements and procedures, technical standards, and licensing requirements do not constitute unnecessary barriers to trade in services."²² Disciplines under Article VI:4 address the relative ease or difficulty with which the credentials of foreign service providers are recognized by host-country governments, the licensing criteria that foreign providers must meet, and the rules that they must follow in providing a particular service. Such disciplines

¹⁶ *Bridges Weekly Trade News Digest*, "Zambia to Lead LDC Group in WTO Work." The LDC Group comprises 50 least-developed country members of the WTO. In 2005, the Government of Zambia was elected to chair the work of this group in WTO negotiations.

¹⁷ *International Trade Daily*, "India's Mode 4 Demands." Also in March 2006, India introduced a proposal on behalf of 15 WTO members on mode 4. The proposal requested developed country members such as the United States and the European Union to further expand their commitments on contractual service suppliers and independent professionals in select service sub-sectors, such as computer-related services and engineering services. Such highly skilled workers would have to meet minimum education or prior experience requirements and would be granted a stay in the host country of no less than one year.

¹⁸ WTO, GATS, "Annex on Movement of Natural Persons." According to paragraph 2 of the Annex on Movement of Natural Persons, GATS does not apply to "natural persons seeking access to the employment market of a Member, [...] or employment on a permanent basis." As such, GATS commitments do not extend to migratory labor or to temporary workers looking for permanent employment in a member country.

¹⁹ WTO, CTS-SS, "Report of the Meeting Held on 24 May 2006," June 9, 2006.

²⁰ WTO, GATS, Part III, "Specific Commitments." The use of ENTs to numerically limit the number of foreign service providers contravenes Article XVI:2(d) of the GATS pertaining to market access.

²¹ WTO, CTS-SS, "Communication from Canada: Mode 4 Commitments and Economic Needs Tests," submitted June 21, 2005; "Communication from Canada: Proposal on Transparency of Horizontal Mode 4 Commitments," submitted June 21, 2005; and Mamdouh, "Movement of Natural Persons Under the GATS."

²² WTO, Working Party on Domestic Regulation (WPDR), "Report of the Meeting Held on 19 and 20 June 2006," August 14, 2006. Article VI:4 does not prohibit members from regulating the provision of a particular service or from introducing new regulations with respect to that service, but recommends that members ensure that these measures do not interfere with GATS commitments.

therefore affect members' commitments on virtually all service sectors. In June 2006, the Chairman of the WPDR received a mandate to develop a draft text of Article VI:4 disciplines reflecting proposals and positions expressed and highlighting areas where members had reached consensus.²³ However, large differences in opinion among WTO members regarding elements to be included in the draft text remained and, as a result, the Chairman instead developed a working paper in July 2006 to be used as a basis for further discussion.²⁴

To date, Colombia, the EU, Taiwan, and Switzerland and Mexico (in a joint paper), among others, have tabled proposals regarding a draft text of Article IV:4. Both Colombia's proposal on visa requirements and the EU's proposal on licensing procedures recommended broad disciplines on areas such as application requirements, fees, processing times, and administrative transparency.²⁵ Taiwan's proposal suggested that members adopt agreed definitions for each of the elements specified under Article VI:4, namely qualification requirements and procedures, licensing requirements and procedures, and technical standards.²⁶ Switzerland and Mexico's joint paper recommended disciplines on technical standards, which included provisions on the use of international standards, equivalency, and transparency in the publication of information.²⁷ For its part, the United States has cautioned against any attempt on the part of members to use the Chairman's paper as a negotiating text, and has outlined particular concerns on the issues of necessity tests, technical standards, and definitions. Moreover, apart from horizontal disciplines on regulatory transparency, the United States expressed the view that a single set of disciplines under Article VI:4 would not apply effectively to all service sectors and therefore questioned members' current approach to the development of such disciplines.²⁸ The WPDR held informal meetings in January 2007, at which time members continued exchanging positions on how best to develop disciplines under Article VI:4.

Working Party on GATS Rules (WPGR)

Under the WPGR, members have held simultaneous discussions on emergency safeguard measures (ESMs), government procurement, and subsidies. A conclusion has not been achieved on any of these matters, although movement toward consensus on ESMs has progressed furthest.

²³ Ibid.

²⁴ Information provided via e-mail correspondence by the Office of the USTR.

²⁵ WTO, WPDR, "Communication from Colombia: Examples of Measures Relating to Administrative Procedures," submitted July 7, 2004; and "Communication from the European Communities and their Member States: Proposals for Disciplines on Licensing Procedures," submitted July 10, 2003.

²⁶ WTO, WPDR, "Communication from the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu: Definitions of Qualification Requirements," submitted October 6, 2005.

²⁷ WTO, WPDR, "Communication from Switzerland and Mexico: Proposal for Disciplines on Technical Standards," submitted October 28, 2005; and "Communication from the Separate Customs Territory of Taiwan, Penghu, Kinmen and Matsu: Definitions of Qualification Requirements," submitted October 28, 2005. "Technical standards" refer to rules governing the provision of the service itself, rather than to criteria that must be met by an individual service provider.

²⁸ USTR, "Outline of the U.S. Position on a Draft Consolidated Text in the GATS Working Party on Domestic Regulation" and "2006 Annual Report."

Emergency Safeguard Measures (ESMs)

Article X of the GATS states that members must begin negotiations on ESMs 3 years after the WTO agreement enters into force, but the text of Article X provides no further guidance on the substance of these negotiations.²⁹ Members have not yet reached agreement on a formal definition of an ESM applied to services.³⁰ In general, however, an emergency safeguard would permit a member to temporarily suspend its GATS commitments with respect to opening a service sector to foreign competition if it were determined that the domestic industry supplying that service would be harmed by such competition.

Members' positions concerning emergency safeguard measures have centered on whether the development of an ESM is necessary in the context of the GATS; and, if it were necessary, how and under what conditions an ESM would be used.³¹ On the issue of necessity, positions have been divided. For instance, while some countries suggested that a safeguard measure would serve as an important safety net to protect against the unforeseen consequences of liberalizing certain services under the GATS,³² other countries stated that there is no need for the establishment of a safeguard mechanism given that article XXI already permits members to modify existing commitments.³³ At the same time, discussions regarding the implementation of a proposed safeguard have included topics such as how to define the domestic industry (e.g., to include all firms with commercial establishment or only national firms); vested rights (e.g., to what extent would safeguards affect the acquired rights of service suppliers established in a foreign country); and how to measure injury to the domestic industry.³⁴ In order to move further toward consensus on safeguard measures, some countries have suggested proceeding with a discussion on these technical issues, even while the question of necessity remains under debate.³⁵

²⁹ WTO, GATS, "Article X: Emergency Safeguard Measures."

³⁰ A few members have proposed adapting to services the definition on emergency safeguard measures applicable to goods under the GATT Agreement on Safeguards.

³¹ WTO, Working Party on GATS Rules (WPGR), "Report of the Meeting of 21 September 2005," September 30, 2005.

³² WTO, WPGR, "Report of the Meeting of 20 June 2005," September 7, 2005; and Marconini, "Emergency Safeguard Measures in the GATS." Some members have stated that an emergency safeguard measure would grant countries with less flexible regulatory systems adequate time to respond to the sudden, adverse effects of import liberalization on the local economy (e.g., on employment). This is especially true for countries such as Trinidad and Tobago, which characterized its economy as "small and vulnerable."

³³ WTO, GATS, "Article XXI: Modification of Schedules"; "Article XII: Restrictions to Safeguard the Balance of Payments"; and WTO, WPGR, "Communication from Australia: Some Conceptual Issues Concerning the Application of Safeguards," submitted December 6, 2005. Article XXI provides for a permanent rather than a temporary modification of GATS commitments, and requires the country modifying its commitments to make "compensatory adjustments" to any other member that is affected by the change. In addition, it has been suggested that Article XII also serves as a type of ESM, "allowing members to safeguard their balance of payments by adopting or maintaining restrictions on trade in services on which they have undertaken specific commitments, including on payments and transfers for transactions related to such commitments...."

³⁴ Other issues unique to services that are under discussion include modal applications and the availability of adequate services statistics for the purposes of injury determination.

³⁵ WTO, WPGR, "Report of the Meeting of 10 February 2006," February 2, 2006.

Government Procurement

Separately, GATS Article XIII specifies that members commence multilateral negotiations on government procurement within 2 years after establishment of the WTO.³⁶ However, a lack of consensus among members on how best to proceed with discussions on government procurement has made the pace and outcome of these negotiations uncertain. As in the case of emergency safeguard measures, the GATS does not provide a template for government procurement negotiations, but rather allows WTO members to determine the parameters. Negotiations on government procurement have addressed fundamental issues such as the need for a formal definition of government procurement as applied to services, and the establishment of guidelines for scheduling commitments on government procurement under the GATS. Most recently, discussions have focused on a proposal tabled in June 2006 by the EU,³⁷ which suggested developing a separate annex³⁸ under the GATS on procedural rules for government procurement in services.³⁹ The EU also recommended using government procurement-related measures in economic integration agreements as a basis for the development of scheduling guidelines for commitments under the GATS.⁴⁰

Subsidies

Lastly, negotiations in the WPGR on services subsidies, as mandated under GATS Article XV, remain at a preliminary stage, largely focused on the development of a provisional definition of a subsidy as it applies to services. Article XV states that members must negotiate in order to develop multilateral disciplines to avoid the potentially adverse effects of subsidies on services trade, while at the same time recognizing the special role that subsidies may play in the programs of developing countries. In preparation for negotiations, Article XV also requires that members exchange information on the subsidies that they provide to their domestic service suppliers.⁴¹ In meetings of the WPGR, WTO members stated positions on a joint proposal submitted by Chile, Hong Kong, Mexico, Peru, and Switzerland in June 2005.⁴² The proposal recommended developing a “working” definition of a services subsidy, using elements found in the GATT Agreement on Subsidies and

³⁶ WTO, GATS, “Article XIII: Government Procurement,” paragraph 2. The first paragraph of Article XIII states that, “Articles II, XVI and XVII [applying to most-favored nation treatment, market access, and national treatment, respectively] shall not apply to the laws, regulations or requirements governing the procurement by governmental agencies of services purchased for governmental purposes [...]”

³⁷ WTO, WPGR, “Communication from the European Communities and their Member States: Government Procurement in Services,” submitted June 20, 2006.

³⁸ The annex would address such topics as the valuation of contracts, non-discrimination, tender documentation, procurement methods, and contract awards.

³⁹ Thirteen WTO members, including the EU and the United States, are currently party to the plurilateral Agreement on Government Procurement (GPA), which entered into force in 1981 and was amended in 1994 to include coverage of services. The EU’s proposed annex on government procurement under the GATS included recommendations on how members should schedule government procurement commitments if they were already a party to the GPA. For more information on the GPA, see WTO, “Overview of the Agreement on Government Procurement.”

⁴⁰ WTO, WPGR, “Communication from the European Communities and their Member States: Government Procurement in Services,” submitted June 20, 2006.

⁴¹ WTO, WPGR, “Questions Relevant to the Information Exchange Required Under the Subsidies Negotiating Mandate,” February 5, 1997. In 1997, the Secretariat of the WPGR distributed a formal questionnaire to WTO members asking them to furnish information on subsidies that they provide to their domestic service suppliers. However, only five members—Hong Kong, New Zealand, Norway, Poland, and Switzerland—responded to the questionnaire.

⁴² WTO, WPGR, “Report of the Meeting of 21 September 2005,” September 30, 2005. The proposal also contained a renewed request for members to provide information on their services subsidies.

Countervailing Measures (ASCM).⁴³ The working definition would, in turn, be used to facilitate information exchange on services subsidies maintained by WTO members.

Although some members supported this proposal, others stated that an *a priori* definition of a services subsidy would be overly broad and would not fulfill Article XV's mandate requiring members to address subsidies that are trade-distortive.⁴⁴ As an alternative, the United States proposed a narrower approach, recommending that members first identify areas where subsidies were most likely to impede services trade. Similarly, Hong Kong noted the existence of sectors where subsidies serve important public policy objectives (e.g., education and health care) and that may be exempt from corrective or countervailing measures.⁴⁵ At present, discussion among members continues regarding the adaptability of the ASCM subsidy definition to services, and how best to define the scope of a services subsidy for the purpose of information exchange.⁴⁶

Free Trade Agreements (FTAs)

By April 2007, the United States had entered into 9 bilateral and 2 regional FTAs that contained provisions on services trade (table 11.2). FTAs include provisions specific to services trade in chapters on cross-border services, financial services (including banking and insurance), and telecommunication services. Each of these chapters states broad disciplines for the treatment of service suppliers of the FTA partner, addressing core principles also found under the GATS such as market access, national treatment, and most-favored nation (MFN) treatment. In addition, FTAs contain three annexes on non-conforming measures (NCMs), or specific restrictions on the supply of services listed in the annexes.⁴⁷ Because FTAs employ a negative rather than a positive list approach,⁴⁸ services for which NCMs are not included are considered open to foreign participation.⁴⁹ In general, services liberalization under the FTAs has been limited and is expected to have a minor impact overall on U.S. services trade, principally due to the small volume of U.S. services trade with the FTA partners or, in the case of Australia, to an already-liberalized regime for U.S. and other foreign service providers.

⁴³ The ASCM pertains to subsidies with respect to trade in goods only. For more information, see WTO, *Agreement on Subsidies and Countervailing Measures*.

⁴⁴ WTO, WPGR, "Report of the Meeting of 20 June 2005," September 17, 2005.

⁴⁵ *Ibid.*

⁴⁶ WTO, WPGR, "Communication from Switzerland: Response to Questions Relevant to the Information Exchange," submitted December 22, 2005. A December 2005 submission by Switzerland, detailing the country's domestic subsidy programs, has also been used to facilitate discussion by members on services subsidies.

⁴⁷ One annex lists cross-border measures currently in place, another lists measures that may be implemented in the future, and a third lists measures pertaining to financial services only. NCMs may vary in their severity, with some measures being highly restrictive and others less so.

⁴⁸ The GATS' positive list approach requires countries to identify all existing restrictions on foreign service providers. In practice, however, some countries fail to list existing restrictions in certain sectors, meaning that there are *de facto* limitations on the supply of these services by foreign providers.

⁴⁹ A negative listing results in greater market access and transparency than the positive listing used under GATS, wherein countries must schedule commitments on specific sectors to guarantee market access and national treatment. One forward-looking benefit of a negative listing is that the FTA disciplines are extended automatically to services that have yet to be brought to market, i.e., through technological innovation.

Table 11.2 U.S. bilateral and regional agreements

Free Trade Agreement	Signed	Entered into force
Australia	May 2004	January 2005
Bahrain	September 2004	January 2006
Central America-Dominican Republic	August 2004	(^a)
Chile	June 2003	January 2004
Colombia ^b	November 2006	(^c)
Korea	(^d)	(^e)
Jordan	October 2000	December 2001
Morocco	June 2004	January 2006
North American Free Trade Agreement	December 1992	January 1994
Oman	January 2006	(^c)
Panama ^b	(^d)	(^e)
Peru ^b	April 2006	(^c)
Singapore	May 2003	January 2004

Source: Office of the United States Trade Representative, "Trade Agreements," accessed May 22, 2006 and April 6, 2007.

Note: Negotiations are planned or pending with Malaysia, the Southern African Customs Union, Thailand, and the United Arab Emirates.

^aRatified by the United States, the Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua. Pending ratification by Costa Rica.

^bThis agreement, called a Trade Promotion Agreement, is the same as a free trade agreement.

^cPending ratification by parties.

^dOn March 31, 2007 and April 1, 2007, President Bush notified Congress of his intention to enter into free trade agreements with Panama and Korea, respectively. It is anticipated that the President will sign these agreements in June 2007.

^eNot applicable.

Under the FTAs, U.S. service providers are accorded market access in certain sectors that is roughly equivalent to and in some cases better than that received under the GATS. For instance, NCMs on financial services identified under the Australia, Bahrain, and Oman FTAs indicate a greater degree of openness to U.S. service suppliers than do these countries' GATS commitments on financial services. Other areas where there appears to be some improvement over the GATS for access by U.S. service providers include, for example, audiovisual services in Oman, construction and engineering services in Morocco, and tourism and basic telecommunication services in Singapore. At the same time, some countries have listed NCMs under FTAs for which they have made no corresponding GATS commitments. For example, Australia, Bahrain, and Chile each identified NCMs on business services, while Morocco and Singapore included new measures on distribution and education services. A few of these countries also listed NCMs on energy, environmental, and transportation services—sectors that have typically received limited coverage under the GATS.

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	Includes accounting, auditing, and bookkeeping services. Excludes data processing and tabulating services.	Same
Advertising	Includes preparation of advertising and placement of such advertising in media.	Same
Air transport		
<i>Passenger fares</i>	Predominantly includes receipts by U.S. air carriers from passengers traveling between the United States and foreign countries, and between two foreign points. Also includes receipts by U.S. ocean carriers for the transport of passengers.	Predominantly includes payments to foreign air carriers by U.S. residents traveling between the United States and foreign countries, and between two foreign points. Also includes payments to foreign ocean carriers for the transport of passengers.
<i>Freight</i>	Includes receipts of U.S. air carriers for the international transportation of U.S. exports to foreign countries, and receipts of U.S. air carriers transporting U.S. exports between foreign points.	Includes payments to foreign-operated air carriers for transportation of U.S. imports from a foreign country to the United States.
<i>Port</i>	Includes goods and services purchased in U.S. airports by foreign-operated carriers, including fuel and oil, station and maintenance bases, wages, and other goods and services except aircraft leasing expenses.	Includes goods and services purchased in foreign airports by U.S.-operated carriers.
Architectural, engineering, construction, and mining	Includes architectural, construction, engineering, 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, construction work by special trade contractors, and drilling wells or erecting and dismantling drilling rigs for oil and gas fields. 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 intermediate inputs of wages, services, materials, and other expenses.
Audiovisual	Includes foreign rentals of films and tapes from U.S. sources.	Includes U.S. rentals of films and tapes from foreign sources.

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 commissions and fees for brokerage services, private placement services, underwriting services, financial management services, credit card services, credit-related services, financial advisory and custody services, securities lending services, electronic funds transfer services, asset management 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, design, and engineering services; custom software and programming services; rights to produce, use, and distribute general use software, except prepackaged computer software physically shipped to or from the United States; integrated hardware/software services; and other computer services (e.g., timesharing, maintenance, and repair). Excludes operational leasing of computer and data processing equipment.	Same
Database and other information	Includes business and economic database services; medical, legal, technical, and similar database services; general news services; and credit reporting systems.	Same
Education	Includes tuition and living expenses of foreign students studying at U.S. colleges, universities, and other institutions of higher education.	Includes tuition and living expenses of U.S. students studying at foreign colleges, universities, and other institutions of higher education through “study abroad” programs sponsored by U.S. institutions. From 2002 onward also includes estimated tuition and living expenses for U.S. permanent residents who enroll in a degree program at a university in Australia, Canada, or the United Kingdom and reside temporarily in these countries.
Equipment leasing	Includes rentals for computer and data processing equipment, transportation equipment without crew or operators, and all other machinery and equipment. Excludes rentals under leases that have been capitalized, and rentals of any items other than machinery and equipment, such as real estate, film rentals, and employee leasing.	Same

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
Franchising	Includes fees received under business format franchising agreements. Business format franchising is characterized by an ongoing business relationship between franchisor and franchisee that includes not only the product, service, and trademark, but the entire business format itself. Excludes receipts for the use of trademarks, except where such trademarks are part of a business format franchise.	Same
Health care	Includes inpatient and outpatient fees charged to foreign residents. Inpatient fees include all hospital staff and outside physician fees, tests, drugs, and room and board. Outpatient charges include outpatient surgery, physical rehabilitation and therapy, dermatology, AIDS treatments, and consultations. Excludes fees for ambulatory treatment or drugs provided outside a hospital.	Includes estimates of payments by U.S. residents traveling abroad for incidental medical care and payments by U.S. residents who travel to Mexico and Canada specifically for medical purposes. ^a
Industrial engineering	Includes engineering services related to the design of movable products, including product design services. Includes services performed with the assistance of computers. Excludes engineering and architectural services that relate to immovable products, such as those that relate to proposed construction services projects.	Same
Insurance	Includes primary, reinsurance premiums and premium supplements paid by foreign persons to U.S. insurance carriers operating in the U.S. market, net of 'normal' ^b claims paid to foreign persons.	Includes primary, reinsurance premiums and premium supplements paid by U.S. persons to foreign insurance carriers operating in their home markets, net of 'normal' ^b claims paid to U.S. persons.
Installation, maintenance, and repair of equipment	Includes maintenance services for machinery and equipment, small maintenance work on structures, and installation and training services that are provided by a manufacturer in connection with the sale of goods, when the price of these services is not incorporated into the price of the goods that is entered on the declaration files with the U.S. Customs Service.	Same

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
Research, development, and testing	Includes laboratory and other physical research, product development services, and product testing services. Also includes experiments and research and development activities aboard spacecrafts. Excludes medical and dental laboratory services.	Same
Sports and performing arts	Includes fees received for performing arts and sports events, paid through management companies, booking agents, and promoters and presenters; and fees paid directly to U.S. performers by foreign persons.	Includes fees paid for performing arts and sports events, paid through management companies, booking agents, and promoters and presenters; and fees paid directly to foreign performers by U.S. persons.
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 transfers; telecommunication support services, such as repair and 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.
Training	Includes educational or training services provided on a contract or fee basis. Excludes tuition and fees charged to individual foreign students by U.S. educational institutions. Also excludes training performed by a manufacturer in connection with the sale of a good.	Includes educational or training services provided on a contract or fee basis. Excludes tuition and fees charged to individual U.S. students by foreign educational institutions. Also excludes training performed by a manufacturer in connection with the sale of a good.
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.	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.

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
Utilities	Includes electric power generation, transmission, and distribution; natural-gas distribution; operation of water treatment plants or water supply systems; operation of sewer systems; and operation of sewage treatment facilities that collect, treat, and dispose of waste.	Same

Sources: U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *U.S. International Transactions in Private Services: A Guide to the Surveys Conducted by the Bureau of Economic Analysis*, March 1998; USDOC, International Trade Administration, Tourism Industries, in conjunction with the U.S. Department of Justice, Immigration and Naturalization Service, Statistics Canada, and the Banco de Mexico; OECD, *Services Statistics on International Transactions*, 119; USDOC, BEA, *Survey of Current Business* 83, no. 7:35-36; USDOC, BEA, *Survey of Current Business* 84, no. 7:60; and USDOC, BEA, *Survey of Current Business* 85, no. 7:67.

^aPayments are based on the number of U.S. residents traveling abroad, a U.S. (BEA) estimate of the share of travelers requiring medical treatment, and an estimate of the average cost per treatment. USDOC, BEA, *Survey of Current Business* 85, no. 7:67.

^bNormal losses are inferred from the relationship between actual losses and premiums averaged over several years. USDOC, BEA, *Survey of Current Business* 83, no. 7:35-36.

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 and Purchases
Accounting	Auditing of accounting records, designing of accounting systems, preparing financial statements, developing budgets, preparing tax returns, processing payrolls, bookkeeping, and billing services.
Advertising	The creation of advertising campaigns and placing such advertising in periodicals, newspapers, radio, television, and other media. Activities include advice, creative services, account management, production of advertising material, media planning, and placement of advertisements.
Audiovisual	Motion picture, television tape, film, and sound recording production; distribution services; post-production services such as editing, film/tape transfers, and subtitling; and operating motion picture theaters. Does not include video tape and disk rentals, or wholesale distribution of video cassettes and sound recordings.
Banking and securities	Includes nondepository credit intermediation (credit card issuing, sales financing, mortgage companies, mortgage broking, international trade financing, and consumer finance companies); investment banking and securities dealing; securities brokerage; commodity contracts dealing and brokerage; portfolio management services; investment advisory services; and trust, fiduciary, and custody activities. Excludes lending and deposit-taking activities of depository institutions.
Computer and data processing	Includes the provision of expertise in the field of information technologies through one or more of the following activities: writing, modifying, testing, and supporting software to meet the needs of a particular customer; 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 other professional and technical computer-related advice and services.
Construction	The construction of buildings and other structures, heavy construction (such as highways, power plants, and pipelines), land subdivision and development, additions, alterations, installation, maintenance, and repair services. Includes demolition services or clearing of building sites, along with other land preparation services. Also includes "Special Trade Contractors" which often subcontract to general contractors, such as plumbing, painting, electrical, masonry, and carpentry contractors.
Education	Instruction and training in any subject, either for-profit or nonprofit, by either privately or publicly owned entities. Includes preschools; elementary schools; secondary schools; community colleges, four-year colleges and universities; professional schools; and technical training schools specializing in various subjects, such as secretarial skills, computer training, cosmetology, language instruction, automobile driving, flight instruction, and fine arts. This category also includes educational support services, such as educational consultants, guidance counseling services, and student exchange services.
Environmental	Includes environmental testing and analytical services, wastewater treatment works, solid waste management, hazardous waste management, remediation and industrial services, and environmental consulting and engineering.
Equipment leasing	Rental and leasing of commercial-type and industrial-type (nonconsumer) machinery and equipment. Establishments included in this group are generally involved in providing capital or investment-type equipment that clients use in their business operations. Includes construction, transportation, mining, and forestry machinery, and other commercial equipment rental and leasing. Excludes leasing affiliates of commercial banks.

Appendix B—Continued

Activities captured in official U.S. data on affiliate transactions by industry

Service	Sales and Purchases
Express delivery	(Couriers and messengers) Intercity and/or local delivery of parcels that may be handled by one person without using special equipment. May include collection, pick-up, and delivery operations using limited labor and minimal equipment.
Health care	Includes hospitals; offices of physicians, mental health specialists, and other health care providers; outpatient care centers, including family planning, mental health, and substance abuse centers; medical laboratories; home health care services; nursing and residential care facilities; and providers of social assistance services, including adoption agencies, youth centers, child day-care services, and services for the elderly.
Insurance carriers and related activities	Insurance carriers primarily engaged in underwriting annuities and insurance policies and investing premiums to build up a portfolio of financial assets to be used against future claims. Includes direct life, health, and medical insurance carriers, property/casualty and title insurance carriers, and reinsurance carriers. Also includes insurance agencies and brokerages, which are primarily engaged in acting as agents in selling annuities and insurance policies, and insurance claims adjusters.
Legal	Includes the services of lawyers or attorneys primarily engaged in the practice of law, notaries, real estate settlement services, real estate title abstract services, and patent agent services.
Maritime transport	Deep sea, coastal, and Great Lakes water transportation, including both freight and passenger transportation, using ships, barges, and boats.
Oil and gas field services	Includes drilling of oil and gas wells and other support services for oil and gas operations performed on a contract or fee basis, such as excavating slush pits and cellars; grading and building foundations at well locations; and cleaning out, bailing, and swabbing wells.
Retail distribution	Sales of merchandise to the general public for personal or household consumption, and services related to such sales, including after-sale repairs. Retailers fall into store and non-store categories, such as catalogs, door-to-door sales, and the Internet.
Telecommunication	Includes the operation, maintenance, or provision of access to facilities for the transmission of voice, data, text, and full motion picture video between network termination points, and telecommunications reselling. Includes wired, wireless, and satellite telecommunications.
Utilities	Includes generation, transmission, and/or distribution of electric power; distribution or marketing of natural gas for resale or to final consumers; and operation of water treatment plants, water supply systems, or sewage treatment and/or disposal systems.

Sources: OMB, *North American Industry Classification System*, 1998; and USDOC, BEA, "Guide to Industry and Foreign Trade Classifications for International Surveys," October 1997.

APPENDIX C

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