Recent Trends in U.S. Services Trade

2010 Annual Report

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ABSTRACT

Recent Trends in U.S. Services Trade, 2010 Annual Report focuses principally on infrastructure services (banking, electricity, insurance, retailing, securities, and telecommunications), which are consumed by every firm irrespective of economic sector. The largest infrastructure service firms are located in developed countries and offer their services globally through cross-border trade and affiliate transactions. Economic growth in developing countries around the world continues to create new opportunities for expansion and investment by infrastructure service firms.

The financial crisis that began in 2007 has affected the operations of most infrastructure services to some degree, although the largest effects were experienced by the banking and securities industries. Nonetheless, trade in U.S. services continued to grow in 2008, albeit slower than in previous years, and services supplied to foreign consumers by foreign affiliates of U.S. firms also demonstrated steady growth in 2007.

PREFACE

This report is the thirteenth 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, titled *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 requires the Commission's staff to maintain a proficient level of trade and industry expertise. The knowledge, industry contacts, and analytic skills developed in the compilation of this report are vital to enabling the Commission to provide expert analysis of multiple service industries on a timely basis. The Commission has found such expertise to be essential in its statutory investigations and in apprising its varied customer base of global industry trends, regional developments, and competitiveness issues.

In recent years, the Commission has published several reports on the services sector in addition to the *Recent Trends* series. These reports include *Property and Casualty Insurance Services: Competitive Conditions in Foreign Markets* (USITC Publication 4068, March 2009), *Renewable Energy Services: An Examination of U.S. and Foreign Markets* (USITC Publication 3805, October 2005), *Logistic Services: An Overview of the Global Market and Potential Effects of Removing Trade Impediments* (USITC Publication 3770, May 2005), *Air and Noise Pollution Abatement Services: An Examination of U.S. and Foreign Markets* (USITC Publication 3761, April 2005), and *Remediation and Nature and Landscape Protection Services: An Examination of U.S. and Foreign Markets* (USITC Publication 3727, October 2004).

[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 the services, agriculture, and manufacturing sectors.

ABBREVIATIONS AND ACRONYMS

ASEAN	Association of Southeast Asian Nations
BEA	Bureau of Economic Analysis
CDO	Collateralized Debt Obligation
CMBS	Commercial Mortgage-backed Securities
CPC	Central Product Classification
EIA	Electricity Information Administration
EIU	Economist Intelligence Unit
ETF	Exchange Traded Fund
FDI	Foreign Direct Investment
FDIC	Federal Deposit Insurance Corporation
FLC	Foreign Legal Consultant
FTA	Free Trade Agreement
GATS	General Agreement on Trade in Services
GDP	Gross Domestic Product
IEA	International Energy Agency
IMF	International Monetary Fund
IPO	Initial Public Offering
M&A	Merger and Acquisition
MiFiD	Markets in Financial Instruments Directive
NAICS	North American Industry Classification System
OECD	Organization for Economic Co-operation and Development
P&C	Property and Casualty
SME	Small and Medium Enterprise
SWF	Sovereign Wealth Fund

TARP	Troubled Asset Relief Program
TRIA	Terrorism Risk Insurance Act
USDOC	U.S. Department of Commerce
USITC	U.S. International Trade Commission
USTR	Office of the United States Trade Representative
VoIP	Voice over Internet Protocol
WTO	World Trade Organization

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EXECUTIVE SUMMARY

Despite the volatility of the world economy in the past two years, the United States remains the world's largest services market and also the world's leading exporter and importer of services. Moreover, the United States continues to maintain the largest services trade surplus of any country in the world.

Infrastructure services, the focus of this year's report,[1] are vital components of the U.S. economy. These industries—banking, electricity, insurance, retailing, securities, and telecommunications—exert an economy-wide influence through their cost, quality, and reliability. Low-cost banking, securities, and insurance, for instance, facilitate lending and risk management that promote entrepreneurship and economic growth; high-quality, reliable telecommunications and electricity provide the communications and energy necessary to support industrial activity; and low-cost transportation and retailing provides for the efficient distribution and marketing of manufactures and agricultural goods. Overall, infrastructure services accounted for a significant share of U.S. services trade, representing 27 percent of total U.S. cross-border services exports and 39 percent of U.S. cross-border services imports in 2008.

Key Findings

U.S. Trade in Services

The United States continued to be a major exporter in global services markets. In 2008, the U.S. surplus from cross-border trade in services grew to $161.4 billion—up from $138.9 billion in 2007, and the highest level recorded to date. The United Kingdom was the largest single market for U.S. exports of private-sector services (12 percent) and was also the largest source of U.S. services imports (12 percent) in 2008. Sales volumes of affiliates in host economies remained much larger than cross-border trade, with U.S.-owned affiliates (in foreign markets) reporting sales of $1 trillion in 2007, and foreign-owned affiliates (in the United States) reporting sales of $677.8 billion. Because key financial crisis events occurred in late 2008, the economic effects of the crisis will likely show up more strongly in 2009 trade data than in 2008 trade data. Data from 2009 were not available for this report meaning that this report's data will likely not show the largest effects of both the crisis and policy responses to it.

U.S. competitiveness in infrastructure services was evident as well, with services supplied by U.S.-owned affiliates abroad far surpassing services supplied by foreign-owned affiliates in the United States. Affiliate transactions predominated among infrastructure services sales in 2007, owing much to the increasing deregulation and liberalization of the finance, telecommunication, and electricity industries. U.S.-owned infrastructure affiliates supplied services valued at $519 billion, with the financial and transportation industries in the lead, whereas foreign-owned infrastructure affiliates supplied services valued at $392.9 billion, led by transportation. Cross-border trade in infrastructure services resulted in a small $2.3 billion deficit in 2008, reflecting consistently high imports of transport services engaged in bringing goods to the United

[1] Beginning with the *2008 Recent Trends in U.S. Services Trade* report, analysis focuses on selected infrastructure services in even-numbered years and on selected business and professional services in odd-numbered years.

States and equally consistent imports of insurance/reinsurance from the Caribbean and Europe.

Infrastructure Services in the U.S. Economy

Infrastructure services are a large component of the U.S. economy, and they offer pay that varies considerably by occupation and industry. Infrastructure services directly contribute $3.8 trillion, or 37 percent, to U.S. gross domestic product, and infrastructure service workers number about 33 million, or around 30 percent of all private-sector employees. There is extreme variation in average wages commanded by infrastructure service workers, ranging from those in the finance industry ($88,094) to those in the retail industry ($30,911). With average wages of $54,151 in 2008, however, U.S. infrastructure service workers' wages exceeded the average among other private sector workers ($50,028), including those in nondurable manufacturing ($51,891).

Demand and Supply Factors in Selected Infrastructure Service Industries

Primary factors that affect infrastructure service firms worldwide include economic growth or contraction, technological advancement, and government regulation (table ES.1). Economic growth in many developing markets has increased global demand for a variety of services, such as banking, electricity, retailing, securities, and telecommunication services, driving service providers to enter emerging markets with growing levels of disposable income. By contrast, in many developed markets, the recent financial crisis limited the amount of available capital, curtailing the supply of banking and securities services and reducing demand for retailing services, as consumers faced reduced lines of credit. Moreover, the economic downturn that followed the financial crisis shifted the volume and types of services demanded in the securities and retailing markets, and drove consolidation within a number of industries. Aside from economic developments, technological innovation reshaped industries and markets. This was most apparent in banking, retailing, and telecommunications, where new mobile applications and social media have influenced supply and demand patterns. Additionally, increased government regulation, driven by economic or environmental concerns, has affected the strategy and operations of firms in a number of industries, such as banking, electricity, and securities.

Recent USITC Roundtable Discussion

The Commission hosted its third annual services roundtable on December 2, 2009. The roundtable drew participation from service sector experts in industry, government, and academia. Discussion focused on the impact of services trade liberalization on employment, the degree to which small- and medium-sized enterprises participate either directly or indirectly in international services trade, and the current status of and prospects for services trade liberalization. The roundtable highlighted the need for better services trade data and for research on both the domestic employment effects of outbound services investment and the degree to which programs to develop or augment regulatory capacity might promote services trade liberalization.

TABLE ES.1 Demand and supply factors in selected infrastructure service industries

Industry	Demand factors	Supply factors
Banking	• Economic growth • Changing interest rates	• Capital limitations due to the financial crisis • Government regulations
Electricity	• Increased commercial activity • Rising disposable incomes • Temperature variations • Government regulations	• Government regulations • Environmental concerns
Insurance	• Tax incentives • Premium rates • Demographic shifts • Natural disasters • Government regulations	• Decreased profitability • Government regulations • Demographic shifts • Financial implications of natural disasters
Retailing	• Growing wealth in developing markets • Shifting macroeconomic conditions • Increasing preference for online retailing	• Shifting strategies toward expansion in developing markets • Investment in new channels of delivery
Securities	• Decreasing investor risk tolerance • Growing demand for personalized investment products • Investment by sovereign wealth funds in Western securities	• Government policies and programs seeking to stabilize financial markets • Accelerating industry consolidation
Telecommunications	• Rapid growth in wireless services markets in developing countries • Decreased preference for landline services	• Decreasing supplier interest in the international long-distance market • Cost saving efforts by suppliers

Source: Compiled by Commission staff.

CHAPTER 1
Introduction

Scope

This annual report examines U.S. services trade, both in the aggregate and in selected industries; identifies important U.S. trading partners; and analyzes global competitive conditions in selected service industries. This year's report focuses primarily on infrastructure services, specifically banking, electricity, insurance, retail, securities, and telecommunication services.

Data and Organization

The Commission draws much of the services trade data used throughout this report from the U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA).[1] Such data are supplemented with information drawn from many other sources, including individual service firms, trade associations, industry and academic journals and reports, electronic media, international organizations, and other government agencies.

The balance of this chapter examines cross-border trade from 2003 through 2008 and affiliate sales from 2004 through 2007;[2] compares the trade situation during the most recent year for which data are available to previous trends; and describes the nature and extent of cross-border trade and affiliate transactions. Chapter 2 discusses recent trends affecting multiple infrastructure service industries and examines the contribution of these industries in terms of economic output, employment, labor productivity, and trade. Chapters 3 through 8 analyze the banking, electricity, insurance, retail, securities, and telecommunication service industries. These chapters provide an overview of global competitiveness, examine recent trends in cross-border trade and/or affiliate transactions, summarize trade impediments, and discuss the impact of the recent financial crisis and economic downturn (box 1.1). Chapter 9 describes initiatives to improve worldwide services trade statistics. Lastly, chapter 10 summarizes a services trade roundtable discussion hosted by the Commission in December 2009.

[1] The BEA's data are compiled from surveys of services directed to specific service industries or types of investment. For more information about the BEA's methods, see USDOC, BEA, *Survey of Current Business*, October 2009, 24. BEA does not report data for electricity services. These data were obtained primarily from the U.S. Department of Energy, Energy Information Administration, International, "International Energy Statistics," among other sources.

[2] Data on affiliate transactions lag those on cross-border services trade by one year. Analyses of cross-border trade data compare performance in 2008 to trends from 2003 through 2007. Similarly, analyses of affiliate sales compare performance in 2007, the most recent year for which affiliate sales data are available, to trends from 2004 through 2006. In 2008, BEA changed the method of reporting affiliate trade data. New affiliate data report "services supplied," which better reflect services output than the prior measure "sales of services." Data for years prior to 2004 do not reflect this change, and consequently are omitted from this analysis. For more information, see USDOC, BEA, *Survey of Current Business* 89, no. 10, 34–36.

BOX 1.1[a] The global financial crisis

The recent financial crisis and subsequent economic downturn have had a significant effect throughout the U.S. and overseas economies, including those infrastructure services industries which are the focus of this study. Thus, each of the industry-specific chapters in this report analyzes the effect of the crisis and downturn on the specific infrastructure services industry under discussion.

In July 2007, the crisis began to emerge with the liquidation of two Bear Stearns & Co. hedge funds that relied heavily on mortgage-backed securities. Ultimately, the Federal Reserve Board (Fed) facilitated the sale of Bear Sterns to JPMorgan Chase in March 2008, thus avoiding a Bear Sterns bankruptcy. This was followed by the federal government's takeover of Fannie Mae and Freddie Mac, the collapse of Lehman Brothers, and the Fed's bailout of American International Group (AIG) in September 2008.

In an effort to stem falling stock prices, the following month the U.S. government passed the Emergency Economic Stabilization Act of 2008, which, among other things, appropriated funds for the government purchase of "toxic" bank assets. However, the U.S. economy continued to exhibit instability throughout the end of 2008 as the impact of the crisis on industries outside of the financial sector—such as the retail and auto industries—became increasingly evident. Stock market values and housing prices continued to decline, and the unemployment rate stood at its highest level in over a decade. In February 2009, the Obama administration announced an expansion of the bank rescue program and a new plan that set aside $275 billion to provide mortgage relief to troubled homeowners.

Effects of the crisis were also felt in overseas markets. The European financial sector was affected by the collapse of the real estate bubbles in Spain and Ireland, and the tightening of credit in Eastern Europe. In addition, falling consumer demand led to decreased trade, significantly impacting large export-oriented economies (such as China).

The U.S. economy showed signs of improvement in mid-2009, as stock prices rose and 10 financial firms paid back funds that they had received under the bailout plan. However, high U.S. unemployment[b] and certain financial indicators suggest that the crisis continues to have a strong effect on the U.S. economy.

[a] The information contained in the text box is based primarily on the *New York Times*, "Credit Crisis," January 12, 2010; The Federal Reserve Bank of St. Louis, "The Financial Crisis"; Mark Jickling, "Causes of the Financial Crisis," January 29, 2009.

[b] The U.S. unemployment rate stood at 9.7 percent in February 2010, down only slightly from its peak of 10.1 percent in October 2009. U.S. Department of Labor (USDOL), Bureau of Labor Statistics (BLS), "Labor Force Statistics from the Current Population Survey," accessed March 29, 2010.

The U.S. Services Sector

Service industries are a significant contributor to overall U.S. production and employment. In 2008, the U.S. services sector accounted for 80 percent (or $8.2 trillion) of total U.S. gross domestic product (GDP) and 80 percent (or 85.9 million) of U.S. full-time employees. In that year, services sector workers earned an average salary of $48,888, which was lower than the average U.S. salary of $50,028. Recent trends in the U.S. services sector have mirrored overall trends in the U.S. economy, as average annual increases in services sector GDP, employment, and wages were within 1 percent of the growth rates registered for the United States as a whole from 2003 through 2008.[3] A more detailed description of production and labor trends in U.S. infrastructure service industries, which are the focus of this report, is provided in chapter 2.

[3] USDOC, BEA, "Real Value Added by Industry," April 28, 2009 (accessed September 8, 2009); USDOC, BEA, "Full-Time Equivalent Employees by Industry," August 20, 2009 (accessed September 8, 2009); and USDOC, BEA, "Table 6.6D: Wage and Salary Accruals," August 20, 2009 (accessed September 8, 2009). Value added is a measure of an industry's contribution to gross domestic product; it is the difference between gross industry output and intermediate inputs.

Global Services Trade

The United States is competitive in the global services market. As the world's top exporter of services, the United States accounted for $521.4 billion, or 14 percent, of global cross-border commercial services exports in 2008 (figure 1.1).[4] Other top single-country exporters included the United Kingdom (7 percent) and Germany (6 percent). Although most of the world's top 10 services exporters in 2008 were developed countries, China and India ranked as the world's fifth- and ninth-largest services exporters respectively. Overall, the top 10 exporting countries accounted for 52 percent of global cross-border services exports in 2008.[5]

The United States also was the world's largest services importer in 2008, with $367.9 billion, or 11 percent, of global commercial services imports. In that same year, Germany and the United Kingdom respectively accounted for 8 percent and 6 percent of such imports, while the top 10 importing countries together accounted for one-half of total global commercial services imports. China, which was the fifth-largest importer of commercial services in 2008, was the only developing country to rank among the top 10 global importers.

Among the world's top 10 exporters and importers of commercial services, the United States recorded the largest services trade surplus ($153.5 billion) in 2008, followed by the United Kingdom ($86.8 billion). Germany and Japan recorded the largest services trade deficits, with imports exceeding exports by $41.4 billion and $21.0 billion, respectively.[6]

U.S. Trade in Services

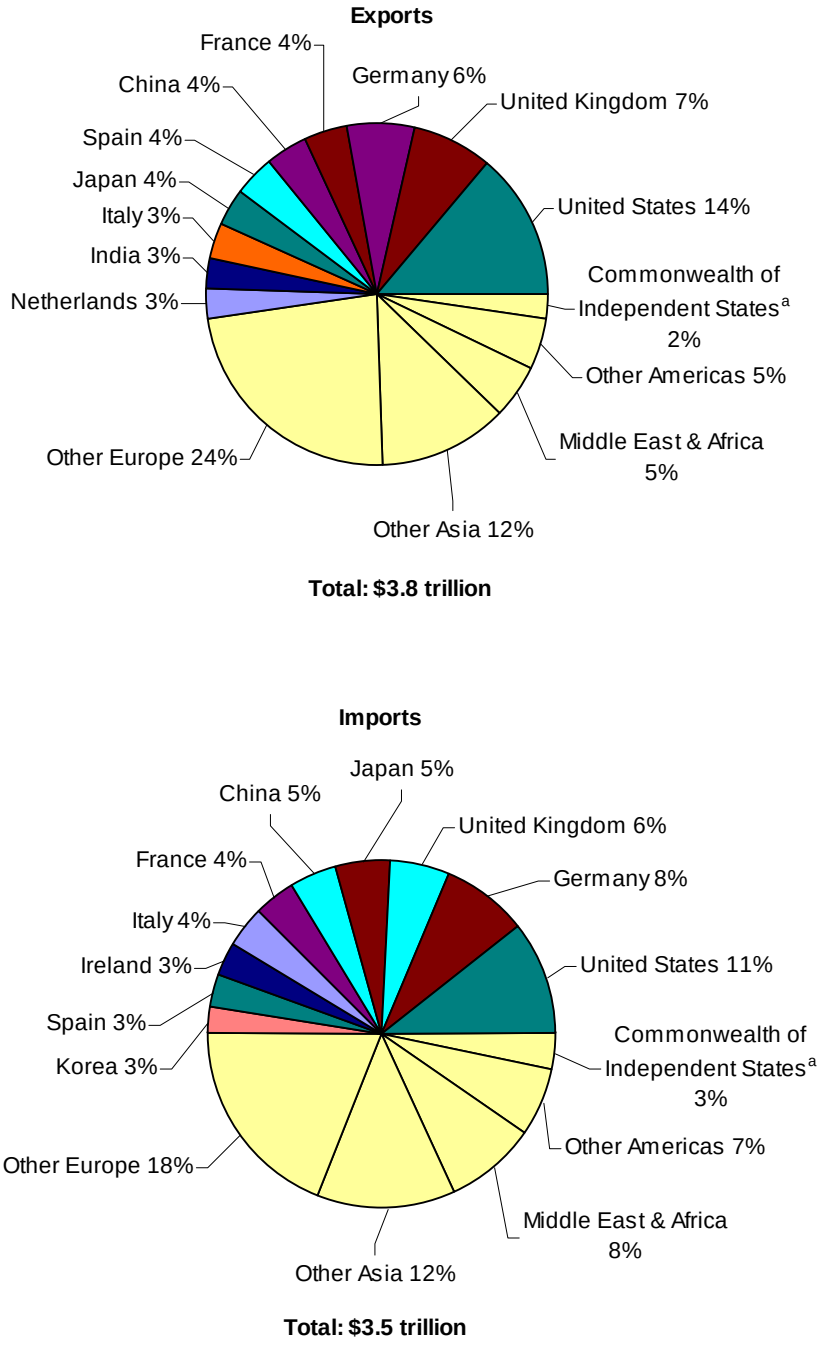
The BEA publishes data on both cross-border trade and affiliate transactions in services, which together account for a substantial portion of the services provided through all four modes of supply specified in the General Agreement on Trade in Services (GATS) (box 1.2). "Cross-border trade" occurs when suppliers in one country sell services to consumers in another country, with people, information, or money crossing national boundaries in the process. Such transactions appear explicitly as imports and exports in BEA balance of payments data. Firms also provide services to foreign consumers through affiliates established in host countries, with the income generated through

[4] USDOC, BEA representative, telephone interview by Commission staff, February 25, 2009. The term "commercial services," like the term "private services," refers to services offered by the private, rather than the public, sector. The discrepancy between BEA trade data and WTO trade data, the latter of which is sourced from the International Monetary Fund (IMF), stems from different classification systems. For example, BEA considers the repair of goods a service, whereas before 2008 the IMF considered the activity a good.

[5] WTO, *International Trade Statistics 2009*, 2009, 189–91, table A8.

[6] WTO, *International Trade Statistics 2009*, 2009, 192–94, table A9.

FIGURE 1.1 Global services: The United States led the world in cross-border exports and imports of services in 2008



Source: World Trade Organization (WTO), *International Trade Statistics 2009,* 2009, 189–94, tables A8 and A9.

Notes: Excludes public-sector transactions. Geographic regions are shaded yellow.

[a]Includes Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyz Republic, Moldova, Russia, Tajikistan, and Ukraine.

BOX 1.2 Services trade and the General Agreement on Trade in Services

Cross-border trade and affiliate transactions data reported by the Bureau of Economic Analysis (BEA) do not correspond exactly to the channels of service delivery reflected in the General Agreement on Trade in Services (GATS) of the WTO.[a] GATS identifies four modes of supply through which services are traded between WTO members:

Mode 1 is **cross-border supply,** which is not synonymous with BEA's data for cross-border trade. In this mode, 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).

Mode 2 is **consumption abroad.** In this mode, an individual from one country travels to another country and consumes a service in that country.

Mode 3 is **commercial presence.** In this mode, a firm based in one country establishes an affiliate in another country and supplies services from that locally established affiliate.

Mode 4 is **the temporary presence of natural persons**. In this mode, 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 intracompany transferee at a branch or subsidiary established by that individual's firm in another country.[b]

The BEA notes that mode 1 and 2 transactions and some mode 4 transactions generally are included in its data on cross-border trade, while mode 3 transactions are included, with some exceptions, in affiliate transactions data.

[a] USDOC, BEA, *Survey of Current Business*, tables 1 and 2, October 2009, 40–43.
[b] For more information on the four modes of supply under the GATS, see WTO, "Chapter 1: Basic Purpose and Concepts," n.d. (accessed April 7, 2009).

"affiliate transactions" appearing as direct investment income in BEA balance of payments data. The channel of delivery used by service providers depends primarily on the nature of the service. For example, retail services are supplied most effectively through affiliates located close to the consumer. Conversely, the provision of air and maritime transport services to foreign consumers predominantly takes place through cross-border trade, moving passengers and freight from one country to another. Affiliate transactions are the principal means of providing services to overseas customers, accounting for 68 percent of overall U.S. services trade volume in 2007 (box 1.3).

Cross-border Trade[7]

U.S. exports of private-sector services totaled $525.8 billion in 2008, while U.S. imports totaled $364.4 billion, resulting in a $161.4 billion trade surplus (figure 1.2). Infrastructure services accounted for 27 percent of exports and 39 percent of imports (figure 1.3).[8] Travel services accounted for the largest single-industry share of U.S. services trade in 2008, representing 21 percent of U.S. exports and 22 percent of U.S. imports.[9]

[7] The main sources for this section are the USDOC, BEA, *Survey of Current Business*, 1992 and 2006–09.
[8] Values are reported before deductions for expenses and taxes, as gross values are most directly comparable across countries, industries, and firms.
[9] USDOC, BEA, *Survey of Current Business* 89, no. 10, 40–41.

BOX 1.3 The rise of affiliate transactions

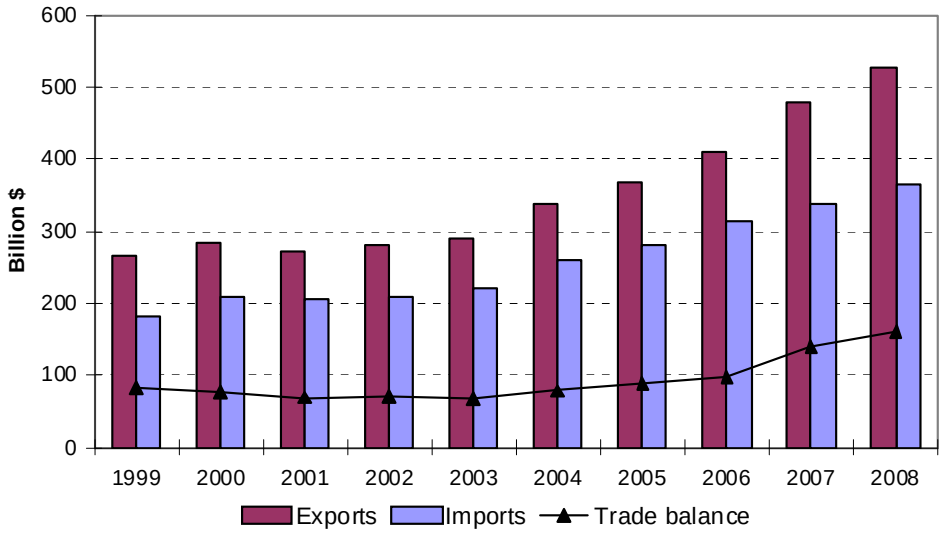
Since 1986, when the U.S. Department of Commerce began collecting statistics on U.S. services trade, the relative importance of cross-border trade and affiliate transactions has shifted significantly.[a] In each of the 10 years from 1986 through 1995, U.S. cross-border exports of services exceeded sales by majority-owned foreign affiliates of U.S. firms. Since 1996, however, sales by U.S. firms' foreign affiliates have exceeded cross-border services exports.[b] In 2007, services supplied by U.S. firms' affiliates abroad ($1.0 trillion) exceeded U.S. cross-border exports of services ($478.1 billion) by approximately 115 percent, or $547.7 billion. Similarly, services supplied to U.S. citizens by foreign-owned affiliates have exceeded cross-border services imports since 1989. In 2007, services supplied to U.S. citizens by the U.S. affiliates of foreign companies ($677.8 billion) exceeded services imports ($338.2 billion) by 100 percent, or $339.6 billion.[c] The growing 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 has occurred more recently in a growing number of low- and middle-income countries.

[a] USDOC, BEA, *Survey of Current Business*, October 2006, 20–21.

[b] In 2008, BEA changed its method of reporting affiliate trade data. New affiliate data report "services supplied," which better reflect services output than the prior measure, "sales of services." Data for years prior to 2004 do not reflect this change, but report sales of services. For more information, see USDOC, BEA, *Survey of Current Business*, October 2008, 34–36.

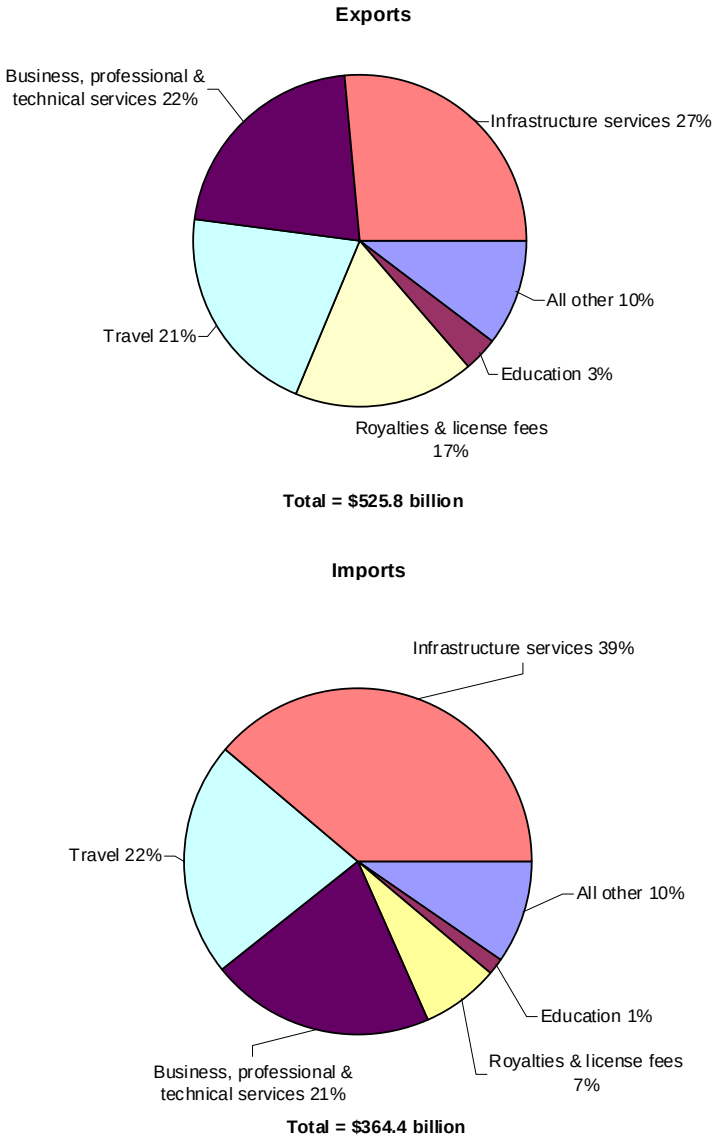
[c] USDOC, BEA, *Survey of Current Business*, October 2009, 23.

FIGURE 1.2 U.S. services: The U.S. cross-border trade surplus in private-sector services rose during 1999–2008



Source: USDOC, BEA, *Survey of Current Business,* October 2009, 40–41, table 1.

FIGURE 1.3 U.S. services: Infrastructure services accounted for a large share of U.S. cross-border exports and imports of services in 2008



Source: USDOC, BEA, *Survey of Current Business,* October 2009, 40–41, table 1.

Note: As discussed in footnote 10, trade data exclude public-sector transactions.

In 2008, U.S. cross-border services trade continued to increase, albeit at a slower rate than in previous years, due to the global economic downturn. According to BEA data on trade in private-sector services,[10] U.S. cross-border services exports increased by 10 percent in 2008, following average annual growth of 13 percent during the five-year period beginning in 2003. Export growth in 2008 was dispersed broadly across service industries, led by increases in accounting, auditing, and bookkeeping services

[10] 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 when noted.

(59 percent), research and development and testing services (20 percent), sports and performing arts (19 percent), and computer and data information services (17 percent). U.S. imports of services grew by 8 percent in 2008, as compared to the average annual growth rate of 11 percent recorded from 2003 through 2007. Import growth in 2008 was particularly high for accounting, auditing, and bookkeeping services (29 percent), legal services (28 percent), research and development and testing services (27 percent), database and other information services (23 percent), and audiovisual services (21 percent). As in most previous years, the majority of U.S. service industries registered cross-border trade surpluses in 2008. Royalties and license fees ($65.0 billion) netted the largest surplus in 2008, followed by financial services ($41.0 billion), travel services ($30.3 billion), education services ($12.6 billion), and audiovisual services ($11.7 billion). As in previous years, service industries that netted cross-border trade deficits in 2008 included insurance services ($32.2 billion), transportation services ($13.2 billion), and computer and data information services ($7.2 billion). The deficit in insurance services principally reflects U.S. primary insurers' payments to European and Bermudian reinsurers in return for assuming a portion of large risks. The deficit in transportation services (i.e., freight transport and port fees) largely reflects the U.S. deficit in manufactured goods trade and the method the BEA uses to measure freight transportation trade. For example, Chinese shipments of manufactured goods to the United States exceed U.S. shipments of goods to China, and payments to Chinese or other foreign shippers are recorded as U.S. imports of transportation services.

A small number of developed countries account for a substantial share of U.S. cross-border services trade. The United Kingdom, Canada, and Japan collectively accounted for 29 percent of total U.S. cross-border services exports in 2008 (12 percent, 9 percent, and 8 percent, respectively). The United Kingdom (12 percent) and Japan, Canada, and Germany (about 7 percent each) accounted for the largest single-country shares of U.S. services imports in 2008. The EU as a whole accounted for 37 percent of U.S. services exports and 38 percent of U.S. services imports in 2008.[11]

In 2008, the United States maintained large bilateral services trade surpluses with Canada ($21.4 billion), the United Kingdom ($19.0 billion), Japan ($16.8 billion), and Mexico ($8.3 billion), and netted a large regional services trade surplus with the EU ($56.4 billion). The United States also posted a large services trade surplus with China, totaling $6.1 billion in 2008. In that same year, the United States registered its largest bilateral services trade deficit with Bermuda ($9.4 billion), which largely reflected payments for insurance and reinsurance services to affiliates of U.S. and foreign firms with operations in Bermuda.[12]

[11] USDOC, BEA, *Survey of Current Business* 89, no. 10, 40–41.

[12] USDOC, BEA, *Survey of Current Business* 89, no. 10, 40–41. The vast majority of these payments are recorded as unaffiliated transactions, as they are undertaken on behalf of third-party policyholders.

Affiliate Transactions

In 2007, services supplied by U.S.-owned foreign affiliates[13] increased by 15 percent to $1.0 trillion, similar to the 14 percent average annual growth rate registered from 2004 through 2006.[14] Infrastructure services accounted for one-half (51 percent) of services supplied by U.S.-owned foreign affiliates in 2007 (figure 1.4). Wholesale services, which are considered an infrastructure service, contributed the largest share of any single industry, accounting for approximately 22 percent of total services supplied by U.S.-owned foreign affiliates. The largest host-country markets for services supplied by U.S.-owned affiliates were the United Kingdom (21 percent), Canada (10 percent), Japan (6 percent), and Germany (5 percent). As a whole, the EU accounted for 48 percent of total services supplied by U.S.-owned affiliates in 2007.[15]

In 2007, services supplied by foreign-owned affiliates in the United States increased by 5 percent to $677.8 billion, slower than the 9 percent average annual growth rate recorded from 2004 through 2006. As with services supplied by U.S.-owned affiliates, infrastructure services supplied by foreign-owned U.S. affiliates accounted for more than half (60 percent) of the total services supplied by foreign-owned affiliates in 2007.[16] Wholesale services trade accounted for 22 percent, again making it the largest single industry in services supplied by foreign-owned affiliates. In that year, U.S. affiliates of UK-parent firms accounted for 16 percent of services supplied by foreign-owned affiliates. Other single-country markets that accounted for a significant share of services supplied by foreign-owned affiliates included Germany (15 percent) and Japan (14 percent). France and Canada rounded out the top five with approximately 10 percent each. Collectively, 54 percent of services supplied by foreign-owned affiliates were from affiliates of EU-parent firms.

[13] U.S.-owned foreign affiliates are affiliates owned by a U.S. parent company and located abroad; conversely, foreign-owned U.S. affiliates are affiliates located in the U.S. and owned by foreign parent companies.

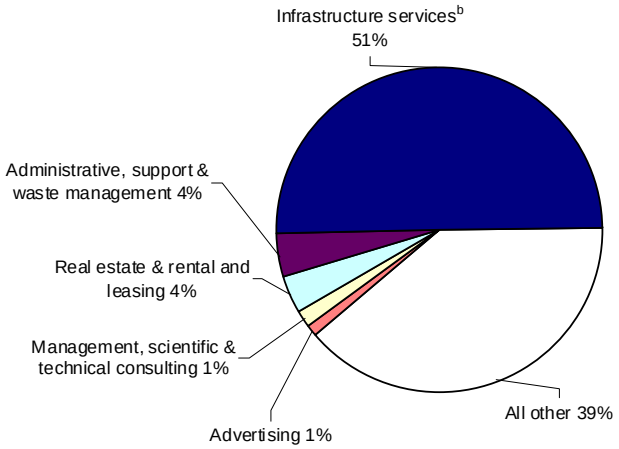
[14] The main source for this section is the USDOC, BEA, *Survey of Current Business*, various years.

[15] USDOC, BEA, *Survey of Current Business*, tables 9.2 and 10.2, October 2009, 62, 64.

[16] See chapter 2 for an in-depth discussion on infrastructure services.

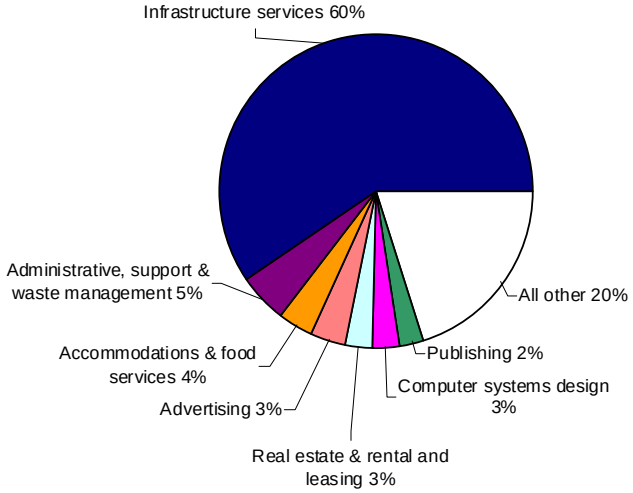
FIGURE 1.4 U.S. services: Infrastructure services industries accounted for the majority of services transactions by affiliates in 2007

Services supplied by foreign affiliates of U.S. firms[a]



Total = $1,025.8 billion

Services supplied by U.S. affiliates of foreign firms[c]



Total = $677.8 billion

Source: USDOC, BEA, *Survey of Current Business,* October 2009, 62, 64, tables 9.2 and 10.2.

Note: Trade data exclude public-sector transactions.

[a] Services supplied by majority-owned foreign affiliates of U.S. parent firms.
[b] Data are underreported due to suppression of data.
[c] Services supplied by majority-owned U.S. affiliates of foreign parent firms.

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CHAPTER 2
Infrastructure Services Overview

Infrastructure services perform a key role in the economies of countries worldwide by enabling people to produce goods and services and by facilitating other economic activities such as trade. For the purposes of this report, such services include:

- Wholesale services;
- Retail services;
- Transportation and warehousing;
- Information services (including publishing, motion pictures, sound recording, broadcasting, telecommunication, and data processing services);
- Finance and insurance; and
- Utilities (including energy, water, and sewage services)

Although infrastructure services firms engage in a wide variety of activities that are affected by a unique set of market factors, certain infrastructure services industries share an important trait: they initially exhibit natural monopoly characteristics. This is especially true of those that depend on a physical network, such as telecommunications, transportation, and energy services. Building a network typically entails substantial fixed costs, while providing the service to additional users carries fairly low marginal costs once the network is established, resulting in significant economies of scale.[1]

These two factors—the sector's economic importance and the potential for monopolists to undersupply and overprice these services—has traditionally drawn a great deal of government attention to many infrastructure services. This involvement ranges from direct state ownership to extensive regulation of private-sector operators. In recent decades, however, there has been a global trend towards less direct government intervention in infrastructure services. A number of factors are behind this shift, including the belief that the private sector can often operate crucial infrastructure services more effectively; advances in technology; and the lure of a substantial, although temporary, increase in government revenues generated by the sale of state-owned infrastructure services firms.[2] However, several events during the 2000s may have undermined this trend: in the aftermath of the 2008 financial crisis, a debate has emerged as to the potential value of increased federal oversight and regulation in the financial services sector.[3]

The global competitiveness of many non-infrastructure industries relies heavily on access to efficient, economical infrastructure services. Although the recent economic downturn has led to increased government involvement in the financial services industry, two developments—the privatization of inefficiently operated state-owned firms in some infrastructure services industries, and the liberalization or deregulation of the sector in a way that promotes greater efficiency—have increased the global competitiveness of some countries' infrastructure and non-infrastructure industries. For instance, regulatory reform

[1] New Zealand Institute of Economic Research, "Sustainable Infrastructure," May 1, 2004, Appendix B.
[2] Kessides, "Infrastructure Regulation, Promises, Perils and Principles," July 2003, I.
[3] See U.S. Department of Treasury, *Financial Regulatory Reform*, June 17, 2009.

of India's telecommunication service industry was regarded as vital to the development of competitive software and business process outsourcing industries.[4]

Additionally, technological developments have undercut the justification for monopolies in certain infrastructure services. For instance, in the electric power industry, the advent of relatively small-scale combined-cycle gas turbines and renewable energy technologies has greatly reduced initial fixed costs by allowing large industrial users of electricity to bypass the grid.[5] Similarly, in telecommunications, firms can now deploy cellular networks at a fraction of the cost of fixed-line networks, undermining efforts by former monopoly operators to develop fixed-line networks.[6]

Gross Domestic Product (GDP), Employment, Salaries, and Labor Productivity[7]

While infrastructure service industries make up a large segment of the U.S. private sector, their share of GDP declined by about one-half of 1 percent in 2008. In 2008, infrastructure service industries accounted for real GDP of $3.8 trillion, or 37 percent of total U.S. private-sector GDP (figure 2.1). From 2003 through 2007, U.S. infrastructure service industries' GDP increased at an average annual rate of 4 percent, slightly faster than the 3 percent growth rate registered in total U.S. private-sector GDP during that period. However, while growth in U.S. private-sector GDP slowed to approximately 0.6 percent in 2008, U.S. infrastructure service industries' combined GDP actually decreased by one-half of 1 percent.[8] The decrease primarily reflects declining output in the financial services and retail services industries, likely a result of the financial turmoil that began in 2007, leading to an economic downturn and depressed consumer spending. Among the services discussed in chapters 3–8 of this report, retail services and finance and insurance services together accounted for almost half of infrastructure services GDP in 2008 (figure 2.2). Transportation and warehousing posted the most significant percentage decrease from the previous year, with a 0.4 percent decline ($13.5 billion).

Jobs in infrastructure services are a significant component of the total U.S. employment picture. In 2008, infrastructure services industries employed about 33 million full-time equivalent workers, representing 30 percent of private-sector employees.[9] Retail services accounted for the largest share of U.S. infrastructure services employment, with 41 percent in 2008 (figure 2.3). From 2003 through 2007, employment in infrastructure service industries increased at an average annual rate of 1 percent, while total private-sector employment increased by 2 percent during the same period (table 2.1). In 2008, the total number of employees in infrastructure services as well as total private sector employment each decreased by 1 percent. Average annual employment growth in discrete

[4] Hoscain and Kathuria, "Telecommunication Reform and the Emerging 'New' Economy," September 10–12, 2003.

[5] USITC, *Electric Power Services: Recent Reforms in Selected Foreign Markets*, 2000, 2–7.

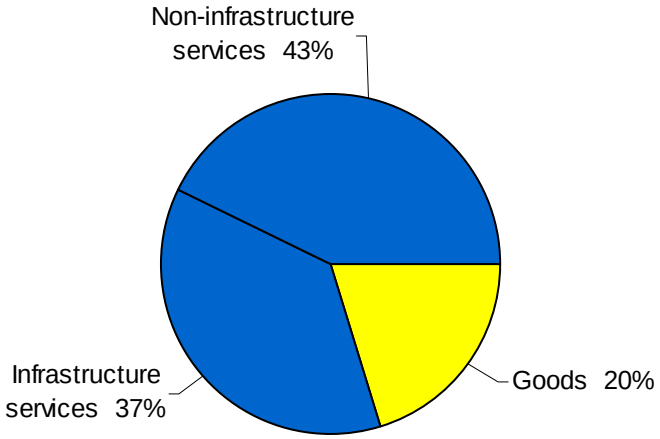
[6] TeleGeography, GlobalComms 3.0 Database.

[7] In the discussion below, infrastructure services include utilities, wholesale, retail, transportation and warehousing, broadcasting and telecommunications, and finance and insurance.

[8] USDOC, BEA, "Real Value Added by Industry," April 28, 2009 (accessed September 8, 2009).

[9] USDOC, BEA, "Full-Time Equivalent Employees by Industry," August 20, 2009 (accessed September 8, 2009).

FIGURE 2.1 U.S. goods and services: Infrastructure services made a significant contribution to U.S. gross domestic product in 2008

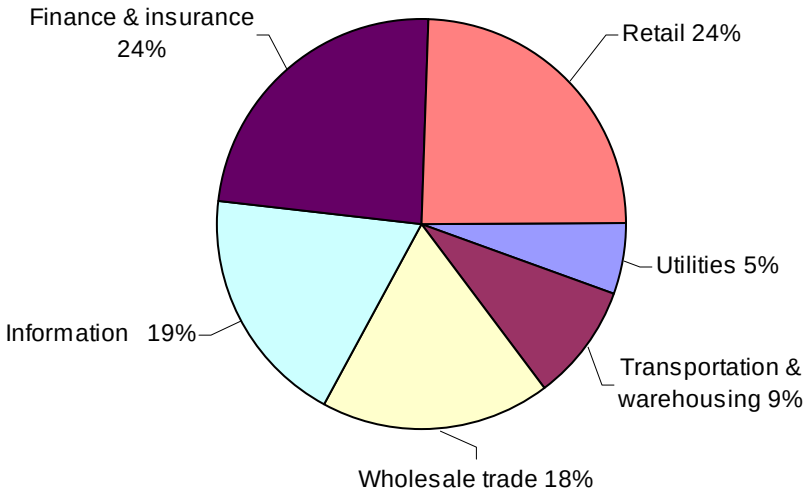


Total = $10.3 trillion[a]

Source: USDOC, BEA, "Real Value Added by Industry," interactive tables, April 28, 2009 (accessed January 13, 2010).

[a]Real values are based on year 2000 dollars.

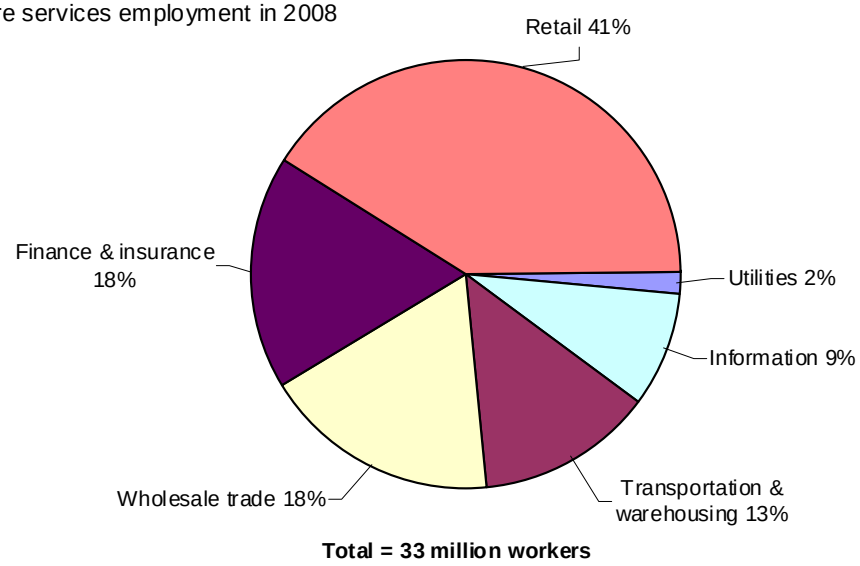
FIGURE 2.2 U.S. infrastructure services: Finance and insurance and retail services accounted for almost half of infrastructure services' contribution to gross domestic product in 2008



Total = $3.8 trillion

Source: USDOC, BEA, "Real Value Added by Industry," interactive tables, April 28, 2009 (accessed January 13, 2010).

FIGURE 2.3 U.S. infrastructure services: Retail services accounted for the largest share of infrastructure services employment in 2008



Source: USDOC, BEA, "Full-Time Equivalent Employees by Industry," interactive tables, August 20, 2009 (accessed January 13, 2010).

Note: Figures may not total 100 percent due to rounding.

TABLE 2.1 Full-time equivalent (FTE) employees, wage and salary accruals, and labor productivity, by goods and service industries, 2003–08

	2003	2004	2005	2006	2007	2008	Average annual growth, 2003–07 (%)	Percent change, 2007–08
Full-time equivalent employees (FTEs) (thousands)								
Private sector	102,147	103,318	105,572	107,780	108,967	108,078	2	(0.8)
Goods	22,592	22,642	22,894	23,275	23,014	22,160	0.5	(4)
Manufacturing	14,216	14,024	13,954	13,897	13,615	13,154	(1)	(3)
Durable manufacturing	8,815	8,768	8,820	8,837	8,662	8,337	(0.4)	(4)
Nondurable manufacturing	5,401	5,255	5,134	5,060	4,953	4,817	(2)	(3)
Services	79,555	80,676	82,681	84,504	85,951	85,919	2	(0.04)
Infrastructure services	31,817	31,992	32,504	32,977	33,232	32,816	1	(1)
Wage and salary accruals ($ per FTE)								
Private sector	41,577	43,207	44,717	46,777	48,828	50,028	4	2
Goods	44,886	46,436	48,196	50,525	52,702	54,446	4	3
Manufacturing	47,393	49,423	50,909	53,152	55,345	56,409	4	2
Durable manufacturing	49,710	51,828	53,124	55,803	57,977	59,020	4	2
Nondurable manufacturing	43,611	45,411	47,103	48,523	50,742	51,891	4	2
Services	40,637	42,300	43,752	45,745	47,792	48,888	4	2
Infrastructure services	45,359	47,440	49,054	51,326	53,560	54,151	4	1
Labor productivity ($ per FTE)								
Private sector	88,607	91,045	92,259	93,185	94,066	95,389	2	1
Goods	97,707	93,150	92,657	93,568	93,952	94,603	(1)	0.7
Manufacturing	98,488	105,412	106,851	113,211	118,884	119,682	5	0.7
Durable manufacturing	96,358	102,509	107,540	116,069	124,059	127,264	7	3
Nondurable manufacturing	102,055	110,447	107,402	111,285	114,173	111,978	3	(2)
Services	88,272	90,443	92,147	93,089	94,149	95,711	2	2
Infrastructure services	101,565	105,370	109,983	112,460	114,832	115,745	3	0.8

Sources: USDOC, BEA, "Full-Time Equivalent Employees by Industry," interactive tables, August 20, 2009 (accessed January 13, 2010); USDOC, BEA, "Table 6.6D: Wage and Salary Accruals per Full-Time Equivalent Employee by Industry," September 28, 2009; USDOC, BEA, "Real Value Added by Industry," interactive tables, April 28, 2009 (accessed January 13, 2010).

infrastructure services industries ranged from –1.0 percent to 1.9 percent during 2003–07, and with the exception of the utilities sector, each of these industries experienced a decrease in employment growth in 2008 (table 2.2).

Wages in this sector, though above average overall, have also been affected by the recent financial downturn. U.S. infrastructure services workers earned an average wage of $54,141 in 2008, exceeding the average annual wage earned by workers in the U.S. private sector as a whole ($50,028). However, wages vary widely in specific infrastructure services industries. In 2008, average wages ranged from $30,911 in the retail services sector, which includes a relatively high number of part-time positions that do not require advanced degrees, to $88,094 in the finance and insurance sectors, which employ a high number of full-time, skilled workers. Wage growth during 2003–07 also varied among infrastructure services industries, although each of these industries experienced a slowdown in wage growth in 2008. The finance and insurance industry posted the largest decline in average annual wage growth—from 6 percent during 2003–07 to 0.4 percent in 2008—likely due to the financial crisis's significant effect on that industry.

TABLE 2.2 Full-time equivalent (FTE) employees, wage and salary accruals, and labor productivity, by infrastructure service industries, 2003–08

	2003	2004	2005	2006	2007	2008	Average annual growth, 2003–07 (%)	Percent change, 2007–08
Full-time equivalent employees (FTEs) (thousands)								
Wholesale	5,402	5,485	5,613	5,739	5,826	5,794	2	(1)
Retail	13,159	13,240	13,467	13,593	13,722	13,502	1	(2)
Transportation & warehousing	4,021	4,087	4,194	4,277	4,340	4,323	2	(0)
Information services	2,972	2,885	2,859	2,861	2,856	2,813	(1)	(2)
Finance & insurance	5,704	5,742	5,829	5,964	5,943	5,830	1	(2)
Utilities	559	553	542	543	545	554	(1)	2
Total	31,817	31,992	32,504	32,977	33,232	32,816	1	(1)
Wage and salary accruals ($ per FTE)								
Wholesale	53,628	56,013	57,922	60,914	63,812	65,022	4	2
Retail	27,918	28,737	29,230	30,045	30,730	30,911	2	1
Transportation & warehousing	41,490	43,210	43,865	45,454	47,260	47,736	3	1
Information services	63,689	66,676	68,330	71,376	74,895	76,495	4	2
Finance & insurance	69,002	73,145	77,981	82,553	87,723	88,094	6	0
Utilities	70,492	74,093	77,409	80,338	84,570	86,306	5	2
Total	45,359	47,440	49,054	51,326	53,560	54,151	4	1
Labor productivity ($ per FTE)								
Wholesale	120,900	121,477	122,573	120,788	119,808	118,709	(0.2)	(1)
Retail	57,162	58,301	62,434	65,291	67,621	68,390	4	1
Transportation & warehousing	76,150	81,747	82,880	82,955	83,802	81,009	2	(3)
Information services	168,742	194,142	213,012	218,665	236,765	252,862	9	7
Finance & insurance	143,391	143,939	152,668	158,551	159,196	157,376	3	(1)
Utilities	358,855	383,544	368,266	371,823	374,679	375,632	1	0
Infrastructure services	101,565	105,370	109,983	112,460	114,832	115,745	3	1

Sources: USDOC, BEA, "Full-Time Equivalent Employees by Industry," interactive tables, August 20, 2009 (accessed January 13, 2010); USDOC, BEA, "Table 6.6D: Wage and Salary Accruals Per Full-Time Equivalent Employee by Industry," September 28, 2009; and USDOC, BEA, "Real Value Added by Industry," interactive tables, April 28, 2009 (accessed January 13, 2010).

Productivity in the U.S. infrastructure services sector is higher, and has registered slightly faster growth in recent years, than that of the broader U.S. economy. Average labor productivity (or output per employee)[10] in U.S. infrastructure service industries grew at an average annual rate of 3 percent from 2003 through 2007, and increased by 1 percent in 2008. This growth exceeded the average annual increase in labor productivity across all U.S. private-sector industries from 2003 through 2007 (2 percent) and was in line with overall growth in the private sector in 2008 (1 percent). By 2008, the average labor productivity level in U.S. infrastructure service industries was $115,745 per employee, as compared to $95,389 per employee in the overall private sector (see table 2.1).

Like wages, productivity varied widely among infrastructure services industries, ranging from $68,390 per employee in the retail services industry to $375,632 in the utilities industry in 2008. These differences seem to be a product of the relative labor intensity of each industry: the highly labor-intensive retail sector exhibits relatively low productivity, whereas industries that are relatively more capital-intensive—such as the utilities industry and the information services industries, in which production relies heavily on high-value equipment and intellectual property—post high labor productivity levels.

[10] USDOC, BEA, "Full-Time Equivalent Employees by Industry," August 20, 2009 (accessed September 8, 2009); USDOC, BEA, "Real Value Added by Industry," April 28, 2009 (accessed September 8, 2009). Labor productivity, calculated by Commission staff, is GDP by industry divided by full-time equivalent employees.

Productivity in all infrastructure services industries grew at a slower rate in 2008 than in previous years, with particularly large slowdowns occurring in the finance and insurance industries (a 1 percent decline in 2008, compared with average annual growth of 3 percent during 2003–07); the transportation and warehousing industry (a 3 percent decline in 2008, following an average annual increase of 2 percent during the preceding period), and the retail industry (a 1 percent increase, following an average annual increase of 4 percent). Slower productivity growth in these industries may have resulted from the financial crisis. As noted earlier, this crisis had a particularly significant impact on the finance and insurance industry and led to a decrease in consumer spending, which in turn likely affected output among services firms that transport, store, and sell consumer goods.

U.S. Trade in Infrastructure Services

Infrastructure services represent a significant share of total U.S. services trade, accounting for 27 percent of total U.S. cross-border services exports and 39 percent of U.S. cross-border services imports in 2008.[11] U.S. trade in infrastructure services yielded a cross-border trade deficit in that year, with U.S. exports of such services ($139.1 billion) just under imports ($141.4 billion). This deficit was largely a product of significant and longstanding cross-border trade deficits in the transportation and insurance services industries.[12] Financial services made up the largest share of U.S. infrastructure services exports (43 percent) in 2008 (figure 2.4), while transportation and warehousing services represented 51 percent of U.S. infrastructure services imports. The United Kingdom accounted for 14 percent of U.S. infrastructure services exports in 2008, followed by Canada (8 percent), Japan (6 percent), Germany (5 percent), and the Netherlands (4 percent). Bermuda supplied the largest share (about 12 percent) of U.S. infrastructure services imports; a substantial portion of these were imports of reinsurance services. Other significant suppliers of U.S. infrastructure services imports that year were the United Kingdom (11 percent), Germany (8 percent), and Japan and Switzerland (7 percent each).

The vast majority of U.S. infrastructure services trade takes place through affiliate transactions. Infrastructure services supplied by U.S.-owned foreign affiliates totaled more than $519.0 billion[13] in 2007, far surpassing infrastructure services supplied by foreign-owned U.S. affiliates, which totaled more than $392.9 billion.[14] Infrastructure services represented more than one-half of total U.S. affiliate services transactions, accounting for 51 percent of services supplied by U.S.-owned foreign affiliates and about 60 percent of services supplied by foreign-owned U.S. affiliates in 2007. In that year, wholesale trade services accounted for the largest share of both infrastructure services supplied by foreign affiliates of U.S. firms (43 percent) and services supplied from U.S. affiliates of foreign firms (39 percent) (figure 2.5).

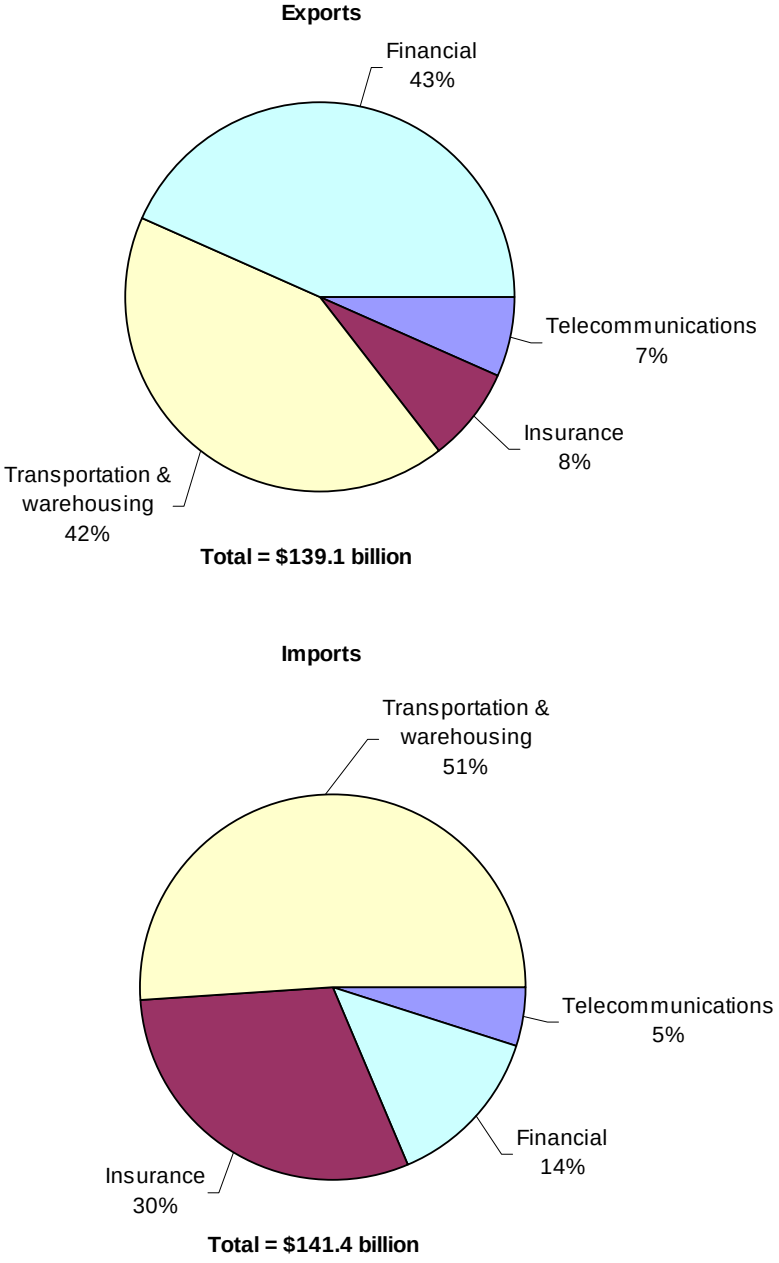
[11] USDOC, BEA, *Survey of Current Business*, October 2009, 40–41, table 1. For the purposes of the cross-border trade discussion, data on infrastructure services include finance and insurance services, telecommunication services and other transportation services.

[12] For more information on trade in the insurance industry, see Chapter 5 of this report.

[13] Data were suppressed for telecommunications services and transportation and warehousing services; therefore, the total for infrastructure services is underreported.

[14] Affiliate transactions data include wholesale trade, retail trade, telecommunications, broadcasting, finance and insurance, and transportation and warehousing services. For 2007, affiliate sales data on telecommunication services and transportation and warehousing services were not disclosed. Similarly, affiliate purchases data on broadcasting services were not disclosed in 2007.

FIGURE 2.4 U.S. infrastructure services: U.S. cross-border exports and imports of infrastructure services were concentrated in a small number of industries in 2008

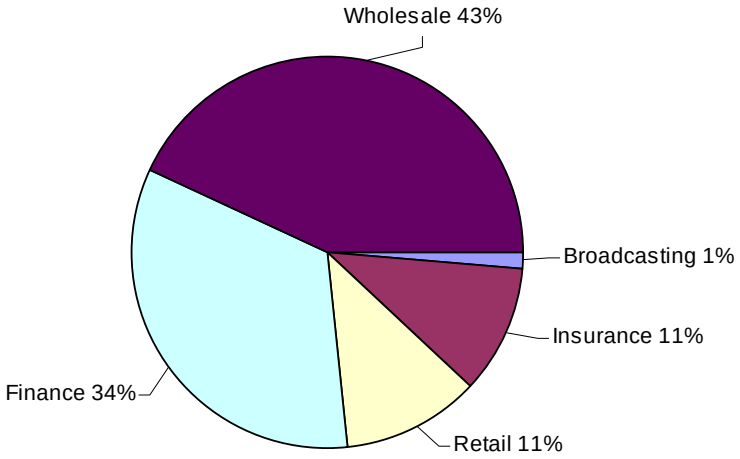


Source: USDOC, BEA, *Survey of Current Business,* October 2009, 40–41, table 1.

Note: Trade data exclude public-sector transactions.

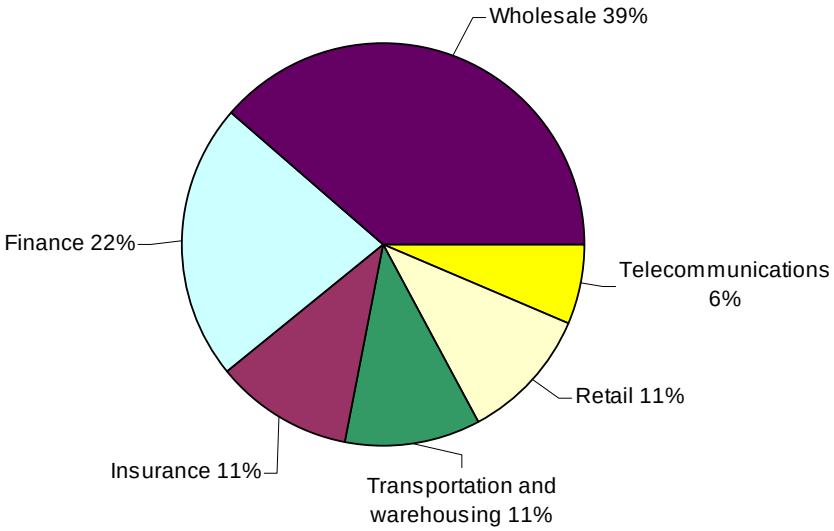
FIGURE 2.5 U.S. infrastructure services: Wholesale services accounted for the largest share of infrastructure services transactions by affiliates in 2007[a]

Services supplied by foreign affiliates of U.S. firms[b]



Total = $519.0 billion

Services supplied from U.S. affiliates of foreign firms[c]



Total = $392.9 billion

Source: USDOC, BEA, *Survey of Current Business,* October 2009, 62, 64, tables 9.2 and 10.2.

Note: Trade data exclude public-sector transactions.

[a]Data may be underreported due to suppression of data. For foreign affiliates of U.S. firms, telecommunications and transportation and warehousing data were suppressed. For foreign-owned U.S. affiliates, broadcasting data were suppressed.

[b]Services supplied by majority-owned foreign affiliates of U.S. parent firms.

[c]Services suppled by majority-owned U.S. affiliates of foreign parent firms.

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CHAPTER 3
Banking Services

Summary

The global banking industry experienced its second straight year of losses in 2009 owing to the global financial crisis. A number of factors affect supply and demand for banking services in a particular market, such as economic growth, interest rates, availability of capital, and the regulatory environment. European institutions continued to lead the global industry, accounting for over 60 percent of global assets, followed by institutions in Asia and North America. Banks in the United States and other Western countries have been hit harder by the recent financial crisis and subsequent downturn, while many developing markets, particularly in Asia, were relatively insulated from the downturn.

The United States consistently runs a cross-border trade surplus in banking services, and services supplied by U.S.-owned affiliates exceed services supplied by foreign-owned affiliates. U.S. cross-border trade declined in 2008 as overall bank performance worldwide contracted, but affiliate trade in 2007, the last year for which data are available, increased significantly. Banks operating in the global market most frequently face barriers related to the legal form of establishment, equity limitations on foreign ownership, and the establishment of new, or the acquisition of existing, entities. They also face barriers in the form of insufficient regulatory transparency and the discriminatory application of rules. Nevertheless, multinational firms often enter restrictive markets in order to gain access to large and potentially underserved local customers with rising incomes.

Introduction

For the purpose of this discussion, banking services comprise fee-based commercial banking services. These include financial management and transaction services; advisory services; custody services; credit card services; and other credit-related services, such as the provision of standby letters of credit for trade financing. Because they are not tracked by official data, deposit-taking and lending services are excluded from the trade discussion, but they are included in the industry analysis section of this chapter. Fee-based commercial banking services can be traded across borders or sold through affiliates.

Competitive Conditions in the Global Banking Services Market

The global banking industry[1] generated $4.4 trillion in revenue in 2009, representing a 10 percent decrease from the previous year.[2] It was the second year in which financial institutions worldwide incurred major losses—totaling $1.5 billion as of May 2009—as a result of the global financial crisis.[3] This followed a period of stable growth: 4 percent compounded annually from 2005 to 2008. Global industry assets, of which Europe accounted for 61 percent, were valued at $110.4 billion in 2009,[4] followed by Asia[5] with 16 percent and North America with 15 percent.[6]

The downturn notwithstanding, over the past five years both European and Asian banks have gained a greater share of the market relative to U.S. banks. Europe has strengthened its position in the past five years, largely because the devaluation of the U.S. dollar relative to the euro inflated the value of transactions when expressed in dollars.[7] Asian banks have also expanded their geographic scope and product offerings in recent years, with asset growth reflecting the market's vast geographic size and rapid economic growth. Chinese firms in particular are making significant gains, and all four of the country's large state-owned banks were listed among the top 25 global banks by assets for the first time in 2009.[8] However, most banks in Asia are smaller and focused on meeting the high domestic demand for financial services. Finally, while U.S. banks continue to dominate many global markets, the devaluation of the dollar and the heavy impact of the subprime mortgage crisis have undercut their competitiveness in recent years.

The global banking sector is in various stages of development. The North American, European, and Japanese markets, for example, are largely mature and highly competitive, creating pressure for banks to increase growth through merger and acquisition (M&A) activity or by entering high-growth developing markets. Many Eastern European and Asian-Pacific "emerging market" countries have experienced strong economic growth in the past 10 years, creating new middle-class populations with disposable income and increased demand for financial services. In many cases, domestic banks cannot keep up with demand or lack the efficiency and resources to compete with large global firms that may enter their home markets. Opportunities in such countries have become highly sought after by multinational banks, with China, Russia, India, and Latin America among the most desirable markets. For example, in early 2009 Citigroup announced its intention to increase its international revenues from 45 to 60 percent of total revenues over the next five years, largely through the acquisition of existing banks in foreign markets.[9]

[1] The industry includes commercial, retail, and mortgage banks.
[2] IBISWorld, "Global Commercial Banks," June 9, 2009, 4.
[3] May 2009 data were the most recent available at the time of writing. Losses include asset write-downs and credit losses. For a more detailed discussion of the financial crisis, see box 1.1. Standard and Poor's, *Industry Surveys: Banking*, June 25, 2009, 4.
[4] IBISWorld, "Global Commercial Banks," June 9, 2009, 4.
[5] These data mainly include assets from banks in Japan, China, Hong Kong, and Korea.
[6] IBISWorld, "Global Commercial Banks," June 9, 2009, 11.
[7] Ibid., 12.
[8] *The Banker*, "Top 1000 World Banks 2009," June 24, 2009.
[9] Standard and Poor's, *Industry Survey: Financial Services*, April 30, 2009, 13.

The number of commercial banks worldwide has steadily declined over the past several years from 931,632 in 2005 to 811,973 in 2009, a 13 percent drop.[10] Reasons behind the contraction include natural consolidation in the face of strong competition, failures resulting from the financial crisis, and acquisitions of unhealthy banks by larger, more stable institutions. Bank consolidation began in earnest in the United States during the 1990s when interstate banking regulations were relaxed and the Glass-Steagall Act was repealed, allowing banks to enter into other financial services lines, such as insurance and securities trading.[11] At the same time, developed markets became saturated and competition among banks became fierce, leading to increased M&A activity in the United States, Canada, the European Union, and Japan, a trend that would continue until the onset of the current financial crisis. With the onset of global financial turmoil in 2008, banks of all sizes suffered considerable losses, and many were forced to close. The Federal Deposit Insurance Corporation (FDIC) considered 702 U.S. banks to be in danger of failing at the end of 2009, compared with just 252 banks the previous year.[12] While there were some high-profile failures, most of the large, diversified financial institutions have weathered the crisis; smaller banks accounted for the bulk of the closures.[13]

In general, the level of concentration in the global banking market is low. Developed markets tend to have highly fragmented systems with large numbers of small banks and a handful of large money-center banks, though consolidation continues to be the trend. Developing markets vary, and in some cases—for example, China—concentration is low, with thousands of banks, most of which are small, rural cooperatives, operating alongside a handful of large, state-owned banks that dominate commercial banking.[14] In other markets, such as Malaysia, there are only 39 banks operating, of which 13 are foreign-owned.[15] The high concentration in that market is a direct result of government intervention beginning in the 1990s that, among other reforms, consolidated many small institutions into a handful of large banks. The move was designed in part to shore up domestic financial institutions against competition from foreign firms.[16] In India, not only is the market fairly concentrated, with the top 10 banks accounting for 58 percent of market share,[17] but most of those institutions are either completely state-owned or partially privatized, with the government retaining a majority share. By comparison, while the top 10 commercial banks operating in the United States accounted for 42 percent of market share in 2009, the remaining share was dispersed among 8,185 other firms, most of which are local banks.[18]

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[10] IBISWorld, "Global Commercial Banks," June 9, 2009, 4.

[11] One of the key factors contributing to increased consolidation and competition in the U.S. banking industry during the last two decades was an overhaul of banking legislation. For much of the 20th century, U.S. banks operated under regulations that restricted banks from operating in multiple states, and in many cases even statewide. In addition, the Glass-Steagall Act of 1933 prohibited banks from participating in securities markets. In 1994, however, Congress enacted the Riegle-Neal Interstate Banking and Branching Efficiency Act which allowed bank holding companies to purchase banks in multiple states and to merge banks across state lines. Five years later, the Gram-Leach-Bliley Act of 1999 allowed banks to undertake securities and insurance activities, previously prohibited under the Glass-Steagall Act and the Bank Holding Company Act, respectively. As a result, bank holding companies rapidly expanded operations into multiple states and market segments, contributing to the growth of high-asset banks.

[12] Applebaum, "Troubled Banking Industry Sharply Reduced Lending in 2009," February 24, 2010.

[13] Mergent, *North America*, November 2009, 17.

[14] IBISWord, "Global Commercial Banks," June 9, 2009, 13.

[15] Bank Negara Malaysia, "List of Banking Institutions," May 31, 2009; and EIU, Country Finance: Malaysia, 2009, 6.

[16] Bank Negara Malaysia, "The Financial Sector Masterplan," 2001.

[17] Market share measured as loan advances in fiscal year 2008–09. Economist Intelligence Unit, *Country Finance: India*, July 2009, 12.

[18] EIU, *Country Finance: United States of America*, November 2009, 13.

The generally disaggregated nature of banking is evident in multinational banking, where the leading firms hold just a small piece of the market. In 2008, the four largest banks by market share included HSBC (United Kingdom), JPMorgan Chase & Co. (United States), Bank of America (United States), and Citigroup (United States), each with roughly 2 percent of the global market.[19] Each of these banks, along with many competitors, went through a difficult period in the second half of 2008 and first half of 2009, and several incurred significant losses. However, they have remained market leaders—in part because of their diverse holdings, innovation, and ability to raise vast amounts of capital and in some cases, as with the 3 U.S. banks in the top 4, because they were bolstered by government assistance as well. In terms of assets, 2 of the top 10 banks in 2009 were U.S. institutions, 7 were European, and 1 was Japanese (table 3.1). Despite the generally high levels of exposure that several of those banks had to toxic subprime mortgage assets, their prominence in the rankings remains.

The largest global banking firms tend to be diversified; that is they offer a wide range of services and products, including commercial and retail banking, investment services, and insurance. Within the banking sector, commercial banking and retail banking are the two main segments. Deposit taking and lending remain the bread and butter of the industry, but more profitable activities, such as credit card lending, are a growing part of bank portfolios, especially in emerging markets. While banks embraced more exotic financial products with higher profit margins in the past decade, the fallout from some of those ventures in the financial crisis is leading many firms back to more traditional activities.[20]

Demand and Supply Factors

Economic Growth Creates Demand for Financial Products

The rate of economic growth in a country directly affects demand for banking services. As prosperity increases, businesses are more inclined to borrow money for expansion and, as jobs are created, personal wealth increases. As disposable income rises, so too does demand for retail banking services, particularly auto, real estate, and credit card loans (box 3.1). GDP growth in developing countries, particularly those in Asia, far outpaced the world average during the past decade; in many cases (e.g., China, Vietnam, Indonesia, and India) this growth slowed only modestly in 2008, while that of developed countries was flat or negative.[21] During the period 1998–2008, the average annual growth in value added in North America's banking industry was 2 percent, while that of Central Asia, with more robust economic growth, was 10 percent, contributing to the appeal of such markets among multinational banks.[22]

[19] IBISWorld, "Global Commercial Banks," June 9, 2009, 25.
[20] EIU, *Beyond the Home Market*, March 2009, 7–8.
[21] World Bank, WDI database.
[22] IBISWorld, "Global Commercial Banks," June 9, 2009, 16.

TABLE 3.1 Banking services: Top 10 global banks by total assets, 2009 (million $)

Rank	Bank	Country	Total assets
1	Royal Bank of Scotland	UK	3,500,950
2	Deutsche Bank	Germany	3,065,307
3	Barclays Bank	UK	2,992,682
4	BNP Parabas	France	2,888,728
5	HSBC Holdings	UK	2,418,033
6	Crédit Agricole Group	France	2,239,370
7	JPMorgan Chase & Co.	U.S.	2,175,052
8	Mitsubishi UFJ Financial Group	Japan	2,025,830
9	Citigroup	U.S.	1,938,470
10	UBS	Switzerland	1,894,423

Source: The Banker, "Top 1000 World Banks 2009," June 24, 2009.

BOX 3.1 Mobile banking increases access to financial services in developing markets

Mobile banking, also known as m-banking, is the provision of banking services via a mobile device such as a cell phone. Paying bills, transferring funds, and performing balance inquiries are a few of the transactions that can be made this way. Access to financial services can be difficult in many developing countries where disposable incomes are rising and large majorities of the population live in rural areas with few, if any, brick-and-mortar banks. This often leaves a substantial share of people out of the formal economy. In India, for example, 73 percent of the population lives in rural areas, where bank penetration stands at just 19 percent.[a] Mobile banking is viewed by many as a potential solution, particularly in areas with rapid growth in mobile phone markets. While mobile banking has only gradually gained favor among customers in most developed markets, it is fundamentally changing the way money is handled in many parts of the developing world.

The M-PESA mobile banking network in Kenya provides a compelling example of how this service has met with success. Launched in 2007 by mobile network operator Safaricom, an affiliate of the UK telecom giant Vodafone, the service was originally designed to facilitate transfer of worker remittances. As M-PESA quickly gained popularity, the scope of banking services increased, as did the number of users. To date, the service has 7 million registered users in Kenya, engaging in $8.5 million worth of transactions daily.[b] Many other developing countries are launching similar services, with banking and telecom companies rolling out services in China, Thailand, India, and South Africa, among others. Multinational banks that wish to expand into developing markets will likely tap into this growing mobile banking segment in order to cultivate new customers.

[a] McKinsey & Company*, Indian Banking*, 2007, 16.
[b] Greenwood, "Africa's Mobile Banking Revolution," August 12, 2009.

Since the beginning of 2009, many countries have experienced recession or have felt the effects of the global economic slowdown in some capacity. This has led to rising unemployment, lower personal income, cancellation of expansion plans for many businesses, and subsequently, reduced demand for most financial services. Unemployment has been a particularly significant factor in many countries and regions, affecting overall demand for financial services in the United States, Europe, Japan, and Eastern Europe. Further, resulting widespread consumer and commercial debt defaults have reduced banks' capital bases, affecting their ability to provide loans.

Interest Rates Drive Demand for Banking Services

Interest rates also play a significant role in the demand for financial services. When borrowing costs are low, businesses and individuals are more inclined to take out commercial, auto, real estate, and personal loans, although lower interest rates may

reduce the incentive to save. In the years leading up to the financial crisis, low interest rates contributed to a large increase in lending and to higher real estate and commodity prices. Once it became evident that peak prices were unsustainable in many areas, eroding profit expectations contributed to sharp declines in prices in many of those markets. Low-interest credit cards were particularly widely distributed during the previous period, but new regulations in the U.S. market[23] coupled with banks' more conservative attitude in response to the current market, have led banks to largely retreat from such large scale offerings despite continued low official rates.

Availability of Capital Determines Banks' Activities

One of the primary factors affecting the supply of banking services is the availability of capital. When banks have ample capital, as was the case in the early part of the decade, they can lend more and take more risks. However, when banks need to increase capital to meet anticipated losses, they generally reduce lending. This occurred particularly in 2008 and 2009, when many banks became unwilling to lend money—either commercially or on the interbank market—because of uncertainties about exposure to toxic assets or because of enormous write-downs already incurred.

As the global financial situation reached crisis proportions in 2008, banks with large deposit bases tended to be better insulated from deteriorating conditions than banks that relied more heavily on capital market funding, which was becoming scarce and unreliable.[24] Banks in the European Union and Eastern Europe are the most dependent upon capital market funding, with average loan-to-deposit ratios of 121 percent.[25] As capital markets dried up, banks in these countries competed intensely for deposits, in many cases offering higher-than-average interest rates and thereby shrinking profit margins.[26] Banks in Asia and Africa generally maintain low loan-to-deposit ratios and were therefore less likely to have their loan activities impaired by global financial conditions.[27] In fact, Asian banks are predicted to increase lending throughout the region in the near term as economic growth continues, particularly in China and India, while large multinational banks are less able to respond to demand in those markets given their immediate challenges.[28]

European banks, concerned about increasing debt defaults and depleted capital bases, have curtailed lending. In June 2008, loan growth to the private sector fell to a record low of 1.5 percent.[29] At the same time, European banks have been more aggressive than their Japanese and American counterparts in making low-interest loans in emerging markets, totaling $4.5 trillion in recent years. Many of these loans were made to borrowers in Central and Eastern European countries, whose economies are suffering the effects of

[23] The Credit Card Accountability, Responsibility and Disclosure Act of 2009 makes it more difficult for banks to raise interest rates on existing balances and sets a mandatory period for low-introductory rates, among other things. Standard & Poor's, *Industry Survey: Financial Services*, April 30, 2009, 25.

[24] *The Banker*, "Crisis Puts Deposits Back in Spotlight," July 7, 2009.

[25] A loan-to-deposit ratio indicates how closely a bank tracks its lending activity to its available deposits. A loan-to-deposit ratio above 100 percent indicates that loans exceed deposits. Growth in the ratio signals that loan activity is growing faster than deposits and is considered by the International Monetary Fund to be "of potential concern" in terms of a bank's stability. *The Banker*, "Crisis Puts Deposits Back in the Spotlight," July 7, 2009.

[26] *The Banker*, "Crisis Puts Deposits Back in Spotlight," July 7, 2009.

[27] *The Banker*, "Crisis Puts Deposits Back in Spotlight," July 7, 2009.

[28] Mergent, *Asia-Pacific: Banking Sectors*, June 2009, 1.

[29] Mergent, *Europe: Banking Sectors*, September 2009, 1.

recession, and have subsequently become non-performing assets and a further drag on bank capital.[30]

Banks in the United States are also contending with reduced capital availability. In the second quarter of 2009, loans held by 15 of the largest U.S. banks fell by almost 3 percent as those organizations focused on stemming losses and rebuilding capital.[31] It is likely that business will further contract in the near future, as banks see an increase in non-performing loans on their balance sheets resulting from a slow economic recovery and sustained high unemployment. The Federal Reserve warned that U.S. banks may realize up to $600 billion in loan and security losses through 2011,[32] which would directly undermine their ability to expand provision of services and products beyond the current level.

In the past year, most of the largest multinational banks have received government funding intended to shore up capital bases, stave off industry collapse, and resuscitate lending and the provision of other financial services vital to economic productivity. Such efforts have had mixed results to date. In the United Kingdom, lending to businesses had not increased by late 2009, despite more than $200 billion in government stimulus,[33] and household lending had risen only marginally. Similarly, the $700 billion Troubled Asset Relief Program in the United States helped to stabilize banks, but has not yet yielded a significant extension of credit. In fact, in 2009 lending by the banking industry in the United States dropped by 7.5 percent from the previous year, declining by $587 billion.[34]

Regulatory Environment Influences Banks' Commitment to a Market

The regulatory environment plays a significant role in the ability or willingness of a bank to supply services in a given market. This is particularly relevant in developing markets, where so many firms are seeking new growth. For the most part, global firms are less likely to enter a market in which rules are nontransparent, constraints on foreign firms are high, or firms are not treated equally. However, if a particular market is attractive enough, as in the case of China or India, firms may determine that the opportunity to enter a potentially highly profitable market is worth the risk posed by uncertain rules.

Domestic regulations may soon affect the ability of large banks to provide certain financial products. Prompted in part by the G20 Summit in the United Kingdom in April 2009, governments in most developed and many developing countries have already implemented or are considering new regulations that would prevent banks from repeating mistakes that led to the current financial crisis.[35] Many such regulations strengthen capital requirements, while others limit the extent of risk that banks may take on. Negotiations on banking reform in the United States are still underway, while Europe's new rules were introduced in phases over the past year.[36] The European rules include a

[30] Mergent, *Europe: Banking Sectors*, September 2009, 3.
[31] Mergent, *North America: Banking Sectors*, November 2009, 12.
[32] Mergent, *North America: Banking Sectors*, November 2009, 20.
[33] Government aid was intended to lower market interest rates, raise nominal spending, increase the money supply, and prevent deflation. Mergent, *Europe: Banking Sectors*, September 2009, 25.
[34] Applebaum, "Troubled Banking Industry Sharply Reduced Lending in 2009," February 24, 2010.
[35] The London Summit, "Global Plan for Recovery and Reform: The Communique from the London Summit," April 2, 2009.
[36] Some provisions of the new European rules include requiring banks to hold capital on 5 percent of loans they package as securities, and restrictions on pay and bonuses that could otherwise encourage risky behavior among bankers. Mergent, *Europe*, September 2009, 9.

requirement that banks hold extra capital in reserve against securitized assets, which could cause banks to scale back on offerings.

Impact of the Financial Crisis and Economic Downturn

The global financial crisis has taken an almost unprecedented toll on banks worldwide. The world's top 1000 banks have collectively seen profits decline by 85 percent since the downturn began in 2007.[37] Nonetheless, while almost all banks have felt some effect of the crisis, whether directly or indirectly, there is a fairly strong contrast between how banks from developed countries have fared versus those in developing countries. Western and Japanese banks have registered the bulk of losses, while developing-country banks have been relatively insulated from the turmoil, at least initially. However, despite lower risk exposure, the global credit crisis certainly affected these banks.

Banks in the United States and Europe have felt the fullest effects of the downturn. The impact has depended greatly on the extent of exposure, with bigger banks that offer diversified financial services suffering the greatest losses due to their extensive holdings of subprime mortgages, mortgage-backed securities, and home-equity, credit card, and auto loans, all of which deteriorated with the worsening economic climate in 2008.[38] Banks in the United States had registered losses and write-downs totaling $628 billion by June 2009, while those in Europe—particularly the United Kingdom, Belgium, the Netherlands, and Luxembourg—counted their losses at $469 billion.[39] As a result of such losses, many financial sector jobs have been shed: between June 2008 and June 2009, more than 100,000 industry jobs were eliminated in the United States alone.[40] While new capital-raising efforts intended to stave off collapse were robust in both the United States and Europe, totaling $512 billion and $467 billion, respectively, losses out-weighed the gains.[41]

As noted earlier, the financial crisis has led to increased consolidation, with many of the weaker banks that suffered debilitating losses being bought up by healthier competitors. Three U.S. banks that saw their capital bases rise exponentially in this way are JPMorgan, following its acquisition of Washington Mutual and Bear Stearns; Bank of America, after absorbing Merrill Lynch; and Wells Fargo, with its Wachovia acquisition. In all three cases, tier 1 capital increases pushed the banks higher up in the world rankings, to first, second, and sixth, respectively.[42]

The story is starkly different in many developing countries, where banks tend to focus their activities on the core business of deposit taking and lending, shying away from the more complex and risky financial instruments at the heart of the meltdown. The majority of Chinese and Indian banks registered profits in 2008 and 2009, with three of China's state owned banks—Industrial and Commercial Bank of China, China Construction Bank, and Bank of China—emerging as the world's three largest financial institutions by market capitalization during that time.[43] On average, India's biggest banks registered an average annual increase in pretax profits of 20 percent in 2008 and 2009, while banks

[37] *The Banker*, "Top 1000 Shows Risk of Top-heavy Giants Persists," July 2009.
[38] Standard and Poor's, *Industry Surveys: Financial Services*, April 30, 2009, 2.
[39] Economist Intelligence Unit, "Industry Briefing: World Banks," September 16, 2009.
[40] Mergent, *North America: Banking Sectors*, November 2009, 12.
[41] Economist Intelligence Unit, "Industry Briefing: World Banks," September 16, 2009.
[42] *The Banker*, "Top 1000 Shows Risk of Top-heavy Giants Persists," July 2009.
[43] Economist Intelligence Unit, "Industry Briefing: World Banks," September 16, 2009.

from Brazil, Turkey, Nigeria, and Panama, among others, populated the list of top banks both by return on capital and by profit on assets.[44]

Trade Trends

Cross-border Trade

For the United States, both cross-border imports and cross-border exports of banking services fell in 2008 (box 3.2). U.S. cross-border exports of banking services[45] fell by 2 percent to $41.4 billion in 2008, following a 31 percent increase in 2007 over the preceding year (figure 3.1).[46] The decline was largely attributable to falling demand for management and advisory services in the wake of the global financial crisis, though exports of electronic funds transfer services, credit card services, and other credit-related services saw marginal increases in 2008.[47] U.S. cross-border imports of banking services totaled $13.8 billion in 2008, a 9 percent decrease over the previous year; the decline was primarily due to shrinking demand for financial management and advisory services.[48]

The United Kingdom, Canada, the Netherlands, Japan, and Germany were the largest markets for U.S. exports of all non-insurance financial services in 2008,[49] purchasing services worth $11.5 billion, $3.8 billion, $2.8 billion, $2.5 billion, and $2.1 billion, respectively. These figures represent year-on-year decreases for all countries except the Netherlands, a likely reflection of challenging economic conditions in those countries. The leading suppliers of such services to the United States in 2008 included the United Kingdom, Hong Kong, Japan, Germany, and Canada, which provided services worth $5.6 billion, $1.5 billion, $1.3 billion, $984 million, and $897 million, respectively. Imports from each of these countries were lower than in the previous year with the exception of Hong Kong, which posted a 48 percent increase over 2007 levels, possibly because Asian

[44] *The Banker*, "A New Banking Landscape," August 4, 2009.

[45] Data on cross-border trade in banking services include management and advisory services, credit card and other credit-related services, and other financial services. These figures include a certain amount of overlap with securities services as the figures for "management and advisory services" include financial management services and financial advisory and custody services, while "other financial services" include securities lending, electronic funds transfer, and other financial services. USDOC, BEA, *Survey of Current Business*, October 2009, 31.

[46] Data on cross-border trade in banking services were revised beginning in 2006, so it is not possible to present the same 5-year trend as shown in other chapters. USDOC, BEA, *Survey of Current Business*, table E, October 2009, 31.

[47] USDOC, BEA, *Survey of Current Business*, October 2009, 31.

[48] USDOC, BEA, *Survey of Current Business*, October 2009, 31, table E.

[49] Data for cross-border trade in financial services by country are not broken out by industry segment in the same way as the aggregate data are. These figures therefore include securities-related services, which are discussed in chapter 7 of this publication.

BOX 3.2 Understanding changes in BEA data on cross-border trade and affiliate transactions in banking services (not including depository services)

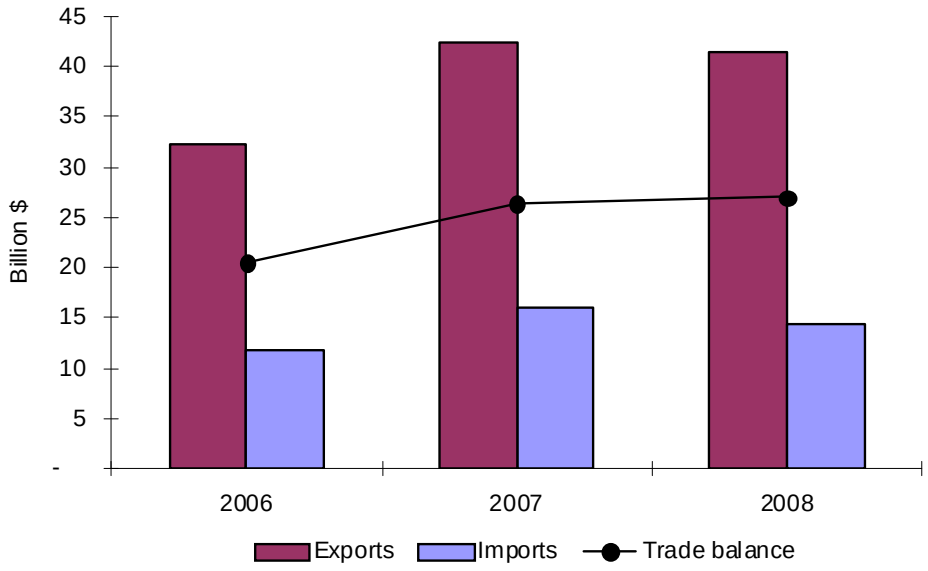
BEA data on cross-border trade in banking services include financial management and transaction services; advisory services; custody services; credit card services; and other credit-related services, such as the provision of standby letters of credit for trade financing.[a] These data exclude both deposit-taking and lending services.

BEA estimates of affiliate transactions in the financial services industry are not disaggregated in the same way as the data for cross-border trade; therefore it is not possible to determine exact trade volumes for banking services specifically. The "financial services" category includes sales by, and purchases from, entities that primarily provide nondepository credit intermediation and related services; securities, commodity contracts, and other intermediation and related activities; and funds, trusts, and other financial vehicles.

In 2009, for the first time, BEA included sales by, and purchases from, bank affiliates, which account for a substantial share of affiliate transactions in this sector, yet had previously been excluded. BEA began to address this gap in industry coverage by collecting data on bank affiliates as part of the 2002 and 2004 benchmark surveys of inbound and outbound direct investment, respectively. Based on the new data collection methods, banking services supplied to U.S. consumers by majority-owned U.S. affiliates of foreign firms were reported as being $47.7 billion higher in 2007 than they were using the former measure, while services provided to foreign consumers by U.S.-owned bank affiliates in foreign markets were reported as being $109.2 billion higher.[b]

[a] USDOC, BEA, *Survey of Current Business*, October 2009, 31.
[b] USDOC, BEA, *Survey of Current Business*, October 2009, 38.

FIGURE 3.1 Banking services: The U.S. cross-border trade surplus in banking services increased during 2006–08[a]



Source: USDOC, BEA, Survey of Current Business, October 2009, 31, table E.

[a] Includes management and advisory services (including financial management services and financial advisory and custody services), credit card and other credit-related services, and other financial services (including securities lending, electronic funds transfer, and other financial services).

banks have generally been less affected by the financial crisis and may be in a stronger position to expand their overseas operations.[50]

Affiliate Transactions

In 2007, the latest year for which data are available and before most banks felt the full impact of deteriorating global financial conditions, financial services supplied by U.S.-owned foreign affiliates totaled $174.7 billion, a 20 percent increase over 2006 levels.[51] Similarly, services supplied to U.S. customers by foreign-owned U.S. affiliates registered growth in 2007, albeit at a lower level; the value of these services rose 5 percent to reach $87 billion.[52] These figures aggregate both banking and securities services, so it is not possible to pinpoint the market segments that primarily accounted for the increases.[53]

Liberalization of Trade Impediments

In a survey of banks with foreign operations, two-thirds of all respondents and three-quarters of large banks cited regulatory barriers as the biggest obstacle they encounter in expanding their overseas business.[54] Such impediments are more prevalent in developing countries than in the relatively open markets of developed economies. While many developing countries are taking steps to liberalize trade, considerable barriers remain—in many cases, to prevent large multinational firms from dominating their markets. Many of these barriers are being addressed in the current round of WTO negotiations, although it is unclear what the timetable or eventual outcome of those talks will be.

The barriers most often cited by industry sources are those that affect the ability to sell services to overseas customers through a foreign affiliate. These include limitations on the legal form of foreign establishment, foreign ownership, and the right to establish new companies or acquire existing companies. Also common are excessive capital requirements and strict limitations on branch expansion, with the latter preventing foreign firms from building the vast branch networks necessary to raise sufficient capital through deposit taking to fund large-scale commercial lending, as is the case in China. Firms also contend that certain countries develop and apply domestic banking regulations in a discriminatory or nontransparent manner.

Outlook

Though many of the major global banks seem to be emerging from what is hoped to be the worst of the financial crisis, it is likely that a substantial volume of loans and investments will continue to go bad as the recession persists. The International Monetary Fund predicts that worldwide bank losses will reach $2.8 trillion by the end of 2010.[55] It is believed that bank lending and profitability in developed markets will continue to decline in the near term as supply and demand for financing remain weak, though banks in developing markets that have been relatively unaffected by the financial crisis and whose economies are still growing will likely see lending expand in the near term.[56]

[50] USDOC, BEA, *Survey of Current Business*, October 2009, 52, table 5.2.
[51] USDOC, BEA, *Survey of Current Business*, October 2009, 61–62, tables 9.1 and 9.2.
[52] USDOC, BEA, *Survey of Current Business*, October 2009, 63–64, tables 10.1 and 10.2.
[53] For more information on trade in securities services, see chapter 7 of this report.
[54] Economist Intelligence Unit, *Beyond the Home Market*, March 2009, 5.
[55] International Monetary Fund, *Global Financial Stability Report*, April 2009.
[56] Economist Intelligence Unit, "Industry Briefing: World," December 10, 2009.

Foreign operations of multinational banks may see some contraction as parent organizations reduce the flow of credit in order to repatriate funds to shore up flagging balance sheets at home.[57]

In response to these conditions, multinational banks are expected to focus on their core businesses and possibly streamline their geographic operations—investing more in profitable, high-growth markets and pulling away from less robust ones. In a survey of banks conducted at the height of the financial crisis, 65 percent of respondents planned to focus on home markets or foreign markets in which they already have a strong presence.[58] Asia continues to hold favor as a potentially high growth market, and although many multinational banks are expected to continue to pursue opportunities there, it is likely that much of the forthcoming banking sector expansion will be carried out by regional banks. It is also likely that banks will look to the Middle East and Eastern Europe for growth opportunities.[59]

[57] *The Banker*, "Mexican Banks Put in a Steady Shift," August 4, 2009.
[58] Economist Intelligence Unit, *Beyond the Home Market*, March 2009, 7.
[59] Economist Intelligence Unit, *Beyond the Home Market*, March 2009, 8.

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CHAPTER 4
Electricity Services

Summary

The electricity industry is a critical infrastructure industry that provides a key input into all major sectors of the economy and underpins the smooth functioning of all modern economies. The United States is the world's largest electricity market, generating 4,157 billion kilowatt-hours of electricity in 2007. A variety of factors affect supply and demand for electricity services, including economic growth, seasonal variation in temperatures, environmental concerns, and government policies. Because the electricity industry is so integral to countries' economic development, governments have long played a major role in determining how power markets are structured and regulated.

Globally, only a small percentage of total electricity generated is exported, as the degree to which countries participate in electricity trade varies due to geography, geopolitics, and government policies. Many of the largest electricity-producing nations are in Asia. However, a majority of international trade in electricity occurs in Europe. The United States engages in cross-border electricity trade with Canada and Mexico, maintaining a significant trade deficit in cross-border electricity trade with Canada and a smaller deficit with Mexico. The high level of government involvement and the existence of natural monopolies in the industry create impediments to trade. The lack of international consensus on classification of the electricity industry also creates obstacles to potential liberalization of the sector through multilateral negotiations.

Introduction

The electric power industry generates and supplies electricity to a wide range of consumers nationwide, including households, manufacturers, businesses, other infrastructure providers, and governments. There are several functionally distinct aspects of the industry. Generation is the production of electricity from raw energy sources, including fossil fuels. Transmission involves the transportation of electricity over high-voltage transmission lines from the generation facility to substations in the vicinity of electricity consumers. Distribution involves the delivery of lower-voltage electricity from substations to the final electricity consumers. Finally, the industry encompasses certain incidental services such as marketing, system operation services, metering, and billing.

Competitive Conditions in the Global Electricity Services Market

Growth in global electricity generation in 2007 was 4 percent, largely mirroring the average annual growth rate during the previous five years. [1] Electricity generation in developing countries increased more rapidly than in developed countries during the same five-year period. In 2002, North America produced slightly more electricity than the Asia and Oceania region. However, by 2003, Asia and Oceania had overtaken North America in terms of electricity generation, and by 2007, Asia and Oceania produced significantly more electricity than North America (figure 4.1). The divergence in the growth rates of individual countries within these regions is even greater (table 4.1). From 2006 through 2007, the largest Asian producer, China, increased its generation of electricity by 12 percent, while in the largest European producer, Germany, electricity generation grew by less than one-half of 1 percent over the same period.[2]

Although the largest electricity-producing countries are concentrated in Asia and North America, the largest electric utility companies, measured by revenues, are concentrated in Europe (table 4.2). This is chiefly a result of political and regulatory differences between countries and regions. In the United States, each state maintains its own regulatory system, although the federal government has jurisdiction over a number of specific aspects of the system, such as interstate transmission and nuclear power. This regulatory system is, in part, responsible for the fragmented nature of the U.S. market, which is divided among investor-owned, vertically integrated utilities; cooperatives; municipal, state, and federally owned utilities; and independent power producers.[3] On a revenue basis, no single electric utility controls more than 5 percent of the U.S. market. Many of the largest electric utilities in the United States operate in only one or two states, and very few have foreign operations.[4] One notable exception is AES Corporation, which has operations throughout the world.[5]

In Europe, regulatory authority is largely vested with national governments. Additionally, the European Union has taken an active role in requiring that national governments implement regulatory systems that are open to foreign competition. Simultaneously, several European national governments have actively promoted "national champions," or large firms that operate on a regional and global level.[6] For instance, the largest global producer, in terms of electricity generation, is Électricité de France (EDF), which is

[1] Data for 2007 are the most recent available. This chapter focuses primarily on electricity generation as a measure of production rather than revenue, as is the case for other chapters in this report. Industry revenues are highly dependent on regulatory systems, which vary substantially by country. Electricity generation and trade, however, are measured in kilowatt-hours (kWh), facilitating cross-country comparisons.

[2] USITC staff calculations based on data from the U.S. Department of Energy (USDOE), Energy Information Administration (EIA), International Energy Statistics database.

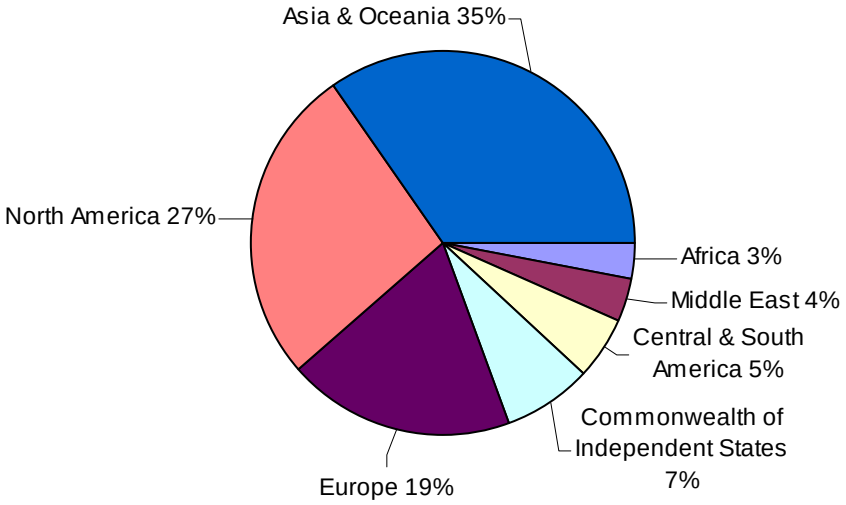
[3] McCann, "Electric Utilities," August 13, 2009.

[4] USITC staff calculations based on data from Bureau van Dijk, Orbis Companies database.

[5] AES Company Web site, www.aes.com (accessed November 18, 2009).

[6] Many such firms also operate in multiple industries in addition to electricity, such as natural gas distribution and water.

FIGURE 4.1 Electricity services: Asia and Oceania accounted for the largest share of electricity generation in 2007



Total: 18.8 trillion kilowatt hours

Source: USDOE, EIA, International Energy Statistics Database (accessed October 28, 2009).

TABLE 4.1 Electricity services: Top 10 electricity markets, by total net electricity generation, 2003–07

Rank	Country	2003	2004	2005	2006	2007	Average annual growth, 2003–06 (%)	Percent change, 2006–07
		Billion kilowatt hours						
1	United States	3,883	3,971	4,055	4,065	4,157	2	2
2	China	1,810	2,103	2,370	2,717	3,041	14	12
3	Japan	980	1,008	1,027	1,032	1,058	2	2
4	Russia	866	884	902	939	958	3	2
5	India	601	631	662	712	762	6	7
6	Canada	572	582	608	598	621	1	4
7	Germany	566	573	577	593	593	2	0
8	France	533	540	542	540	536	0	(1)
9	Brazil	355	378	393	409	439	5	7
10	Korea	324	346	366	379	402	5	6

Source: USDOE, EIA, International Energy Statistics Database (accessed October 28, 2009).

TABLE 4.2 Electricity services: Top 10 global utilities, by total revenue, latest available year

Rank	Company	Country	Revenue (million $)	Year
1	E.ON Energie AG	Germany	137,975	2009
2	Électricité de France, SA (EDF)	France	92,219	2008
3	Enel SpA	Italy	85,150	2008
4	Suez SA	France	69,967	2007
5	RWE AG	Germany	67,446	2009
6	Tokyo Electric Power Company	Japan	60,016	2008
7	China Southern Power Grid Co. Ltd.	China	41,776	2008
8	Gestore dei Servizi Elettrici (GSW SpA)	Italy	41,322	2008
9	Scottish and Southern Energy plc.	UK	36,606	2008
10	Iberdrola SA	Spain	36,170	2008

Source: Bureau van Dijk, Orbis Companies Database (accessed March 30, 2010).

85 percent, owned by the French government.[7] In addition to being the largest electricity producer in France, it is also the largest electricity generator in the United Kingdom, via its subsidiary British Energy. The firm also has major operations in Germany, Italy, and other European countries, and is involved in projects to build and operate nuclear power plants in China and the United States through joint venture agreements.[8] Other major European electric utilities, such as E.ON, based in Germany, and Enel, based in Italy, also have global operations.[9]

Demand and Supply Factors

Economic Growth Drives Electricity Demand

Demand for electricity largely mirrors patterns of economic growth, due to the increased industrial and commercial activities which accompany GDP growth and to increased disposable income, a portion of which may be spent on energy-consuming appliances. In recent years, the fastest rates of growth in electricity generation have tended to be in rapidly growing developing countries in sub-Saharan Africa, Asia, and Latin America. In 2007, electricity generation grew by 28 percent in Angola, 12 percent in China, and 8 percent in Panama, while GDP grew by 20 percent, 13 percent, and 12 percent in these countries, respectively. At the same time, electricity generation in developed countries grew only modestly in 2007—for example, it grew 2 percent in both the United States and Japan, mirroring GDP growth of 2 percent in both countries.[10]

Because electricity is a key input into the production of many goods and services, countries' economic growth may be held back by insufficient electricity supply. For instance, the Organization for Economic Co-operation and Development (OECD) considers the poor quality of India's power supply system to be one of the major constraints on economic growth in that country, due to the costs imposed on businesses by an inadequate electric power system. Energy-intensive manufacturing sectors in India are particularly affected, as firms need to purchase high-cost backup generators to

[7] E.ON, a major German electric utility, is larger on a total revenue basis, primarily due to its larger natural gas operations.

[8] EDF Group, *Annual Report 2008*, 2008, 8.

[9] Bureau van Dijk, Orbis Companies database (accessed August 31, 2009).

[10] USITC staff calculations based on data from the USDOE, EIA, International Energy Statistics database and from the World Bank, World Development Indicators database.

maintain production during periods of electricity shortages.[11] According to the World Bank's Enterprise Surveys, which survey firms in 121 countries, over 50 percent of firms in South Asia and sub-Saharan Africa identify inadequate electricity supply as a major hindrance to conducting business, as do nearly 40 percent of firms in Latin America and the Caribbean, and in the Middle East and North Africa. By contrast, only 6 percent of firms in OECD countries consider electricity to be a major constraint.[12] Recent research suggests that augmenting electric power supply can have a significant effect on the growth of a country's gross domestic product (GDP). For instance, it is estimated that increasing the availability of electric power in the Middle East and North Africa could boost per capita GDP growth by 0.2 percent per annum.[13]

Electricity Demand is Seasonal

The highest demand for electricity generally occurs during the warmest or coldest months of the year, depending on the country. In the United States, peak demand occurs during the summer, largely due to demand for air conditioning. In recent years, there have been a higher number of days with average temperatures above 75 degrees Fahrenheit than the 30-year average, driving up electricity demand during the summer.[14] The demand for electricity is seasonal for all major electricity consumer categories, but this seasonality is most pronounced for residential consumers, where, for each of the past three years, electricity sales have been 50–66 percent greater in August (typically the month of peak consumption) than in April (typically the month with the lowest electricity consumption). In addition, during the same time period, August electricity sales have exceeded April electricity sales by 23–29 percent for commercial consumers and by 5–12 percent for industrial consumers.[15] During the winter, electricity demand in the United States does not rise to the same degree as in the summer, as many households use non-electric heating systems.

In certain other countries where summer temperatures are milder and air conditioning is less common than it is in the United States, peak electricity production traditionally occurs during the winter. For instance, in the OECD countries of Europe, peak production in January exceeded production in August (typically the month with the lowest electricity production) by 19–29 percent during 2006–08. Similarly, in Canada, January production of electricity exceeded September production by 35 percent during 2006–08.[16]

Government Programs Seek to Restrain Demand

A number of governments around the world are actively seeking to suppress demand for electricity, primarily for cost and environmental reasons. A common approach is to encourage consumers to purchase energy-efficient products through tax incentives, regulation, or subsidies. For instance, the governments of the United States, the EU, and Australia have established efficiency standards for lighting that, within a few years, will

[11] OECD, "India," October 2007, 203.

[12] World Bank, Enterprise Survey database.

[13] Bhattacharya and Wolde, "Constraints on Growth in the MENA Region," February 2010, 12.

[14] USDOE, EIA, "Trends in Heating and Cooling Degree Days," 2008.

[15] USDOE, EIA, *Electric Power Monthly*, March 2010. The industrial sector consists of all facilities and equipment used for producing, processing, or assembling goods, and encompasses the following types of activity: manufacturing; agriculture (forestry, fishing and hunting); mining, including oil and gas extraction; and construction. The commercial sector consists of service-providing facilities and equipment of businesses; federal, state, and local governments; and other private and public organizations, such as religious, social, or fraternal groups. It also includes sewage treatment facilities and institutional living quarters.

[16] IEA, Electricity Information database.

effectively ban traditional inexpensive but inefficient incandescent light bulbs.[17] It is estimated that by 2020, the new U.S. efficiency standards for lighting will save 59 TWh of electricity annually.[18] By allowing utilities to collect revenue to cover their fixed costs, regardless of actual sales volumes, a limited number of U.S. states, such as California, have decoupled utility revenues from the sales of electricity in an attempt to focus utilities' efforts on reducing demand.[19]

Multiple Objectives of Policymakers and Regulators Influence Supply

Policymakers and regulators struggle to prioritize the goals of providing low electricity prices and maintaining a constant and adequate supply of electricity, while minimizing the adverse environmental impacts that often accompany the generation and distribution of electricity. In the United States, the lowest-cost electricity often is produced by conventional fossil-fuel-based generation facilities.[20] The federal government, however, offers a tax credit for electricity produced by wind, biomass, geothermal landfill gas, municipal solid waste, qualified hydroelectric, and marine and hydrokinetic generation technologies to encourage the development and use of generation facilities that produce fewer emissions than fossil-fuel-based systems.[21] In June of 2009, the U.S. House of Representatives passed legislation that was intended to help regulate greenhouse gas emissions.[22] This legislation would, among other things, require that electric utilities meet 20 percent of their electricity demand from renewable energy sources by 2020; establish new energy efficiency standards; set a cap, which would decline over time, on carbon dioxide emissions; and attempt to shield consumers from electricity price increases as much as possible.[23] The Congressional Budget Office estimated that this legislation would increase energy costs for areas of the country more dependent on fossil fuels, reduce GDP by one-quarter to three-quarter percent in 2020, and decrease greenhouse gas emissions.[24]

At times, policymakers' objectives directly contradict one another. For example, in 2000, the South African government discouraged Eskom, the state-owned utility that dominates the local market, from investing in generating capacity in order to encourage greater private investment. Simultaneously, the government wanted to maintain low electricity rates (South Africa has some of the lowest electricity rates in the world) in order to shield its industrial sector from increasing production costs and its population from an increased cost of living.[25] However, because the low electricity rates would not likely be sustainable, the country was unable to attract significant private investment in the sector. As a result, by 2008, the country was experiencing blackouts due to low electrical

[17] *L.A. Times*, "President to Sign Energy Bill," December 17, 2007; Economist Intelligence Unit, "In Search of Efficiency," November 20, 2008.

[18] ACEEE, "Energy Bill Savings Estimates As Passed by the Senate," December 14, 2007. One terawatt-hour (TWh) is equal to one billion KWh.

[19] Pew Center on Global Climate Change, "Decoupling in Detail," n.d. (accessed February 23, 2010); *Economist*, "Wiser Wires," October 10, 2009, 73.

[20] USDOE, EIA, *Assumptions to the Annual Energy Outlook 2009*, March 2009, 89.

[21] USDOE, EERE, Database of State Incentives for Renewables and Efficiency, July 2009.

[22] As of April 2010, legislation to regulate greenhouse gas emissions had not been adopted by the U.S. Senate.

[23] U.S. House of Representatives, Committee on Energy and Commerce, "The American Clean Energy and Security Act (H.R. 2454)," July 2009.

[24] Elmendorf, statement to the Senate Committee on Energy and Natural Resources, October 14, 2009, 4–5.

[25] Interview with industry officials, Pretoria and Johannesburg, South Africa, October 15, 2008.

generation capacity, and South Africa's unpredictable power supply has hindered its industrial and economic growth.[26]

Carbon Concerns Shift Priorities in Generation and Transmission

Globally, installed capacity for non-hydropower renewable electricity grew at an average annual rate of 17 percent from 2003 through 2007, much faster (albeit from a much lower base) than the 4 percent average annual growth rate for total installed capacity during the same period (box 4.1). Wind power is a notable example of this trend. Despite the lower cost of building and operating traditional fossil-fuel-based generation facilities, wind power accounted for the greatest share of planned capacity additions in 2008 in the United States, and a marginally higher proportion than natural gas capacity additions.[27]

In addition to a number of government programs that explicitly support the development of low-carbon technologies such as wind power, there are social pressures driving firms to develop generation facilities that emit relatively less carbon dioxide than traditional fossil-fuel-based technologies. The increasing share of wind power in U.S. energy production is driven by a number of factors, including state renewable portfolio standards, which are mandates by state governments that a certain percentage of electricity be produced using renewable sources, and the declining cost of producing power using wind generation technologies, which decreased from $63/MWh in 1999 to $40/MWh in 2007.[28] For instance, in 2006, TXU, the largest electric utility in Texas, announced plans to build 11 new coal-fired power plants.[29] Despite assurances that the new power plants would be much cleaner than existing coal plants, the firm faced substantial opposition from environmental groups and from a number of local politicians concerned about carbon dioxide and other emissions.[30] Additionally, a number of TXU shareholders expressed reservations about building traditional coal-fired power plants at a time when there was a great degree of uncertainty regarding the future of U.S. policy towards carbon emissions.[31] As part of a private-equity buyout deal announced in February 2007, TXU announced it was canceling plans to build 8 of the 11 traditional coal-fired plants, saying that it planned instead to build 2 integrated gasification combined cycle (IGCC) plants.

The latter would prove more environmentally friendly by gasifying the coal and, eventually, extracting the carbon dioxide and sequestering it underground. That the new owners of TXU opted for the use of IGCC—a significantly higher-cost technology—over more conventional coal technology indicates that costs alone are not the sole determinants of investment decisions.

[26] USITC, *Sub-Saharan Africa*, April 2009, 5-3, 5-9.

[27] USDOE, EIA, *Assumptions to the Annual Energy Outlook 2009*, 89; USDOE, EIA, "Planned Nameplate Capacity Additions from New Generators," January 21, 2010. Natural gas capacity additions were only marginally smaller than wind capacity additions.

[28] David, *Wind Turbines*, June 2009, 26–27.

[29] TXU, "TXU Plans $10 Billion Investment to Power the Future of Texas," April 20, 2006.

[30] *Bloomberg*, "TXU to Curtail Coal Plants to Smooth Buyout Approval," February 25, 2007.

[31] *Environmental Finance*, "TXU Plans Coal Gasification Plants," March 15, 2007.

BOX 4.1 New technologies and fuel sources shift the composition of global electricity generation

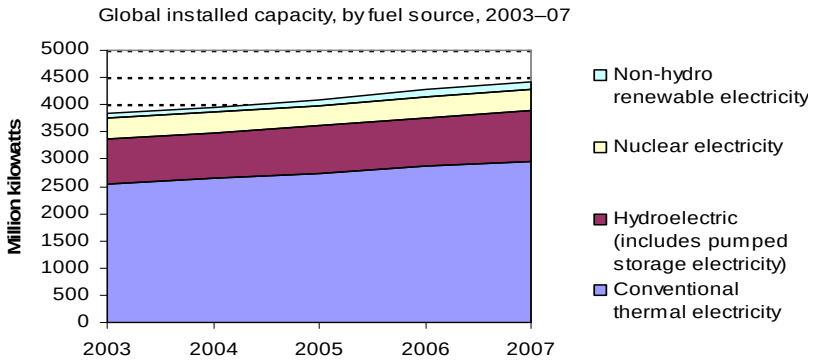
The composition of the global electricity generation fleet is continuously changing, as new power plants are built and old ones are decommissioned. However, given the long lifespan of most electricity generation facilities, this composition changes fairly slowly over time. Nevertheless, dramatic shifts in the way power is generated can and do occur, as shown by the decline of oil-fired electricity generation, which accounted for 21 percent of global electricity generation at the time of the oil crisis in 1973, but for only 6 percent of global power generation by 2006.[a]

Coal remains one of the primary fuel sources for electricity in some of the world's largest energy markets, such as the United States, India, China, and Germany.[a] In these and certain other major markets, coal is both abundantly available domestically and relatively inexpensive. Coal combustion, however, remains one of the most polluting of the major generation technologies, prompting a number of countries to consider increasing their share of non-coal-based generation or, alternatively, adopting technologies that mitigate some of the emissions produced by coal-fired generation.[b]

Natural gas has accounted for a growing share of global electricity generation over the last several decades. In the 1980s, natural gas-fired electricity generation accounted for less than 10 percent of global electric power generation.[a] By 2006, however, it accounted for over 20 percent of the total. In the United States, natural gas has accounted for a substantial share of the additional new generation capacity in recent years. In 2007, more natural gas-based generation capacity was added to the grid than capacity from all other generation technologies combined.[a]

Nuclear power has accounted for a slightly declining share of global generation in recent years. Very few countries have significantly increased their installed nuclear power capacity in the past decade. Of the 11.3 million-kilowatt global increase in nuclear installed capacity between 2003 and 2007, 9.7 million kilowatts were added in Asia.[c] China, in particular, is embarking on an ambitious nuclear power expansion program, with a number of new nuclear reactors currently under construction.[d]

Renewable power generation is dominated by hydroelectricity worldwide. In 2007, 84 percent of total renewable installed capacity was accounted for by hydropower. Non-hydro renewables, however, have expanded rapidly in recent years, with global installed capacity increasing at an average annual growth rate of 17 percent between 2003 and 2007, albeit from a rather small base.[c]



Source: USDOE, EIA, International Energy Statistics Database (accessed October 28, 2009).

[a] World Bank, World Development Indicators database.
[b] MIT, *The Future of Coal*, 2007.
[c] USDOE, EIA, International Energy Statistics database.
[d] China Daily, "Nuclear Power Goal Raised Dramatically," July 8, 2009.

Impact of the Financial Crisis and Economic Downturn[32]

Although internationally comparable data on electricity generation covering 2009 are generally not yet available, there are indications that the recession contributed to an overall decrease in the level of electricity generation in the United States. Electricity sales dropped by over 4 percent from 2008 through 2009. Sales to all categories of consumers, including residential, commercial, industrial, and transportation users, fell from 2008 through 2009. The decline was most dramatic for industrial users, for whom sales of electricity fell by 13 percent, followed by industrial production, for which sales of electricity contracted by 10 percent over the same period.[33] The decline in sales was less severe for residential and commercial users, which each reduced their purchases by only 1 percent from 2008 through 2009.[34]

Trade Trends

Cross-border Trade

The United States conducts cross-border trade in electricity[35] with Canada and Mexico; such trade is feasible only between contiguous countries.[36] Cross-border trade with Canada is much greater than that with Mexico, due to the greater extent of integration between U.S. and Canadian electricity grids.[37] The United States consistently maintains a trade deficit in electricity with Canada due to Canada's ability to generate a large quantity of relatively inexpensive electricity from its extensive hydropower resources; moreover, the demand for electricity in Canada is substantially lower than in the United States, because of Canada's smaller population.[38] Imports from Canada totaled 50.1 billion kilowatt-hours (KWh) in 2007, while exports to Canada totaled 19.6 billion KWh, resulting in net imports of 30.5 billion KWh. U.S. imports of electricity from Canada

[32] For a detailed discussion of the financial downturn see box 1.1.

[33] Federal Reserve, "Industrial Production and Capacity Utilization," February 17, 2010.

[34] USDOE, EIA, *Electric Power Monthly*, March 2010.

[35] USDOE, EIA, Electric Power 2008, table 6.3, January 21, 2010; USDOE, Office of Electricity Delivery and Energy Reliability, "Form OE-781R (2010)," n.d. (accessed January 5, 2010). U.S. cross-border trade data for electricity reflect the quantity of electricity, measured in watt-hours, that crosses between the United States and neighboring countries. The Energy Information Administration (EIA) of the U.S. Department of Energy reports U.S. imports and exports of electricity based on information received from a monthly survey of all firms which hold export authorizations or presidential permits. Export authorizations permit an entity to export electricity from the United States to foreign countries, and presidential permits are required for firms that build and/or operate transmission lines that cross the U.S. border. The EIA also uses additional information from the National Energy Board of Canada to estimate trade with Canada, and information from the California Independent System Operator to estimate trade with Mexico.

[36] Electricity can also be sold by foreign affiliates to host country consumers. For example, 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. Affiliate transactions may be subject to significant regulatory oversight. Therefore, the relative importance of cross-border versus affiliate transactions between any two given countries depends primarily on geographic and regulatory factors. BEA reports affiliate data only for the broader category of utilities, which includes natural gas distribution and water, sewage, and other systems, in addition to data on electric power generation, transmission, and distribution.

[37] Due to historic ties and the long U.S.-Canadian border, the Canadian and U.S. electrical grids are highly integrated.

[38] USDOE, EIA, "Canada: Electricity," July 2009.

grew by 21 percent in 2007, in sharp contrast to an average annual growth rate of 3 percent from 2002 through 2006. U.S. exports to Canada, on the other hand, declined by 16 percent in 2007, a striking change from the 11 percent average annual growth rate from 2002 through 2006.[39] The volume of imports and exports of electricity to Canada varies dramatically from year to year based on such factors as weather patterns, which affect both the supply of and demand for electricity in both countries. For instance, due to Canada's heavy reliance on hydropower for electricity generation, U.S. cross-border trade in electricity with Canada is influenced by precipitation levels in Canada. Those levels 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. In contrast, Canadian precipitation was at a historic high in 2005, which corresponded with a dramatic increase of electricity imports from Canada in that year. Canadian precipitation levels fell back somewhat in 2006 before increasing in both 2007 and 2008, boosting hydroelectric production and net electricity exports to the United States in those years.[40] Electricity trade with Canada is also partly driven by differing seasonal demand patterns in the two countries. In the United States, peak electricity demand occurs during the summer months, stimulating U.S. imports from Canada and lowering U.S. exports to Canada. Conversely, Canadian electricity demand peaks during the winter, lowering U.S. imports from and bolstering U.S. exports to Canada.[41]

The United States was also a net importer of electricity from Mexico in 2007, importing 1.3 billion KWh while exporting 0.6 billion KWh. In 2007, electricity imports from Mexico grew by 11 percent, which was substantially lower than the average annual growth rate of 47 percent for such exports from 2002 through 2006. U.S. exports of electricity to Mexico declined by 33 percent in 2007, compared to an average annual growth rate in exports of 11 percent from 2002–06.[42] As a result of these trends, the United States turned from a net exporter of electricity to Mexico in 2002 to a net importer thereafter.[43] The dramatic increase in imports from Mexico, especially between 2002 and 2003, was largely due to the construction of several electricity generation facilities in Mexico near the U.S. border. These generation facilities were built by U.S. and other foreign investors to supply electricity to California in the wake of the 2000–2001 California electricity crisis.[44]

Globally, 650 billion kilowatt-hours were exported in 2007.[45] Global exports of electricity increased by just 2 percent in 2007, compared with a 4 percent average annual growth rate during 2002–06. European countries accounted for over one-half of worldwide electricity trade, and 10 percent of all electricity generated in European countries was exported to other European countries in 2007. Countries within the former Soviet Union, Africa, and Central and South America exported roughly 5 percent of the total electricity that they generated, while countries in North America, the Middle East, and the Asia and Oceania regions exported 1 percent or less of the total electricity they

[39] USDOE, EIA, International Energy Statistics database.

[40] Environment Canada, "Annual National Precipitation Departures with Running Mean, 1948–2009," n.d. (accessed February 17, 2010).

[41] USDOE, EIA, *Electric Power Monthly*, March 2010; USDOE, EIA, *Monthly Energy Review*, February 2010, 91.

[42] Export growth rates from 2002 through 2006, however, varied substantially from year to year, partially as a result of the rather small base.

[43] USDOE, EIA, International Energy Statistics database.

[44] Power Technology, "Termoeléctrica de Mexicali CCGT Power Plant" (accessed March 31, 2010); Kaye, "Power Plays," January 2, 2003.

[45] This represented 3 percent of the 18.8 trillion kilowatt hours which were generated globally in 2007.

generated.[46] In the same year, the United States exported roughly one-half of 1 percent of the electricity it generated.[47] In addition to the importance of intra-European trade and U.S.-Canada bilateral trade, figure 4.2 also shows the high volume of the electricity trade between Paraguay, which exported 85 percent of the electricity it generated in 2007, and Brazil; the two countries jointly control one of the world's largest hydroelectric facilities.[48]

Liberalization of Trade Impediments

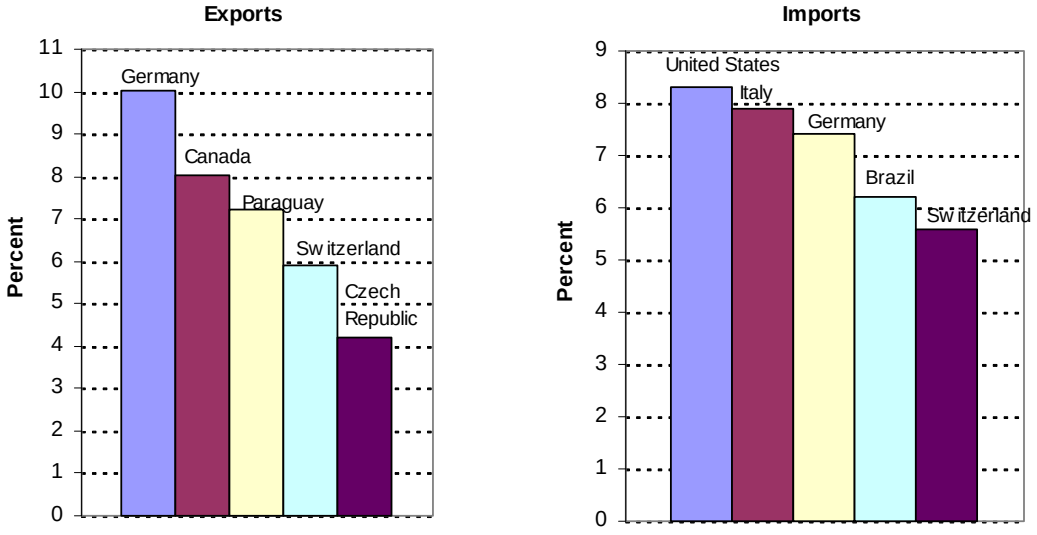
Trade in electricity is often hindered by the fact that certain segments of the industry are natural monopolies, while others are not. It is not economically feasible to duplicate transmission and distribution networks, making competition in these services difficult to implement. However, in the generation of electricity competition is feasible—but it 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.[49]

Many countries' electricity sectors have historically been dominated by privately or publicly owned, vertically integrated monopolies. Of the 100 largest electricity-producing countries (table 4.1), 5 (China, Russia, France, Brazil, and Korea) had state-owned electric monopolies in the past, and several others, such as India, Japan, and the United States, had private or state-owned regional monopolies.[50] Many countries have significantly restructured their energy markets over the last several decades, but have not yet fully opened their electricity markets to competition. For instance, China broke its state-owned, vertically integrated electricity monopoly into a number of separate generation, distribution, and transmission companies. Although there have been some reforms to open the sector to foreign investment, much of the sector remains in state hands.[51]

Multilateral negotiations regarding trade in electricity have been complicated by the lack of an international consensus as to 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 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

[46] USDOE, EIA, International Energy Statistics Database.
[47] USDOE, EIA, *Monthly Energy Review*, February 2010, 91.
[48] USDOE, EIA, "Brazil: Electricity," September 2009.
[49] Evans, *Liberalizing Global Trade in Energy Services*, 2002, 45.
[50] USDOE, EIA, *Country Analysis Briefs*, 2009.
[51] USDOE, EIA, "China: Electricity," July 2009.

FIGURE 4.2 Electricity services: The largest global electricity traders were located in Europe and the Americas in 2007



Source: USDOE, EIA, International Energy Statistics Database.

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.[52]

Outlook

The U.S. Department of Energy's Energy Information Administration (EIA) produces an annual publication that projects future U.S. energy prices and consumption. The current edition, the *Annual Energy Outlook 2010*, makes projections through the year 2035. The EIA reports several different scenarios, including a reference case that assumes that current U.S. laws and regulations governing the U.S. energy sector remain unchanged.[53] In that case, the domestic price of electricity is expected to decline over the next several years and increase only moderately after that. In the United States, the price of electricity is closely linked to the price of natural gas, which was relatively low in 2009 compared with recent years and is projected to remain so, based on abundant domestic supply.[54]

The EIA projects domestic electricity generation to grow at an average annual rate of approximately 1 percent from 2008 to 2035. This reflects a balance of factors that are increasing demand for electricity, such as population and economic growth, and factors

[52] WTO, CTS, "Energy Services: Background Note by the Secretariat," September 9, 1998.

[53] The reference case is discussed in the "Annual Energy Outlook 2010 Early Release Overview." Alternative scenarios are discussed in the full publication, which was not yet available when this chapter was written.

[54] USDOE, EIA, Natural Gas Navigator database (accessed March 31, 2010). The price of natural gas for electric power producers in 2009 was $4.89 per thousand cubic feet, compared with $9.26 per thousand cubic feet in 2008. This price decrease is due to technological advancements in drilling for shale gas, which is very abundant in the eastern United States.

that are dampening demand, such as state and federal energy efficiency standards and the continuation of the long-term shift in economic activity away from energy-intensive manufacturing industries towards less energy-intensive service industries. Under current policies, the EIA projects that the share of power generated by renewable sources will increase from 9 percent of total generation in 2008 to 17 percent in 2035.[55]

Globally, the International Energy Agency (IEA) projects annual electricity growth of 2.7 percent until the year 2015, and then of 2.4 percent per annum until 2030. Most of this increase (80 percent) is expected to occur in non-OECD countries. Assuming no major regulatory changes in any country, the IEA projects that most new generation capacity will be fossil-fuel-based (primarily coal and natural gas) but that generation from renewable sources will rise from 2.5 percent in 2007 to almost 9 percent of total generation capacity in 2030.[56]

[55] USDOE, EIA, "Annual Energy Outlook 2010 Early Release Overview," December 2009, 2–12.
[56] IEA, *World Energy Outlook 2009,* 2009, 96–98.

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CHAPTER 5
Insurance Services

Summary

The United States is the world's largest insurance market, accounting for almost 30 percent of global insurance premiums and several of the world's top insurance firms. A number of factors affect supply and demand for insurance services, such as demographic changes, natural disasters, government regulation, and revenues and income. Although U.S. insurance firms continue to be profitable, the recent financial downturn affected insurance markets in the United States and other industrialized countries through poor investment returns, decreased demand for certain insurance products, and an overall decline in premiums. The downturn may also bring about changes in regulation, the nature of consumer demand, and other characteristics of the business environment for insurance.

U.S. trade in insurance services is dominated by affiliate transactions, and while the United States continues to run a deficit in cross-border trade of insurance services, insurance services provided by the affiliates of U.S. firms in overseas markets exceeded such services supplied by foreign-owned U.S. affiliates by a widening margin. A variety of provisions influence U.S. insurers' ability to participate in foreign markets, with measures affecting the establishment of a foreign commercial presence and regulatory transparency ranking as top concerns. Existing free trade agreements have had a positive effect on trade in insurance services, and further liberalization secured by bilateral or multilateral trade commitments would reportedly benefit the cross-border provision of such services.

Introduction

The insurance industry is a critical component of the global economy, in terms of both its size and its contribution to economic growth and development.[1] The industry underwrites financial risk for life and non-life (property/casualty) products, and provides many specialty products. The latter include reinsurance (the transferring of risk between insurance companies, wherein one insurance firm purchases coverage from another insurance firm against one or more of the risks that the former holds), marine and transportation insurance (for goods in transit, hulls, aviation, and offshore oil rigs), and brokerage services (the packaging of policies from several underwriters to cover a given risk). Such activities have a positive impact on the economy as a whole, encouraging economic activity by mitigating the potential risks of project failure, decreasing social

[1] For more information on the relationship between insurance services and development, see, for example, United Nations Conference on Trade and Development (UNCTAD), "Trade and Development Aspects," November 21, 2005.

threats by offering discounts for low-risk behavior,[2] and increasing the overall volume of investable funds by pooling the premiums of many smaller investors,[3] among other benefits.

Competitive Conditions in the Global Insurance Services Market

In 2008, total global insurance premiums increased by 5 percent to $4.3 trillion, slower than the annual average growth of 8 percent from 2003 through 2007.[4] Non-life insurance premiums (including health insurance premiums) increased at a faster rate (6 percent) than life insurance premiums (2 percent). This relatively slow growth in nominal life insurance premiums reportedly resulted from decreased sales in developed countries, with sales of variable annuity products and unit-linked products[5] in the United States and Europe, respectively, experiencing particularly significant declines.[6] Despite this slowdown in sales, life insurance accounted for the larger share (58 percent) of total world premiums in 2008, continuing the trend observed during the preceding five-year period.

The United States is the world's leading insurance market by a large margin, accounting for about 29 percent of global premiums in 2008 (figure 5.1) and far surpassing the world's second- and third-largest markets—Japan and the United Kingdom—each of which accounted for approximately 11 percent of global premiums.[7] From 2003 through 2007, premium growth rates varied widely among the world's top 10 insurance markets, with at least five countries—the United Kingdom, France, the Netherlands, Canada, and Korea—posting double-digit increases in premium values and Japan posting a 3 percent decrease in insurance premiums (table 5.1). Each of the world's top 10 insurance markets, except Germany and Japan, experienced a substantial decrease in the rate of premium growth from 2007 to 2008, likely due to the financial downturn,[8] which began to affect premium levels during 2008.

In 2008, Japan Post Holdings ranked as the world's top insurance firm with revenues of $198.7 billion, followed by a German firm, Allianz ($142.4 billion), and a U.S. firm, Berkshire Hathaway ($107.8 billion) (table 5.2).[9] Japan Post Holding's top position largely reflects its dominance in the Japanese life insurance industry,[10] likely a result of the differential treatment it has received as a government-owned firm. Although Japan

[2] Brainard, "What is the Role of Insurance in Economic Development?" January 1, 2008.

[3] Dickinson, "Encouraging a Dynamic Life Insurance Industry," n.d. (accessed January 26, 2010).

[4] Insurance Information Institute (III), *The I.I.I. Insurance Fact Book 2009*, "Top Ten Insurance Countries, 2008," 1.

[5] Unit-linked policies are life insurance products that are purchased in unit increments. Although these products include some amount of guaranteed life insurance coverage, premiums are put into an investment fund. Hence, the value of each unit—and, thus, the value of a policy—is based on the value of the underlying fund. Bennett, *Dictionary of Insurance*, 2004, 311–12.

[6] Swiss Re, "World Insurance in 2008," 2009, 10.

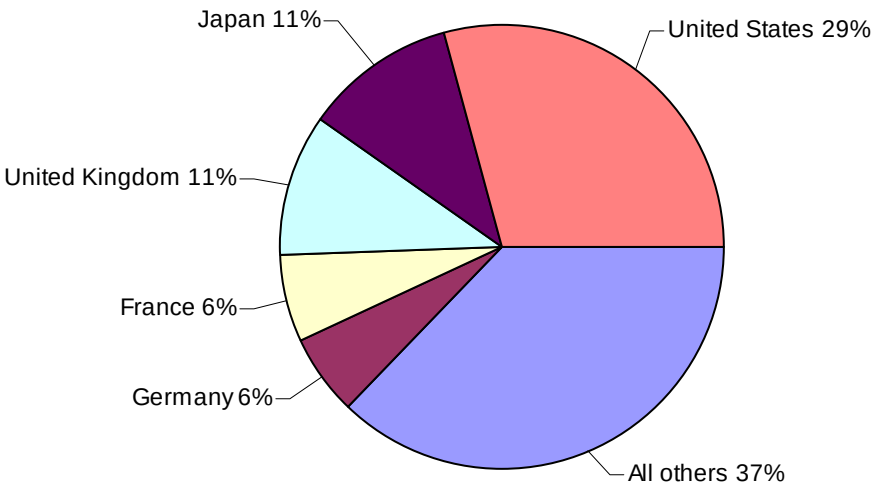
[7] III, *The I.I.I. Insurance Fact Book 2009*, "Top Ten Insurance Countries, 2008," 1.

[8] For a more detailed discussion of the financial crisis and economic downturn, see box 1.1.

[9] III, "World Rankings," n.d. (accessed November 16, 2009).

[10] Office of the United States Trade Representative (USTR), *National Trade Estimate Report on Foreign Trade Barriers*, March 2009, 281.

FIGURE 5.1 Insurance services: The United States accounted for the largest share of global insurance premiums in 2008



Total: $4.3 trillion

Source: Insurance Information Institute, *The I.I.I. Insurance Fact Book 2009,* "Top Ten Insurance Countries, 2008," 1.

TABLE 5.1 Insurance services: Top 10 insurance markets, by total premiums, 2003–08

Rank (in 2008)	Country	2003	2004	2005	2006	2007	2008	Average annual growth, 2003–07 (%)	Change 2007–08 (%)
		Billion $							
1	United States	1,056	1,098	1,143	1,170	1,230	1,241	4	1
2	Japan	479	493	476	460	425	473	(3)	11
3	United Kingdom	247	295	300	418	464	450	17	(3)
4	France	164	195	222	251	269	273	13	2
5	Germany	171	191	197	205	223	243	7	9
6	China	([a])	([a])	([a])	71	92	141	([a])	52
7	Italy	112	129	139	139	142	141	6	(1)
8	Netherlands	50	32	61	([a])	103	113	20	10
9	Canada	59	69	79	88	100	105	14	5
10	Korea	60	69	83	101	117	97	18	(17)

Source: Insurance Information Institute, *The I.I.I. Insurance Fact Book,* 2004–09.

[a]Not available.

TABLE 5.2 Insurance services: Top 10 global insurance companies, by revenue, 2008[a]

Rank	Company	Country	Revenues[b] (million $)	Industry
1	Japan Post Holdings	Japan	198,700	Life/health
2	Allianz	Germany	142,395	Property/casualty
3	Berkshire Hathaway	U.S.	107,786	Property/casualty
4	Assicurazioni Generali	Italy	103,103	Life/health
5	AXA	France	80,257	Life/health
6	Munich Re Group	Germany	67,515	Property/casualty
7	Nippon Life Insurance	Japan	66,621	Life/health
8	State Farm Insurance Cos.	U.S.	61,343	Property/casualty
9	MetLife	U.S.	55,085	Life/health
10	China Life Insurance	China	54,534	Life/health

Source: Insurance Information Institute, *World Rankings,* 2009.

[a]Based on an analysis of companies in the Global Fortune 500. Includes stock and mutual companies.

[b]Revenues include premium and annuity income, investment income, and capital gains or losses, but exclude deposits; they include consolidated subsidaries, excludes excise taxes.

Post Holdings has been restructured in preparation for complete privatization by 2017, the future of the company is unclear, as Japan's current government does not favor privatization.[11] Five U.S. firms (Berkshire Hathaway, State Farm, Allstate, Liberty Mutual, and Travelers) rank among the world's top property and casualty (P&C) insurance providers, while one U.S. firm (MetLife) ranks among the world's top life and health insurers. Notably, U.S.-owned AIG did not rank among the world's top 10 insurance firms in 2008, even though it was the world's fifth-largest insurer and its third-largest provider of P&C insurance in 2007.[12] Following the decline of the U.S. mortgage market in 2008, AIG sustained significant losses due to its large holdings of mortgage-backed securities and credit default swaps,[13] and ultimately ceded a 80.1 percent stake in the firm to the U.S. Government in return for $85 billion in emergency credit.[14]

The global industry is characterized by a low level of concentration, with the top four life and health insurance firms representing about 13 percent of global revenues in 2008. Similarly, the top four P&C firms generated approximately 15 percent of global P&C insurance revenues in 2009.[15] Although the low value of the U.S. dollar created some interest in the acquisition of U.S. insurance firms from 2007 through 2008, overall merger and acquisition (M&A) activity in the global insurance market was relatively light during the years 2006–08, falling to a near-historic low in 2008. M&A activity is expected to rise as firms emerge from the financial crisis and attempt to raise funds by

[11] Fukase and Tudor, "Japan Post Goes in a New Direction," October 21, 2009.

[12] III, *The Insurance Fact Book 2009*, 2009, 4; III, "World Rankings," n.d. (accessed November 16, 2009).

[13] A credit default swap is insurance against the risk that a third-party borrower will default on a loan. Under such an arrangement, the seller of a swap agrees to compensate a lender (the buyer) if a third-party borrower defaults on a loan. Investopedia, "Credit Default Swap (CDS)," n.d. (accessed February 25, 2010); and InvestorWords.com, "Credit Default Swap," n.d. (accessed February 25, 2010).

[14] Son, "AIG Plunges As Downgrades Threaten Quest for Capital," September 16, 2008; Karnitschnig et al., "U.S. to Take Over AIG in $85 Billion Bailout," September 16, 2008; Seifert, *Standard & Poor's Industry Surveys: Insurance; Property & Casualty*," July 9, 2009, 4.

[15] IBISWorld, "Global Direct General Insurance Carriers," January 18, 2010, 10; IBISWorld, "Global Direct Life, Health, and Medical Insurance Carriers," January 21, 2010, 11.

selling non-core businesses.[16] Most notably, AIG is expected to continue selling assets in order to raise funds to repay its government obligations.[17]

Demand and Supply Factors

Consumers Respond to the Cost of Insurance Coverage

Changes in premium rates and other factors that impact the ultimate cost of coverage (such as tax incentives for retirement products) affect overall market demand for insurance.[18] For example, a recent study estimates that the U.S. tax incentives for long-term care insurance contained in the Health and Insurance Portability and Accountability Act of 1996 led to a small increase in the consumption of such insurance; ownership of long-term care insurance grew by 25 percent among taxpayers that qualified for the incentives, while the overall market for such insurance grew by under 0.5 percent.[19] In addition to the federal government, 36 state governments and the District of Columbia offer tax deductions and/or credits for purchases of long-term care insurance.[20] Tax incentives also boost demand for insurance products in overseas markets; for example, life insurance premiums increased by 52 percent in Poland from 2007 to 2008 as certain investment-related life insurance products became eligible for a capital gains tax exemption.[21]

Price may have a significant impact on the selection of a specific insurance provider, as consumers often view insurance coverage as a homogenous product and as product innovations in the industry are easily imitated.[22] However, because the level of contact between insurers and customers is relatively high, quality perceptions and branding can create consumer preferences for certain providers. The frequent use of branding in the U.S. insurance industry—such as Prudential's use of the slogan "solid as a rock"—indicates that this strategy can increase consumer demand for a particular firm's products.[23] Among insurance firms operating in the U.S. market, GEICO and State Farm are the top advertisers, having spent $618.7 million and $436.1 million, respectively, on U.S. advertising in 2008.[24] Branding may also affect demand in overseas markets; for example, a recent study of Nigerian insurers found that certain types of advertising have a positive impact on insurance sales and firm image.[25]

Besides evaluating price and quality, however, consumers also balance the need to insure risk with their ability to pay for coverage. For example, revenue and income levels affect

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[16] Deloitte, "The 2009 Insurance M&A Outlook," April 2009, 3–4.

[17] IBISWorld, "Global Direct Life, Health, and Medical Insurance Carriers," January 21, 2010, 11.

[18] IBISWorld, "Life & Other Direct Insurance Carriers in the US," September 16, 2009, 13; IBISWorld, "Auto & Other Direct Insurance Carriers in the US," June 24, 2009, 13; IBISWorld, "Auto & Other Direct Insurance Carriers in the US," November 2, 2009, 12.

[19] Courtemanche and He, "Tax Incentives and the Decision to Purchase Long-Term Care Insurance," June 4, 2008.

[20] Baer and O'Brien, "Federal and State Income Tax Incentives for Private Long-Term Care Insurance," November 2009, 9.

[21] Swiss Re, "World Insurance in 2008," 2009, 22, 27.

[22] IBISWorld, "Life & Other Direct Insurance Carriers in the US," September 16, 2009, 14.

[23] IBISWorld, "Life & Other Direct Insurance Carriers in the US," September 16, 2009, 14; IBISWorld, "Auto & Other Direct Insurance Carriers in the US," November 2, 2009, 13.

[24] *Advertising Age*, "Annual 2010: Marketers," December 28, 2009, 14.

[25] Adulogu, Odugbesan, and Oke, "The Effects of Advertising Media on Sales of Insurance Products," 2009, 210.

the ability of businesses and households to purchase insurance coverage, while growth in economic activity may lead to increases in the volume and value of property holdings and, thus, greater risk exposure and higher demand for insurance. In recent years, U.S. demand for commercial insurance has been particularly low, as reductions in property values and workforce levels have led to a decreased need for property and workers' compensation insurance.[26] Overall, the real value of written premiums decreased during 2007 and 2008 in the United States and other industrialized countries due to weak economic conditions.[27]

Aging Populations, Disasters, and Regulation Boost Insurance Demand

Demand for insurance services may also be influenced by factors such as demographics, regulation, and exposure to disasters. Increases in the average age and life expectancy of the population, concerns regarding the stability of social security programs, and decreases in the value of retirement savings following the financial crisis have led to increased demand for certain types of insurance, including long-term care plans and savings-oriented products such as annuities.[28] In addition, as older individuals tend to hold relatively high levels of wealth and property, the aging of the U.S. population may lead to increased demand for property insurance.[29] Government regulations also create insurance demand by requiring businesses and households to purchase certain types of coverage, such as auto insurance and workers' compensation insurance.[30] Disasters also affect insurance demand, as the occurrence of large-scale catastrophes—such as Hurricane Katrina—may encourage consumers to purchase coverage against such events.[31] In China, demand for earthquake insurance increased following the Wenchuan earthquake, which affected the country's Sichuan province in May 2008.[32]

The Recent Decrease in Profitability Affects the Supply of Insurance Services

Several factors affect insurers' profitability and, thus, the supply of insurance services. Payments to policyholders are the insurance industry's largest expense. In 2009, losses and loss adjustments accounted for an estimated 67 percent of P&C insurer expenses, and benefit payments were expected to account for 70 percent of life insurer expenses.[33] Other significant costs include operating expenses (about 16 percent of P&C insurer costs in 2009), commissions (about 6 percent of life insurer costs), and wages (an estimated 9 percent and 5 percent of P&C and life insurer costs, respectively). These costs are offset by premiums and investment income, the principal sources of industry earnings. In

[26] Howlett, *Standard & Poor's Industry Surveys: Insurance; Life & Health*, April 30, 2009, 7; Seifert, *Standard & Poor's Industry Surveys: Insurance; Property & Casualty*, July 9, 2009, 9; Hartwig, "Commentary on 2008 Year End Results," April 9, 2009; industry representative, telephone interview by USITC staff, November 9, 2009.

[27] Howlett, *Standard & Poor's Industry Surveys: Insurance; Life & Health*, April 30, 2009, 7; Seifert, *Standard & Poor's Industry Survey: Insurance; Property & Casualty*, July 9, 2009, 9; Hartwig, "Commentary on 2008 Year End Results," April 9, 2009.

[28] IBISWorld, "Life & Other Direct Insurance Carriers in the US," September 16, 2009, 13; Howlett, *Standard & Poor's Industry Surveys: Insurance; Life & Health*, April 30, 2009, 13; Ernst & Young, "Second Annual Business Risk Report," 2009, 13.

[29] Industry representative, telephone interview by USITC staff, November 9, 2009.

[30] Lester, "Introduction to the Insurance Industry," March 2009, 3.

[31] IBISWorld, "Auto & Other Direct Insurance Carriers in the US," November 2, 2009, 12.

[32] Shen-tu and Lai, "The Wenchuan Earthquake," June 11, 2008.

[33] While such expenses in the P&C insurance segment can vary significantly from year to year due to the occurrence of catastrophes and insurer efforts to price policies in anticipation of such events, life insurers' benefit payments are subject to less variance, as the relatively slow rate of change in death rates and medical expenses give insurers the opportunity to introduce premium price adjustments gradually.

2008, the weak investment climate, together with low premium prices and a relatively high level of financial guarantee and mortgage insurance claims, led to particularly low profits, with only slight improvement anticipated for 2009.[34] As a result of these trends, firms may be less willing to supply high-risk policies; insurers may return instead to a business model that prevailed prior to the mid-1970s, under which firms rely more heavily on premiums than investment income as a source of revenue.[35]

Regulatory Shifts Affect Insurers' Business Strategies

Government regulation affects insurers' competitiveness and their ability to supply insurance coverage in certain jurisdictions. Both North American and European insurance markets—the world's leading insurance markets—are highly regulated,[36] and particularly stringent regulations or variations in the measures imposed by different regulators in different jurisdictions may influence a firm's participation in a certain market. For example, in 2007, Florida increased the stringency of its homeowners insurance regulation by increasing the regulator's authority over premium rates and requiring insurers to decrease their premiums.[37] After State Farm's request to raise its insurance rates was denied by the state regulator in July 2008, the firm announced plans to exit the Florida market, stating that it could not supply homeowners insurance in Florida in the absence of higher premiums.[38] State Farm reversed this decision in December 2009, following a settlement with the state allowing it to raise rates and not renew a certain number of policies.[39]

In the U.S. market, insurance firms are regulated by individual states,[40] which maintain authority over licensing, the minimum amount of capital that firms are required to hold in reserve, permissible premium levels for certain types of insurance products, the value and type of insurance firms' investments, and other aspects of insurance industry operations.[41] Although some argue that consumers are better protected from the effects of firm insolvencies under the state-based regulator system, others contend that this system delays new product introductions, increases compliance costs, and decreases U.S. competitiveness in the global market.[42] In recent years, increasing globalization and the financial downturn have given rise to efforts to further harmonize and/or strengthen U.S. insurance industry regulation. During 2009, members of the U.S. House of Representatives introduced several bills that would, for example, create an Office of Insurance Information, establish an optional federal insurance charter, or modernize

[34] IBISWorld, "Life & Other Direct Insurance Carriers in the US," September 16, 2009, 18–19; IBISWorld, "Auto & Other Direct Carriers in the US," November 2, 2009, 20–21.

[35] Hartwig, "Commentary on 2008 Year End Results," April 9, 2009.

[36] IBISWorld, "Global Direct General Insurance Carriers," January 18, 2010, 21; and IBISWorld "Global Direct Life, Health, and Medical Insurance Carriers," January 21, 2010, 19.

[37] Florida has been less willing to allow rate increases since 2006, as insurers raised rates significantly in 2005 following a series of severe hurricanes, and a drop in hurricane losses during 2006–07 did not seem to justify additional rate increases.

[38] Klein, "Hurricane Risk and the Regulation of Property Insurance Markets," July 27, 2009, 20–22.

[39] State Farm, "State Farm Florida and Florida Office of Insurance Regulation Reach Settlement," press release, December 16, 2009, http://www.statefarm.com/florida/20091230.asp. (accessed March 17, 2010).

[40] The National Association of Insurance Commissioners (NAIC)—whose membership comprises regulators from every U.S. state, territory, and the District of Columbia—introduces some uniformity to the U.S. insurance industry by developing model legislation and guidelines that states adopt or modify according to their needs. IBISWorld, "Auto & Other Direct Insurance Carriers in the US," November 2, 2009, 18.

[41] IBISWorld, "Life & Other Direct Insurance Carriers in the US," September 16, 2009, 17.

[42] III, "Optional Federal Charter," June 2009, n.d. (accessed February 19, 2010); American Bankers Association (ABA), "ABA and ABIA Support Optional Federal Charter Legislation Proposed in the House," April 2, 2009.

reinsurance regulation, thus giving the federal government greater authority over insurers.[43] U.S. insurance firms recognize potential regulatory shifts as a major risk to their business that will likely require adjustments in their business strategies.[44]

Demographic Changes have a Mixed Effect on Insurers

Demographic shifts have a significant impact on supplier profitability. In the United States, the aging population will likely have a mixed effect on insurer profits. Increasing policyholder longevity could lead to a decrease in life insurance claims,[45] and the growing proportion of policyholders in their 50s and 60s may lead to a decline in auto insurance claims (as older drivers tend to drive more safely than younger drivers).[46] Further, insurance firms in both the United States and abroad see increasing opportunity in the markets for senior care and retirement products.[47] Population aging is expected to occur particularly rapidly in Asia.[48] In China, for example, the country's one-child policy may create an opportunity for life insurers to provide additional support to aging parents who increasingly rely on an only child to care for them.[49] A recent study of the marketing of insurance to U.S. consumers indicated that members of Generation X and Generation Y respectively received 18 percent and 23 percent fewer direct mail advertisements for life insurance than members of the Baby Boom generation, revealing insurers' relatively high interest in supplying older individuals.[50]

Changing demographics may also have a negative impact on the insurance industry, as an aging workforce could cause an increase in the incidence and value of worker's compensation claims (because older employees are relatively well-paid and slower to recover from workplace accidents).[51] Insurance suppliers are also concerned that revised mortality tables and the evolving insurance needs of an aging population will necessitate the reevaluation of premium levels and alter the rate at which revenues are earned.[52]

Disasters Affect Insurers' Willingness to Supply Coverage

The supply of P&C insurance is heavily influenced by natural and man-made disasters, as the actual and potential losses associated with such events have a substantial impact on insurers' capital stock, the availability of insurance coverage in certain geographic locations, and the price of such coverage (box 5.1). In 2008, the global insurance industry sustained above-average losses from natural and man-made catastrophes of approximately $60 billion.[53] These losses were higher than those recorded for any single year during the preceding 10-year period with the exception of 2005, when Hurricanes

[43] Seifert, *Standard & Poor's Industry Surveys: Insurance; Property & Casualty*, July 9, 2009, 7.
[44] Ernst & Young, "Second Annual Business Risk Report," 2009, 9.
[45] Howlett, *Standard & Poor's Industry Surveys: Insurance; Life & Health*, April 30, 2009, 13.
[46] This trend reportedly reverses when drivers reach their seventies. Industry representative, telephone interview by USITC staff, November 9, 2009.
[47] Clement, "The Implications of Demographic Change," October 15, 2008, 12; Howlett, *Standard & Poor's Industry Surveys: Insurance; Life & Health*, April 30, 2009, 13.
[48] Clement, "The Implications of Demographic Change," October 15, 2008, 5.
[49] Halpern, "Demographics Boost China Life Insurance (LFC)," May 9, 2009.
[50] Graham, "Study: Health, Life Insurers Bank on Baby Boomers, Discount Gen X and Y," August 11, 2009.
[51] Casualty Actuarial Society (CAS), "Demographic Shifts Impacting Underwriting, Pricing," June 2, 2009.
[52] Ernst & Young, "Second Annual Business Risk Report," 2009, 13.
[53] Swiss Re, "World Insurance in 2008," 2009, 13.

BOX 5.1 Climate change risks motivate U.S. and foreign P&C insurance firms to offer new insurance products

Policies that cover property losses resulting from hurricanes, floods, and other weather-related events have long been offered by insurance firms. However, concerns regarding the growing incidence of such events—a possible effect of climate change—have created new business opportunities for U.S. and foreign insurance companies, encouraging these firms to supply products that (1) provide protection to particularly vulnerable populations; (2) cover new types of risk; and (3) encourage environmentally friendly business ventures and household behavior.

Insurers increasingly offer small-value policies—or microinsurance—in developing countries. These cover farmers and communities against weather-related events, with many policies provided across borders. Swiss Re (Switzerland), for example, has sold insurance policies that protect approximately 500,000 small-scale farmers in India, Ethiopia, Kenya, and Mali against the risk of drought.[a] AIG (U.S.) has also been a significant participant in the microinsurance market, having issued over 2 million policies that earned premiums totaling $45 million in 2007. Other participants in this market include both developed-country firms, such as Eureko Re (Netherlands) and Allianz (Germany), and developing-country firms, such as Pakisama Mutual Benefit Association (Philippines) and Trinity Life Assurance Company (Tanzania).[b]

Firms have created new product offerings for their domestic and global clients that cover the processes and technologies integral to climate change mitigation. Insuring a renewable energy facility's multifaceted project cycle can require many different types of coverage, and several insurance firms—including AIG, Travelers, and Renewco (a member of the U.K.-based Lloyd's), among others—offer bundled insurance coverage for such facilities. Firms such as Munich Re (Germany) and AXA (France) insure renewable energy facilities against shortfalls in energy production. Munich Re, ACE (U.S.), and Zurich (Switzerland), are among the companies that cover risks associated with emissions reduction projects, such as carbon-offset projects.[c] Further, Swiss-based Zurich Financial Services sells coverage to entities engaging in carbon capture and/or sequestration.[d] Supplying such coverage provides insurers with new sources of revenue, and also may facilitate the development of innovative climate change mitigation technologies and processes by covering the potential risk of project failure.[e]

Insurers have also introduced products that may help reduce climate impacts by rewarding policyholders for eco-friendly behavior. For example, a handful of insurance firms offer pay-as-you-drive insurance policies, which factor mileage into the cost of premiums. One industry representative indicated that 14 U.S. insurers were planning to sell such policies by year-end 2009.[f] Fireman's Fund—a subsidiary of German-owned Allianz—offers lower premiums to owners of green buildings and encourages its U.S. policyholders to procure environmentally-friendly replacement products following a loss. U.S.-owned Travelers offers discounted insurance to hybrid car owners.[g]

[a] Warner and Spiegel, "Climate Change and Emerging Markets," July 2009, 88.
[b] Mills, "From Risk to Opportunity," April 2009, 33–37.
[c] Mills, "From Risk to Opportunity," April 2009, 30, 31, and 40.
[d] Lehmann, "New Study: Insurers Move Slowly on Climate Risks," April 3, 2009.
[e] III, "Climate Change: Insurance Issues," April 2009.
[f] III, "Climate Change Insurance Issues," April 2009.
[g] Scherer, "The World's Second-Largest Industry, Worried about Losses Related to Climate Change, Offers Incentives to 'Go Green,'" October 13, 2006.

Katrina and Rita contributed to losses totaling $114 billion.[54] Following these disasters, many insurers exited or minimized their participation in hurricane-prone coastal areas, creating a gap in the supply of insurance coverage which led to premium increases of 100 to 600 percent.[55] Although there have been several attempts to pass federal legislation that addresses such shortages, no significant progress on these proposals had been achieved by mid-2009. Similarly, the terrorist attacks of September 11, 2001, created a substantial gap in the supply of terrorism insurance. This gap was addressed through the Terrorism Risk Insurance Act (TRIA), which established a temporary federal program providing reinsurance to suppliers of terrorism insurance. The program was recently extended until 2014.[56]

[54] III, *The Insurance Fact Book 2009*, 2009, 110.
[55] Mortgage Bankers Association, "Natural Disaster Catastrophic Insurance," April 2007.
[56] Seifert, *Standard & Poor's Industry Surveys: Insurance; Property & Casualty*, July 9, 2009, 13–14.

Impact of the Financial Crisis and Economic Downturn

Industry sources indicate that most insurance firms were less affected by the recent financial downturn than firms in other segments of the financial services industry due to insurers' relatively limited exposure to the U.S. mortgage market and their comparatively solid risk management schemes.[57] With some notable exceptions (particularly AIG), U.S. insurance firms continue to be profitable and hold substantial capital reserves, enabling them to offer new and renewed coverage and fulfill existing obligations.[58] However, the financial downturn has had some effect on insurance firms' balance sheets and business environment, and a recent 2009 survey revealed that industry commentators viewed the financial crisis as the top risk facing the insurance business.[59]

The financial downturn has hampered insurer profitability through poor investment returns, increased losses, and decreased demand for certain insurance products. In 2008, net investment income among U.S. life & health insurance firms decreased by about 3 percent,[60] while net investment income in the P&C segment posted a 7 percent decline.[61] The financial downturn led to increased claims in certain market segments, such as the financial guarantee and mortgage insurance segments,[62] and reportedly was accompanied by an increase in insurance fraud.[63] Further, demand for property insurance dropped, as declining home values and home and automobile sales have reduced the need for such coverage. In the life insurance segment, demand for investment-linked products has declined as decreases in stock values have shifted demand toward conservative, risk-protection products.[64]

The financial downturn contributed to a 2 percent overall decrease in the real value of global life and non-life insurance premiums in 2008. However, the effect of the crisis varied widely in different segments of the economy, being largely confined to the industrialized world: insurance premiums in developed countries fell by 3 percent in 2008, while premiums in developing countries increased by 11 percent.[65] Premium growth in emerging economies reportedly was a product of continued demand for compulsory non-life insurance coverage and products related to savings and investment throughout 2008. However, one industry source forecasts that emerging-country demand may decline as the effects of the crisis reach these markets.[66]

The impact of the crisis in the United Kingdom and Japan, the world's second- and third-largest markets in terms of total insurance premiums,[67] has been mixed. Much like their U.S. counterparts, UK insurers have seen both investment income and premiums decrease due to declining property values.[68] At the same time, the crisis reportedly may improve

[57] Schich, "Insurance Companies and the Financial Crisis," 2009; III, "Insurers Have Proven Resilient during Economic Downturn," April 10, 2009.

[58] American Council of Life Insurers (ACLI), "The Life Insurance Industry," March 16, 2009; III, "Insurers Have Proven Resilient during Economic Downturn," April 10, 2009.

[59] Ernst & Young, "Second Annual Business Risk Report," 2009, 3.

[60] III, "Life Insurance," n.d. (accessed November 12, 2009).

[61] III, "Full-Year 2008 Results Show P/C Industry Well Capitalized Despite Being Pummeled By Catastrophes, Recession, and the Financial Crisis," April 9, 2009.

[62] Swiss Re, "World Insurance in 2008," 2009, 14.

[63] Industry representative, telephone interview by USITC staff, November 9, 2009.

[64] Industry representative, telephone interview by USITC staff, November 18, 2009.

[65] Swiss Re, "World Insurance in 2008," 2009, 3.

[66] Swiss Re, "World Insurance in 2008," 2009, 22.

[67] III, *The Insurance Fact Book 2009*, 2009, 1.

[68] Stride, "How the Financial Crisis is Affecting the UK Insurance Market," October 21, 2008.

employee perceptions of the insurance industry relative to the banking industry, giving insurers an opportunity to attract talented financial services professionals to their firms.[69] Japan posted a decrease in insurance premiums in the non-life segment and, among most firms, in the life segment in 2008. On the other hand, a sharp increase in the premiums earned by Japan Post Holdings—which began to undergo privatization in October 2007—led to an increase in overall life insurance premiums in the life segment.[70] Japan also experienced the failure of at least one insurance firm—Yamato Life Insurance Co.[71]—as a result of the decrease in investment values caused by the financial crisis. Japanese government officials contend, however, that this firm is not representative of the country's insurance sector due to the company's small size and relatively high-risk investments.[72]

Trade Trends

Cross-border Trade[73]

In recent years, the United States has seen continued growth in its long-standing global and bilateral deficits in cross-border insurance services trade (box 5.2). In 2008, U.S. cross-border exports of insurance services stood at $10.8 billion, while cross-border imports of such services stood at $42.9 billion, yielding a trade deficit of $32.2 billion. U.S. exports of insurance services increased by 6 percent in 2008, slower than the average annual growth rate of 14 percent for such exports during 2003–07 (figure 5.2). U.S. import growth also slowed, posting an increase of 3 percent in 2008, as compared to average annual growth of 13 percent during the preceding five-year period. This slowdown corresponded to the onset of the recent global economic downturn and slower growth in life insurance premiums among developed-country markets.

The United States registered significant insurance services trade deficits with Bermuda, the United Kingdom, and Switzerland—the second-, third-, and fifth-largest markets for U.S. exports of such services in 2008 (figure 5.3). Imports of reinsurance services were the key contributor to U.S. insurance services deficits with Bermuda and Switzerland, with reinsurance accounting for over 90 percent of the United States' total insurance services imports from each of these countries in 2008. Both of these countries are highly competitive in the world reinsurance market, with three Bermudian firms ranking among the world's top 10 providers of reinsurance and Switzerland's Swiss Re ranking as the world's second-largest reinsurance firm.[74] Both reinsurance services and primary and auxiliary services accounted for substantial shares of U.S. insurance services imports

[69] O'Connor, "U.S. Insurance Training Body Sees Benefits from Banking Crisis," September 14, 2009.
[70] Swiss Re, "World Insurance in 2008," 2009, 20.
[71] Reuters, "Global Financial Crisis Hits Japan," October 10, 2008.
[72] Ito and Yamazaki, "Yamato Life Files for Bankruptcy, Citing Investments," October 10, 2008.
[73] Unless otherwise indicated, the analysis in this section is based on data found in USDOC, BEA, *Survey of Current Business*, October 2009, 40–41, 52–53, tables 1 and 5.2.
[74] III, "World Rankings," n.d. (accessed January 8, 2010).

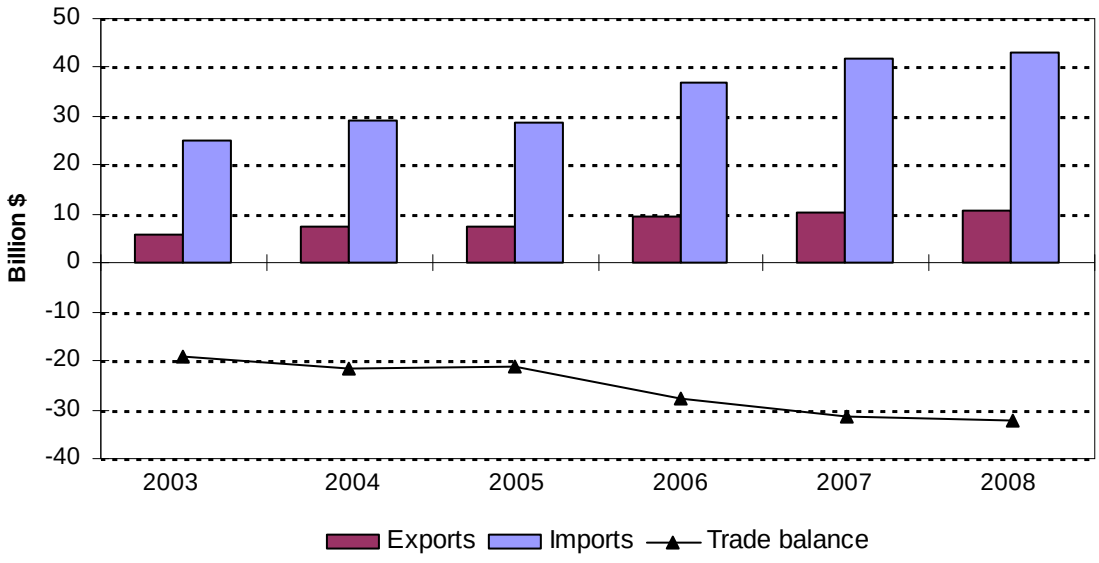
BOX 5.2 Understanding changes in BEA data on cross-border trade and affiliate transactions in insurance services

The U.S. Department of Commerce (USDOC) Bureau of Economic Analysis (BEA) publishes discrete cross-border trade data for "primary and other insurance" (principally life and property/casualty insurance) and reinsurance.[a] BEA data on cross-border trade in insurance services are the sum of premium income (adjusted for "normal" losses), investment income, and auxiliary services. BEA estimates of "normal" losses—which are subtracted from total premiums—are derived by averaging the difference between total premiums and losses over a certain period of years.[b] These data also incorporate an estimate of the investment income that insurance firms derive from their technical reserves (insurance premium supplements).[c] Auxiliary services include earnings from the provision of actuarial, agency and brokerage, claims adjustment, and salvage administration services, as well as agents' commissions.[d]

In 2008, BEA introduced a methodological change in the way it calculates affiliate transactions in insurance services. Beginning with data for the year 2004, BEA revised its estimates of affiliate transactions in the insurance industry to reflect "services supplied through affiliates" rather than "sales of services," creating a new measure that is more similar to output than sales value. Much like cross-border trade data, affiliate transactions data derived using this new approach reflect sales (adjusted by "normal" losses) and incorporate premium supplements. These adjustments have led to a decrease in BEA estimates of affiliate transactions of insurance services for the years 2004–06.[e]

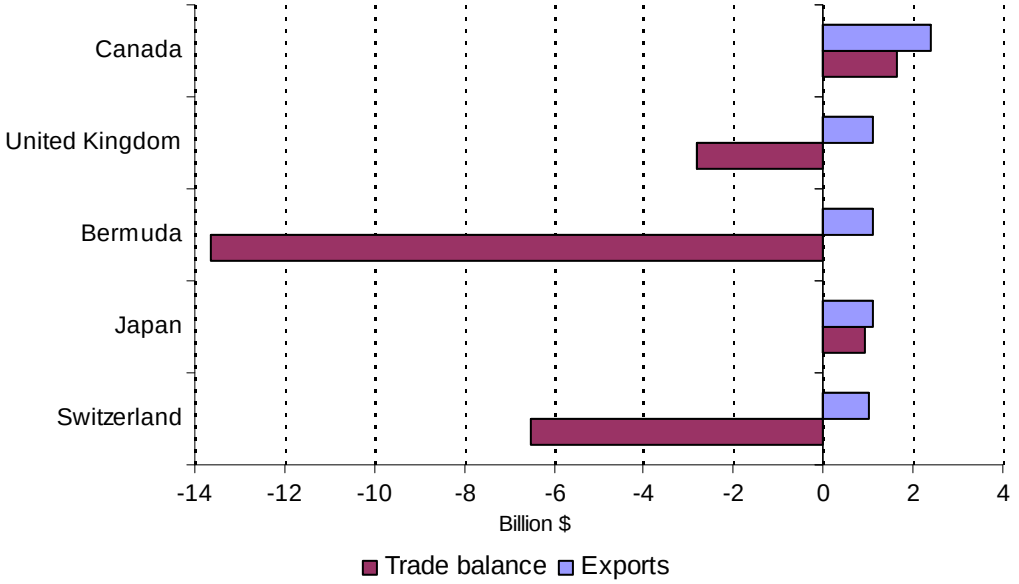
[a] USDOC, BEA, *Survey of Current Business*, October 2007, 130–32.
[b] USDOC, BEA, *Survey of Current Business*, October 2007, 99.
[c] USDOC, BEA, "Catalog of Major Revisions to the U.S. International Accounts," June 3, 2009 (accessed January 26, 2010).
[d] USDOC, BEA, *Survey of Current Business*, October 2007, 99.
[e] USDOC, BEA, *Survey of Current Business*, October 2008, 18–19, 34–35.

FIGURE 5.2 Insurance services: The United States registered a growing cross-border trade deficit in insurance services during 2003–08



Source: USDOC, BEA, *Survey of Current Business,* October 2009, 40–41, table 1.

FIGURE 5.3 Insurance services: U.S. cross-border insurance trade yielded significant deficits with certain major trading partners in 2008



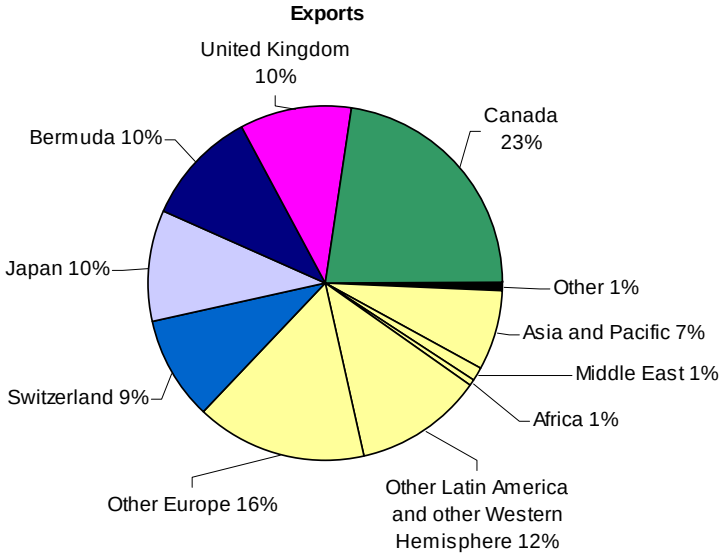
Source: USDOC, BEA, *Survey of Current Business,* October 2009, 52–53, table 5.2.

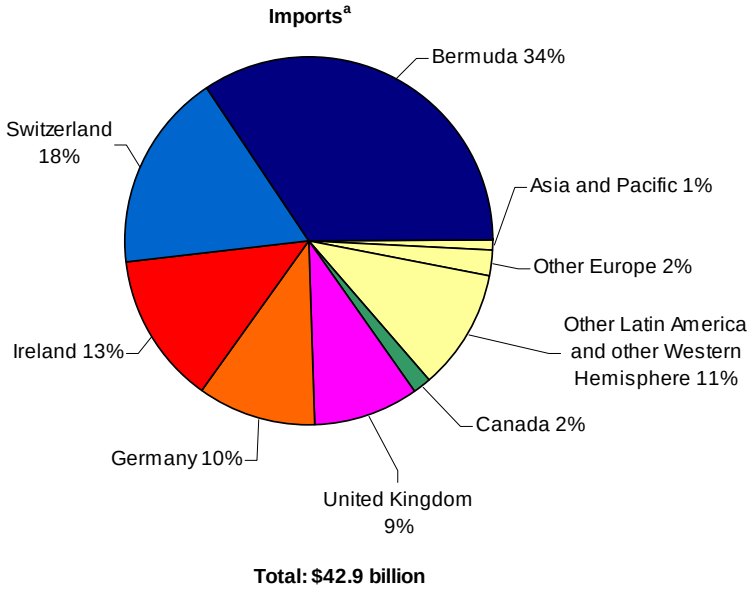
from the United Kingdom in 2008, reflecting the overall strength of the UK insurance industry.

Canada was the largest market for U.S. insurance service exports in 2008, accounting for $2.4 billion, or almost one-quarter, of such exports in that year (figure 5.4). Canada, Bermuda, the United Kingdom, Japan, and Switzerland all numbered among the top five export markets for U.S. insurance services in both 2007 and 2008, with some shifts in the respective rankings of these five markets. However, several significant shifts occurred in the preceding five-year period, as Switzerland became the third-largest market for U.S. insurance services exports following a 68 percent average annual increase in such exports from 2003 through 2007, and Germany—the third-largest U.S. export market in 2003—fell to ninth place, accounting for fewer exports than Ireland, France, or Mexico in 2007.

It is not possible to determine the contribution of U.S. exports to total revenues in overseas insurance markets due to a lack of comparable data. However, data on premiums for life and non-life insurance suggest that premiums paid to U.S. insurers on a cross-border basis account for a very small share of total life and non-life insurance premiums in top export markets. For example, cross-border premium payments to U.S. insurers accounted for less than 3 percent of total life and non-life insurance premiums paid by Canadian consumers and less than 0.1 percent of such premiums paid by UK consumers. Overall, U.S. cross-border premium receipts account for less than 0.2 percent of life and non-life insurance premiums paid in non-U.S. markets. These data likely understate U.S. participation in overseas markets, as U.S. insurance firms typically provide insurance services to foreign customers through foreign affiliates. Available data are also insufficient to determine the extent of U.S. firms' contribution to the reinsurance and auxiliary insurance services segments of overseas markets.

FIGURE 5.4 Insurance services: Canada and Bermuda, respectively, were the top markets for U.S. exports and imports of insurance services in 2008





Source: USDOC, BEA, *Survey of Current Business,* October 2009, 52–53, table 5.2.

Note: Geographic regions are shaded yellow.

[a]Africa, Middle East, and all other combined equal less than 0.2 percent.

Affiliate Transactions[75]

In recent years, services supplied by U.S.-owned foreign affiliates have grown relatively rapidly, surpassing services supplied by foreign-owned U.S. affiliates by a widening margin. During 2006–07, insurance services supplied by U.S.-owned affiliates increased by 17 percent to $55.5 billion, continuing the average annual growth rate of 17 percent recorded from 2004[76] to 2006 (figure 5.5). By contrast, services supplied by foreign-owned U.S. affiliates reached $43.4 billion after growing by only 3 percent in 2007, slower than the average annual increase of 8 percent posted during 2004–06. As U.S. investment in overseas insurance markets grew at only a slightly faster average annual rate (9 percent) than foreign investment in the U.S. insurance market (8 percent) during 2004–07, it is likely that increased sales by existing affiliates were a significant contributor to the overall rise in insurance services supplied by U.S.-owned affiliates during this period. Slower-than-average growth in domestic insurance premiums—which increased at an average annual rate of 2 percent from 2004 through 2007, compared with 8 percent in the global insurance market—suggests that U.S.-owned affiliates operating in overseas markets may have had a greater opportunity to achieve high sales growth than U.S. parent firms. Particularly high average annual growth rates in insurance premiums were recorded in countries with which the United States maintains strong commercial relationships, such as the United Kingdom (16 percent) and Canada (13 percent).

Liberalization of Trade Impediments

A wide variety of provisions limit the ability of insurance firms to provide services in overseas markets. Common barriers to insurance trade include restrictions on the provision of marine, aviation, and transport (MAT) insurance through modes 1 or 2,[77] foreign equity limitations, limitations on an entity's form of establishment, discriminatory capital solvency provisions, restrictions on the foreign provision of compulsory insurance and insurance for state-owned or -affiliated entities, the presence of monopolies, and limitations on foreign worker entry and the selection of key workers.[78] Among these barriers, industry representatives assign particular significance to measures that affect the establishment of a foreign commercial presence, such as India's provision limiting foreign equity participation in an insurance entity to 26 percent and China's restriction on the rate at which foreign insurance affiliates can set up branches.[79]

[75] Unless otherwise indicated, the analysis in this section is based on data found in USDOC, BEA, *U.S. International Services*, n.d. (accessed January 6, 2010).

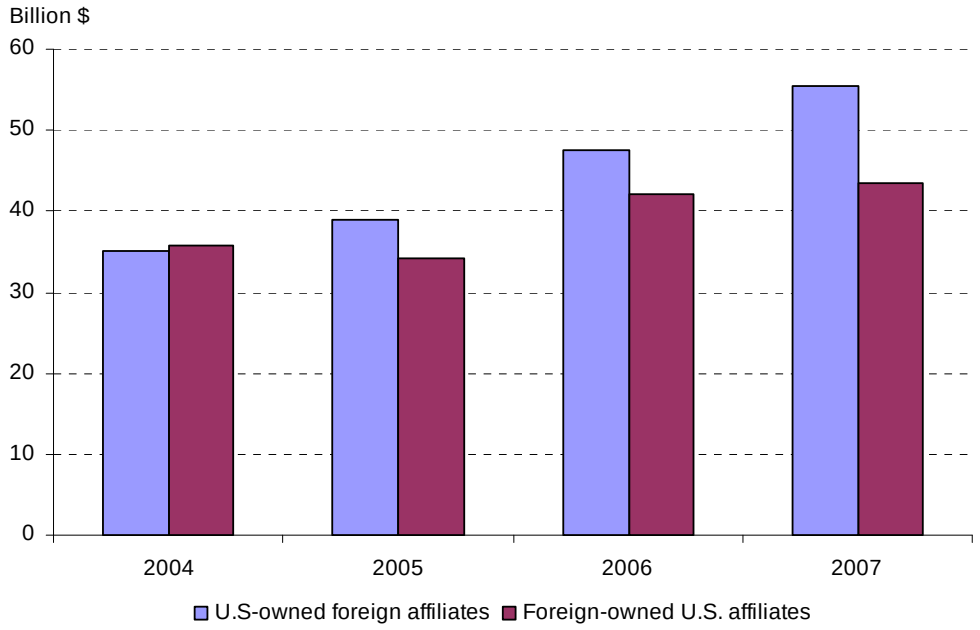
[76] Comparable data on sales by foreign affiliates of U.S. insurance firms are unavailable prior to 2004. As such, the discussion in this section will focus on the years 2004–07.

[77] The provision of services through mode 1, also known as cross-border supply, occurs when a service is transferred across a border, such as when a customer purchases an insurance policy over the Internet from a firm located in a foreign market. The provision of services through mode 2, also known as consumption abroad, occurs when an individual travels to a foreign market to purchase a service, such as when a foreign customer buys an insurance policy while visiting the United States.

[78] For more information on market access and national treatment barriers to the provision of insurance services in overseas markets, and the possible effect of the removal of such barriers, see USITC, *Property and Casualty Insurance Services,* March 2009, Chapter 4.

[79] Industry representative, telephone interview by USITC staff, November 9, 2009; and industry representative, telephone interview by USITC staff, November 18, 2009.

FIGURE 5.5 Insurance services: Services supplied by U.S.-owned affiliates surpassed services supplied by foreign-owned U.S. affiliates by a widening margin during 2004–07



Source: USDOC, BEA, *U.S. International Services,* tables 8 and 9 (accessed January 6, 2010).

Regulatory measures are reportedly a top concern among insurance firms that aim to supply services in foreign markets. Although many measures are established for prudential purposes[80] and may apply equally to both domestic and foreign firms, industry representatives indicate that the inconsistencies among these country-level provisions can affect the relative competitiveness of particular foreign services suppliers.[81] One prominent concern is the planned 2012 implementation of Solvency II, an EU regime that is designed to improve and better coordinate member-country legislation on insurers' capital reserve requirements.[82] Solvency II includes provisions for determining the equivalence of third-country regulatory regimes, thus harmonizing the treatment of insurers from particular non-EU countries across all EU member states.[83] However, because the U.S. insurance industry is regulated at the state level and because individual states are prohibited from engaging in agreements with foreign countries, it is not clear whether the United States will be able to achieve "equivalence," which may put U.S. insurance firms at a competitive disadvantage.[84]

[80] Although there is a divergence of opinion regarding what constitutes a prudential insurance regulation, measures that might generally be considered to have a prudential purpose include those relating to insurance firms' investments, accounting and reporting requirements, and capital solvency and adequacy, among others. UNCTAD, "Trade and Development Aspects of Insurance Services and Regulatory Frameworks," November 21, 2005, 16.

[81] Ernst & Young, "Second Annual Business Risk Report,." 2009, 9; industry representative, telephone interview by USITC staff, November 18, 2009; industry representative, telephone interview by USITC staff, November 9, 2009.

[82] Lloyd's, "Solvency II Explained," August 7, 2009.

[83] Europa, "Solvency II: Frequently Asked Questions (FAQs)," July 10, 2007.

[84] Industry representative, telephone interview by USITC staff, November 18, 2009.

An industry representative indicated that existing free trade agreements have made a significant and positive impact on trade in insurance services, and the implementation of recently completed U.S. free trade agreements—such as those with Korea and Colombia—is expected to have a similar effect.[85] Further, trade commitments are particularly important in the highly regulated insurance industry, as such commitments create transparency by precluding the reestablishment of barriers that have previously been liberalized.[86]

Outlook

The U.S. insurance industry will likely experience continuing challenges in 2010: a slow U.S. economic recovery is expected to keep prices and earnings low, prompting firms to exit non-core business segments, as mentioned earlier.[87] However, industry observers anticipate that both investment returns and premiums will increase during the next five years. As a result, revenues in the U.S. P&C insurance segment are expected to grow at an average annual rate of almost 4 percent during 2009–14, while revenues in the life insurance segment are predicted to increase at an average annual rate of between 4 and 5 percent.[88]

At the same time, the financial downturn may alter several characteristics of the business environment for insurance. For example, the U.S. government's rescue of AIG has drawn increased attention to the debate over state-based regulation in the insurance industry, and the U.S. House of Representatives passed two bills at the end of 2009 that would increase the federal government's regulatory role.[89] The industry is concerned that new federal provisions might create an inconsistent or duplicative regulatory environment that would adversely affect U.S. competitiveness.[90] The financial crisis may also lead to an increase in mergers and acquisitions as governments begin to sell assets acquired during the crisis[91] and as market turbulence creates opportunities for stronger companies to acquire weaker firms.[92] Other changes to the business environment might include a shift in the nature of consumer demand toward simple products with relatively strong guarantees (such as whole life policies) and the reform of employee compensation schemes.[93]

[85] Industry representative, telephone interview by USITC staff, November 18, 2009.
[86] Industry representative, telephone interview by USITC staff, November 9, 2009.
[87] Ernst & Young, "U.S. Life Insurance Industry Outlook," January 2010, 1–2; Ernst & Young, "U.S. Property-Casualty Insurance Industry Outlook," January 2010, 1–3.
[88] IBISWorld, "Life & Other Direct Insurance Carriers in the US," September 16, 2009, 40; and IBISWorld, "Auto & Other Direct Carriers in the US," November 2, 2009, 43.
[89] These include the Financial Stability Improvement Act of 2009, which was passed in November, and the Federal Insurance Office Act of 2009, which was passed in December. Seifert, *Standard & Poor's Industry Surveys: Insurance; Property & Casualty*, January 28, 2010, 6.
[90] Industry representative, telephone interview by USITC staff, November 9, 2009.
[91] PricewaterhouseCoopers, "The Day after Tomorrow," 2009, 17.
[92] Towers Perrin, "Impact of the Insurance Industry," October 2008.
[93] PricewaterhouseCoopers, "The Day after Tomorrow," 2009, 15, 27.

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CHAPTER 6
Retailing Services

Summary

As of 2008, the world's largest retailers were headquartered in Europe and the United States, but many of the fastest-growing firms were based in developing countries—a trend that continued after the onset of the global economic downturn. Specific factors that had the greatest influence on demand between 2004 and 2009 included rapid growth of incomes in the developing world; macroeconomic and financial conditions that favored—then discouraged—retail spending in the developed world; and growth in consumers' preference for online versus in-store shopping. Factors that affected supply included large retailers' decisions to shift expansion efforts from developed to developing countries and increased investments in two emerging channels for delivering retail services: mobile commerce and social media.

Retailing services supplied by U.S.-owned affiliates in overseas markets exceeded such services supplied by foreign-owned U.S. affiliates by a widening margin from 2004 through 2007. In 2007, the leading markets for U.S.-owned affiliates were Canada, the United Kingdom, and other Western Hemisphere countries, while Europe and Canada were the largest suppliers of retailing services through foreign affiliates in the United States. Although legal hurdles to foreign investment are generally lower than in the past, significant barriers affecting the establishment of a commercial presence remain in several key markets.

Introduction

Distribution services comprise the range of activities through which goods are sold to final consumers of those goods or to parties that intend to resell them. Retailing services are distinguished from other distribution services in that they are associated with the sale of small quantities of merchandise to individual, final consumers.[1]

The academic literature defines five attributes of retailing services: ambiance (which comprises the quality of the store environment and the services provided there), assortment (the depth and breadth of products offered), accessibility of location (i.e., the distance consumers must travel to make purchases), assurance of product delivery in consumers' desired time and form, and information about products' prices and the establishments selling them.[2] Retail prices for merchandise implicitly include the price of

[1] Roy, "Out of Stock or Just in Time?" 2008, 225; U.S. Bureau of the Census, "2007 NAICS Definition: Sector 44-45; Retail Trade," 2007. In contrast, the other main type of distribution service—wholesaling—occurs when a firm sells its merchandise to other resellers or to retailers.

[2] In this discussion, we use the term "retailing industry" to refer to the global group of firms that specialize in delivering retailing services, while we use "retailing services" to refer to the services delivered by those firms.

the associated retailing services.[3] This "bundling" phenomenon explains why merchandise may carry a higher price in a lavishly decorated department store staffed with deeply knowledgeable salespeople (i.e., a store offering high levels of ambiance) than in a discount store offering minimal customer service.

The retailing industry consists of three broad subsectors: general merchandise stores, specialty retailers, and supermarkets and drugstores.[4] General merchandisers sell a wide variety of merchandise, such as furniture, clothing, and sporting goods, but generally not fresh food. They include establishments such as department stores and discount stores. Specialty retailers focus on specific types of merchandise, such as electronics, do-it-yourself home improvement items and apparel. Supermarkets and drugstores sell mostly food, health, and personal care items.[5]

Competitive Conditions in the Global Retail Services Market

The financial crisis and associated economic downturn[6] slowed growth in global retail sales revenues,[7] which totaled approximately $14.4 trillion in 2008. Revenues grew by 6 percent in 2008, compared to an average annual growth rate of 9 percent from 2003 through 2007.[8] Although developed countries account for the largest share of the global market, retail sales have been growing more rapidly in developing countries than in developed ones in recent years: developing countries' share of global sales increased from 24 percent in 2003 to 33 percent in 2008.[9] Developing countries increased their share of global revenues on the strength of rapid economic growth; their populations consumed more as their incomes grew. While the United States and Japan remained the world's two largest retail markets in terms of total sales,[10] their combined share of global

[3] Betancourt, *The Economics of Retailing and Distribution*, 2004, 19–23.

[4] These three broad categories are similar to those used by industry analysts at Standard & Poor's. For examples, see Souers, *Standard & Poor's Industry Surveys: Retailing; Specialty*, September 10, 2009; Agnese, *Standard & Poor's Industry Surveys: Supermarkets & Drugstores*, September 17, 2009; Aseada, *Standard & Poor's Industry Surveys: Retailing; General*, November 19, 2009. Some classification systems (such as the NAICS) classify gasoline stations and motor vehicle and parts dealers as retail establishments. We do not focus on these subsectors in the ensuing discussion in light of the substantial differences between the supply and demand factors affecting these subsectors and those affecting the retailing subsectors on which we focus.

[5] The appropriate category for retailers is sometimes ambiguous. For example, operators of hypermarkets—very large stores that sell a wide range of food and nonfood products—are sometimes classified as general merchandisers and sometimes as food retailers, depending on the importance of food in their overall sales.

[6] For a more detailed discussion of the financial crisis and subsequent economic downturn, see box 1.1.

[7] This section discusses sales revenues for the retailing industry. Sales revenues provide a useful metric for measuring the size of the retailing industry and analyzing recent trends in the sector, but they are not a true measure of *retailing services supplied* by the sector because they include the cost of goods sold. See box 6.2 for further discussion of the differences between sales data and estimates of services supplied.

[8] Economist Intelligence Unit, Latest Consumer Goods Database (accessed January 7, 2010). Data quoted from this database are in current U.S. dollars. The database covers 60 countries that provide a reasonable proxy for global sales, given that these countries accounted for 96 percent of global GDP in 2008 (IMF, World Economic Outlook Database). The countries are Algeria, Argentina, Australia, Austria, Azerbaijan, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Czech Republic, Denmark, Ecuador, Egypt, Finland, France, Germany, Greece, Hong Kong, Hungary, India, Indonesia, Iran, Ireland, Israel, Italy, Japan, Kazakhstan, Malaysia, Mexico, Netherlands, New Zealand, Nigeria, Norway, Pakistan, Peru, Philippines, Poland, Portugal, Romania, Russia, Saudi Arabia, Singapore, Slovakia, South Africa, South Korea, Spain, Sri Lanka, Sweden, Switzerland, Taiwan, Thailand, Turkey, Ukraine, United Kingdom, United States of America, Venezuela, and Vietnam.

[9] Economist Intelligence Unit, Latest Consumer Goods Database (accessed January 7, 2010).

[10] The United States and Japan have been the world's largest retail markets since at least 1994, the first year for which sales data are available in the Economist Intelligence Unit database.

revenues declined from 49 percent in 2003 to 40 percent in 2008. The combined revenue share of the four "BRIC" countries (Brazil, Russia, India, and China) grew from 13 percent in 2003 to 18 percent in 2008, by which time all four were among the top 10 global retail markets (figure 6.1).

In many countries, the majority of retailers are small shops with few employees, and in poorer countries, many retailers operate outside the formal economy.[11] However, modern retail formats, such as supermarkets, have gained an increased share of the retail market. Supermarkets' share of the food retail market increases with incomes, urbanization, female participation in the labor force, and openness to foreign direct investment.[12]

Market concentration in the retail industry varies by country and industry segment. In food retailing, where economies of scale particularly favor large firms,[13] concentration has generally increased: an analysis spanning 85 countries showed that the average market share of the top five food retailers increased from 28 percent to 35 percent from 1999 to 2005.[14] Concentration has also increased in some segments of specialty retailing due to the growth of "category killers"—chains of large stores that specialize in a particular range of products, such as toys, electronics, or home improvement goods. Category killers have captured significant market share in the United States, Europe, Japan,[15] and some developing countries, such as China.[16] In contrast, concentration tends to be less marked in apparel retailing.[17]

In 2008, all but one of the world's top 10 retailers operated large-format stores selling a mix of food and general merchandise.[18] All 10 are headquartered in the United States or Western Europe. Wal-Mart is the world's largest retailer by a wide margin: its sales in 2008 exceeded those of the second, third, and fourth-ranked retailers combined (table 6.1). Larger retailers are more likely to operate outside their home markets,[19] but large size does not always mean internationalization. For example, two of the top 10 retailers, Kroger and Target, operate only in their home market, the United States.[20]

[11] Businesses in the "informal economy" are not registered with governments. Typically, they do not pay taxes and their workers do not enjoy required benefits or protections. They often sell products that have not been certified as meeting required standards. Palmade and Anayiotos, "Rising Informality," August 2005, 1–3.

[12] Traill, "The Rapid Rise of Supermarkets?" 2006, 164–68.

[13] Pilat, "Regulation and Performance in the Distribution Sector," 1997, 9.

[14] Roy, "Out of Stock or Just in Time?" 2008, 234.

[15] Souers, *Standard & Poor's Industry Surveys: Retailing; Specialty*, September 10, 2009, 15; DeFoe, *Standard & Poor's Global Industry Surveys: Retailing; Specialty, Europe*, September 2007, 14; DeFoe, *Standard & Poor's Global Industry Surveys: Retailing; Specialty, Asia*, August 2007, 12.

[16] One example in China is Gome, an electronics retailer. See Tschang, "Gome is Tops in China," September 10, 2008.

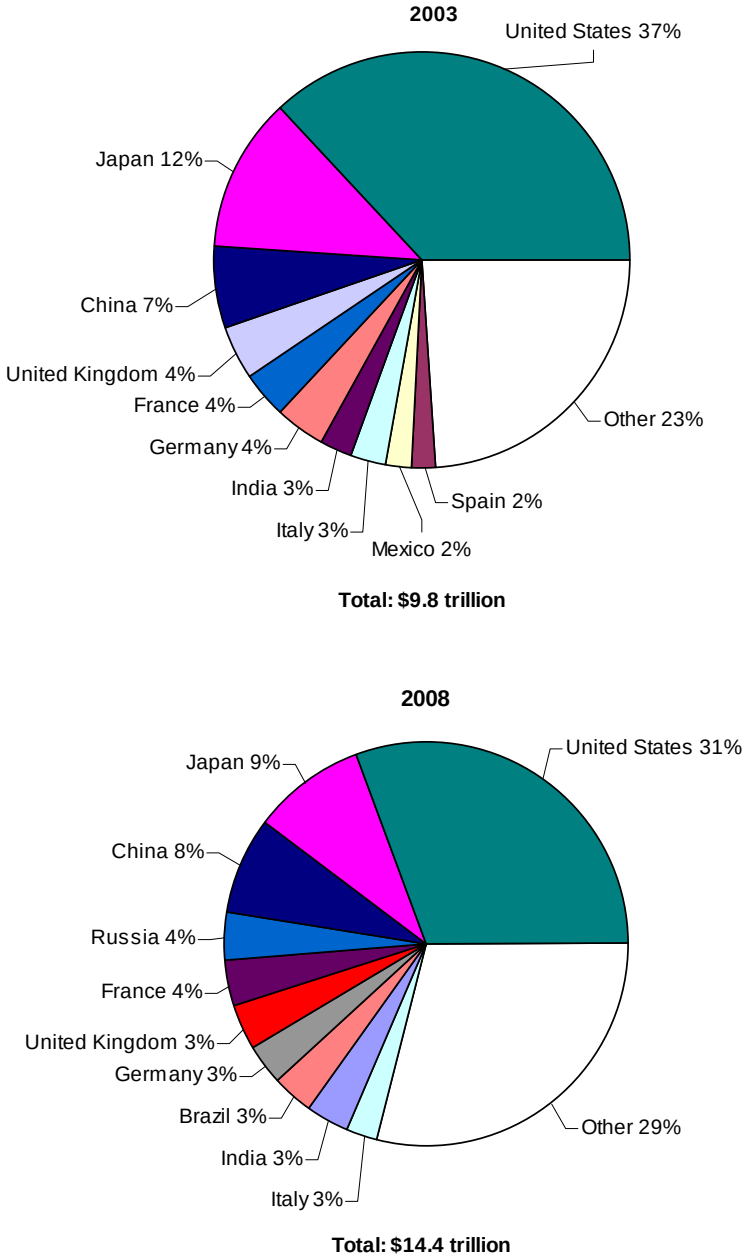
[17] Pilat, "Regulation and Performance in the Distribution Sector," 1997, 9.

[18] Deloitte Touche Tomatsu, "Top 250 Global Retailers 2008," January 2010.

[19] Deloitte Touche Tomatsu, *Feeling the Squeeze*, January 2009, G26.

[20] Deloitte Touche Tomatsu, "Top 250 Global Retailers 2008," January 2010.

FIGURE 6.1 Retail services: Although the United States and Japan continued to account for the largest shares of global retailing revenues from 2003 to 2008, the share going to the BRIC countries (Brazil, Russia, India, and China) increased during that period



Source: Economist Intelligence Unit, Latest Consumer Goods Database (accessed January 7, 2010).

Note: Figures may not total 100 percent due to rounding.

TABLE 6.1 Retail services: Top 10 global retailers, by retail sales, 2008

Rank	Company	Country[a]	Retail sales (million $)
1	Wal-Mart Stores, Inc.	U.S.	401,244
2	Carrefour S.A.	France	127,958
3	Metro AG	Germany	99,004
4	Tesco plc	UK	96,210
5	Schwarz Untemehmens Treuhand KG[b]	Germany	79,924
6	The Kroger Co.	U.S.	76,000
7	The Home Depot, Inc.	U.S.	71,288
8	Costco Wholesale Corp.	U.S.	70,977
9	Aldi GmbH & Co. oHG[a]	Germany	66,063
10	Target Corp.	U.S.	62,884

Source: Deloitte Touche Tomatsu, "Top 250 Global Retailers 2008," January 2010.

Note: Data are for the fiscal year ending in June 2009. They reflect only the retail portion of firms' sales.

[a]Country represents location of headquarters.
[b]Estimate.

Demand and Supply Factors

Rising Incomes Drive Growth of Retail Demand in Developing Countries

Developing countries increased their share of global retail revenues on the strength of rapid economic growth. From 2004 through 2008, developing countries' real GDP growth averaged 7 percent annually, compared to 2 percent in developed countries.[21] In numerous developing countries, of which India, Vietnam, China, and Brazil are prominent examples, this growth led to expansion of the middle classes.[22] New middle class shoppers' increased propensity for discretionary spending[23] and increased preferences for modern shopping environments and global brands[24] drove the growth of retail demand. The expansion of modern food retailing was particularly notable. For example, in Vietnam, the number of supermarkets and hypermarkets increased from fewer than 90 in 2005 to 400 in 2009.[25] However, other subsectors also grew substantially: in China, luxury sales grew by an estimated 12 percent in 2009 (while

[21] Author's calculations using data from International Monetary Fund (IMF), World Economic Outlook Database. For these calculations, the "developed" group included the 33 countries defined as "advanced economies" by the IMF; the "developing" group included the 149 countries defined by the IMF as "emerging and developing economies." The lists of countries in each group are available at http://www.imf.org/external/pubs/ft/weo/2009/02/weodata/weoselagr.aspx#a110.

[22] Beinhocker, Farrell, and Zainulbhai, "Tracking the Growth of India's Middle Class," 2007, 51; A.T. Kearney, "Windows of Hope for Global Retailers," 2009, 6; Cadilhon et al., "The Economic Impact of Supermarket Growth in Vietnamese Food Supply Chains," 2007, 1; DeFoe, *Standard & Poor's Global Industry Surveys: Retailing; Specialty, Asia,* August 2007, 1; Eghbal, "Brazil's New Middle Class Has a Growing Appetite for Consumption," September 13, 2007.

[23] In developing countries, discretionary expenditures tend to rise in concert with per capita incomes. Beinhocker, Farrell, and Zainulbhai, "Tracking the Growth of India's Middle Class," 2007, 58.

[24] A.T. Kearney, "Windows of Hope for Global Retailers," 2009, 6; Reda, "Markets with Muscle," November 2009.

[25] Viet Nam News, "Supermarkets Expect Fierce Competition," July 1, 2005; A.T. Kearney, "Windows of Hope for Global Retailers," 2009, 9.

declining in many developed countries),[26] and in Brazil, apparel sales grew at a compound annual rate of 23 percent from 2004 through 2008.[27]

Macroeconomic and Financial Factors Foster, Then Dampen Retail Growth in Large Developed Countries

Favorable macroeconomic conditions and expanded consumer credit drove the strong growth in the retailing industry in developed countries from 2004 through 2006. Real GDP growth in the G7 countries[28] accelerated from an average of 1 percent annually from 2001 through 2003 to 3 percent from 2004 through 2006.[29] Faster economic growth boosted consumers' spending power, which caused retail sales growth to increase from an average of 0.6 percent per year during the former period to 2 percent during the latter.[30] Unemployment in the G7 declined every year from 2004 through 2007 after increasing annually from 2001 through 2003,[31] providing an additional boost to consumer confidence. The strong economy, low interest rates, relaxed lending requirements, and high home values[32] led households in many developed countries to assume increasing amounts of debt, thereby expanding their resources available for consumption. In several countries, debt's share of disposable income rose particularly rapidly between 2000 and 2005: for example, it rose from 81 percent to 141 percent in Ireland, 118 to 159 in the United Kingdom, and 120 to 173 in Australia.[33]

Each of these factors worked in reverse after the financial crisis escalated in 2008. The G7 economies grew by less than 0.3 percent in 2008 and are estimated to have declined by 4 percent in 2009, while unemployment among these countries grew from 6 percent in 2007 to an estimated 8 percent in 2009.[34] As a consequence, consumer confidence measures in Organization for Economic Co-operation and Development (OECD) countries fell to their lowest levels in at least 30 years in late 2008.[35] In addition, private credit growth slowed (and declined in countries such as the United States and United Kingdom in early 2009), due in part to consumers' efforts to reduce high levels of debt ("deleveraging") and banks' pulling back on lending.[36] Together, these factors reduced consumers' propensity and ability to consume retailing services.

Consumers and Retailers Embrace E-Commerce

Online retail sales have grown rapidly over the past decade due to expansion of Internet access, shifts in consumer preferences, and retailers' investments in online retailing channels. In the United States, the online share of total retail sales rose from 0.6 percent

[26] Bain & Company, "Strength by Luxury Goods Shoppers in Asia and Online Brings Glimmers of Hope to Beleaguered Industry," October 21, 2009.

[27] A.T. Kearney, "Emerging Markets Offer Growth Opportunities," n.d. (accessed February 19, 2010).

[28] The G7 countries are Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States.

[29] IMF, World Economic Outlook Database.

[30] Economist Intelligence Unit, Latest Consumer Goods Database.

[31] IMF, World Economic Outlook Database.

[32] OECD, *OECD Economic Outlook 80*, December 2006, 138. High home values increased households' perceptions of wealth and afforded them more assets against which to borrow.

[33] OECD, *OECD Economic Outlook 80*, December 2006, 138.

[34] IMF, World Economic Outlook Database.

[35] Brackfield, *Short-Term Economic Statistics and the Current Crisis*, September 10–11, 2009.

[36] IMF, *Global Financial Stability Report*, October 2009, 27–29; *Economist*, "Slim Pickings, No Appetite," October 15, 2009.

in the fourth quarter of 1999 to 4 percent in the second quarter of 2009.[37] In eight other OECD countries, the share of the adult population that ordered or purchased goods over the Internet exceeded 50 percent in 2008. This was not true in any OECD country in 2004.[38] Online shopping also grew in the developing world: for example, online sales totaled $8.3 billion in China in the second quarter of 2009, up 92 percent over the same period the previous year, [39] and they totaled an estimated $1.2 billion in India in 2007, up 47 percent from 2006. [40] Consumers are more likely to purchase certain types of merchandise online than others: in 2007, books, videos and games, clothing, and electronic equipment were among the leading categories.[41]

The effect of the increase in e-commerce on overall retail sales is unclear. A recent Harvard Business School study noted that many firms that who once sold only through offline channels have evolved into "multichannel" retailers who are among the leaders in online retailing. In addition, online channels have afforded smaller retailers a means to expand their base of shoppers without expensive investments in bricks-and-mortar stores.[42] The growth of e-commerce has also been associated with a change in the way shoppers make offline purchases. A recent report by Forrester Research estimates that the value of offline sales influenced by shoppers' online research was nearly six times the value of online sales in 2009.[43] However, there is little empirical evidence about the net effect of these changes in retailers' and consumers' behaviors on overall sales.

Increased access to the Internet has been an important factor behind the increase in online retailing.[44] Among developed countries, the percentage of individuals using the Internet increased from 11 percent in 1997 to 62 percent in 2007, while in developing countries this figure rose from less than 1 percent in 1997 to 17 percent in 2007.[45] Across all OECD countries, broadband [46] subscribership grew from 0.1 individuals per 100 inhabitants in 1998 to 22.8 in the second quarter of 2009.[47] This growth gave online shopping an especially strong boost; in the United States and European OECD countries, individuals in households with broadband access were more likely to buy goods and

[37] U.S. Bureau of the Census, "Quarterly Retail E-Commerce Sales, 2nd Quarter 2009," August 17, 2009. The U.S Census Bureau defines e-commerce as "sales of goods and services where an order is placed by the buyer or price and terms of sale are negotiated over an Internet, extranet, Electronic Data Interchange (EDI) network, electronic mail, or other online system. Payment may or may not be made online." Estimates adjusted for seasonal variation, but not for price changes. Figures for the second quarter of 2009 are preliminary estimates.

[38] Acoca, *OECD Conference on E-Consumers*, November 2009, 8. The eight countries were Norway, Denmark, the United Kingdom, the Netherlands, Germany, Sweden, Japan, and Finland.

[39] Reuters, "E-Commerce Is Getting Chinese to Loosen Their Purse Strings," September 24, 2009. Data quoted are from iResearch.

[40] *eMarketer*, "India's Retail E-Commerce Growth," May 9, 2008.

[41] The Nielsen Company, "Over 875 Million Consumers Have Shopped Online—The Number of Internet Shoppers Up 40% in Two Years," April 14, 2008. Airline tickets are also frequently purchased online but are not typically classified as retail sales.

[42] Zhang et al., "Crafting Integrated Multichannel Retailing Strategies," January 1, 2010, 3.

[43] Schonfeld, "Forrester Forecast: Online Retail Sales Will Grow to $250 Billion by 2014," March 8, 2010.

[44] Acoca, *OECD Conference on E-Consumers: Strengthening Consumer Protection in the Internet Economy—Background Report*, November 2009, 8.

[45] International Telecommunications Union, "Internet Users per 100 Inhabitants, 1997–2007," n.d. (accessed December 29, 2009).

[46] According to the OECD, "Broadband service is usually understood to be a connection providing high-speed Internet access, that is, a communication service that enables access to the Internet at data transmission rates above a specific threshold." Díaz-Pinés, *Indicators of Broadband Coverage*, December 10, 2009, 38.

[47] OECD, "Broadband Penetration," n.d. (accessed December 29, 2009).

services online than individuals in households with non-broadband Internet access.[48] The high-speed Internet connections associated with broadband service enable consumers to access online shopping portals more conveniently than non-broadband service.

The economic downturn also appeared to bolster consumers' preference for online shopping.[49] Online shopping allows consumers to "shop smarter" by reading reviews and comparing prices[50]—attributes that appeal especially to consumers who have grown more discriminating in regard to quality and price (box 6.1). Online sales were not immune to the recession, but they were more robust than overall retail sales: for example, in the United States, online sales fell by 4 percent from the second quarter of 2008 to the second quarter of 2009, while total retail sales fell 11 percent.[51]

Retailers' increased investments in e-commerce have also boosted Internet sales. In addition to traditional Web sites, retailers have invested in mobile commerce (or "m-commerce") and internet-based "social media," such as Facebook and Twitter. M-commerce, through which consumers complete retail transactions using mobile phones, rose to prominence faster in some countries than others. For example, it accounted for nearly half of all business-to-consumer (B2C) e-commerce in Korea in 2004, but only 20 percent of B2C e-commerce in Western Europe in 2006.[52] In the United States, mobile commerce has accelerated since 2007, driven in part by Apple's introduction of the iPhone (an internet-enabled "smart phone") in January 2007 and subsequent releases of competing smart phones. Small and large retailers alike have developed Web sites designed specifically for viewing over mobile phones and specialized applications that enable users to communicate with retailers, obtain information, and purchase merchandise.[53]

Social media are "software tools that allow groups to generate content and engage in peer-to-peer conversations and exchange of content."[54] Their use worldwide has grown rapidly in recent years: between December 2007 and December 2008 alone, internet users worldwide increased their time spent on social networking sites by 63 percent, compared to an 18 percent increase in overall time spent online.[55] In response, retailers increased their use of social media to disseminate information on new products, announce sales promotions, solicit feedback, and conduct sales.[56] Anecdotal evidence suggests that the delivery of retail services via social media grew rapidly in 2009: a 2008 survey of 100 of

[48] OECD, *OECD Information Technology Outlook 2008*, 2008, 239–40. OECD reported data for the U.S. that was collected by the Pew Internet and American Life Project in 2006, and data for European countries from the Eurostat New Cronos database for 2007.

[49] Acoca, *OECD Conference on E-Consumers*, 10–11.

[50] Fowler and Zimmerman, "Online Retailers Turn On Services to Capture More of Holiday Sales," October 28, 2009.

[51] U.S. Bureau of the Census, "Quarterly Retail E-Commerce Sales, 3rd Quarter 2009," November 18, 2009. Estimates adjusted for seasonal variation, but not for price changes.

[52] Takahashi, *Mobile Commerce*, January 16, 2007, 10.

[53] Siwicki, "Mobile Commerce Has Arrived," November 2009.

[54] Bottle PR Company Web site, http://www.bottlepr.co.uk/glossary.html (accessed February 9, 2010).

[55] Nielsen Company, *Global Faces and Networked Places*, March 2009, 3.

[56] Walker, "Retailers Reach Customers through Social Media Sites," January 2, 2010, 1.

BOX 6.1 Developed countries' consumers shift from aspirational to value shopping

In developed countries, strong economic performance and increased consumer confidence from the latter half of 2003 through mid-2007[a] supported "aspirational shopping," defined colloquially as "buying slightly above our true stations in life—using consumption to get a little piece of luxury or pleasure."[b] Aspirational shoppers drove the growth of retailers across market segments. For example, at Whole Foods Market, a premium grocer in the United States, the United Kingdom, and Canada, grew at an average annual rate of 20 percent between 2003 and 2007;[c] they grew in the same period by an average annual rate of 22 percent[d] at "casual luxury"[e] apparel retailer Abercrombie & Fitch.

The Flight to Value[f]

After the recession began, consumers in developed countries spent less, and when they did shop, they placed greater emphasis on "value"—that is, finding quality merchandise at a low price. Discount stores profited from shoppers' shift to value while luxury retailers largely suffered.[g] For example, Wal-Mart posted record third-quarter earnings in 2009;[h] Japanese low-cost apparel retailer Uniqlo posted 11 percent growth in operating profit for the year ending in August 2009;[i] and German discount grocer Aldi recorded year-on-year growth of 16 percent for its operations in the United Kingdom in the 12-week period ending March 22, 2009.[j] Meanwhile, sales declined steeply for luxury retailers such as Saks and Neiman Marcus. They and other luxury retailers faced a dilemma—if they aggressively marked down prices in a bid to retain more cost-conscious clients, they might "cheapen the brand" and thereby decrease their long-term appeal to remaining luxury shoppers.[k]

Growth of Private Labels

The flight to value also led consumers in developed countries to increasingly choose merchandise marketed under private labels (store brands) over national or global brands: private label sales grew by 9 percent in the United States and 5 percent in Europe in the year to August 2009. Private labels offer consumers quality comparable to branded goods at lower prices, and offer retailers higher profit margins than branded merchandise.[l] Retailers were particularly successful at marketing groceries and other consumer staples under private labels.[m] For example, private label merchandise accounted for 35 percent of U.S. grocer Kroger's sales in the first quarter of 2009[n] and accounted for 40 percent of consumer goods sales in Germany as of 2009.[o]

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[a] Brackfield, "Short-term Economic Statistics and the Current Crisis," September 10–11, 2009, 5–6.

[b] Walker, "The Apex DVD Player," March 7, 2004.

[c] Agnese, *Standard & Poor's Industry Surveys: Supermarkets & Drugstores*, September 17, 2009, 30.

[d] Driscoll and Wang, *Standard & Poor's Industry Surveys: Apparel and Footwear*, September 3, 2009, 36.

[e] CNNMoney, "Abercrombie & Fitch Co.," n.d. (accessed December 17, 2009).

[f] Retail market observers have used this term frequently since the beginning of the global recession. For an example, see Faithfull, "The Flight to Value," July 31, 2009.

[g] However, a few, such as France's Hermès, profited from another facet of the flight to value: a "flight to quality," as the remaining luxury shoppers gravitated to the merchandise viewed as the best-made, and therefore the best-value. *Economist*, "The Substance of Style," September 17, 2009.

[h] Wal-Mart, "Wal-Mart Third Quarter Earnings Per Share Exceeds Guidance," November 12, 2009.

[i] Uranaka, "Update 2—Uniqlo Stays on a Roll with 36 Pct Jump in Oct. Sales," November 2, 2009.

[j] Aldi, "General and Corporate News," n.d. (accessed November 13, 2009).

[k] Wahba, "Dilemma at Saks As Affluent Pull Back," December 7, 2009.

[l] *Economist*, "The Game Has Changed," August 20, 2009.

[m] Grant Thornton, *Reviving Retail*, n.d. (accessed November 16, 2009), 7.

[n] Peer, "Wal-Mart Turns to Private Label Products," June 26, 2009.

[o] Economist, "The Game Has Changed," August 20, 2009.

the most prominent U.S. online retailers found that only 30 percent had established a Facebook "fan page,"[57] whereas a similar survey in 2009 found that 86 percent had done so.[58] Data on the impact of social media on retail sales are scarce, but preliminary signs suggest that the gains are real. In a 2009 survey of online retailers, 34 percent of respondents reported that they had grown their businesses through social media.[59]

Large Retailers Refocus Expansion Efforts on Developing Countries

Large retail chains focused increasingly on expanding in developing countries over the past decade—even as their expansion efforts slowed or stopped in developed countries. The financial crisis and economic downturn that began in 2008 caused retailers to shift their focus in developed markets from expansion to cash conservation and cost control. In the United States, in particular, retailers focused on closing less profitable stores as a key strategy for rationalizing costs.[60] At the same time, large retailers remained keenly interested in expanding abroad: the world's 250 largest retailers were active in an average of 6.9 countries in 2008[61] compared to 5.5 in 2003.[62] Developing markets in Asia, Latin America, the Middle East, and Eastern Europe emerged as prime targets for expansion. Spanish apparel retailer Inditex opened stores in Egypt, Honduras, Montenegro, and Ukraine in 2008;[63] French retailer Auchan opened hypermarkets in China, Ukraine, and Russia in 2008 and in Dubai in 2009;[64] and Walmart acquired Distribución y Servicio D&S S.A., the largest food retailer in Chile, in 2009.[65] Large retailers headquartered in developing countries have also expanded aggressively in recent years: of the 10 fastest-growing retailers worldwide from 2002 to 2007, two were from Russia, two from China, and one from Chile.[66] While many large retailers based in developing countries have expanded exclusively within their rapidly growing home markets, a few, such as Chile's Cencosud, have ventured abroad.[67]

Impact of the Financial Crisis and Economic Downturn

The financial crisis and subsequent economic downturn severely affected the global retail industry, particularly in developed countries. In the United States, for example, retail sales revenues fell from $4.4 trillion in 2007 to an estimated $4.1 trillion in 2009, a decline of nearly 7 percent.[68] U.S. retail sector employment also fell, from 15.6 million in December 2007 to an estimated 14.6 million in December 2009, a decline of over 6 percent.[69] Closings of retail establishments outnumbered openings in the first quarter of

[57] Brulant, "Only 30 Percent of Retailers on Facebook, According to Brulant Study," June 26, 2008.
[58] Tsai, "Retail Buys into New Social Media Tools," September 23, 2009.
[59] Mulpuru, "The State of Retailing Online," January 11, 2010, 27. Data quoted are from the *The State of Retailing Online*, a survey conducted annually by Forrester Research.
[60] Souers, *Standard & Poor's Industry Surveys: Retailing: Specialty*, September 10, 2009, 11–12.
[61] Deloitte Touche Tomatsu, *Emerging from the Downturn*, January 2010, G15.
[62] Deloitte Touche Tomatsu, *2005 Global Powers of Retailing*, January 2009, G9.
[63] Inditex Group, "Timeline," undated (accessed December 30, 2009).
[64] Groupe Auchan, "Auchan dans le monde: Chine," (accessed January 4, 2010); Groupe Auchan, "Auchan dans le monde: Russie," (accessed January 4, 2010); Groupe Auchan, "Historique: les dates clés," (accessed January 4, 2010).
[65] Wal-Mart, "Walmart Confirms Successful Tender Offer for D&S," January 23, 2009.
[66] Deloitte Touche Tomatsu, *Feeling the Squeeze*, January 2010, G34. Companies examined in the report are the world's 250 largest retailers.
[67] Cencosud Company Web site, http://www.cencosud.cl/ (accessed February 19, 2010).
[68] Economist Intelligence Unit, Latest Consumer Goods database (accessed January 7, 2010).
[69] U.S. Department of Labor (USDOL), Bureau of Labor and Statistics (BLS), Employment, Hours and Earnings—National Database.

2009 by the widest margin since at least the third quarter of 1992 (the earliest data available).[70] In the European Union, retail sales volumes declined for five consecutive quarters from the first quarter of 2008;[71] in Japan, where retail sales declined in both 2008 and 2009,[72] many retailers cut prices aggressively in a bid to attract reluctant consumers.[73] Effects were less pronounced in many developing countries, particularly in Asia. Preliminary estimates suggest that while retail sales declined significantly in several East Central European and former Soviet countries in 2009,[74] such sales grew in China, Brazil and India.[75]

Trade Trends

Affiliate Transactions

U.S.-owned foreign affiliates supplied retailing services (box 6.2) worth an estimated $58.4 billion in 2007, an increase of 9 percent over the previous year (figure 6.2) and roughly in line with growth of 8 percent in 2006.[76] In 2007, the leading foreign market for U.S. retailers was Canada, which accounted for 31 percent of the services supplied to foreign persons through affiliates. Other leading markets included the United Kingdom, Japan, and Germany (figure 6.3).[77]

U.S. retailers often expand into the United Kingdom, Canada, and other Western Hemisphere countries before venturing elsewhere in light of historically strong cultural and economic ties with these countries—and in the case of Canada and other Western Hemisphere countries, geographic proximity.[78]

Foreign firms' U.S. affiliates supplied retailing services totaling $42.5 billion in 2007, a decline of less than 1 percent from 2006. This was the first year since 2003 that U.S. affiliates' supply of retailing services declined, and contrasts with an average annual

[70] USDOL, BLS, Business Employment Dynamics database.
[71] Newson, "Recession in the EU," 2009, 2.
[72] Economist Intelligence Unit, Latest Consumer Goods database (accessed January 7, 2010). Growth rates are estimates for 2008 and 2009. Data are in real terms.
[73] Fujimura, "Seven and I Offers Sales for Shoppers Hit with Pay Cuts (Update 1)," December 11, 2009.
[74] Ukraine, Russia, the Czech Republic, and Hungary, among others. Economist Intelligence Unit, Latest Consumer Goods database (accessed January 7, 2010). Data are in real terms.
[75] Economist Intelligence Unit, Latest Consumer Goods Database (accessed January 7, 2010). Data are in real terms.
[76] USDOC, BEA, *U.S. International Services*, table 9, 2006–07 (accessed February 11, 2010). Data on growth of foreign affiliates retailing services supplied are available for 2005–07. The data for 2005 show rapid growth over services supplied in 2004; this spike appears to be an anomaly in the data. BEA does not publicly release data on retailing services supplied at the subsector level, but BEA representatives report that the high rate of growth in 2005 was due largely to a significant increase in retailing services supplied by foreign gasoline stations owned by U.S. parents. The gains in this subsector significantly exceed those in other subsectors. Gasoline sales are not included in the scope of this chapter's analysis. BEA staff, telephone interview by Commission staff, January 20, 2010.
[77] USDOC, BEA, *U.S. International Services*, table 9, 2006–07 (accessed February 11, 2010). The only other year for which country-by-country data are available is 2006. Comparison of countries' shares between 2006 and 2007 is not possible because BEA suppressed many countries' 2006 data in order to prevent disclosure of data for individual companies.
[78] For example, U.S. home improvement retailer The Home Depot entered Canada in 1994 and Mexico in 2001 before expanding into China in 2006. The Home Depot Company Web site, http://corporate.homedepot.com (accessed February 9, 2010). Costco entered Canada in 1986, Mexico in 1992, and the U.K. in 1993 before entering a number of countries in Asia and the Pacific. Costco, "Historical Highlights," December 17, 2009, 1.

BOX 6.2 Understanding changes in BEA data on affiliate transactions in retailing services[a]

For retailing services supplied through affiliates, BEA collects data from subsectors discussed in this chapter (general merchandise stores, specialty retailers, and supermarkets and drugstores), as well as two additional subsectors: gasoline stations, and motor vehicle and parts dealers. As noted earlier, this chapter does not focus on these two subsectors in light of the substantial differences between the supply and demand factors affecting them and other subsectors.

In 2008, BEA introduced a major methodological change in the way it calculates affiliate transactions in retailing services. Beginning with data for the year 2002 for foreign-owned affiliates, and 2004 for U.S.-owned affiliates, BEA revised its estimates of affiliate transactions. Previously, BEA reported only retail affiliates' "sales of services," which included secondary services sold at an explicit price (e.g., repair of merchandise) but not service attributes whose prices are usually bundled into the price of merchandise (e.g., customer services, the assortment of goods offered, and information about the goods).[b] For the new measure, BEA collects data on retail affiliates' sales, cost of goods sold, and beginning- and end-of-year inventories through surveys of U.S. firms with investments abroad and foreign firms with investments in the United States.[c] BEA then calculates estimates of **services supplied** by retail affiliates.[d] The cost of goods sold is not included in these data. These adjustments have led to an increase in BEA estimates of affiliate transactions of retailing services.

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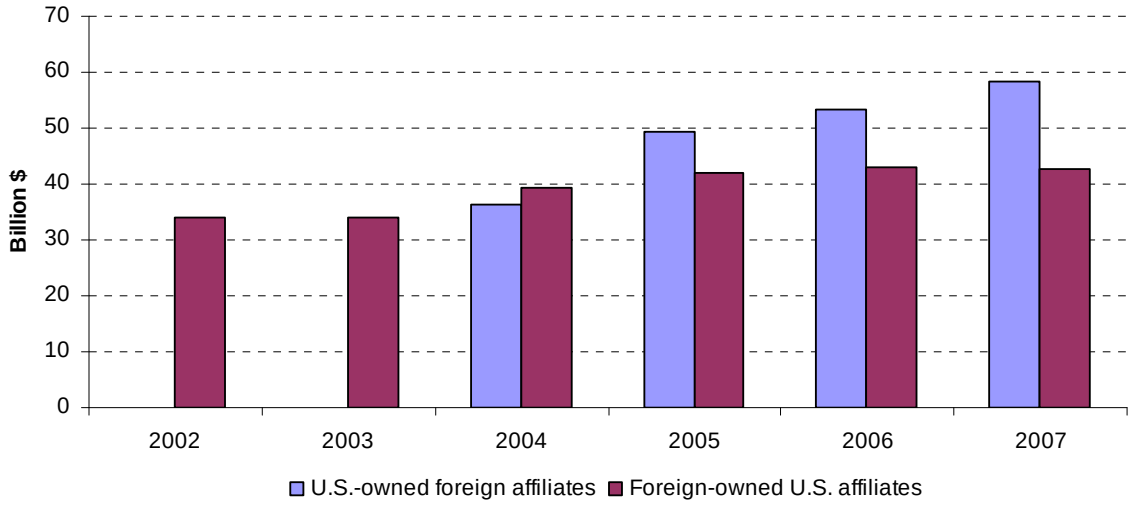
[a] BEA does not report data for cross-border trade in retailing services. Commission staff were not able to identify any sources of detailed data on cross-border trade in retailing services. Cross-border e-commerce likely accounts for the largest share of cross-border trade in retailing services. Several studies have examined trends in international e-commerce, although they provide only limited data. For example, see European Commission, "Cross-Border E-commerce in the EU," February 2009.

[b] Borga, "Supplemental Estimates of Insurance, Trade Services, and Financial Services Sold through Affiliates," October 2007; and Borga, *Improved Measures of U.S. International Services*, 2006.

[c] Results are extrapolated from a sample of respondents; firms are required to respond if they have assets, sales, or net income above a certain threshold.

[d] BEA official, e-mail message to Commission staff, February 21, 2010.

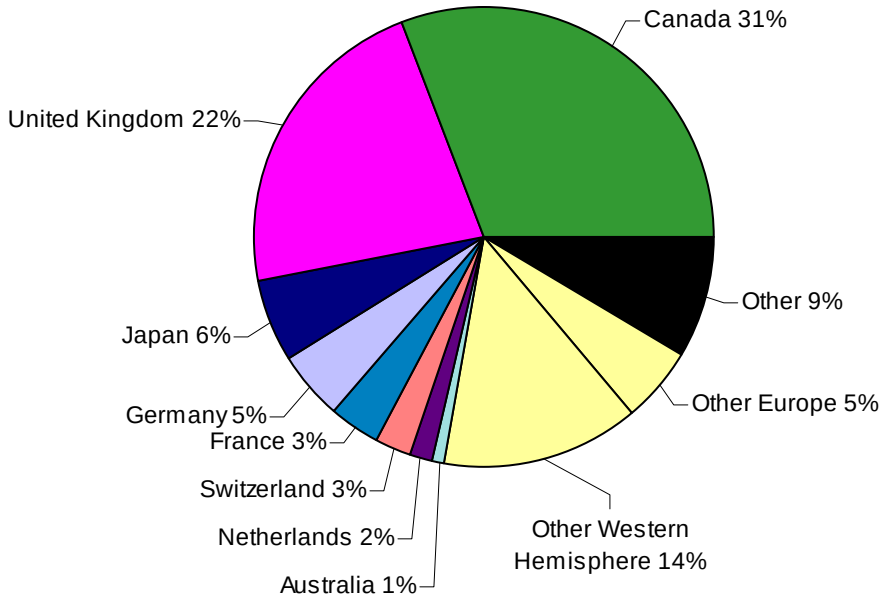
FIGURE 6.2 Retail services: Services supplied by U.S.-owned foreign affiliates grew faster than retailing services supplied by foreign-owned U.S. affiliates in recent years



Source: USDOC, BEA, *U.S. International Services* , tables 9 and 10 (accessed January 6, 2010) .

Note: BEA began publishing data on "services supplied" by retailing firms' affiliates in 2008. The services supplied data reflect the value of the distribution services provided by retailers via the selling of their merchandise. Services supplied data are available only for the years 2004 through 2007 for U.S.-owned foreign affiliates and 2002 through 2007 for foreign-owned U.S. affiliates. In prior years, BEA reported "sales of services" by retailers, which included ancillary activities such as repair of merchandise but not the value of distribution services provided through sales. Those data do not form a continuous series with the services supplied data.

FIGURE 6.3 Retail services: The United Kingdom and Canada accounted for over half of the retailing services supplied by U.S.-owned foreign affiliates in 2007



Total: $58.4 billion

Source: USDOC, BEA, *U.S. International Services,* 2006–07, table 9 (accessed January 6, 2010).

Notes: Figure data may not total 100 percent due to rounding. Geographic regions are shaded yellow.

growth rate of 6 percent from 2002 through 2006. The decline in 2007 did not reflect a decline in foreign retailers' investment positions in the United States;[79] rather, it appears to reflect the broader slowdown in U.S. retail activity that year.

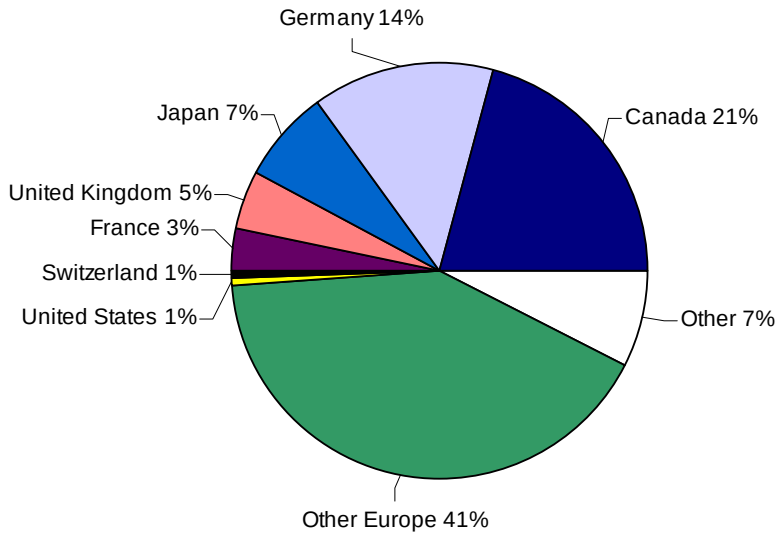
U.S. affiliates of parent companies based in Europe accounted for over 60 percent of the retailing services supplied by foreign-owned U.S. affiliates in 2007 (figure 6.4).[80] Some of the largest European retailers in the United States operate supermarkets and discount grocery stores, including the Netherlands' Royal Ahold, Belgium's Delhaize Group, and Germany's Aldi.[81] Affiliates of Canadian firms accounted for another 21 percent of the retailing services supplied by U.S. affiliates. Notable Canadian retailers operating in the United States include Alimentation Couche-Tard, owner of the Circle K chain of convenience stores; Aldo, which specializes in shoes, leather goods, and accessories; and Lululemon Athletica, which sells athletic apparel. Outside of Europe and Canada, the largest foreign supplier of retail services through U.S. affiliates is Japan, with

[79] USDOC, BEA, *Survey of Current Business*, table 15, September 2009.

[80] USDOC, BEA, *U.S. International Services*, table 10, 2006–07 (accessed February 11, 2009). Data are available by country only for 2006 and 2007; there were no major changes in countries' shares between those years. Within Europe, BEA provides individual country data on foreign affiliates' retailing services supplied in the United States only for France, Germany, Switzerland, and the United Kingdom.

[81] Royal Ahold's U.S. supermarket chains include Giant, Stop & Shop, and Martins, Delhaize Group's U.S. chains include Food Lion, Hannaford, and Sweetbay.

FIGURE 6.4 Retail services: European-owned affiliates accounted for over 60 percent of retailing services supplied by foreign-owned U.S. affiliates in 2007



Total: $42.5 billion

Source: USDOC, BEA, *U.S. International Services*, table 10, 2006–07 (accessed January 6, 2010).

7 percent of the total. Japan's Seven & I Holdings owns the 7-11 chain of convenience stores, which has over 6,800 outlets in North America.[82]

Liberalization of Trade Impediments

While a number of the largest developing countries relaxed restrictions on foreign participation in the retail sector in recent years, significant barriers remain. China opened the retail sector to full foreign ownership in 2004 and Vietnam did so in 2009 in accordance with their respective commitments for World Trade Organization (WTO) accession.[83] While these reforms greatly facilitated foreign investment in the retailing industry in these markets, some hurdles remained, including economic needs tests for foreign-owned outlets in Vietnam[84] and informal minimum capital requirements on foreign retailers in China.[85]

[82] Including stores operated, franchised, or licensed by 7-Eleven, Inc., a subsidiary of Seven & I. 7-Eleven Company Web site, http://corp.7-eleven.com/AboutUs/FunFacts/tabid/77/Default.aspx (accessed January 27, 2010).

[83] WTO, Services database (accessed January 4, 2010).

[84] VietnamNet and *Dau Tu* newspaper, "Vietnamese Retailers Urge Tougher Scrutiny of Foreign Retailers' Expansion," August 29, 2009.

[85] WTO, Council for Trade in Services, "Communication from the United States," October 26, 2009.

India remained the world's largest market where foreign ownership of "multiproduct" retail outlets is prohibited.[86] Large multinational retailers have pursued creative strategies for entering the Indian market in anticipation of future liberalization. For example, Wal-Mart formed a joint venture with India's Bharti Enterprises to operate a chain of "cash and carry" stores called BestPrice Modern Wholesale; the first store opened in 2009.[87] The stores are permitted because wholesale trading is not subject to foreign investment restrictions. The U.K.'s Tesco announced in 2008 that it would open wholesale outlets in India as well; it also signed an agreement to supply merchandise and retail expertise to the Indian conglomerate Tata Group's Star Bazaar chain of hypermarkets.[88]

Developed countries generally place fewer explicit restrictions on foreign investment in the retailing industry[89] but frequently impose regulations that apply to domestic and foreign firms alike. For example, as of 2008, the majority of OECD members for which data were available[90] regulated the establishment of large stores, the hours during which retail outlets could operate, and the prices of one or more categories of merchandise.[91]

Distribution services, and retailing services specifically, have been relatively underrepresented in bilateral and multilateral trade agreements.[92] As of January 2010, 54 of the 153 WTO Members had made commitments in retailing, including all 25 economies that have acceded to the WTO since its establishment in 1995.[93] In March 2006, eight countries[94] tabled a plurilateral request[95] for negotiations in distribution services as part of the Doha Round of global trade negotiations. The requestors asked for removal of all limitations to cross-border trade and establishment of affiliates for all distribution services, with limited exceptions.[96] Twenty-four members had made offers of services commitments as of July 2008, none of which proposed liberalization commitments as sweeping as those in the 2006 plurilateral request.[97] The Doha Round negotiations, as well as negotiations on the aforementioned request and offers had not concluded as of March 2010.

A number of preferential trade agreements have advanced liberalization in retailing and other distribution services beyond the levels assured via WTO commitments. For example, Costa Rica, the Dominican Republic, El Salvador, Guatemala, and Honduras

[86] Government of India, Ministry of Commerce and Industry, Department of Industrial Policy and Promotion, "Press Note No. 4 (2006 Series)," February 10, 2006. Foreign ownership is not allowed for "multiproduct" retail outlets (stores that sell goods under more than one brand, such as hypermarkets and department stores); however, foreigners may own up to 51 percent of retailers selling a single brand of goods. For more on this topic, see USITC, *Competitive Conditions for Foreign Direct Investment in India*, 2007, 5-9.

[87] Wax, "India's First Wal-Mart Draws Excitement, Not Protest," July 13, 2009.

[88] Tesco, "Tesco to Develop Cash-and-Carry Business in India," August 12, 2008.

[89] Based on analysis of data on FDI restrictions affecting distribution services in Golub, "Openness to Foreign Direct Investment in Services," August 2009.

[90] Data were available for all members except Greece, Ireland, and Slovakia.

[91] OECD, OECD International Regulation database.

[92] As of 2008, distribution was tied with education and health services as the sector for which WTO members had made the fewest commitments among the 11 on the WTO's Services Sectoral Classification List. Roy, "Out of Stock or Just in Time?" 2008, 235.

[93] Roy, "Out of Stock or Just in Time?" 2008, 235; WTO, Working Party on the Accession of Ukraine, *Report on the Working Party of the Accession of Ukraine*, January 25, 2008; WTO, Working Party on the Accession of Cape Verde, *Report on the Working Party of the Accession of Cape Verde*, December 6, 2007; and WTO, Services Database (accessed January 22, 2010).

[94] Chile, the EU, Japan, Korea, Mexico, Singapore, Taiwan, and the United States.

[95] Plurilateral negotiating requests are directed at some but not all members.

[96] WTO, "Distribution Services," n.d. (accessed January 22, 2010).

[97] Roy, "Out of Stock or Just in Time?" 2008, 253.

committed to removing most restrictions on cross-border trade and to allowing unrestricted commercial presence of foreign providers across the full range of distribution services through the Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR).[98] The Association of Southeast Asian Nations (ASEAN) Economic Community Blueprint calls for ASEAN members to remove "substantially all restrictions" on trade across all services sectors by 2015.[99]

Outlook

Analysts widely expect the global retail sector to strengthen in the next few years. The Economist Intelligence Unit (EIU) projects "a modest return to global growth in 2010 and a return to pre-2008 trends by 2013" due to rapid growth of demand in developing countries and an expected recovery in the United States.[100] Developing countries will likely remain the focus of global retailers' expansion efforts,[101] but retailers based in developing markets are also expected to expand within their home markets, as well as to nearby developing countries, and to richer countries.[102]

In developed countries, discount retailers will continue to benefit from consumers' increased cost consciousness.[103] Luxury retailers will respond to the decline in "aspirational shopping" in developed countries by continuing their reorientation towards China and other developing countries that are home to increasingly wealthy and brand-conscious consumers.[104] Across sectors, retailers will increase investments in e-commerce platforms,[105] social media,[106] and mobile commerce,[107] and will seek to optimize their product assortments and inventories by using advanced technologies to gather and analyze information about their customers.[108]

[98] Roy, "Out of Stock or Just in Time?" 2008, 254.
[99] ASEAN, *ASEAN Economic Community Blueprint*, January 2008, 11.
[100] EIU, *World: Consumer Goods and Retail Outlook*, November 15, 2009.
[101] EIU, *World: Consumer Goods and Retail Outlook*, November 15, 2009.
[102] Stores, *Top Retail Trends 2010*, January 2010.
[103] EIU, *World: Consumer Goods and Retail Outlook*, November 15, 2009.
[104] Stores, *Top Retail Trends 2010*, January 2010.
[105] Baker, "Next Year's 10 Great Retail Trends," November 18, 2009.
[106] Stores, *Top Retail Trends 2010*, January 2010.
[107] Dion, "Holiday Spending in 2009," n.d. (accessed January 22, 2010), 4.
[108] Stores, *Top Retail Trends 2010*, January 2010.

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CHAPTER 7
Securities Services

Summary

In 2008, the United States remained the leader in the global securities market, accounting for 4 of the top 10 global financial institutions. London and New York remained the dominant global financial centers, although securities markets in non-OECD countries increased in size and relevance. Factors that have affected demand and supply for securities services include the development of customized investment vehicles, investment by sovereign wealth funds in Western securities, and government regulation. The turmoil from the 2008 financial crisis and subsequent downturn had a severe impact on the securities industry, as it reduced the global value of securities, sharply lowered the risk tolerance of investors, accelerated consolidation in the asset management sector, and prompted widespread government intervention in securities marketplaces. However, foreign holding of U.S. securities continued to increase, reaching $10.3 billion in June 2008, demonstrating the desirability of U.S. investment markets.

From 2006–08, the United States consistently achieved a trade surplus in securities-related services. Large volumes of securities and related services were traded between countries with well-established financial sectors, such as the United States, the United Kingdom, France, Japan, and Switzerland. Tighter regulation in the wake of the financial crisis may reduce profits in the securities industry, while also reducing concerns about the dangers of further financial sector liberalization.

Introduction

A security is a financial asset traded on capital markets. Securities include equity securities (stocks), which represent an ownership stake in a company, and debt securities (bonds), which represent a lending-borrowing relationship between the owner of the security and the bond-issuing organization. A derivative is a closely related financial product that can complement or substitute for securities; derivatives include options to buy or sell a security at a prearranged price, as well as contracts for payment in case an underlying security rises or falls in value. Securities-related services include asset management, trading services, securities lending services,[1] clearance and settlement services, private placements,[2] and underwriting services. These services are provided by a variety of institutions that intermediate between securities buyers and sellers, including

[1] "Securities lending services" refers to the offering of loans by broker-dealers, banks, or other organizations for the purchase of securities.

[2] The sale of an entire issuance of securities to a small group of investors.

hedge funds, investment banks, mutual and pension funds, government-sponsored enterprises such as Fannie Mae and Freddie Mac, and others.

Competitive Conditions in the Global Securities Services Market

The total global value of securities fell substantially in 2008. This is illustrated in part by the decrease in the value of assets held by mutual funds worldwide, which fell from $26.2 trillion at the end of 2007 to $19.0 trillion at the end of 2008.[3] From 2007 to 2008, the value of money managed by U.S.-registered investment companies[4] fell by 20 percent (from $12.9 trillion to $10.3 trillion)[5] and the assets of EU-based investment funds fell by 16 percent (from $9.4 trillion to $7.9 trillion).[6] Total potential write-downs[7] on securities as a result of the financial crisis were estimated to reach $13 trillion for the United States, $3 trillion for Europe, and $790 billion for Japan.[8] Still, these losses took place in a context of an overall upward trajectory in wealth over the past decade, as global assets under management achieved a compound annual growth rate of 5 percent from 2004 through 2008.[9] In 2008, the top global financial institutions by assets under management (table 7.1) included UBS ($1.4 trillion) and Citigroup ($1.3 trillion), and the top U.S. securities companies by revenue included Morgan Stanley ($62 billion) and Goldman Sachs Group ($54 billion) (table 7.2).

At the end of the study period, London and New York City remained the dominant global financial centers. The 2009 Global Financial Centres Index found that, in the wake of the financial crisis, these two cities exhibited smaller decreases in their competitiveness scores than other cities and widened their lead over the third-ranked center, Singapore (figure 7.1).[10] Traditionally dominant financial centers like New York and London have long-standing competitive advantages in human capital, financial systems infrastructure, and financial research and development, which facilitate advancements in the supply of securities services. For example, initial public offerings (IPOs) are becoming increasingly complex as firms across all industries employ new technologies and business models, which increases the value of the experience and the commercial, financial, and legal expertise of IPO-facilitating securities firms in places like New York and London.[11] New

[3] Investment Company Institute (ICI), *2009 Investment Company Factbook,* 2009, 8.

[4] Investment companies organized under U.S. laws, and companies organized under foreign laws that offer securities through interstate commerce in the United States, generally must register with the U.S. Securities and Exchange Commission under the Investment Company Act.

[5] ICI, *2009 Investment Company Factbook*, 2009, 8.

[6] European Fund and Asset Management Association (EFAMA), *Asset Management in Europe*, April 2009, 34. Currency conversion rates: EU 6.9 trillion in 2007 at $1 US = 0.7306 EU; EU 5.4 trillion in 2008 at $1 US = 0.6827 EU.

[7] "Write-downs" means recognizing for the reduced value of assets in a company's accounting.

[8] International Monetary Fund (IMF), *Global Financial Stability Report: Responding to the Financial Crisis and Measuring Systemic Risks*, April 2009, 35. Countries refer to the geographic origin of assets upon which securities are based.

[9] Datamonitor, "Global Asset Management and Custody Banks," March 2009, 9.

[10] Yeandle et al., "The Global Financial Centres Index 5," March 2009. The scores are determined through a combination of external indices (such as gross tertiary education ratio and employee effective tax rates) and survey responses. Changes in scores can reflect both underlying competitiveness and perceptions held by finance professionals.

[11] Philippon and Reshef, "Wages and Human Capital in the U.S. Financial Industry," December 2008, 16.

TABLE 7.1 Securities services: Top 10 global financial institutions, by assets under management, 2007–08

Rank	Company	Country	2007	2008
			(billion $)	
1	UBS	Switzerland	1,896	1,393
2	Citigroup	U.S.	1,784	1,320
3	Merrill Lynch	U.S.	1,309	—
4	Credit Suisse	Switzerland	745	612
5	JPMorgan	U.S.	545	552
6	Morgan Stanley	U.S.	522	522
7	HSBC	U.S.	494	352
8	Deutsche Bank	EU	286	231
9	Wachovia	U.S.	285	—
10	BNP Paribas	EU	231	—

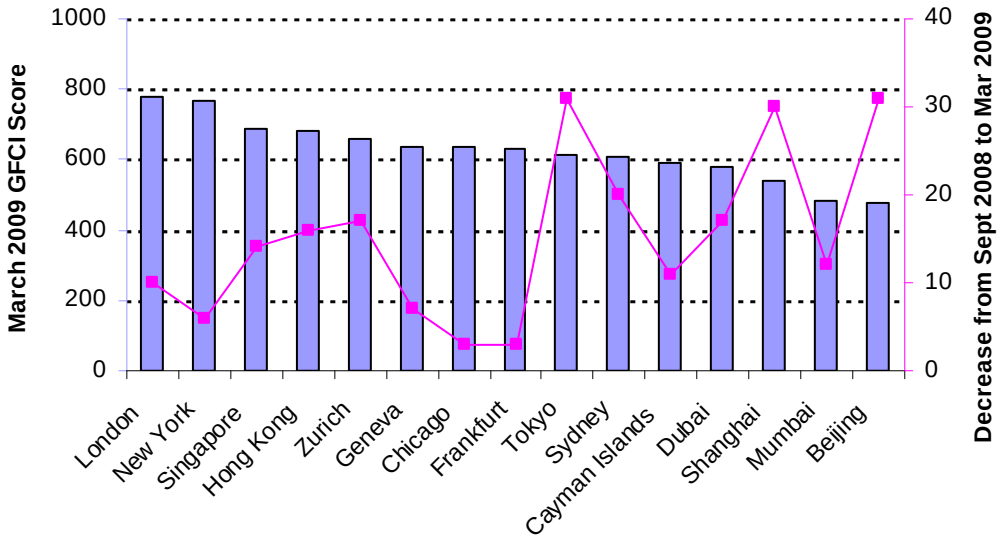
Source: Scorpio Partnership, "Wealth Management Soars," June 24, 2008.

TABLE 7.2 Securities services: Top 10 U.S. securities companies, by revenue, 2007–08

Rank	Company	2007	2008
		(million $)	
1	Goldman Sachs Group	87,968	53,579
2	Morgan Stanley	87,879	62,262
3	Merrill Lynch	64,217	16,784
4	Lehman Brothers Holdings	59,003	—
5	Bear Stearns	16,151	—
6	Franklin Resources	6,206	6,032
7	Charles Schwab	6,063	5,393
8	BlackRock	4,845	5,063
9	International Assets Holding	4,460	18,358
10	Legg Mason	4,344	4,634

Source: Fortune, "Fortune 1000 Custom Ranking."

FIGURE 7.1 Securities services: London and New York experienced smaller decreases in their Global Financial Centers Index scores from 2008 to 2009



Source: Yeandle et al., "The Global Financial Centres Index 5," March 2009.

York and London are also advantaged by having large pools of liquidity, as well as institutional predictability and stability. The presence of consumer amenities in these cities is an additional attraction for skilled workers.

On the other hand, the continued growth of developing countries' financial markets has begun to pull financial firms east to Mumbai and Shanghai, among other locations. The number of foreign and domestic financial firms in Shanghai reached 563 in 2007 (up from 119 in 1999), including 105 large foreign firms,[12] and the number of foreign institutional investors registered with India's Securities and Exchange Board increased from 490 in 2002 to 1,319 in March 2008.[13] Domestic financial assets of Gulf Cooperation Council countries (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates) rose from $400 billion in 2002 to $1.2 trillion in 2006,[14] which increased the importance of Dubai (UAE) and Manama (Bahrain) as global financial centers. More generally, Islamic finance (a set of financial practices based on an interpretation of religious texts that usually prohibits interest rates and speculation)[15] grew rapidly, with the sharia-compliant[16] assets held by the top 500 Islamic financial institutions worldwide, increasing by 29 percent to $822 billion in 2008.[17] Overall, growth in stock market value[18] during 2000–2007 was 58 percent for OECD countries

[12] Jarvis, "Race for the Money" June 2009, 20.
[13] Securities and Exchange Board of India (SEBI), "Annual Report: 2001–2002," December 14, 2009, 7; SEBI, "Annual Report: 2007–2008," December 14, 2009, 12.
[14] Farrell et al., "Mapping Global Capital Markets," January 2008, 22.
[15] Cihak and Hesse, "Islamic Banks and Financial Stability," January 2008, 4.
[16] "Sharia-compliant" refers to assets that conform to the aforementioned Islamic principles.
[17] *The Banker*, "Banker Survey Shows the Growth in Islamic Finance," October 28, 2009.
[18] Market value is measured as the market capitalization of companies listed on domestic stock exchanges.

but reached 972 percent for China, 1,129 percent for India, and 3,823 percent for the UAE.[19]

Demand and Supply Factors

Demand Reflects Preference for Low-Risk Investments

Demand for securities is determined by investors' levels of risk tolerance, and overall tolerance of risk decreased significantly as a result of the 2008 financial crisis and subsequent economic downturn.[20] The perception of global marketplace risk is indicated by the TED spread;[21] a higher spread indicates lower risk tolerance, as investors are willing to accept lower yields on safe Treasury bills and demand higher yields on risky assets (thereby increasing the spread) when they are afraid that loans to financial firms will default. The TED spread averaged 0.25 percentage points from 2002 through 2006, but exceeded 4.5 percentage points in October 2008 (figure 7.2).

Before 2007, there was strong global demand for securities backed by U.S. mortgages, which had risk-reward ratios perceived as attractive. Demand for such securities grew rapidly, as the rise in U.S. housing prices made investments in these securities lucrative. However, the downturn in the housing market devalued these securities, and the financial crisis revealed the hidden risks in financial products based on mortgages, such as collateralized debt obligations (CDOs);[22] these securities lost value and their issuance decreased (figure 7.3). For example, U.S. issuance[23] of high-risk non-agency mortgage-backed securities[24] fell from a peak of $917 billion in 2006 to $41 billion in 2008.[25] The decline in wealth caused by losses on mortgage-backed securities reduced demand for securities issued by investment firms worldwide. For example, EU issuance of commercial mortgage-backed securities fell from $65.2 billion in 2007 to $7.2 billion in 2008.[26] Overall, total global issuance of private-label securities (that is, securities not

[19] World Bank, World Development Indicators database. Market capitalization is equal to share price times the number of shares outstanding.

[20] See "Impact of the Financial Crisis and Economic Downturn" section for more discussion.

[21] The TED spread is the difference between interest rates on 3-month Treasury bills and interest rates on loans between banks (as measured by the 3-month London Interbank Offered Rate, or Libor).

[22] A structured finance product is a synthetic, nonstandard, and often complex type of asset that has been engineered to meet a specific investment strategy. Generally the cash flow of a structured security depends on changes in the value of various underlying assets, indices, or interest rates. One type of structured finance product, a collateralized debt obligation, is a claim on an underlying portfolio of fixed-income assets, such as mortgages. These assets are pooled and then divided into tranches of securities, each possessing a different risk profile, with "senior" tranches having the lowest risk. The motivating idea is that many tranches will be less risky than the average underlying asset in the pool, allowing securities engineers to transform risky assets into products that earn higher credit ratings. However, this transformation makes it more difficult to assess risk, and amplifies the negative consequences of inaccurately assessing risk.

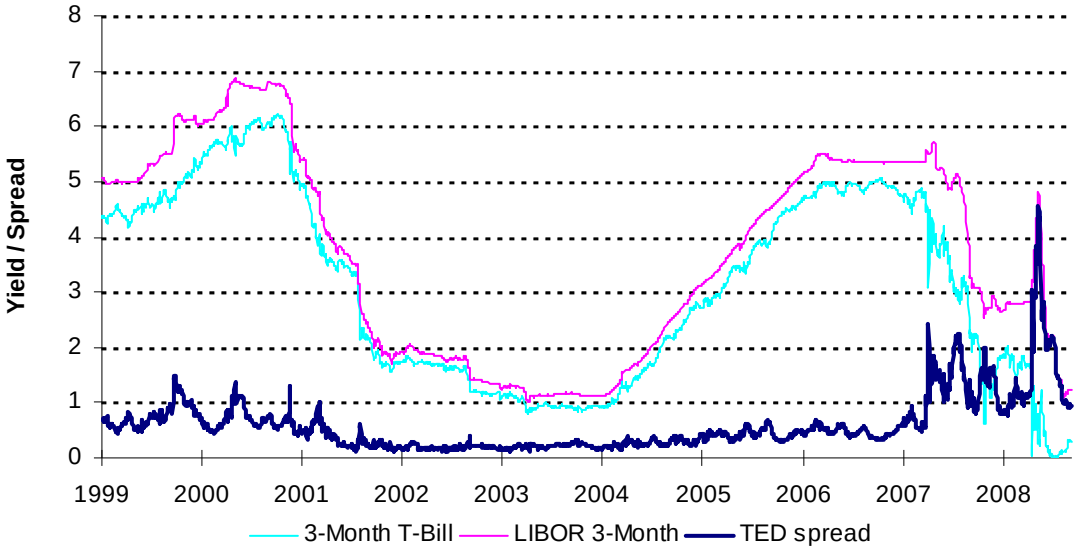
[23] Country of issuance is generally determined by the location of the collateral underlying the securities. CDOs are often classified as multinational, given the complexity involved in locating the underlying collateral for each tranche; country of issuance for CDOs often refers to the currency in which the CDO is denominated. See European Securitization Forum (ESF), "ESF Securitization Data Report," 2009.

[24] Mortgage-backed securities not guaranteed by government entities like Fannie Mae or Freddie Mac.

[25] Securities Industry and Financial Markets Association (SIFMA), "Research and Statistics," January 14, 2010.

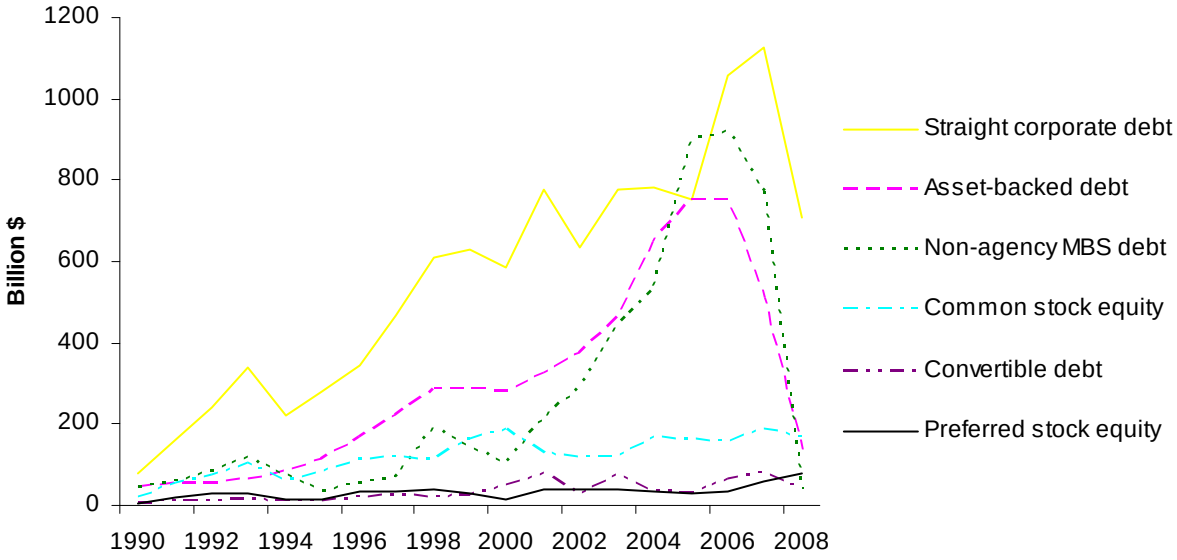
[26] ESF, "ESF Securitization Data Report," 2009, 3. Currency conversion rates: EU 47.6 billion in 2007 at $1 US = 0.7306 EU; EU 4.9 billion in 2008 at $1 US = 0.6827 EU.

FIGURE 7.2 Securities services: Investors' risk aversion, as measured by the TED spread, increased rapidly in 2008



Sources: Economagic, "Economic Time Series Page: LIBOR Data" (accessed January 14, 2010); Federal Reserve, "Federal Reserve Statistical Release" (accessed January 14, 2010).

FIGURE 7.3 Securities services: U.S. corporate issuance of asset-backed debt and non-agency mortgage-backed securities (MBSs) increased during 2000–2006 and decreased during 2006–08



Source: Securities Industry and Financial Markets Association (SIFMA), "Research and Statistics: U.S. Key Stats," n.d. (accessed January 14, 2010).

issued by Freddie Mac, Fannie Mae, or Ginnie Mae) fell from a peak of $4.7 trillion in 2006 to $2.6 trillion in 2008,[27] as the increasing risk aversion of investors reduced demand for these assets. Lower risk tolerance was also evidenced in the flight of an estimated $500 billion in capital from emerging markets between September 2008 and March 2009.[28]

Demand shifted to other types of financial assets, primarily those with lower risk profiles. For example, in 2008, investors pulled $234 billion from U.S.-registered stock funds, but transferred a significant portion of this wealth into money-market and other similar low-risk funds, especially funds invested heavily in U.S. Treasury and other government agency debt.[29] High demand for low-risk U.S. government securities has kept interest rates low on these products. For example, the yield on 3-month Treasury bills dropped below zero on December 9, 2008, as investors were so risk-averse they were willing to accept a definite small loss rather than have their money elsewhere.[30]

Since late 2008, however, government interventions and market adjustments have begun to restore stability in the global financial system. Risk tolerance increased as the system normalized, shifting money back into corporate bonds and emerging markets, and overall trading volumes began recovering in 2009 due to bond and equity issuance.[31] However, as a result of the financial crisis, many investors nearing retirement endured large portfolio losses and have chosen to postpone retirement, leaving risk-averse money in the market.[32]

Investors Seek Increasingly Customized Investment Vehicles

As the number and sophistication of products and services available to individual retail investors has increased, investors have sought products increasingly customized for individual risk preferences and time horizons. These investment products compete on flexibility, transparency, low expenses, and ease of use in portfolio management.

Exchange-traded funds (ETFs) are an example of a customized investment product that has grown steadily in popularity over the last decade. The number of U.S. ETFs increased from 80 in 2000 to 743 in 2008, and net issuance of shares in ETFs reached an all-time high of $177 billion in 2008.[33] These funds offer investors shares in a pool of securities and other assets. The underlying pool resembles a mutual fund, but unlike a mutual fund, shares in an ETF can be bought and sold like stocks. ETFs provide low expense ratios and tax efficiencies, and allow investors to easily diversify their portfolios by accessing specific regions, commodities, and bonds. For example, Claymore Securities Inc., an Illinois-based financial services firm, has issued an ETF that tracks the Chinese

[27] International Monetary Fund (IMF), *Global Financial Stability Report: Navigating the Financial Challenges Ahead*, October 2009, 84.

[28] Pictet Asset Management, "Emerging Market Debt," June 9, 2009, 1. In a typical capital flight event, investors lose confidence in the strength of a country's economy, rapidly withdraw their wealth from that economy's stocks and bonds, and move that wealth abroad to investments perceived as safer.

[29] ICI, *2009 Investment Company Factbook*, 2009, 8.

[30] Federal Reserve, "Federal Reserve Statistical Release," n.d. (accessed January 14, 2010).

[31] SIFMA, *Research Report: Third Quarter*, 2009, 2. The rates of issuance of short-term municipal bonds, U.S. Treasury securities, agency mortgage-backed securities, and high-yield corporate bonds all showed improvement in a comparison of 2009 January-to-September volumes with 2008 January-to-September volumes.

[32] See Lo, "Reconciling Efficient Markets with Behavioral Finance," March 8, 2005. A subset of these investors, however, may make risky investments in attempts to recover quickly.

[33] ICI, *2009 Investment Company Factbook*, 2009, 8, 15.

technology sector,[34] while Germany's Deutsche Bank has ETFs tracking commodities like gold, silver, and oil.[35] While investors often purchase mutual fund shares directly from fund companies or via financial advisors, ETF shares are purchased by broker-dealers (and thus are subject to broker commissions), so growth in these funds has also affected the patterns of demand for intermediaries.

Demand for funds-of-funds, or mutual funds that primarily invest in other mutual funds, also grew steadily, with 865 funds-of-funds managing $489 billion in assets at the end of 2008, up from 215 such funds managing $57 billion in 2000.[36] Two examples are funds of private equity funds and funds of hedge funds,[37] which permit investor access to private equity and hedge funds without having to meet the high minimum requirements of direct investment in such funds. For example, Morgan Stanley's "Global Long/Short Fund" (a fund-of-hedge funds) has a $100,000 minimum initial investment,[38] while Brevan Howard recently raised the minimum initial investment in its (not fund-of-fund) "Master Fund" hedge fund to $20 million.[39]

Lifestyle and lifecycle funds, two other types of funds-of-funds, also became popular with investors globally. This increased popularity is reflected in the growth of their respective U.S. assets from $9 billion and $31 billion respectively in 2000 to $164 billion and $176 billion in 2008.[40] Lifestyle funds generally provide an asset mix constantly rebalanced to maintain a conservative, moderate, or aggressive growth strategy. Such funds are used by investors to preserve a fixed level of risk exposure over time. Lifecycle funds are a variant of lifestyle funds; instead of remaining constant, the risk profile changes gradually. Assets are automatically reallocated and rebalanced to become more conservative as the investor approaches a target date (such as the onset of a child's educational expenses). Lifecycle funds are particularly useful for retirement plans, which continue to be one of the main motivations for individuals investing in mutual funds.[41] While no single investment strategy is optimal for all investors, given heterogeneity in people's earnings and their other characteristics, the allocation strategies behind lifecycle funds are generally supported by research on risk tolerance.[42] Partly for this reason, the Swedish government recently switched the default investment option on the individual funds provided by its public pension system to lifecycle funds.[43]

Developing Countries Invested Their Wealth in Securities

Over the past decade, a number of non-OECD countries accumulated wealth (in part due to high commodity prices and favorable exchange rates) and invested it in U.S.- and EU-originated securities as well as domestic assets. Resource-rich nations like Kuwait and Saudi Arabia have organized their trade surpluses in the form of sovereign wealth funds

[34] Lyndon, "Claymore Launches China Technology ETF," December 8, 2009.
[35] Deutsche Bank, "DB Commodity Services," December 8, 2009.
[36] ICI, *2009 Investment Company Factbook*, 2009, 31.
[37] Hedge funds are investment companies typically open to a small number of investors that undertake a wide range of investment and trading activities, including short selling and heavy leveraging.
[38] Morgan Stanley, "Morgan Stanley Investment Management Launches Morgan Stanley Global Long/Short Fund," January 31, 2008.
[39] Cahill, "Brevan Howard Said to Restrict Investor Flows to Three Funds," December 7, 2008.
[40] ICI, *2009 Investment Company Factbook*, 2009, 103.
[41] ICI, *2009 Investment Company Factbook*, 2009, 77.
[42] Viceira, "Life-Cycle Funds," May 22, 2007, 19.
[43] Pichardo-Allison, "Swedish Default Option to Be Lifecycle Funds," October 1, 2009.

(SWFs), which are government-controlled institutions that invest for profit.[44] The total value of assets managed by SWFs in 2008 was estimated to be $3.9 trillion, an 18 percent increase from 2007.[45] The largest SWFs are the Abu Dhabi Investment Authority (managing $875 billion), Saudi Arabian Monetary Agency Foreign Holdings ($433 billion), and the Government of Singapore Investment Corporation ($330 billion).[46] SWF growth is primarily driven by the accumulation of central bank reserves (which increased by 43 percent in the Middle East and 41 percent in East Asia from 2006 through 2008)[47] and trade surpluses (which, partly due to high commodity prices, reached a cumulative $1 trillion for Russia, OPEC countries, China, and other Asian countries in 2008).[48] Of total reported 1995–2008 SWF investment transactions, two-thirds took place in 2007–08.[49]

SWFs tend to have high risk tolerance and long time horizons, and invest in hedge funds, investment banks, and various companies through the direct acquisition of shares. Thirty-seven percent of 1995–2008 SWF investment transactions were related to North American companies and 32 percent to European companies.[50] By sector, 62 percent ($109.8 billion) were in the financial sector, 9 percent ($16.6 billion) were in real estate, and 7 percent ($13.1 billion) were in energy.[51] SWFs are generally nontransparent and have prompted concerns that they may be subject to political influence and used to further national interests. One analysis found that SWFs tend to chase trends by investing at home when domestic equity prices are higher and abroad when foreign prices are higher; home investments, however, are apt to earn lower returns and to be correlated with the involvement of politicians in fund management.[52] Moreover, the handling of SWFs has been criticized in the past when attempts have been made to use the funds to purchase controlling stakes in strategically important firms.[53] Partly in response to this, the International Working Group of Sovereign Wealth Funds, formed in May 2008, released an investment framework including Generally Accepted Principles and Practices for SWFs.[54]

Governments Intervene in Securities Markets

Governments intervened in securities marketplaces worldwide to ameliorate the effects of the financial crisis. Specific actions by governments included the purchase of troubled mortgage-based securities from financial institutions through initiatives such as the United States' Troubled Asset Relief Program (TARP), a program launched in 2008 that allows the Treasury to purchase up to $700 billion in troubled assets from any financial institution. Similarly, the Swiss National Bank managed the transfer of $60 billion in troubled assets from UBS to a special-purpose vehicle in October 2008. Central banks also directly assisted firms. For example, the U.S. Federal Reserve provided an $85 billion rescue package to AIG in September 2008 in exchange for an 80 percent

[44] SWFs have existed since 1953 (when the Kuwait Investment Authority was established), but grew rapidly in size and diversity over the last decade.

[45] International Financial Services London (IFSL), *Sovereign Wealth Funds 2009*, March 2009.

[46] IFSL, *Sovereign Wealth Funds 2009*, March 2009.

[47] IMF, International Financial Statistics database (accessed January 13, 2010).

[48] Kem, "SWFs and Foreign Investment Policies," October 22, 2008, 5.

[49] Kem, "SWFs and Foreign Investment Policies," October 22, 2008, 7.

[50] Kem, "SWFs and Foreign Investment Policies," October 22, 2008, 7.

[51] Kem, "SWFs and Foreign Investment Policies," October 22, 2008, 7.

[52] Bernstein, Lerner, and Schoar, "The Investment Strategies of Sovereign Wealth Funds," March 2009, 29.

[53] Åslund, "The Truth About Sovereign Wealth Funds," December 2007.

[54] IFSL, *Sovereign Wealth Funds 2009*, March 2009, 7. The principles are voluntary and are intended to promote an understanding of the governance and investment operations of SWFs.

public stake in the firm.[55] AIG received additional recapitalization of $40 billion during its restructuring under the Emergency Economic Stabilization Act.[56] Additional interventions were provided by the U.S. Treasury and Federal Housing Finance Agency to Fannie Mae and Freddie Mac in October 2008. Citigroup received $306 billion as part of a guarantee scheme for troubled assets, as well as $20 billion in capital injections under the November 2008 TARP Targeted Investment Program.[57] Similar capital injections, state guarantees on new issuance of short- and medium-term debt, and other stabilization efforts were undertaken by EU countries, Australia, Brazil, Jamaica, Japan, Korea, Malaysia, New Zealand, and Russia.[58]

The goal of these government interventions was to restore trust and functionality to financial markets, thereby reducing systemic risk and reinstating the flow of credit from savers to borrowers. While these interventions affected the supply of securities services by protecting various firms from bankruptcy, they are generally believed to have been effective in stemming the financial crisis. For example, an audit by the bipartisan Congressional Oversight Panel found that the TARP "played a critical role in renewing the flow of credit and preventing a more acute crisis."[59]

The Investment Management Industry Consolidated

The long-term trend towards consolidation in the investment management business accelerated during and after the financial downturn as several large financial conglomerates sold or tried to sell their in-house asset management arms. Morgan Stanley and the Royal Bank of Scotland (RBS) put their retail investment management businesses on the market in 2009; RBS is still seeking bidders, but Morgan Stanley announced a sale to Invesco, a mutual fund management firm, in late 2009.[60] Lloyds Banking Group sold most of Insight Investment Management to Bank of New York Mellon in August 2009, and Société Générale sold its UK asset management business to GLG Partners, an independent hedge fund, in a deal announced in December 2008.[61]

These sales represent a shift of asset management market share from conglomerates towards large independent fund managers. There are several reasons for this development. In some cases the deals were promoted by regulatory authorities; for example, Lloyds Banking Group was informed by the EU Commissioner that divestment would be a condition of the state aid that was necessary to return the firm to long-term viability.[62] More generally, large losses in asset values persuaded many financial conglomerates to raise much-needed capital by selling their asset management units and making strategic transitions towards core banking and insurance services. For their part, the fund managers who bought these units sought greater scale and efficiency.

[55] Federal Reserve, "Press Release," September 16, 2008.

[56] Department of the Treasury (U.S. Treasury), "Treasury to Invest in AIG Restructuring under the Emergency Economic Stabilization Act," November 10, 2008.

[57] U.S. Treasury, "Joint Statement by Treasury, Federal Reserve, and the FDIC on Citigroup," November 23, 2008.

[58] Lamy, "Report to the TPRB from the Director General," March 26, 2009, 17–42.

[59] Congressional Oversight Panel, "While TARP Helped Stop Economic Panic, Underlying Weaknesses in U.S. Financial System Remain," December 9, 2009.

[60] Burgess, "Shifting Assets," October 16, 2009.

[61] Burgess, "Shifting Assets," October 16, 2009.

[62] McGrath and Patrick, "Lloyds to Sell Insight Investment to Bank of New York Mellon," August 13, 2009.

This consolidation trend was prominent in the United States, as the total number of U.S. investment companies decreased from 19,005 in 2000 to 16,262 in 2008.[63] In the midst of the financial downturn, stronger institutions were able to take advantage of bargains as competitors with more fragile capital structures exited the marketplace.[64] And while the number of mutual funds increased slightly over this period from 8,371 to 8,889,[65] the share of assets managed by the 25 largest mutual fund firms increased from 68 percent to 75 percent, representing a shift in market structure towards larger firms.[66] Nevertheless, the mutual fund industry remained competitive, and the fees and expenses paid by investors faced downward pressure. Fees and expenses as a percentage of U.S. stock mutual fund assets fell from 1.28 in 2000 to 0.99 in 2008.[67]

Impact of the Financial Crisis and Economic Downturn

The financial crisis had a severe impact on the U.S. securities industry. The U.S. securities broker and dealer sectors, which had averaged $20.1 billion in annual profits from 1997 through 2007, posted record losses of $34.1 billion in 2008, with net revenues declining by 19 percent from 2007.[68] Trading revenues recorded an unprecedented and enormous loss of $65 billion.[69] Seasonally adjusted employment in the U.S. securities, commodity contracts, and investments sector peaked in June 2008 at 871,900, then steadily dropped to 790,800 as of February 2010 (a 9 percent decrease).[70] In the EU, employment in the broader financial services sector dropped by 1.8 percent from the third quarter of 2008 to the third quarter of 2009, representing a loss of 600,000 jobs.[71] Large, long-standing securities firms like Bear Stearns, Lehman Brothers, and Merrill Lynch were purchased or liquidated in rapid succession in 2008.

As discussed earlier, the United States and other governments intervened in securities marketplaces by introducing large-scale financial support programs.[72] Government approaches have differed. For example, the United Kingdom provided guarantees against losses on banks' bad assets, while Switzerland and Ireland removed bad assets and placed them in a "bad bank."[73] These interventions were aimed at mitigating the global financial crisis by transferring risk from the private sector to the public sector, and are generally

[63] ICI, *2009 Investment Company Factbook*," 2009, 15.

[64] Keys et al., "Financial Regulation and Securitization," 715. The number of new entrants is likely to remain low pending further normalization of the global financial system. The consolidation of the securities industry may have negative impacts on innovation, as smaller financial firms tend to be more innovative; see Lerner.

[65] ICI, *2009 Investment Company Factbook*, 2009, 15.

[66] ICI, *2009 Investment Company Factbook*, 2009, 21.

[67] ICI, *2009 Investment Company Factbook*, 2009, 61.

[68] Rainy, "U.S. Securities Industry Financial Results: 2008," April 3, 2009, 2.

[69] Rainy, "U.S. Securities Industry Financial Results: 2008," April 3, 2009, 6.

[70] U.S. Department of Labor (USDOL), Bureau of Labor Statistics (BLS), "Current Employment Statistics," (accessed March 29, 2010). The February 2010 estimate is preliminary. U.S. securities industry employment has fluctuated rapidly before, however. As a result of the early-2000s recession, employment dropped from 843,200 in March 2001 to 750,800 in October 2003, before steadily recovering and surpassing its previous peak in May 2007.

[71] European Commission, Directorate-General for Employment, Social Affairs and Equal Opportunities, *Employment in Europe: 2009*, October 2009, 29.

[72] See "Competitive Conditions" section. A "bad bank" is typically a government agency established to acquire and manage the nonperforming assets of troubled banks.

[73] IMF, *Global Financial Stability Report: Responding to the Financial Crisis and Measuring Systemic Risks*, October 2009, xv. Given the severity of the financial crisis and the (qualified) success of these measures in addressing it, the overall economic benefits of these actions likely outweigh the costs in financial services market distortion. See Zandi, "Taking Stock," November 19, 2009.

credited with containing and ameliorating some of the crisis's effects.[74] However, they also have given rise to trade-related concerns—for example, that uncompetitive or insolvent financial firms are effectively being subsidized by these government support programs.[75]

Trade Trends

Cross-Border Trade[76]

As of 2008, the United States had a large trade surplus in securities-related services and in securities themselves (box 7.1).[77] In 2008, the United States exported $18.8 billion in securities transaction services, $22.4 billion in management and advisory services, and $12.7 billion in other financial services, while importing $4.7 billion, $6.5 billion, and $7.0 billion of these services respectively.[78] The total volume of U.S. financial services trade (imports plus exports) fell by $1.8 billion (to $79.3 billion) from 2007 to 2008, but remained $16.7 billion above 2006 values. Foreign net purchases of U.S. long-term securities dropped from $1 trillion in 2007 to $412 billion in 2008, and net purchases of foreign securities by U.S. investors fell from $229 billion in 2007 to –$87 billion in 2008 as sales exceeded acquisitions (figure 7.4).[79] The decrease in trade in securities-related services in 2008 was much less than the decrease in trade in securities themselves; for example, while foreign net purchases of U.S. long-term securities dropped by 59 percent in 2008, U.S. exports of securities transaction services dropped only 2 percent. The resilience of demand for securities services in the face of declining securities values illustrates the essential role of financial services in the global economy. (For instance, institutions and individuals still demanded the advice and management services of fund managers even as the values of those funds decreased.)

Large volumes of securities and securities-related services are traded between countries with well-established financial sectors, such as the United States, the United Kingdom, France, Japan, and Switzerland. For example, from 2003 through 2008, the United Kingdom accounted for an average of 20 percent of foreign gross activity (both purchases and sales) in U.S. equities, while an average of 35 percent of gross U.S. transactions in foreign stocks took place in the United Kingdom.[80] The high volumes of securities trade between countries that have competitive advantages in financial services (such as the above countries, which have strong financial systems infrastructure and high levels of

[74] Zandi, "Taking Stock," November 19, 2009.

[75] Lamy, "Report to the TPRB from the Director General," March 2009, 10.

[76] Cross-border transactions of securities connect a seller in one country (for example, a stock-issuing company or a bond-issuing government) and a purchaser in another (for example, a private investor or a sovereign wealth fund). Cross-border transactions in securities-related services include management of assets of investors abroad; settlement services offered to foreign-based custodian banks that hold securities; and a variety of other services. Securities-related services are often provided by intermediaries between securities issuers and investors. Securities and securities-related services are also traded through affiliates; for example, affiliates of multinational securities firms offer advice and mutual fund access to investors in foreign markets. However, discrete data on affiliate transactions in securities services is not available. See box 3.2 for more information.

[77] Note that some securities-related services are embedded in securities, such as the financial engineering services embedded in structured finance products, while other securities-related services use securities as inputs, such as trading and brokerage services.

[78] U.S. Department of Commerce (USDOC), Bureau of Economic Analysis (BEA), *U.S. International Services*, 2006–08. Some of these services are provided by banks as well as securities services firms.

[79] U.S. Treasury, "Treasury International Capital System," n.d. (accessed February 25, 2010).

[80] SIFMA, *Fact Book 2009*, 2009, 99.

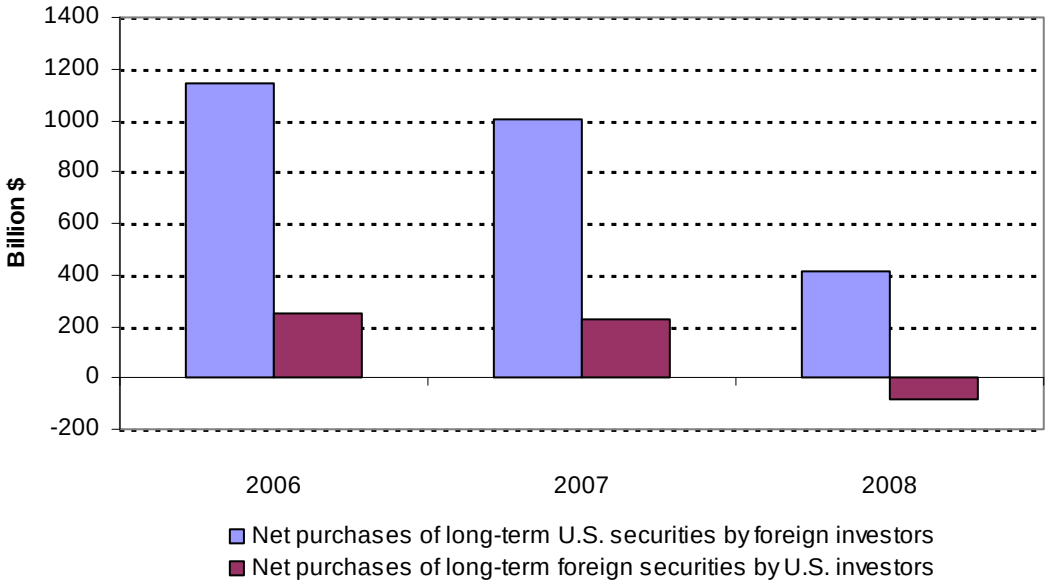
Box 7.1 Understanding data on cross-border trade in securities services

BEA data on cross-border trade in securities-related services are included in its financial services category, which covers securities transactions (including brokerage services and underwriting and placement services); financial management and advisory services; and securities lending, electronic funds transfer, and other miscellaneous financial services. Data on total U.S. imports and exports of these services including affiliate sales are available beginning in 2006 (older statistics reflect unaffiliated trade only).[a] In its reporting of U.S. imports and exports by country, the BEA combines the above services with credit card and other credit-related services in a single category of "financial services." The BEA captures this data largely through mandatory quarterly and benchmark surveys of business services, supplemented by survey data from U.S. government agencies, private sector sources, and BEA estimates.[b]

The U.S. Treasury also reports data on international trade in securities. The U.S. Treasury employs a Treasury International Capital (TIC) data reporting system that measures gross U.S. purchases of foreign equities and gross foreign purchases of U.S. equities, in terms of the market value of portfolio holdings. Specifically, the TIC system records monthly and quarterly cross-border data as reported by banks and broker dealers; annual surveys of cross-border holdings of short- and long-term securities; and quarterly positional data reported by other financial institutions.[c]

[a] USDOC, BEA, *U.S. International Services*, February 24, 2010.
[b] USDOC, BEA, *Survey of Current Business*, February 2010, 44.
[c] Bertaut, "Understanding U.S. Cross-Border Securities Data," 2006, A60.

FIGURE 7.4 Securities services: The U.S. registered a cross-border trade surplus in purchases of long-term securities during 2006–08



Source: U.S. Department of Treasury, "Treasury International Capital System: Quarterly Analysis and Charts," n.d. (accessed February 25, 2010).

human capital) reflects that financial services are easily differentiated and customized, and consumers seek a wide variety of them. The Caribbean region also trades large volumes of securities and securities-related services, due to the large number of entities

whose equity has been issued in offshore locations such as Bermuda and the Cayman Islands.[81]

Foreign holdings of U.S. securities continued to increase over the past decade. This trend is correlated with increasing overall U.S. trade deficits, as such deficits are financed by capital inflows in the form of foreign purchases of U.S. securities (the difference between a country's exports and imports generally must be equal to the change in ownership of financial assets and liabilities in that country).[82]

The majority of these holdings are by foreign official institutions, such as central banks and government-sponsored investment funds. In June 2008, China (excluding Hong Kong, Taiwan, and Macau) held $535 billion in U.S. Treasury securities (box 7.2), Japan held $628 billion, and the United Kingdom held $55 billion.[83] A total of $10.3 trillion in U.S. securities were held by foreign countries in June 2008; the top three foreign holders were Japan ($1.3 trillion); China ($1.2 trillion); and the United Kingdom ($860 billion).[84] Large foreign holdings of U.S. securities indicate that the United States is still a desirable destination for investment, though the rate of accumulation of U.S. securities by the rest of the world may be unsustainable if U.S. indebtedness grows faster than U.S. income.[85]

[81] Bertaut, "Understanding U.S. Cross-Border Securities Data," 2006, A66. In the context of this report, the term "offshore jurisdiction" refers to jurisdictions which (1) impose few or no taxes on assets held or income earned by individuals and business entities within the jurisdiction; and (2) maintain strict bank secrecy laws or otherwise prevent the exchange of tax-related information with foreign tax authorities. Recent national and multilateral efforts reduce banking secrecy and tax avoidance, including the de facto development of international tax exchange information standards by the OECD, may decrease the participation of offshore jurisdictions in international securities and securities services trade. Bermuda and the Cayman Islands have now substantially implemented the OECD's tax standard.

[82] Danby, "Balance of Payments," n.d. (accessed February 25, 2010).

[83] U.S. Treasury, "Major Foreign Holders of Treasury Securities," n.d. (accessed February 25, 2010).

[84] U.S. Treasury, "Foreign Portfolio Holdings of U.S. Securities," n.d. (accessed March 4,2009).

[85] Orszag, "Foreign Holdings of U.S. Government Securities and the U.S. Current Account," June 26, 2007.

BOX 7.2 China continues to invest in U.S. Treasury securities

China, the U.S. government's biggest creditor, has continued to invest in U.S. Treasury securities, adding $1.8 billion in September 2009 to its total holdings of almost $800 billion.[a] These purchases are related to the U.S.-China trade deficit, in that much of the money China invests in U.S. Treasury securities comes from the trade surplus it runs with the United States.[b] These purchases are also in part a consequence of China's maintenance of a largely-stable renminbi-dollar exchange rate at a level which, according to the U.S. Treasury and other observers, undervalues the renminbi. The renminbi appreciated against the dollar by about 21 percent cumulatively between 2005 and 2009, but remained stable against the dollar for most of 2009, and the continued accumulation of foreign reserves by China's central bank suggests it may still be undervalued.[c] The United States depends on capital inflows from China, among other countries, to fund its federal deficit and to generate economic growth in the absence of a high domestic savings rate.

The imbalances in U.S.-China trade and capital flows are regarded by many economists as unsustainable[d] and are implicated as contributing factors in the financial crisis. Some accounts of the financial crisis focus on the trillions of dollars that, due to a combination of U.S. and Chinese policies, flowed into the United States from China and other countries over the last decade in the form of securities purchases and other transactions; this inflow of money contributed to the strong demand for U.S. mortgage-backed securities which was partially met by mortgage lenders relaxing their lending standards.[e] The financial crisis did not fundamentally alter these global imbalances by lowering demand for U.S. Treasuries or encouraging China and other countries to reduce their foreign exchange reserves. Instead, the crisis increased global demand for U.S. Treasuries due to their perceived low risk. Emerging markets may now increase their foreign exchange reserves further as hedges in case of future crises.[f]

In bilateral discussions, the United States and China have committed to lowering U.S. deficits and increasing the extent to which China's economic development is driven by domestic demand.[g] The rebalancing of the U.S.-China relationship could involve a combination of increased U.S. household savings rates, reduced dependence on exporting industries in China, and exchange rate adjustments.[h] However, this rebalancing risks devaluing China's foreign exchange holdings and increasing the United States' cost of borrowing.[i] The latter could undermine U.S. economic growth and hence the ability of U.S. consumers to purchase Chinese exports. This dynamic creates economic as well as political and strategic pressure in favor of the continued flow of U.S. Treasury securities to China.[j]

[a] U.S. Treasury, "Major Foreign Holdings of Treasury Securities," December 15, 2009.
[b] Leonhardt, "The China Puzzle," May 13, 2009.
[c] U.S. Treasury, "Report to Congress on International Economic and Exchange Rate Policies," October 15, 2009, 3, 13. An undervalued currency increases the competitiveness of a country's exports while raising the prices of its imports.
[d] Morrison and Labonte, "China's Holdings of U.S. Securities," July 30, 2009, 12.
[e] *This American Life*, "The Giant Pool of Money (Episode #355)," May 9, 2008, 4.
[f] Prasad, "The Effect of the Crisis on the U.S.-China Economic Relationship," February 17, 2009, 5.
[g] Loevinger, "U.S.-China Relations: Maximizing the Effectiveness of the Strategic and Economic Dialogue," September 10, 2009.
[h] Geithner, "The United States and China, Cooperating for Recovery and Growth," June 1, 2009.
[i] Bradsher, "China Losing Taste for Debt from U.S.," January 7, 2009.
[j] Prasad, "The Effect of the Crisis on the U.S.-China Economic Relationship," February 17, 2009, 7.

Liberalization of Trade Impediments

Globally, suppliers of securities services face barriers to cross-border and affiliate trade in the form of regulatory opacity, limits on foreign ownership, and visa restrictions on employees and clients, among other factors. For example, as of 2007, Malaysia limited foreign ownership in stock brokerage firms to 49 percent,[86] and in 2009, the United States imposed restrictions on securities firms receiving funds from the Troubled Asset Relief Program that limited their ability to hire foreign workers under the H-1B visa

[86] Office of the U.S. Trade Representative (USTR), "Malaysia," 2009, 333.

program.[87] Recent liberalization efforts include China's 2003 decision to begin allowing foreign investment in its securities markets via Qualified Foreign Institutional Investors (QFIIs); China is also now permitting its banks to purchase foreign equities.[88] In Europe, the Markets in Financial Instruments Directive (MiFID) was established in 2004 and entered into force in 2007. The MiFID allows investment firms established in any member state to operate in all other member states, with the goal of creating a single European securities market. The MiFID also provides investor protections and regulates exchange-based transactions. Its establishment has reportedly increased the entry of multilateral trading companies in the European Community.[89] Financial services liberalization is negotiated multilaterally at the World Trade Organization (WTO), but many liberalization efforts are undertaken by countries unilaterally, motivated by the prospect of greater economic growth stemming from increased integration into global capital markets.[90] Further cross-border regulatory harmonization may help address the risk that the financial crisis will result in a pause or reversal of overall liberalization trends, as countries become suspicious of the consequences of financial services deregulation. Such reversals have historically followed financial crises such as the Great Depression.[91]

Outlook

The economic downturn that followed the financial crisis continues to have secondary effects. Commercial real estate values have fallen, threatening the market for commercial mortgage-backed securities: $18 billion in commercial mortgage-backed securities (CMBS) loans came due in 2009 alone, and delinquencies, which reached 1.65 percent in April 2009, are projected to hit 5 to 6 percent by the end of 2010.[92] Market deterioration will likely promote further consolidation of the already concentrated CMBS loan servicers industry. Additionally, unemployment remains high, reducing the number of eligible borrowers (for home mortgages, auto loans, etc.) whose loans could be securitized, and prompting ratings downgrades on existing securitized loans as the likelihood of default increases.

Securities firms in a range of countries anticipate the onset of tighter regulation in the wake of the financial crisis. In the United States, the U.S. Treasury has proposed a regulatory framework that aims to reduce systemic risk, protect investors, eliminate current regulatory loopholes, and promote international coordination in global financial markets.[93] Future regulatory responses may include applying warning labels to ratings on structured finance products,[94] increasing minimum capital requirements, limiting leverage, and bringing the "shadow banking system" under the same oversight as the regular banking system.[95] National regulators in various countries will likely impose new informational demands and accounting rules on firms, possibly requiring financial firms

[87] Herbst, "H-1B Visas," February 6, 2009.
[88] Decker, "U.S. Interests in Reform of China's Financial Services Sector," June 6, 2007, 7.
[89] *World Trade Organization (WTO), Trade Policy Review Board (TPRB), WTO Trade Policy Review*, June 8, 2009, 139.
[90] Decker, "U.S. Interests in Reform of China's Financial Services Sector," June 6, 2007, 9.
[91] Campos and Coricelli, "Financial Liberalization and Democracy," August 6, 2009.
[92] Stein, "CMBS Market Braces for Rising Short-Term Maturities," April 2009.
[93] U.S. Treasury, "Treasury Outlines Framework for Regulatory Reform," March 26, 2009.
[94] Coval, Jurek, and Stafford, "The Economics of Structured Finance," 2008, 15.
[95] Adrian and Shin, "The Shadow Banking System," July 2009, 14. The "shadow banking system" comprises a variety of nonbank financial institutions, including hedge funds, investment banks, and structured investment vehicles.

to construct "living wills" that permit orderly bankruptcy.[96] (In some cases, firms are already voluntarily adopting greater transparency requirements in advance of anticipated regulations.)[97]

Such changes are not without possible consequences of their own. More stringent reporting and disclosure requirements may increase compliance costs. Measures to reduce systemic risk may place limits on the types of products and services that can be provided by financial firms. For instance, tighter regulation of derivatives could reduce profit opportunities and incentives for innovation in these instruments, and possibly curtail their beneficial effects on financial markets.[98] The financial crisis illustrated the destabilizing effects of derivatives like credit default swaps[99] in the absence of systemic risk-reducing regulations.

New regulations will likely decrease both systemic risk and profit opportunities in the securities industry, which will create downward pressure on relative wages for skilled workers. Tighter regulations have historically reduced relative wages in the financial industry: for example, they fell after the Great Depression, and rose again after the removal of Depression-era regulations.[100] New regulations may bring compensation, which was very high from 1980 to 2006, closer to levels compatible with a sustainable labor market equilibrium.[101] This could deter highly skilled mathematicians and quantitative analysts from entering the finance industry. Pressure to reform executive compensation in order to discourage excessive risk-taking—for example, by tying compensation levels to long-run performance—may also affect labor supply.[102] Firms might try to circumvent such restrictions by altering executive job titles or offering other forms of compensation.

[96] Council on Foreign Relations, "Top Economists Craft Sweeping Proposals for Financial Reform," December 16, 2009.

[97] Burgess, "Shifting Assets," October 16, 2009.

[98] Stulz, "In Defense of Derivatives and How to Regulate Them," April 7, 2009.

[99] Credit default swaps are insurance contracts purchased against the possibility of a credit event such as default, bankruptcy, or rating downgrade.

[100] Philippon and Reshef, "Wages and Human Capital in the U.S. Financial Industry," December 2008, 3.

[101] Philippon and Reshef, "Wages and Human Capital in the U.S. Financial Industry," December 2008, 3.

[102] Bebchuk and Fried, "How to Tie Equity Pay to Long-Term Performance," June 24, 2009.

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CHAPTER 8
Telecommunication Services

Summary

The global telecommunication services market is divided into three broad market segments: landline services, wireless services, and Internet services. Overall, the global market has expanded rapidly in recent years, with the United States accounting for the largest, albeit declining, share of global revenues. Wireless services currently represent the largest share of the global market and have been the main driver of market growth at the global level over the past few years. In all regions, landline revenues and subscriber additions are flat or declining, as consumers and business increasingly switch to mobile services. In most developed countries, the wireless services segment is characterized by market saturation, while the wireless markets of most developing countries continue to grow very rapidly, driven in large part by latent demand for basic voice services. Internet services represent the smallest share of the telecommunication services market, with rapid growth in most developed countries offset by slow adoption rates in many developing countries. The international long-distance market continues to experience slowing growth due to factors such as competition-induced price declines and the gradual migration of international voice traffic to low-cost Internet-based services.

The U.S. maintained a trade surplus in telecommunication services in 2008, as U.S. exports continued to exhibit strong growth. Affiliate transactions remained the predominant mode of international trade in telecommunication services, with services supplied by U.S.-owned foreign affiliates reaching $21.5 billion in 2006, or three times the volume of U.S. telecommunication services cross-border exports in the same year. The global economic downturn will likely depress consumer spending on telecommunication services, although several factors are likely to mitigate spending reductions. Nonetheless, over the next few years, many telecommunication service companies will attempt to offset reduced consumer spending by cutting costs and improving operating efficiencies.

Introduction

Telecommunication services encompass both basic and value-added services. Basic telecommunication services involve the end-to-end transmission of voice or data information between senders and receivers. The most common basic services include (1) landline and mobile telephone voice services and (2) Internet access services. Other basic services include facsimile (fax) services and enterprise data services (i.e., frame relay, asynchronous transfer mode, and private leased-line services). By contrast, value-added telecommunication services "add value" to basic telecommunication services by enhancing their form or content, or by offering ways to store or retrieve information.

Examples include voice mail, e-mail, online data processing, and online data storage and retrieval.[1] In telecommunications industry parlance, a value-added service is also a service that encourages subscribers to use telephone handsets, thereby increasing services providers' revenues. Common examples include short message services (text messages), multimedia message services (e.g. sending electronic photographs between mobile telephone handsets), and mobile telephone Internet access services. With the advent of so-called "smart phones," particularly Apple's iPhone, new varieties of value-added services have also emerged, facilitated by the development of software programs designed for use with mobile handsets, referred to as "applications," or simply "apps," that increase subscriber utility or convenience. In addition to the hundreds of smart-phone applications currently in existence, new applications are released almost constantly. Examples include applications that allow users to download music, read news stories, monitor weather forecasts and stock prices, and conduct banking operations.

Competitive Conditions in the Global Telecommunication Services Market

The global telecommunication services market, measured by revenues derived from landline, wireless, and Internet services,[2] was valued at approximately $1.7 trillion in 2008. Overall, the global market grew by approximately 7 percent in 2008, compared with the 9 percent average annual growth rate recorded from 2004 through 2007.[3] Globally, declining revenue growth in 2008, was primarily attributable to negative or declining growth rates in the two largest global market segments: landline services and wireless services.[4] In the landline segment, revenues declined by an average of approximately 3 percent in the developed countries of Asia, Europe, and North America in 2008, largely due to the ongoing process of fixed-to-mobile substitution.[5] At the same time, revenues in the global wireless segment grew by a healthy 11 percent in 2008, although such growth fell short of the average annual growth rate of 15 percent registered from 2004 through 2007.[6] Rising levels of market saturation in a large number of developed and developing countries, as well as competition-induced price declines, are the principal factors behind faltering growth rates in many landline and wireless segments worldwide. Declining mobile termination rates,[7] mainly in Europe, also contributed to slower growth in the global wireless market.[8]

The size of a country's telecommunication services market is highly correlated with gross domestic product; the list of the world's top 20 markets is dominated by the large economies of Asia, Europe, and North America.[9] In 2008, the United States was the

[1] World Trade Organization, "Coverage of Basic Telecommunications and Value-Added Services," n.d. (accessed February 25, 2010).

[2] Internet services include both dial-up and broadband Internet services.

[3] Market- and country-level revenue statistics used in this section were calculated by Commission staff using data reported by the Telecommunications Industry Association (TIA). TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[4] In 2008, revenues derived from the landline and wireless segments represented approximately 90 percent of the global telecommunication services market.

[5] Hot Telecom, *Global Telecom Market Status and Forecast Report 2008–2013*, October 2009, 29; TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[6] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[7] A mobile termination rate (MTR) is the price at which a wireless carrier will connect telephone calls to its network. An MTR is typically charged only for calls originating on fixed-line networks.

[8] Hot Telecom, *Global Telecom Market Status and Forecast Report 2008–2013*, October 2009, 34.

[9] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

largest market in the global telecommunication services market, accounting for approximately 22 percent of global revenues. Other large telecommunication service markets include China (8 percent of the global market), Germany (6 percent), Japan (6 percent), and the United Kingdom (5 percent) (table 8.1). These five countries were also the largest telecommunication services markets in 2004, although China's position rose from fifth place to second place over the last five years due to strong growth in the country's wireless services market, which grew at an average annual rate of 24 percent from 2004 through 2008.[10] The 10 largest country-level markets represented approximately 62 percent of the global telecommunication services market in 2008, while the 20 largest markets represented 77 percent.[11]

The largest global telecommunication service firms tend to be former telecommunication incumbents in the United States, Europe, and Asia, including AT&T, NTT, Verizon, Deutsche Telekom, and Telefónica (table 8.2).[12] Overall, the global telecommunication services industry displays a relatively low level of industry concentration, with the largest four companies accounting for about 29 percent of total global revenues in 2008.[13] Low concentration stems from the structure of the global telecommunication services industry, which is highly fragmented along national lines. Indeed, most telecommunication service companies earn most of their revenues by providing domestic services in their national market. Even carriers that operate outside their home countries tend to focus on only one or two countries or, in some cases, regions.

In terms of global presence, the most prominent telecommunication carriers are France Telecom (France) and Vodafone (United Kingdom), each of which has interests of one form or another in more than 30 countries worldwide. Other companies that operate in a large of number countries include Etisalat (United Arab Emirates), MTN (South Africa), Telefónica (Spain), TeliaSonora (Finland and Sweden), and Zain (Kuwait). Although these companies each operate in more than 20 countries, their operations tend to be more regionally focused. Telefónica, for example, operates mainly in Europe and Latin America, whereas TeliaSonora's operations are located in Europe and Asia. By contrast, Etisalat, MTN, and Zain are largely focused on the developing markets of Africa and the Middle East.[14]

The services provided by the telecommunications industry are familiar, if not ubiquitous, in most countries. As noted, such services fall into three broad market segments: landline services, wireless services, and Internet access services. Landline service, mainly the traditional voice telephone call, has been the primary telecommunications service for more than a century; in 2008, landline services represented 39 percent of global revenues.[15] By contrast, wireless voice services, which emerged in the mid-1990s, have experienced rapid worldwide adoption, growing to represent 51 percent of global revenues by the end of 2008.[16] In the space of 15 years, wireless voice services have

[10] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[11] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[12] Historically, telecommunications services in many countries were provided by a government-controlled, monopoly telecommunication services provider, commonly referred to as the incumbent carrier. Starting in the 1990s, many governments opened their national telecommunication service markets to competition and either partially or fully privatized the incumbent carrier.

[13] Datamonitor, "Global Telecommunication Services," March 2009, 13.

[14] Hot Telecom, Global telecom Market Status and Forecast Report 2008–2013, October 2009, 16.

[15] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[16] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

TABLE 8.1 Telecommunication services: Top 10 telecommunications markets, by revenue and share of global revenues, 2008

Rank	Country	Revenues (million $)	Share of global revenues (%)
1	United States	378, 108	22
2	China	135,311	8
3	Germany	101,329	6
4	Japan	99,709	6
5	United Kingdom	86,351	5
6	Italy	65,932	4
7	France	55,772	3
8	Brazil	53,003	3
9	Korea	41,204	2
10	Canada	38,159	2
Total (Top 10)		1,054,878	62

Source: TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

TABLE 8.2 Telecommunication services: Top 10 global telecommunication services firms, by revenue, 2008

Rank	Company	Country	Revenue (million $)
1	AT&T	U.S.	124,028
2	NTT	Japan	103,662
3	Verizon	U.S.	97,354
4	Deutsche Telekom	Germany	90,685
5	Telefónica	Spain	85,215
6	France Telecom	France	78,659
7	Vodafone	UK	69,285
8	China Mobile	China	65,886
9	Telecom Italia	Italy	44,350
10	British Telecom	UK	36,132

Source: TIA*, TIA's 2009 ICT Market Review and Forecast*, 2009.

grown from a niche service offered only in select developed countries to one that is widely available even in some of the world's poorest countries. Internet access services, which allow users to connect to the Internet from their home, office, or public locations, were introduced in the mid-1990s, but represented only 10 percent of global revenues in 2008.[17] Although such services have grown very rapidly in developed countries, low levels of personal computer ownership and low landline penetration have hampered adoption in developing countries.

In many countries, the price of telecommunication services is the primary basis of competition, largely because the services offered by most carriers are relatively similar. Indeed, intense industry competition has led to the virtual commoditization of many services, particularly wireless voice services and entry-level broadband services. In the Internet services segment, for example, the easy comparability of key service features, namely download speeds and download limits, has made price the primary differentiating factor.[18]

As a result, telecommunication service providers use a variety of techniques to both attract and retain customers. In the wireless segment, for example, carriers often attempt to capture new subscribers by offering a telephone handset, typically at a subsidized rate,

[17] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[18] IBISWorld, "Global Wireless Telecommunications Carriers: I5111-GL," April 2009, 14; IBISWorld, "Global Internet Service Providers: I5121-GL," April 2009, 13.

subject to the subscriber signing a one-or two-year contract. In addition, many full-service carriers try to lock in customers by offering service bundles, which combine fixed-line, mobile, Internet, and other services into a single, volume-discounted package. Telecommunication companies also use complex pricing strategies to minimize customer defections by reducing the comparability of carriers' service offerings.[19]

Service is another important factor in the telecommunications industry. In the wireless segment, for example, service coverage, defined as the percentage of the population covered by a carrier's network, can be a critical competitive factor. Also, with the deployment of high-bandwidth, third Generation (3G) wireless services in many countries, providing acceptable service increasingly entails offering sufficient network capacity.[20] In the Internet segment, service levels are primarily defined by download speeds and size limits. The level of service demanded by high-income users, for example, typically requires fast download speeds and high download limits.[21] Service quality is also crucial, as consumers and businesses alike expect static-free telephone calls, while Internet customers typically demand minimal Internet access interruptions.[22]

Product innovation also provides a significant competitive advantage in the telecommunication services industry. In the wireless segment, for example, the commoditization of basic voice services has required carriers to offer a host of value-added services. Such services include e-mail; short message services; multimedia message services; Internet access; mobile television; content services, including music, audio/video clips, ringtones, wallpapers; and myriad other software applications designed for mobile telephones. In many countries, particularly developed countries, revenues derived from value-added services are the primary drivers of overall revenue growth.[23] Similarly, Internet service providers increasingly offer long distance and voice-over-Internet protocol (VoIP) services.[24]

Although consumers are often willing to switch between carriers offering comparable services at competitive prices, the entrance of new firms into the global telecommunication services industry is, in practice, limited by the capital-intensive nature of the industry. Indeed, the capital necessary to build a telecommunication services network, which typically runs into hundreds of millions of dollars, often acts as a barrier to entry for new-entrant companies.[25] In most countries, the main providers of telecommunication services own and operate their own telecommunications networks. The building blocks of such networks include fiber optic cable, networking equipment, and mobile cellular base stations, among many other network components.[26] Such equipment is produced by a relatively small number of large equipment manufacturers based in Asia, Europe, and North America. In general, the small number of equipment manufacturers has boosted suppliers' negotiating power vis-à-vis telecommunication service firms,[27] although such power has been weakened in recent years by the influx of Chinese equipment manufacturers. Indeed, Huawei and ZTE, the leading Chinese

[19] IBISWorld, "Global Wireless Telecommunications Carriers: I5111-GL," April 2009, 14.
[20] IBISWorld, "Global Wireless Telecommunications Carriers: I5111-GL," April 2009, 15.
[21] IBISWorld, "Global Internet Service Providers: I5121-GL," April 2009, 13.
[22] IBISWorld, "Global Internet Service Providers: I5121-GL," April 2009, 13; IBISWorld, "Global Wireless Telecommunications Carriers: I5111-GL," April 2009, 15.
[23] IBISWorld, "Global Wireless Telecommunications Carriers: I5111-GL," April 2009, 15.
[24] IBISWorld, "Global Internet Service Providers: I5121-GL," April 2009, 13.
[25] Datamonitor, "Global Telecommunication Services," March 2009, 18; IBISWorld, "Global Internet Service Providers: I5121-GL," April 2009, 17.
[26] Datamonitor, "Global Telecommunication Services," March 2009, 17.
[27] Datamonitor, "Global Telecommunication Services," March 2009, 17.

equipment vendors, have reportedly set off fierce competition within the telecommunications equipment industry by offering equipment of increasingly comparable quality at prices that are, in some cases, 40 to 50 percent below standard industry price levels.[28]

Demand and Supply Factors

Maturing International Long-Distance Market Poses Challenges for Carriers

For decades, international telephone traffic, measured in minutes, has grown at a cumulative rate of approximately 14 percent per year, seldom straying from a predictable annual range of 12–15 percent.[29] In the late 1990s, the liberalization of telecommunication services markets in many countries around the world led to a surge of international voice minutes between countries. During this period, rapidly falling per minute prices—a consequence of competition from new-entrant telecommunication services companies—caused aggregate growth in international telecommunications traffic to peak at 25 percent in 2000. Following the 2000 spike, however, international traffic growth settled back into a range of 12–15 percent from 2001 through 2007.[30] In 2008, it fell still further, dropping to 8 percent, the slowest growthrate ever recorded by TeleGeography.[31] Looking ahead, leading market observers estimated in late 2009 that growth in international voice traffic will remain approximately 7 to 8 percent per year from 2009 through 2011.[32]

Furthermore, several factors suggest that the share of revenues derived from international voice traffic may decline in coming years. First, intense competition in nearly all markets, falling interconnection costs, and improved cost structures for carriers continue to put downward pressure on retail per-minute prices. Second, a growing number of telecommunication firms are using international long-distance service as a "loss leader," mainly to draw subscribers into mobile telephone contracts or multiservice packages. Third, international voice traffic is slowly migrating from traditional telephone networks to the Internet via VoIP services, with such migration threatening the very business model of international voice telecommunications (box 8.1). VoIP technologies have also drastically lowered barriers to entry in the international long-distance market, threatening to increase competition even further. Finally, weaker economic growth over the next few years will likely depress the rate of increase in international call volumes by interfering with the major drivers of such growth: international trade, migration, and travel.[33]

[28] O'Brien, "Newcomer from China Roils Mobile Networks Worldwide," November 30, 2009.
[29] TeleGeography, *TeleGeography Report*, November 2009, 1–2.
[30] USITC, *Recent Trends In U.S. Services Trade: 2008 Annual Report*, June 2008, 5-2.
[31] TeleGeography. *TeleGeography Report*, November 2009, 1.
[32] TeleGeography, *TeleGeography Report*, November 2009, 18.
[33] TeleGeography, *TeleGeography Report*, November 2009, 18–21.

BOX 8.1 International Voice over Internet Protocol services become a mainstream telecommunications service

Voice over Internet Protocol (VoIP), a technology that allows users to make telephone calls over the Internet, emerged as an alternative to the traditional landline telephone call in the late 1990s. The first telecommunication service providers to deploy VoIP technologies, mainly start-up carriers that specialized in VoIP services, tended to focus on international voice services to developing countries, largely because calls routed over the Internet could circumvent high per-minute fees referred to as settlement rates, associated with traditional international calls. In essence, Internet-routed calls bypassed incumbent international gateway operators in developing countries, connecting (terminating) instead on local networks at relatively lower per-minute fees referred to as termination rates. Over time, VoIP operators built up networks of relationships with foreign telecommunication companies to terminate international traffic, eventually reselling VoIP services to other international voice carriers as acceptance of the new technology grew. On balance, profitable arbitrage opportunities and significant price differentials between VoIP and traditional voice services sufficiently offset the quality and reliability problems sometimes associated with VoIP services, particularly in the industry's early years.

Under pressure from VoIP services, incumbent telecommunication service providers in developing countries gradually reduced settlement rates and/or directly terminated VoIP traffic. As a result, VoIP services have graduated from being a method of accomplishing international interconnection rate arbitrage to being a mainstream technology, with even well-established international carriers migrating from traditional telephone networks to IP networks as a way to reduce transport costs. Over the past few years, several incumbent telecommunication service providers have also acquired leading VoIP carriers. In 2004, for example, Canadian incumbent TeleGlobe acquired VoIP provider ITXC. TeleGlobe was subsequently acquired by Indian incumbent VSNL, which was then acquired and renamed Tata Communications, with the combined entity now established as one of the leading providers of international VoIP services. Similarly, from 2007 through 2009, Dutch incumbent KPN acquired a 100 percent stake in leading VoIP carrier iBasis, integrating it into the company's international voice wholesale business.

VoIP's move from start-up technology to mainstream telecommunications application is vividly illustrated by the growth in international VoIP minutes over the past decade. Between 1997 and 2007, international VoIP traffic grew from 10 million minutes to approximately 79.7 billion minutes per year, representing a compound annual growth rate of approximately 146 percent. Over the past few years, however, annual VoIP minute growth rates have begun to decline. In 2007 and 2008, for example, international VoIP minutes grew by 26 percent and 16 percent, respectively. Nonetheless, international voice traffic delivered via VoIP technologies represented 25 percent of total international voice traffic in 2008, as opposed to a fraction of one percent in 1997.

Although VoIP technologies have now largely achieved mainstream acceptance among international telecommunication service providers, a sizable portion of VoIP minute traffic is still terminated in developing countries. VoIP services are frequently used for calls to developing countries because calls to such countries using traditional technologies remain expensive, an outcome of telecommunication service markets that have yet to be fully liberalized. Indeed, a distinct developed/developing country divide can be seen in termination patterns across the globe, with the pattern being particularly visible in Europe and Latin America. In 2008, for example, 34 percent of traditional international minutes were terminated in Europe, while only 14 percent of international VoIP minutes were delivered to European countries. By contrast, 39 percent of international VoIP traffic was terminated in Latin America, while only 15 percent of traditional telephone minutes went to the region. In some developing countries, including Brazil, Mexico, Nigeria, and Senegal, VoIP traffic accounts for more than half of total international minutes terminated on domestic networks.

Source: The primary source for this text box is TeleGeography, *TeleGeography Report*, "VoIP," November 2009.

Landlines Decline in Developed Countries

In 2008, the number of landlines in the Middle East-Africa and Latin American regions grew by 4 percent and 1 percent, respectively. Elsewhere, however, the trend was very different: globally, the number of landlines in service declined by approximately 2 percent in 2008.[34] This decline was most apparent in the mature markets of Asia, North America, and Europe. Landlines in Asia and North America declined by about 3 percent in 2008, while landlines in Europe declined by 1 percent. From 2003 through 2008, most regions experienced flat or declining landline growth rates; starting in 2007, the number of landlines actually began to contract in some regions. In the United States, the number of landlines in service decreased by approximately 2 percent every year during 2003–08.[35]

Several factors explain the global decline of fixed lines in recent years. In many countries, such losses can be explained by the increasing tendency of consumers, particularly younger consumers, to drop fixed-line services entirely, often to save money, relying instead on wireless services for all telecommunications needs.[36] Similarly, consumers are also tending to drop their secondary telephone lines,[37] either to save money or because the ready availability of mobile and/or VoIP services eliminates the need for second or third telephone lines. The gradual penetration of broadband Internet services, particularly those delivered via cable modem technologies, is another factor, since broadband Internet adoption typically displaces dial-up Internet services, which are delivered over fixed-line infrastructure.[38] The increasing prevalence of VoIP telephone services offered by companies such as Vonage and Skype, not to mention cable companies in many developed countries, has also led many consumers to switch away from traditional landline telephone calls, reducing or eliminating the need for landline services.[39] In many developing countries, the inadequacy of fixed-line network facilities pushes demand for telephone services to mobile networks, thereby limiting or reducing demand for fixed-line services.

Wireless Growth Shifts from Developed to Developing Countries

Although wireless services have existed for decades, commercially viable services emerged only in the mid-1990s, leading to widespread adoption in virtually all developed countries. Following 10 years of strong subscriber growth, however, the wireless markets in many developed countries began to approach saturation. By 2008, most individuals in developed countries maintained at least one mobile telephone, with additional subscriber growth stemming from sales to niche markets: prepaid subscriptions aimed at low-income consumers unable to afford a traditional post-paid subscription, a second or third mobile telephone for individuals, and wireless services for children.[40]

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[34] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[35] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[36] Organization for Economic Co-operation and Development (OECD), *OECD Communications Outlook 2009*, August 2009, 100; TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009; TeleGeography, *TeleGeography Report*, November 2009, 4.

[37] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[38] OECD, *OECD Communications Outlook 2009*, August 2009, 100; TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[39] TeleGeography, *TeleGeography Report*, November 2009, 4; OECD, OECD Communications Outlook 2009, 100.

[40] TeleGeography, *TeleGeography Report*, November 2009, 6.

Just as wireless subscriber growth was moderating in developed countries, however, demand for wireless services in developing countries began to expand, with strong demand throughout the 2000s serving as the primary driver of growth in the global telecommunication services market. In Africa, for example, wireless mobile subscribers grew by 35 percent in 2008, following growth of 39 percent in 2007.[41] Fueled by rapid growth in China and India, among several other countries, the number of wireless subscribers in Asia grew by 27 percent and 22 percent in 2007 and 2008, respectively.[42]

Although high developing-country growth rates are at least partially explained by the small subscriber base in such countries, the primary driver of subscriber growth was, and continues to be, strong latent demand for telecommunication services resulting from a lack of available landline alternatives. For decades, the telecommunication services markets of many developing countries were dominated by slow-moving, telecommunication monopolies and were plagued by inadequate funding for public telecommunications infrastructure. As a result, the construction of landline networks in such countries often lagged well behind that in developed countries, even as demand for telecommunication services soared. In an effort to meet such demand, many governments bypassed efforts to develop landline networks, focusing instead on the build-out of wireless networks, which can be deployed much more quickly and with substantially less capital. The widespread liberalization of telecommunication service markets in many developed countries in the late 1990s and early 2000s, and the active courting of foreign companies willing to build wireless networks, also facilitated the rapid growth in wireless subscribers and revenues in many developing countries over the past decade.

Telecommunications Carriers Focus on Cutting Costs

During much of the period from 2003 through 2007, telecommunication services providers focused on building and expanding network infrastructure, particularly mobile infrastructure. Network construction activities were particularly common in developing countries, as carriers in most such countries focused on developing mobile networks to serve burgeoning demand for mobile voice telecommunication services, focusing first on urban areas but moving to expand networks in rural areas by the end of the period. In developed countries, by contrast, most telecommunication services providers focused on upgrading existing mobile networks, first from analogue technologies to second-generation (2G) mobile technologies, and then from 2G technologies to 3G technologies.

Starting in 2008, however, regulatory, competitive, and recessionary pressures pushed many carriers to refocus their priorities from developing network facilities to cutting costs and maximizing cash flow and organizational efficiency.[43] In many companies, such cost cutting has taken the form of workforce reductions, particularly in the declining landline business segments. In 2008, for example, Deutsche Telekom (Germany) announced plans to lay off approximately 32,000 people, while BT (United Kingdom) announced plans to lay off 10,000 employees.[44] Other telecommunication companies that

[41] TeleGeography, *TeleGeography Report*, November 2009, 1.

[42] TIA, *TIA's 2009 ICT Market Review and Forecast*, 2009.

[43] Hot Telecom, *Global Telecom Markets Status and Forecast Report 2008–2013*, October 2009, 23; Sinclair, "European Telcos Cut Costs to Fight Competition, Regulation," July 31, 2009.

[44] Milliken, "Deutsche Telekom Plans to Keep Up Job Cuts: CEO," February 17, 2008; Lennighan, "Massive Job Cuts at BT, But Q2 Results Solid," November 13, 2008.

reduced headcount in 2008 included AT&T (United States), Embarq (United States), Sprint/Nextel (United States), Telecom Italia (Italy), and TDC (Denmark).[45]

In an effort to adjust to the difficult economic and competitive climate, many telecommunication companies also reorganized and/or streamlined business units. In 2008, Vodafone (United Kingdom), for example, announced plans to divide its EMAPA international unit (Eastern Europe, Middle East, Africa, Asia-Pacific, and affiliates) into two units, one focused on Central Europe and Africa and the other on Asia Pacific.[46] BT announced plans to turn around its long-troubled Global Services Unit, with such plans revolving around lowering operating costs and reducing the number of customized contracts.[47]

During 2003–08, telecommunication service providers, mainly wireless carriers, also began to engage in so-called network-sharing arrangements. Such arrangements, which involve two or more carriers sharing mobile network components, have become increasingly appealing to carriers as they have simultaneously attempted to reduce operating costs, minimize capital spending, expand network coverage, speed time to market, and respond to environmental and universal service regulations.[48] In developed countries, such arrangements have been largely limited to "site sharing" arrangements in rural areas, a practice in which multiple wireless operators share passive elements of the network, namely antenna masts, equipment cabinets, and power supplies. By contrast, in many developing countries, multiple carriers are often under pressure to quickly build multiple networks, typically with limited capital; in these areas, sharing arrangements have been more extensive, involving not only passive elements but also active network components, such as antennas and radio access network equipment.[49] Such arrangements are particularly common in India, where government policy advocates the use of network sharing to increase network coverage.[50] Similarly, in October 2008, the government of China ordered the country's wireless operators to share parts of their networks to curb duplicative network investment.[51]

Impact of the Financial Crisis and Economic Downturn

Despite the financial market turmoil and onset of the global recession in the latter half of 2008, revenues in the global telecommunication services industry registered strong growth through the end of the year, albeit at a slightly slower annual rate than that recorded from 2003 through 2007. Globally, the number of wireless and landline subscribers also grew at a respectable rate of 15–16 percent during 2008, a rate down only 1 or 2 percentage points from the previous year.[52] Estimates for 2009 indicate that

[45] Wood, "Sprint Nextel Axes 5,000 Jobs in Cost-Cutting Drive," January 9, 2007; Morris and Lennighan, "Telecom Finance: Hard Times," October 1, 2008; Morris, "Telecom Finance: Survival of the Fittest," January 2009.

[46] Morris and Lennighan, "Telecom Finance: Hard Times," October 1, 2008.

[47] Lennighan, "Massive Job Cuts at BT, But Q2 Results Solid," November 13, 2008.

[48] Middleton, "Share and Share Alike," December 16, 2009; Rubenstein, "Technology Trends: Mobile Network Sharing," July 25, 2009; *Economist,* "Sharing the Load," March 26, 2009.

[49] Rubenstein, "Technology Trends: Mobile Network Sharing," July 25, 2009; *Economist*, "Sharing the Load," March 26, 2009.

[50] GSM Association, *Mobile Infrastructure Sharing*, November 2008.

[51] *Economist*, "Sharing The Load," March 26, 2009.

[52] GlobalComms Insight, "Review of 2009: Telecoms during the Global Recession," December 2009, 3.

revenue growth in the global telecommunication services market fell by about 2.5 percent.[53]

Taken together, such figures indicate that the global telecommunication services industry was only moderately affected by economic and financial pressures in 2008 and 2009. In part, the industry's strength results from the solid financial position of many telecommunication services firms heading into the economic downturn—largely because, following the collapse of the Internet/telecom bubble of 2000–2001, many firms had spent the next several years reducing debt levels and otherwise cleaning up their balance sheets.[54] However, the industry also has several traits that partially insulate it from fluctuations in the overall world economy. First, a growing body of evidence indicates that both consumers and businesses increasingly view spending on telecommunication services as non-discretionary. Job seekers, for example, may increasingly view Internet access as essential to job search efforts, retaining such services through periods of unemployment.[55] In addition, many services contracts, particularly those for wireless and broadband services, require durations of at least 12 months,[56] with 24 months becoming increasingly common.[57] Such longer-term contracts have a tendency not only to lock in customers for long periods of time, but also to create consumer "stickiness," meaning that individuals that need to cut discretionary costs will often look to other items in their personal budgets.[58] Another likely factor explaining the industry's resiliency is the growing use of service bundles, mainly because households likely place high value on at least one of the services within the bundle, often choosing to remain a subscriber rather than canceling the entire package.[59]

Although the economic and financial crisis affected the global telecommunication services industry much less than it did other industries, particularly financial service industries, many telecommunication companies nonetheless took steps to offset anticipated revenue shortfalls in 2009. As in 2008, carriers in many countries attempted to reduce operating costs by cutting their workforces. In 2009, for example, BT (United Kingdom), Eircom (Ireland), Sprint/Nextel (United States), Verizon (United States), and Zain (Kuwait) collectively announced plans to lay off tens of thousands of employees.[60] Other tactics used by telecommunication services companies to reduce costs also included pay freezes, dividend cuts, and time-off packages.[61]

Cost-cutting pressures also impelled more telecommunication carriers to adopt network-sharing agreements, with such practices beginning to spread to developed countries. In March 2009, for example, Vodafone and Telefónica announced an agreement to share certain network elements—largely sites, antenna masts, and power generation equipment—in Germany, Ireland, Spain, and the United Kingdom. Overall, the deal is

[53] GlobalComms Insight, "Review of 2009: Telecoms During the Global Recession," December 2009, 4.
[54] Morris, "Telecom Finance: Survival Of The Fittest," *Total Telecom*, January 2009, 8.
[55] OECD, OECD Communications Outlook 2009, 2009, 20.
[56] OECD, OECD Communications Outlook 2009, 2009, 20.
[57] Morris, "Telecom Finance: Survival of the Fittest," Total Telecom, January 2009, 9.
[58] OECD, OECD Communications Outlook 2009, 2009, 20–21.
[59] OECD, OECD Communications Outlook 2009, 2009, 20.
[60] Taylor, "Verizon to Axe 8,000 More Jobs," *Financial Times*, July 28, 2009; Murray, "Eircom and Unions Agree to Job Cuts," *Financial Times*, May 13, 2009; Stafford, "BT Cuts 15,000 Jobs and Slashes Dividend," *Financial Times*, May 15, 2009; Yousef, "Sprint to Slash up to 2,500 Jobs," *CNNMoney.com*, November 10, 2009; Middleton, "Zain Cuts 2,000 Jobs," *Financial Times*, May 5, 2009.
[61] Stafford, "BT Cuts 15,000 Jobs and Slashes Dividend," *Financial Times*, May 15, 2009; Parker, "BT Pay Freeze for 85,000 as Shares Hit All-Time Low," *Financial Times*, March 11, 2009; Sandler, "BT Offers Staff Time Off to Cut Payroll Costs," *Financial Times*, July 6, 2009.

expected to save both companies hundreds of millions of dollars.[62] Also in 2009, Zain and Essar announced an agreement to share approximately 300 mobile base stations in Kenya over the next 15 years.[63]

Similarly, several telecommunication service firms outsourced the management of their wireless networks to telecommunication equipment manufacturers as a means to reduce or control costs. In March 2009, for example, Alcatel-Lucent announced that it had won a contract to build and operate a mobile network for BASE in Belgium. Similarly, Telefon AB L.M. Ericsson agreed to provide maintenance and operations for Vodafone's mobile network in the United Kingdom for seven years, while Nokia Siemens disclosed a contract to manage fixed and mobile networks in Spain and the United Kingdom for France Telecom.[64]

Anticipated revenue shortfalls and tight credit conditions stemming from the economic and financial crisis also led many carriers to scale back on plans to expand and upgrade network infrastructure. In the first half of 2009, for example, Deutsche Telekom stated intentions to freeze 17 percent of its projected capital budget, while France Telecom indicated that capital expenditure would fall to under 12 percent of revenues in 2009, compared to 13 percent in 2008. In May 2009, BT also announced plans to cut over $1.6 billion in operational and capital expenditure. Overall, analysts estimated that capital expenditure in the telecommunication services industry would decline by 2 to 10 percent in 2009.[65]

Trade Trends

Cross-border Trade

In 2008, U.S. exports of telecommunication services (box 8.2) totaled $9.2 billion, while imports totaled $7.2 billion, yielding a trade surplus of approximately $2 billion (figure 8.1).[66] Exports increased by approximately 14 percent in 2008, roughly in line with the average annual growth rate of 16 percent recorded during 2003–07. Over the last several years, strong growth in U.S. telecommunication service exports have been driven by payments between parent companies and their affiliates for value-added telecommunication services, which comprise the largest share of total receipts and have been growing much faster than receipts associated with basic telecommunication services.[67]

By contrast, U.S. imports of telecommunication services increased by only about 2 percent in 2008, significantly less than the average annual growth rate of 13 percent

[62] Parker, "Vodafone and Telefonica To Share Networks," *Financial Times*, March 23, 2009 and Reuters, "Vodafone, Telefonica To Share Europe Network Sites, March 23, 2009.
[63] TeleGeography, "Zain and Essar To Share Network Infrastructure," April 2009.
[64] Morris, "Mobile Network Outsourcing: The Second Wave," Total Telecom, March 2009, 20 and Mullen, "Networks Get Outsourced," *Wall Street Journal*, March 24, 2009.
[65] Taaffe, "Belt Tightening," *Total Telecom*, June 2009, 18.
[66] USDOC, BEA, *Survey of Current Business*, October 2009, 52–53, table 5.2.
[67] USDOC, BEA, *Survey of Current Business*, October 2009, 32.

BOX 8.2 Understanding changes in BEA data on cross-border trade and affiliate transactions in telecommunication services

BEA's data on cross-border trade in telecommunication services covers receipts and payments between U.S. and foreign telecommunication companies for the following services: message telephone services, telex, telegram, and other jointly provided basic services; private leased channel services; value-added services; support services; and reciprocal exchanges.[a] Such data is collected quarterly via Form BE-125 and reported on a gross basis.[b] Trade data by service type, however, are not available as companies are instructed to report such data for the above-listed categories in the aggregate. In addition, the BEA conducts benchmark surveys, using Form BE-120, once every five years, with the last such survey occurring in 2006. In 2006, following the introduction of revised forms BE-120 and BE-125, the BEA began collecting and reporting data for both affiliated and unaffiliated telecommunication transactions. Prior to 2006, the BEA collected only unaffiliated cross-border telecommunications trade data.[c] Within the telecommunications industry, affiliated transactions represent trade within multinational telecommunication services companies—specifically, trade between U.S. companies and their foreign affiliates, and visa versa. By contrast, unaffiliated transactions represent trade with foreign partners that neither own, nor are owned by, a U.S. telecommunication services company.[d]

To survey services supplied through affiliates, the BEA collects data for the U.S. affiliates of foreign companies using forms BE-12 (Benchmark Survey) and BE-15 (Annual Survey) and for foreign affiliates using forms BE-10 (Benchmark Survey) and BE-11 (Annual Survey). Unlike cross-border data, which is collected by service type, affiliate data are collected and published according to the primary industry of the affiliate.[e] The BEA's *Survey of Current Business* reports on services supplied through telecommunication affiliates in three broad industry categories: wireline telecommunication carriers; wireless telecommunications carriers (except satellite); and other telecommunication services.[f]

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[a] SDOC, BEA, Form BE-125 (1-2010), Quarterly Survey of Transactions in Selected Services and Intangible Assets with Foreigners, 17. Value-added (enhanced) services are defined as telecommunication services that add value or function above and beyond the telecommunications transport services that deliver the value-added service to end users. Such services can include (1) e-mail, voice mail, code and protocol processing, and management and operations of data networks; (2) fax services and video conferencing; (3) Internet connections (online access service, including Internet backbone, router services, and broadband access services); (4) satellite broadcasting business communication and paging services provided by satellite connections; and (5) telephony, interactive voice response, virtual private networking, remote access service, and voice over Internet protocol services. Support services relate to the maintenance and repair of telecommunications equipment and ground station services. Reciprocal exchanges include transactions involving barter.

[b] BEA representative, e-mail message to Commission staff, March 23, 2010. For example, if Company A in the United States owes Company B in France $100 million, and Company B owes Company A $20 million, Company A would report a receipt (export) of $20 million and a payment (import) of $100 million.

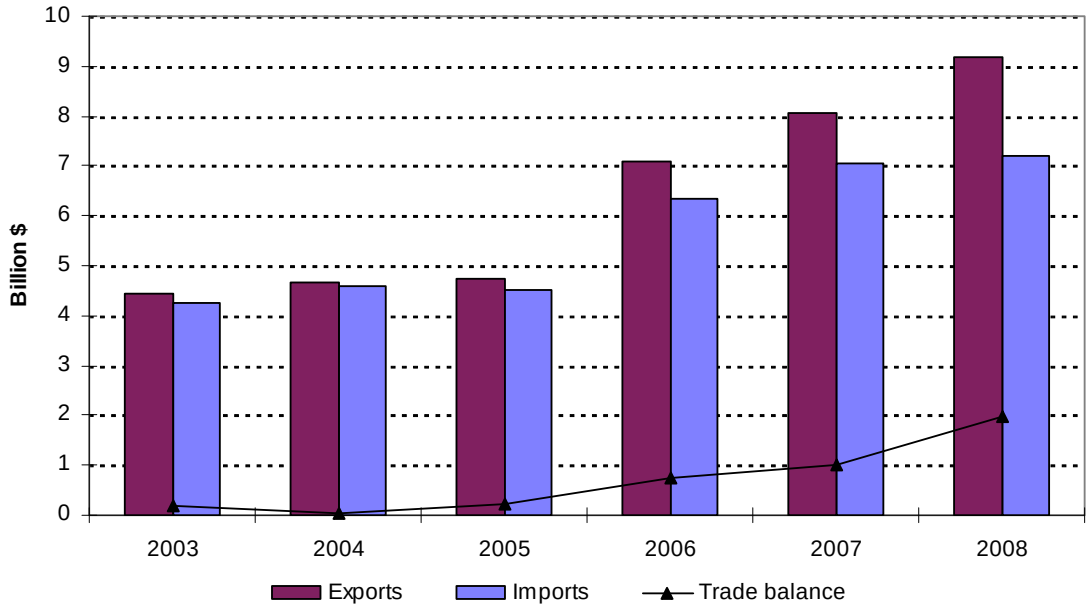
[c] BEA representative, various e-mail messages to Commission staff, March 12–23, 2010. For more information on affiliated/unaffiliated transactions pertaining to telecommunication services, see table 1, "Trade in Services, 1998–2008," footnote 7 in DOC, BEA, *Survey of Current Business*, October 2009, 41.

[d] USDOC, BEA, *Survey of Current Business*, October 2009, 29.

[e] BEA representative, e-mail message to Commission staff, March 12, 2010.

[f] USDOC, BEA, *Survey of Current Business*, October 2009, 22–64.

FIGURE 8.1 Telecommunication services: The United States experienced a growing cross-border trade surplus in telecommunication services during 2003–08



Source: USDOC, BEA, *Survey of Current Business,* October 2009, 40–41, table 1.

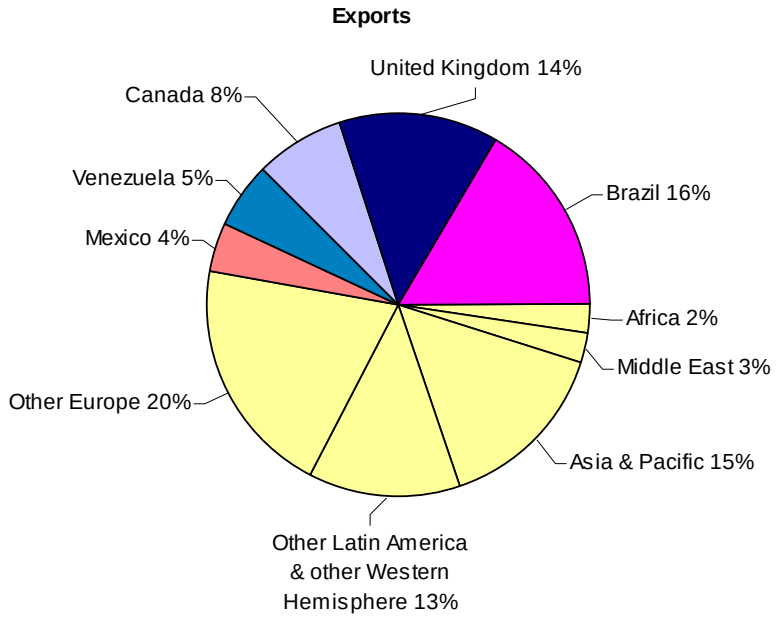
from 2002 through 2007.[68] The decline in payments by U.S. carriers to their foreign counterparts is attributable to efforts aimed at expanding the proportion of international telephone calls that are routed over wholly-owned networks.[69] Although such calls are subject to termination fees in destination countries, traffic routed over proprietary networks travels outside the traditional international accounting rate system, eliminating the need for U.S. carriers to make settlement payments to foreign carriers.

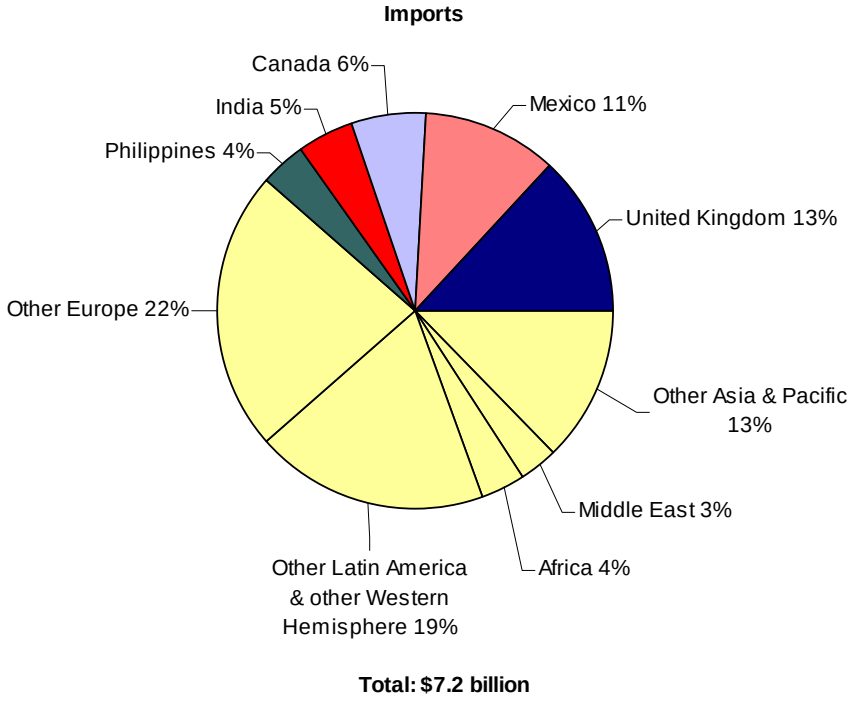
In 2008, as in the previous year, the top five cross-border export markets for U.S. telecommunication services were Brazil, which accounted for 16 percent of total U.S. telecommunication services exports; the United Kingdom (14 percent); Canada (8 percent); Venezuela (5 percent); and Mexico (4 percent) (figure 8.2). In that same year, the top sources of U.S. telecommunication services imports were the United Kingdom, which accounted for 13 percent of total U.S. telecommunication services imports, Mexico (11 percent); Canada (6 percent); India (5 percent); and the Philippines (4 percent). The United States recorded strong bilateral trade surpluses vis-à-vis its top five telecommunication services export markets, with the exception of Mexico. In 2008, U.S. imports of telecommunication services from Mexico exceeded exports by approximately $424 million (figure 8.3).

[68] USDOC, BEA, *Survey of Current Business,* October 2009, 32.

[69] Over the past decade, regulatory liberalization of telecommunication services markets in many countries, and subsequent price-based competition for international telephone calls, has impelled many international carriers to route international minutes over wholly-owned network infrastructure as a means of reducing line costs.

FIGURE 8.2 Telecommunication services: Brazil and the United Kingdom, respectively, were the largest markets for U.S. exports and imports of telecommunication services in 2008

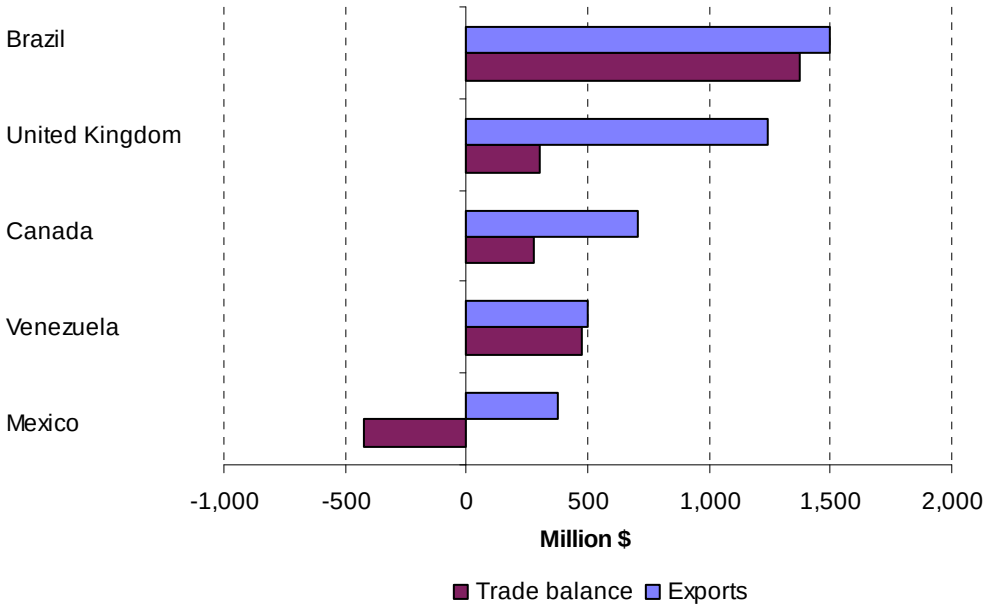




Source: USDOC, BEA, *Survey of Current Business,* October 2009, 52–53, table 5.2.

Note: Geographic regions are shaded yellow.

FIGURE 8.3 Telecommunication services: The United States registered cross-border trade surpluses with most major trading partners in telecommunication services in 2008



Source: USDOC, BEA, *Survey of Current Business,* October 2009, 52–53, table 5.2.

Affiliate Transactions

International trade in telecommunication services occurs predominantly through the affiliates of multinational companies, although data on such transactions is limited.[70] In 2006, the most recent year for which data are available, services supplied by U.S.-owned foreign affiliates totaled about $21.5 billion, approximately three times the total value of U.S. cross-border telecommunication service exports in the same year.[71] In 2007, services supplied to U.S. customers by the U.S. affiliates of foreign telecommunication service companies totaled $30 billion.[72]

[70] Foreign affiliates are U.S. parent firms' majority-owned non-bank affiliates in foreign markets, whereas U.S. affiliates are foreign parent firms' majority-owned non-bank affiliates in the U.S. market.

[71] USDOC, BEA, *Survey of Current Business,* tables 1 and 9.1, October 2009, 40, 61. Foreign affiliate data were suppressed for both 2003 and 2007 to avoid disclosing services supplied by individual companies. In 2006, services supplied by U.K. affiliates amounted to $8.3 billion, or 40 percent of total sales by the foreign affiliates of U.S. telecommunication services firms, while services supplied by Canadian affiliates totaled $617 million. All other country-level foreign affiliate data were suppressed for 2006.

[72] USDOC, BEA, *Survey of Current Business,* tables 10.1 and 10.2, 63–64. U.S. affiliate data were suppressed for years 2003, 2004, and 2005. In 2007, services supplied by U.S. affiliates of parent companies based in the United Kingdom totaled $1.5 billion, or 5 percent of total U.S. affiliate sales. In the same year, services supplied by U.S. affiliates of France, Japan, and Australia totaled $521 million, $224 million, and $8 million, respectively; all other country-level U.S. affiliate data were suppressed for 2007. U.S. affiliate data derived from wire-line carriers totaled $2.3 billion in 2007; all other market segment data was suppressed.

Liberalization of Trade Impediments

In many countries, new-entrant telecommunication service firms face regulatory barriers, as national governments actively control the number of companies operating in each market via the issuance of service licenses.[73] The limited availability of, and government control over, the electromagnetic spectrum also represents an important impediment to entry for foreign telecommunication services providers.[74] In some cases, companies seeking to establish operations in overseas markets face regulatory barriers aimed specifically at foreign companies. Common barriers include foreign equity limitations in domestic telecommunication companies[75] and restrictions allowing foreign firms to provide only value-added services.[76]

Over the past few years, multilateral negotiations in the World Trade Organization (WTO) have done little to reduce barriers to trade in telecommunication services. By contrast, from 2002 through 2007, the United States has reduced barriers to trade in telecommunication services via bilateral free trade agreements (FTAs) and trade promotion agreements (TPAs) negotiated with a number of partner countries, including Australia, Singapore, Chile, Morocco, Bahrain, Oman, Panama, Peru, Colombia, and Korea.[77] Such FTA/TPA agreements contain many "WTO-plus" provisions, including commitments to ensure a high degree of openness, transparency, and nondiscrimination for both basic and value-added telecommunication services. Service providers in each country, including suppliers with significant market power, are required to cooperate with rival firms by, inter alia, allowing such firms to establish network connections, resell services, lease specific elements of the public telecommunications network, and allow joint use of telecommunication facilities.

Outlook

Although the financial crisis and economic downturn had a mildly negative affect on the telecommunication services industry in 2009, the sector was generally more resilient than many companies had initially expected. While the lingering effects of the global recession will likely continue to affect consumer spending, particularly for premium and value-added services, many analysts expect the industry to move away from the cost-cutting measures that dominated 2009, refocusing instead on business-as-usual practices in 2010 and beyond.[78]

In 2008 and 2009, the global telecommunication services industry experienced a relatively low volume of merger and acquisition (M&A) transactions; in fact, M&A

[73] IBISWorld, "Global Wireless Telecommunications Carriers: I5111-GL," April 2009, 17; IBISWorld, "Global Internet Service Providers: I5121-GL," April 2009, 16.

[74] IBISWorld, "Global Wireless Telecommunications Carriers: I5111-GL," April 2009, 17–19.

[75] For example, in some countries, foreign firms are allowed to purchase and/or control between 30 percent and 49 percent of the equity shares in a domestic telecommunication services company. Similarly, foreign firms are often barred from acquiring shares in the incumbent telecommunications operator.

[76] Research conducted by Commission staff for the Non-tariff Measures Database, January–September, 2009.

[77] As of June 2010, the United States Congress had not ratified the U.S.-Colombia Free Trade Agreement, the U.S.-Korea Free Trade Agreement, or the U.S.-Panama Trade Promotion Agreement.

[78] Business Monitor International, *Global Telecommunications: Core Views, Q210*, March 2010; Taaffe, "Mergers and Acquisitions: New Deals," *Total Telecom*, February 2010, 25.

activity came almost to a complete halt during the third and fourth quarters of 2008.[79] As the global economy emerges from recession, however, many analysts expect M&A activity in the telecommunications sector to increase significantly, driven by industry consolidation as well as by firms' efforts to acquire new communication technologies. Over the next few years, strong company fundamentals, including large cash reserves, rising stock prices, and robust cash flow conditions, are likely to be the main factors behind any M&A activity in the telecommunication services industry. In the near term, likely M&A targets include companies specializing in broadband services, Internet protocol (IP) communications, Internet television, and software services. In addition, many analysts expect M&A activity to focus on consolidation activities in highly competitive national markets as well as on efforts by large global carriers to expand into new country markets.[80]

As subscriber and voice revenue growth rates continue to decline, many telecommunication service providers are expected to focus on the development and delivery of mobile broadband services. Emphasizing bandwidth-intensive multimedia services for mobile phones—e.g., video messaging, video streaming, or music downloading—mobile broadband services are expected to drive industry revenue growth for years to come. Indeed, in 2009, several telecommunication services operators reported that mobile broadband services accounted for as much as 25 percent of overall services revenues.[81]

The increasing uptake of mobile broadband services has also led to ever-higher volumes of data traffic on many mobile service providers' networks. Indeed, data traffic exceeded the volume of traffic associated with voice telephone calls across the world's wireless networks for the first time in December 2009. Moreover, data traffic, which tripled in each of the past two years, is forecast to double annually over the next five years.[82] The surge in data traffic, however, has begun to strain the network capacity of many mobile networks, triggering network quality issues such as dropped mobile telephone calls and slow multimedia downloads.[83] To accommodate rising data volumes, telecommunication operators in many countries will likely need to boost network capacity by upgrading current 3G networks with so-called 3.5G technologies, namely high-speed packet access (HSPA) or HSPA+ technologies.[84] Worldwide, a number of carriers are also beginning to migrate to very high bandwidth fourth-generation technologies, including long-term evolution and WiMax technologies. In the near term, however, weak consumer spending and high investment costs will likely motivate carriers to upgrade their networks on a gradual basis.[85]

Given the ongoing need to reduce costs and streamline operations, many analysts expect carriers to continue outsourcing network management services.[86] Over the past few years, managed services have become an important business for telecommunication equipment manufacturers like Alcatel-Lucent, Ericsson, and Nokia-Siemens Networks. As carriers

[79] Hot Telecom, *Global Telecom Market Status and Forecast Report 2008–2013*, October 2009, 13.

[80] Taffee, "Mergers And Acquisitions: New Deals," *Total Telecom*, February 2010, 25; Business Monitor International, *Global-Telecommunications: Core Views, Q210*, March 2010.

[81] Business Monitor International, *Global Telecommunications: Core Views, Q210*, March 2010.

[82] Ward, "Data Traffic Outstrips Mobile Voice Calls," *Financial Times*, March 24, 2010.

[83] Business Monitor International, *Global Telecommunications: Core Views, Q210*, March 2010.

[84] Business Monitor International, *Global Telecommunications: Core Views, Q210*, March 2010.

[85] Hays, "Big Changes Ahead for Wireless," *Forbes*, March 3, 2010; Ward, "Data Traffic Outstrips Mobile Voice Calls," *Financial Times*, March 24, 2010; Business Monitor International, *Global Telecommunications: Core Views, Q210*, March 2010.

[86] Business Monitor International, *Global Telecommunications: Core Views, Q210*, March 2010.

look for ways to control costs and trim capital budgets, many observers expect that equipment vendors will focus even more intently on signing network management deals, particularly in the Americas, the Middle East, and Southeast Asia.[87]

Network sharing also continues to be popular with telecommunication service companies around the world, with recent agreements mainly intended to extend network coverage. In February 2010, for example, France's three main mobile services companies—Orange, SFR, and Bouygues Telecom—signed an agreement to share 3G mobile network installations. According to French regulators, the agreement is intended to speed the deployment of 3G networks in France, with the final goal being nationwide 3G coverage by 2013.[88] In China, China Telecom and China Unicom agreed to collaborate on the construction of 500 3G base stations in Shanghai.[89] Similarly, in the United Arab Emirates, the incumbent operator, Emirates Telecommunications Corporation, agreed to permit its sole competitor, Du, to use its network infrastructure.[90]

[87] Hays, "Big Changes Ahead for Wireless," *Forbes*, March 3, 2010.

[88] Bender, "French Mobile Operators Sign 3G Network-Sharing Agreement," *Total Telecom*, February 24, 2010.

[89] *CommsUpdate*, "Telecom and Unicom Forge Network Sharing Agreement," January 25, 2010.

[90] *CommsUpdate*, "Etisalat to Share Network with Du from 2H10," March 12, 2010.

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CHAPTER 9
Global Initiatives to Improve Services Trade Statistics, First Update[1]

Since the General Agreement on Trade in Services (GATS) entered into force in January 1995, demand has increased for more detailed, internationally comparable data on services trade to support trade negotiations and trade policy making, as well as economic and industry analyses.[2] This heightened demand for services trade data has exposed inadequacies in the ways in which data on international trade in services have been categorized, measured, and published.[3] In response, various international agencies, regional assemblies of countries, and national governments, as well as their statistical offices and central banks, have sought to improve conceptual frameworks for, measurements of, and expertise in collecting services trade data.

This chapter first surveys current approaches taken by international organizations in reporting country and regional data on services trade. It then summarizes conditions and challenges affecting countries' collection of cross-border trade data on specific services and on their trading partners, along with data on affiliate transactions specific to services. Finally, the chapter highlights ongoing or planned work in selected countries and regions to improve data collection efforts.

Overview

Since 2009, countries have begun to base reporting of trade transactions in goods and services on revisions by the International Monetary Fund (IMF) to instructions for compiling the current account of the balance of payments (BOP).[4] The *Balance of Payments and International Investment Position Manual* (BPM), sixth edition (BPM6), revised a conceptual framework of definitions, classifications, and valuation concepts

[1] This chapter updates information on initiatives to improve services trade statistics, which appeared in the Commission report *Recent Trends in U.S. Services Trade, 2008 Annual Report*, 2008, ch. 8.

[2] World Trade Organization (WTO), Council for Trade in Services (CTS), "A Review of Statistics on Trade Flows in Services," July 11, 2006, 1; WTO, Economic Research and Statistics Division, "Measuring Trade in Services," March 2006, 10. The way in which services themselves and services trade are defined and measured impacts the definition and measurement of gross domestic product (GDP) and other key indicators of economic activity.

[3] WTO, CTS, "A Review of Statistics on Trade Flows in Services," July 11, 2006, 5, 9, 10, 15; Bensidoun and Ünal-Kesenci, "Mondialisation des services: De la mesure à l'analyse," August 2007, 6–7; Regulation (EC) No. 716/2007 of the European Parliament and of the Council of 20 June 2007 on Community Statistics on the Structure and Activity of Foreign Affiliates, *Official Journal of the European Union* (*OJ*), No. L 171 (June 29, 2007), 17.

[4] IMF's compilation of services statistics may be found at the International Financial Statistics database.

published in the IMF's previous edition[5] in 1993 (BPM5).[6] Three main themes guided the revisions in BPM6: (1) the increased prevalence of globalization, as economies, companies, and individuals accelerated economic co-dependencies across borders, such as in globalized production processes; (2) the increased complexity of financial instruments and integrated transactions, leading to more detailed guidance on reporting international investment positions; and (3) innovations in financial instruments such as derivatives and index-linked securities and in financial arrangements such as special-purpose entities and complex chains in ownership.[7]

In particular, revisions to the Goods and Services account in BPM6 changed the way data on cross-border trade in services are to be compiled and reported. Important changes include:

1. **Two new standard categories** at the highest level of aggregation of services (table 9.1):

   (a) "manufacturing services on physical inputs owned by others":[8] BPM6 treats these transactions as a service in all cases. Under BPM5, value-added processing services performed in country A on goods supplied by an owner resident in country B and subsequently returned without a change in the goods' ownership were included in the value of the goods.

   (b) "maintenance and repair services n.i.e." (not included elsewhere): Such services performed by residents of country A on goods like ships, aircraft, and transport equipment owned by residents of country B are included, whereas such services on computers or in connection with construction are recorded elsewhere.

2. **Renamed, revised, or realigned standard service categories**, such as "transport" (a combination of the BPM5 "transportation" and "postal and courier services" categories); "charges for the use of intellectual property" (a renamed and reconfigured category); and "telecommunications, computer, and information services" (a new category that includes portions of two former categories).

[5] BMP5 subdivided services into 10 commercial services categories and 1 government services category (table 9.1), and it recommended that countries report data on their total exports and imports for each category. BMP5 did not recommend that countries provide partner country detail for the 11 broad categories of services trade, although about 50 countries have elected to do so.

[6] Pariag, "Classification of Services," July 2009, 2. BPM6 was developed in conjunction with revisions to the International Standard Industry Classification (ISIC, Revision 4), the System of National Accounts (SNA 2008), the Central Product Classification (CPC, Revision 2), the International Recommendations for Tourism Statistics and Tourism Satellite Accounts: Recommended Methodological Framework, in 2008, and the Organization for Economic Co-operation and Development (OECD) Benchmark Definition of Foreign Direct Investment, Revision 4, in 2009. The revised ISIC and CPC will be primary bases for the measurement of services production, while services trade will be measured in accordance with BPM6, more detailed subcategories of services, and the written guidance to negotiators of the GATS (document GNS/W/120.

[7] IMF, *Balance of Payments, Sixth Edition*, 2009, 4–5.

[8] These manufacturing processing services include, for example, oil refining, natural gas liquefaction, and assembly of apparel or electronic equipment.

TABLE 9.1 Services data: Principal categories[a] in IMF Balance of Payments Manuals, 1993 and 2008

BPM5 (1993)	BPM6 (2008)
Total	Total
	Manufacturing services on physical inputs owned by others
	Maintenance and repair services not included elsewhere (n.i.e)
Transportation	Transport
Travel	Travel
Communications services	
Construction services	Construction
Insurance services	Insurance and pension services
Financial services	Financial services
Computer & information services	Telecommunications, computer, and information services
Royalties and license fees	Charges for use of intellectual property n.i.e.
Other business services	Other business services
Personal, cultural, and recreational services	Personal, cultural, and recreational services
Government services n.i.e.	Government goods and services n.i.e.

Source: IMF, *Balance of Payments and International Investment Position Manual*, *Sixth Edition* (BPM6), December 2008, and *Balance of Payments Manual*, *Fifth Edition* (BPM5), 1993.

[a]The titles of certain principal categories do not correspond exactly between BPM5 and BPM6 (for example, "transportation" and "construction services" in BPM5 and "transport" and "construction" in BPM6), due to differences in the composition of the categories in the two manuals.

3. **Increased clarity and specificity in the identifying of explicit transactions and fees.** For example, BPM6 states the formula to be used in measuring "financial intermediation services indirectly measured," or FISIM; [9] offers fuller guidelines for measuring pensions; adjusts the estimation of "nonlife insurance services" to address conditions of extreme claim volatility; and clarifies "construction" (formerly "construction services") to separately identify activities that occur abroad and activities that occur in the compiling economy, among other changes.

GATS negotiators and trade policy makers have long sought more detailed data on services trade and the development of data would that conform to the GATS' four modes of supply, only parts of which are reflected in BOP data.[10] In response, the United Nations Statistical Commission established the Interagency Task Force on Statistics of International Trade in Services (TFSITS)[11] to address ways to improve the level of detail, quality, and comparability of services trade data, among other tasks.[12] In 2002, the TFSITS developed a classification that subdivided services categories to encourage countries to compile and report more specific services trade statistics. This classification—known as the Extended Balance of Payments Services classification

[9] FISIM is defined as the margin (difference) between interest payable and the reference interest rate on loans and deposits.

[10] BOP data include, but do not separately identify, data for GATS mode 1 (cross-border supply) and mode 2 (consumption abroad). Moreover, BOP data do not provide for the measurement of transactions supplied under mode 3 (commercial presence), and include only partial information on services supplied under mode 4 (presence of natural persons).

[11] Participants in the task force include Eurostat, IMF, OECD, United Nations Conference on Trade and Development (UNCTAD), United Nations Statistics Division (UNSD), World Tourism Organization, and the WTO Secretariat, with consultation by national statistical experts from various countries, including the United States.

[12] The TFSITS was also intended to strengthen collaboration with other agencies or groups involved with international trade in services statistics; promote development of international standards, systems, and classifications for such statistics; and facilitate technical assistance provided to developing countries for compiling such statistics.

(EBOPS) (table 9.2)—became the recommended international standard guiding the compilation of services trade data upon its publication (also in 2002) in the first *Manual on Statistics of International Trade in Services* (MSITS).[13] EBOPS had more than three times as many core ("standard") breakouts of services subcategories (96) as the BPM5 did (30).[14]

In addition to providing guidance on the expansion of cross-border trade data, MSITS recommendations emphasized the importance of measuring transactions and other data for affiliates owned or controlled by an entity from another country—collected by only a small number of countries—as the most direct method for measuring trade in services supplied under GATS mode 3.[15]

In February 2010, the United Nations Statistical Commission approved the revision of the MSITS, which is soon to be published. While the guidelines and recommendations in BPM6 and the MSITS 2010 will likely be implemented only gradually in many countries, the process has already begun in some economies. The new manual includes a revision of the 2002 EBOPS classification, as well as an entire chapter on the GATS modes of supply.[16] The chapter on foreign affiliate statistics makes clearer distinctions between data collected on inward and outward affiliates and offers updated concepts and definitions drawn from BPM6, the revised OECD Benchmark Definition of FDI, and the OECD *Handbook of Economic Globalization Indicators*.[17] Important additions to the MSITS are to be provided on the task force's Internet site. These include: (1) tables displaying correspondence between the newly revised EBOPS and revisions to the CPC and ISIC, among other important classifications, and (2) a new analytical annex on services trade data issues and services sectors of priority importance, which will be updated continuously as common understandings concerning the effects of the revised framework evolve.[18]

[13] The manual was the first major project of the TFSITS and may be found at http://unstats.un.org/unsd/tradeserv/TFSITS/MSITS2002.htm.

[14] Moreover, BPM5 identified further subdivisions of services data recommended for collection beyond the standard breakouts. One subdivision ("supplementary items") split expenditures on personal travel and on miscellaneous business, professional and technical services into components that corresponded to services sectors negotiated in the GATS. In EBOPS, however, data on standard and supplementary items were afforded equal, primary importance in compilation. The second additional subdivision ("memorandum items") in BPM5 included two breakouts on insurance services. The OECD-Eurostat joint classification and EBOPS vastly expanded the number of services included as memorandum items, which comprise data intended to aid in analyses of services trade and globalization and in the assessment of services trade data quality.

[15] Information about transactions conducted by affiliates located outside the compiling country and owned or controlled by an entity resident in the compiling country are "outward foreign affiliates (FATS)" transaction data, while information about transactions conducted by affiliates located in the compiling country and owned or controlled by an entity residing abroad are "inward FATS" data.

[16] The MSITS chapter on GATS modes of supply includes recommendations on measuring these modes and incorporating clearer concepts and definitions developed in recent years with regard to mode 4, on which countries have been only partially able to compile data.

[17] TFSITS, "Report of the Task Force," December 8, 2009.

[18] TFSITS, "The Revised Manual on Statistics of International Trade in Services," December 2009, 2–3.

TABLE 9.2 Services data: Evolution of guidelines for compiling cross-border services trade data, 1993–2002

Component	Extended balance of payments services classification (EBOPS)	BPM5 standard components 1993	BPM5 supplementary items 1993	OECD-Eurostat joint classification components 1996	Newly added in MSITS 2002
1	Transportation	X		X	
1.1	Sea transport	X		X	
1.1.1	Passenger	X		X	
1.1.2	Freight	X		X	
1.1.3	Other	X		X	
1.2	Air transport	X		X	
1.2.1	Passenger	X		X	
1.2.2	Freight	X		X	
1.2.3	Other	X		X	
1.3	Other transport	X		X	
1.3.1	Passenger	X		X	
1.3.2	Freight	X		X	
1.3.3	Other	X		X	
	Extended classification of other transport				
1.4	Space transport			X	
1.5	Rail transport			X	
1.5.1	Passenger			X	
1.5.2	Freight			X	
1.5.3	Other			X	
1.6	Road transport			X	
1.6.1	Passenger			X	
1.6.2	Freight			X	
1.6.3	Other			X	
1.7	Inland waterway transport			X	
1.7.1	Passenger			X	
1.7.2	Freight			X	
1.7.3	Other			X	
1.8	Pipeline transport and electricity transmission			X	
1.9	Other supporting and auxiliary transport services			X	
2	Travel	X		X	
2.1	Business travel	X		X	
2.1.1	Expenditure by seasonal and border workers			X	
2.1.2	Other			X	
2.2	Personal travel	X		X	
2.2.1	Health-related expenditure		X	X	
2.2.2	Education-related expenditure		X	X	
2.2.3	Other		X	X	
3	Communications services	X		X	
3.1	Postal and courier services			X	
3.2	Telecommunications services			X	
4	Construction services	X			
4.1	Construction abroad			X	
4.2	Construction in the compiling economy			X	
5	Insurance services	X		X	
5.1	Life insurance and pension funding			X	
5.2	Freight insurance			X	
5.3	Other direct insurance			X	
5.4	Reinsurance			X	
5.5	Auxiliary services			X	
6	Financial services	X		X	

See footnotes at end of table.

TABLE 9.2 Services data: Evolution of guidelines for compiling services trade data, 1993–2002 (*continued*)

Component	Extended balance of payments services classification (EBOPS)	BPM5 standard components 1993	BPM5 supplementary items 1993	OECD-Eurostat joint classification components 1996	Newly added in MSITS 2002
7	Computer and information services	X		X	
7.1	Computer services			X	
7.2	Information services			X	
7.2.1	News agency services				X
7.2.2	Other information provision services				X
8	Royalties and license fees	X		X	
8.1	Franchises and similar fees				X
8.2	Other royalties and license fees				X
9	Other business services	X		X	
9.1	Merchanting and other trade-related services	X		X	
9.1.1	Merchanting			X	
9.1.2	Other trade-related services			X	
9.2	Operational leasing services	X		X	
9.3	Miscellaneous business, professional, and technical services	X		X	
9.3.1	Legal, accounting, management consulting, and public relations		X	X	
9.3.1.1	Legal services			X	
9.3.1.2	Accounting, auditing, bookkeeping, and tax consulting services			X	
9.3.1.3	Business and management consulting and public relations services			X	
9.3.2	Advertising, market research, and public opinion polling		X	X	
9.3.3	Research and development		X	X	
9.3.4	Architectural, engineering, and other technical services		X	X	
9.3.5	Agricultural, mining, and on-site processing services		X	X	
9.3.5.1	Waste treatment and depollution			X	
9.3.5.2	Agricultural, mining, and on-site processing services			X	
9.3.6	Other business services		X	X	
9.3.7	Services between related enterprises, n.i.e.			X	
10	Personal, cultural, and recreational services	X		X	
10.1	Audiovisual and related services	X		X	
10.2	Other personal, cultural, and recreational services	X		X	
10.2.1	Education services				X
10.2.2	Health services				X
10.2.3	Other				X
11	Government services, n.i.e.	X		X	
11.1	Embassies and consulates			X	
11.2	Military units and agencies			X	
11.3	Other government services				

Memorandum items[a]

Component	Extended balance of payments services classification (EBOPS)	BPM5 items 1993	OECD-Eurostat joint classification components 1996	Newly added in MSITS 2002
1	Freight transportation on merchandise, valued on a transaction basis		X	
1.1	Sea freight		X	
1.2	Air freight		X	
1.3	Other freight		X	
1.4	Space freight			X
1.5	Rail freight			X

See footnotes at end of table.

TABLE 9.2 Services data: Evolution of guidelines for compiling services trade data, 1993–2002 (*continued*)

		Memorandum items (*continued*)		
Component	Extended balance of payments services classification (EBOPS)	BPM5 items 1993	OECD-Eurostat joint classification components 1996	Newly added in MSITS 2002
1.6	Road freight		X	
1.7	Inland waterway freight			X
1.8	Pipeline freight			X
2	Travel			
2.1	Expenditure on goods			X
2.2	Expenditure on accommodation and food and beverage serving services		X	
2.3	All other travel expenditure			X
3	Gross insurance premiums	X	X	
3.1	Gross premiums—life insurance			X
3.2	Gross premiums—freight insurance			X
3.3	Gross premiums—other direct insurance			X
4	Gross insurance claims	X		X
4.1	Gross claims—life insurance			X
4.2	Gross claims—freight insurance			X
4.3	Gross claims—other direct insurance			X
5	Financial intermediation services indirectly measured (FISIM)			X
6	Financial services including FISIM			X
7	Merchanting gross flows		X	
8[b]	Audiovisual transactions			X

Source: United Nations, *Manual on Statistics of International Trade in Services*, 2002, 82–84.

[a]See footnote 14 for an explanation.

[b]This item comprises a range of services and other transactions relating to audiovisual activities.

Challenges Regarding Services Trade Data

Cross-border Trade

Detailed Services Data

Since publication of the first MSITS in 2002 and with more countries voluntarily reporting at least some detailed services trade data,[19] statistical authorities at TFSITS-participating organizations and other experts have continued to monitor national governments' adherence to the manual's recommendations and have provided training in the implementation of the MSITS.[20] Statistical authorities have also identified various data gaps and challenges. For example, some countries' trade surveys provide inadequate coverage of particular service sectors, in part due to the absence of complete, up-to-date registries of service firms engaged in international trade from which to draw survey samples. Moreover, despite the publication of international standards, countries have continued to use diverse methods of compiling and reporting trade data for detailed categories of services, resulting in inconsistent or partial data. For example, for the period 2003–07, the coverage in the OECD database of services trade, which is based on the

[19] The manual advised countries to develop disaggregated EBOPS data in stages, beginning with those services of greatest economic significance to the compiling country.

[20] United Nations, "Report of the Task Force on Statistics of International Trade in Services," December 8, 2009, 8–9.

EBOPS classification, varied widely among OECD member countries (table 9.3).[21] The United States, Norway, and about 10 EU member states included data on the largest number of EBOPS subcategories (at least 75 percent), while EBOPS data coverage was less extensively reported for 16 additional OECD member countries. Japan and Switzerland reported only very limited data on specific services other than on the 11 major categories recommended in BPM5. Detailed trade data by mode of transportation service (as recommended in EBOPS and reported by many OECD countries) were not reported by the statistical authorities of Australia, Canada, Korea, and New Zealand, and such data were only partially available from Mexico. Further, some international organizations have received and reported incomparable services trade data that had been reported by different statistical authorities (chiefly the national statistical office and central bank) in the same country.

During the period 2002–07, about half of the OECD member countries revised and sought to improve their trade data collection methods for services as a whole or for individual service sectors.[22] For example, the introduction of the euro prompted statistical authorities in European countries to adjust and align criteria for the compilation of travel services trade data. Instead of continuing to calculate their services trade data based on bank settlement data for foreign currency transactions, officials of Austria, the Czech Republic, and Hungary shifted to statistics estimated based on surveys. Japanese authorities reinstituted the collection of travel services trade data by purpose of trip in April 2004, three years after ceasing to collect such data. However, not all of these countries have revised their historical data to conform with data collected using new methods, which has complicated the analysis of trends in services trade.

In 2008, the United Nations Statistics Division (UNSD) created a separate section responsible for statistics on international trade in services, under its Trade Statistics Branch. The new section's primary responsibilities include maintaining a database of services trade statistics, begun on a pilot basis in the mid-2000s and now publicly available.[23] Individual UN member countries and international organizations have been requested to provide services trade data according to EBOPS subcategories and with partner country detail annually, from 2000 on. The database is continuously updated.

Partner Country Data

In 2002, the MSITS recommended that countries report data by partner country for total services and for the 11 major categories of services set forth in BPM5, at a minimum. Such data were to be augmented by partner country data for as many EBOPS-level services as possible. In recent years, partner country data for services trade have expanded, as has the number of countries reporting such data. The OECD published total services trade data by partner country for 2006[24] for 28 of its 30 member economies[25]

[21] The OECD's compilation of services trade data may be found at http://stats.oecd.org/index.aspx.
[22] OECD, *OECD Statistics on International Trade in Services: Volume 1*, 2009.
[23] See http://unstats.un.org/unsd/servicetrade.
[24] Latest available data.
[25] Partner country data for total services, or for certain major categories of services, were not available or were not collected by some OECD countries due to low data quality, among other factors. Iceland and Switzerland did not report partner country data on total trade in services or on individual categories of services. Mexico and Turkey reported partner country data only for travel services (Turkey included only exports), and New Zealand included data only for "other commercial services."

TABLE 9.3 Services data: EBOPS-level detail of services trade data reported for OECD countries, 2007

Extensive	Moderate	Limited	Very limited
Belgium	Australia	France	Japan
Czech Republic	Austria	Iceland	Switzerland
Denmark	Canada	Ireland	
Hungary	Finland	Mexico	
Italy	Germany	New Zealand	
Luxembourg	Greece	Spain	
Netherlands	Korea	United Kingdom	
Norway	Portugal		
Poland	Turkey		
Slovak Republic			
Sweden			
United States			

Source: OECD database (accessed March 24, 2010).

Note: Extensive—data were reported for more than 75 percent of EBOPS categories for 2007; Moderate—50 to 74 percent; Limited—less than 50 percent; Very limited—reported the lowest percentage of data for detailed services.

plus the Russian Federation and Hong Kong, China, which were among the world's leading exporters of services.[26]

There are often discrepancies in partner country data. In some OECD countries, the publishers of official national statistics on services trade by partner country have collaborated with international and regional organizations in order to understand and, as necessary, minimize discrepancies in trade supplied by partner countries for the same service sector.[27] Sometimes, analyses supplied by other agencies have been of use in these situations. For example, in 2003, India reported $8.7 billion in business, professional, and technical services exports to the United States, whereas U.S. official statistics reported $420 million in imports of such services from India. Results of an examination by the U.S. Government Accountability Office (GAO) attributed the discrepancies to five principal methodological and definitional differences between the countries' approaches. The findings led to changes in the methods used to compile trade data for this service sector by both countries.[28] Statistical authorities at international and regional organizations have stated their intention to monitor mirror data over time in order to discern trends in data discrepancies and to prioritize future work toward improving the quality and comparability of partner country data.[29]

Foreign Affiliate Statistics

Foreign affiliate statistics (FATS) are at an early stage of development, available for only a small number of countries, and are far from uniform in coverage.[30] Until 2000, the United States was the only country to publish data on sales of services by both inward and outward foreign affiliates, although certain countries issued data limited to either one or the other. Since publication of the first MSITS, at least two dozen additional countries, mainly OECD members, have begun collecting affiliate data, chiefly sales and employment data on inward foreign affiliate activities (see footnote 15) (table 9.4).

[26] OECD, *OECD Statistics on International Trade in Services: Detailed Tables by Partner Country*, 2008.

[27] Such comparisons (called mirror data) examine, for example, export data reported by country A for country B compared to import data reported by country B for country A for a given service.

[28] GAO, *U.S. and India Data on Offshoring*, October 2005, 2–4.

[29] Hussain, "Eurostat Activities in Trade in Services," September 24, 2008, 10.

[30] Francois and Hoekman, "Services Trade and Policy," December 2009, 13.

TABLE 9.4 Services data: The availability of foreign affiliate sales data for selected countries

Both inward and outward	Inward only	Outward only
Australia[a]	Bulgaria	Canada
Austria	Cyprus	
Belgium	Denmark	
Czech Republic	Estonia	
Finland	Hong Kong, China	
France	Ireland	
Germany	Latvia	
Greece	Lithuania	
Hungary	Luxembourg	
Israel	Netherlands	
Italy	New Zealand	
Japan	Norway	
Portugal	Poland	
Slovak Republic	Romania	
United States	Slovenia	
	Spain	
	Sweden	
	Trinidad and Tobago	
	Turkey	
	United Kingdom	

Source: WTO, "Measuring Trade in Services: Overview of Currently Available Statistics," 2009; WTO, statistics database (accessed January 14, 2010).

[a]Statistics for sales by inward foreign affiliates measure value added only; those for outward foreign affiliates measure sales only.

Different methodologies abound in the production of FATS among countries. For example, French data classify sales by affiliates abroad according to the industry of the parent firm, while U.S., Australian, and Canadian data classify sales according to the industry of the affiliate. FATS reported by the United States and most other countries are not comparable, in part because of the differences among the classification systems used to define service industries.[31] Countries also vary as to whether sales data are based on establishments individually or on all the establishments of a parent enterprise combined.[32]

As recommended in the MSITS 2002, basic FATS include data on a range of economic activities integral to foreign affiliate operations.[33] Such data are useful in revealing trends in globalization as well as in measuring trade supplied by mode 3 (commercial presence), which is an especially important means of providing certain services, such as business,

[31] United Nations, *MSITS*, 2002, 64. Foreign affiliates are classified according to the industry (whether services or goods) of their primary economic activity, as specified in the ISIC Categories for Foreign Affiliates (ICFA) used in many countries, whereas U.S. and Canadian authorities report in accordance with the North American Industry Classification System (NAICS). Currently, ICFA and EBOPS correspond only partially, although international statistical experts continue to work toward greater convergence between these classification systems. The ultimate goal is to enable national governments to collect foreign affiliate data such as sales on a product basis, as is the case with most cross-border services trade data and the basis for governments' GATS commitments.

[32] Rocha, "Touching the Intangible," June 2009.

[33] Rocha, "Touching the Intangible," June 2009. Basic FATS include number of enterprises, employment, sales, value added, and exports and imports of goods and services. Additional data may include assets, compensation of employees, and gross fixed capital formation, among other data.

professional, and technical services, and construction.[34] Historically, FATS have reflected activities of enterprises in which a foreign investor holds more than 50 percent of ordinary shares or voting power. FATS are an adjunct to foreign direct investment (FDI) data,[35] and, typically, both FDI data and FATS are collected in the same surveys of enterprises. The MSITS 2002 recommended that governments presently unable to collect FATS should, as an interim step, estimate FATS based upon FDI data as set forth in the IMF's BPM and the OECD Benchmark Definition of FDI.[36]

Highlights of Services Data Work

United States

The Bureau of Economic Analysis (BEA) has implemented numerous improvements in U.S. trade in services statistics in recent years. For example, newly identified importers and exporters of services, which were added to the BEA's sample frame for surveys beginning in the third quarter 2008, contributed to about 0.5 percent higher totals for U.S. services trade in that quarter. Further cross-border trade data improvements included first-time estimates of affiliated transactions for certain services sectors, which enabled the BEA to report total (affiliated and nonaffiliated) trade for all subcategories of private services.[37] Moreover, the BEA recently narrowed a significant gap in FATS by introducing data on services supplied by bank affiliates to complement its long-established estimates on services supplied by nonbank affiliates, starting with data for 2004.[38]

In view of recent changes in international standards for compiling data on services trade, the BEA has formed a steering committee to consider the feasibility of changing further the U.S. system for reporting its international economic accounts. The ultimate long-range goal is to align these accounts more closely with those of other countries, as well as to improve data quality and usefulness. BEA noted that the collection of certain new data and possibly new data processing capabilities may be required in order to achieve the desired data comparability.[39]

European Union

Cross-border Trade

The European Union's cross-border services trade data are considered extensive, although initiatives are in progress to improve the comparability of partner country data,

[34] In mode 3 (commercial presence), a service supplier from country A also establishes its presence as a permanent legal entity (for example, a branch or subsidiary) in the territory of country B in order to provide a service. Data most directly related to commercial presence are estimates of the economic activity of services supplied by a foreign-owned or -controlled affiliate located in a country other than that of its owner.

[35] United Nations, *MSITS*, 2002, 55. Measures of FDI financial transactions and of investment positions and income differ from FATS because they concern transactions between and positions with direct investors and their foreign affiliates. Further, FDI data measure the transactions of all affiliates, not just those of the majority-owned affiliates as with FATS.

[36] United Nations, *MSITS*, 2002, 55.

[37] Flatness, Whitaker, and Yuskavage, "Annual Revisions of the U.S. International Accounts," July 2009, 44; Borga, "U.S. Statistics on Trade in Services," March 30, 2010.

[38] Koncz-Bruner and Flatness, "U.S. International Services," October 2009, 22.

[39] Flatness, Whitaker, and Yuskavage, "Annual Revisions of the U.S. International Accounts," July 2009, 45 and Borga, "U.S. Statistics on Trade in Services," March 30, 2010.

increase sectoral coverage, and reconcile different data system design and compilation methods among member states.[40] Eurostat's 2009 annual compilation of EU cross-border services trade for the years 2003–07 reports data for services categorized in accordance with BPM5 and the more disaggregated EBOPS. EU-wide exports and imports of services were reported for 225 partner countries, and data on trade in discrete services activities (54 EBOPS categories) were reported for leading EU trading partners. In addition, data on individual EU member states' trade with selected partners were reported for more aggregated categories of services.[41]

Ongoing efforts to improve EU international trade data have included, among other things, revisions to the European System of Accounts and its related manual in an effort to conform to the recently revised international system of national accounts classification (SNA 2008). The European Commission plans to complete this work in 2010 and implement revisions by 2014. Further, compilation of the first mandatory Europe-wide register of multinational groups of companies began in 2009. The new register of company groups is intended to result in a more complete and up-to-date listing than the disparate national registers of such groups that are currently used for data surveys.[42] Other initiatives are underway in the European Union to improve consistency between international trade and BOP statistics and to integrate business and trade statistics to produce new indicators of globalization. Once more, the European Union is investigating ways to eliminate duplicate or outdated information that is currently compiled in separate surveys for administrative, business, and international trade purposes.[43]

Foreign Affiliate Data

Various EU member states have voluntarily submitted data on the operations and characteristics of foreign affiliates to Eurostat since 1995. Nevertheless, only a fragmented portrait exists concerning the operations of EU countries' multinational enterprises (MNEs) and their affiliates abroad, as well as the operations of non-EU-country MNEs and their affiliates based in the European Union.[44] The European Union took a major step toward requiring its member states to develop more meaningful FATS by adopting regulation EC 716/2007 in June 2007.[45] The regulation mandated that sales, employment, and other data on inward and outward foreign affiliates be compiled and transmitted to Eurostat annually, beginning with data for 2007. The collection of additional affiliate data is subject to pilot-testing currently underway in various EU countries. Meanwhile, Eurostat has continued to publish the affiliate statistics voluntarily supplied by member states through reference year 2006.

[40] Pindyuk and Wörz, "Trade in Services," June 2008, 5, 18.

[41] Eurostat, *European Union International Trade in Services*, 2009.

[42] Eurostat, *Annual Work Program for the Modernization of European Enterprise and Trade Statistics,* April 24, 2009.

[43] Eurostat, *Annual Work Program for the Modernization of European Enterprise and Trade Statistics,* April 24, 2009.

[44] Grell, "Globalization Projects at Eurostat," September 18, 2007, 7.

[45] Regulation (EC) No. 716/2007 of the European Parliament and of the Council of 20 June 2007 on Community Statistics on the Structure and Activity of Foreign Affiliates, *OJ* No. L 171 (June 29, 2007), 17. In April 2008, the Commission of the European Communities adopted Regulation (EC) No. 364/2008 to implement Regulation (EC) No. 716/2007. The implementing regulation specified the technical format whereby member states transmit foreign affiliate data to Eurostat, as well as extra time granted to certain member states within which to submit such data.

Canada

Statistics Canada recently improved its capacity to process and compare a much larger number of statistical estimates from a variety of its surveys that contain questions on international trade. The full impact of such changes in coverage is not expected until publication in 2012 of Canada's cross-border trade data revised from 1997 onward. Further, Statistics Canada has added the collection of trade data on health services and maintenance and repair services to its survey on International Transactions in Commercial Services, beginning with data for 2008.[46]

In recent years, Statistics Canada's collection of foreign affiliate data has remained unchanged and limited to outward FATS only. Annual data on affiliates' employment and sales of services and goods are compiled from responses to a mandatory survey on foreign direct investment abroad. FATS reflect the activities of majority-owned affiliates (in which a firm residing in Canada owns more than 50 percent of voting shares). Neither depository institutions nor branches of firms are included in the sample frame.[47]

Association of Southeast Asian Nations (ASEAN)

The collection of FDI statistics by ASEAN member states, including statistics for certain service industries, has reportedly improved since ASEAN established a working group on the topic in 2000.[48] Nevertheless, FATS collection continues to be considered inadequate, requiring extensive capacity-building in all member states. At a 2008 meeting sponsored by ASEAN and the U.S. Agency for International Development (USAID), statistical authorities stated that the measurement of FDI flows and stocks in services sectors is problematic in numerous ASEAN countries, resulting in underestimated or inaccurate statistics. This is a result, in part, of differing classification systems among member states. Additionally, in many countries, multiple agencies (each with different methodological approaches and collection systems) estimate partial FDI data. Statistical experts have recommended in such cases that member states designate one agency per country to coordinate reconciliation of FDI data, as practiced in the Philippines.[49]

Latin America and the Caribbean

In recent years, many Latin American countries have progressed towards adopting international statistical frameworks in order to improve their macroeconomic statistics and, eventually, their services trade data. For example, whereas only four Latin American countries issued national accounts statistics in accordance with the 1993 international standard for structure and categories (SNA 1993) in 2001, 22 did so in 2006.[50] In 2008, the Brazilian government developed a national classification system for services, which will be used to create a new Internet-based registry of services transactions. The registry

[46] Canadian government official, e-mail message to Commission staff, April 28, 2010. Health services trade data are to be reported beginning in 2010, initially as part of a larger category of services. Maintenance and repair services data are to be reported separately, beginning in 2012.

[47] Statistics Canada, "Foreign Affiliate Trade Statistics," 2009; Canadian government official, e-mail message to Commission staff, April 27, 2010.

[48] Buehrer, "Workshop on Capturing FDI in Services," May 2008. FDI statistics on establishments engaged in healthcare, hotels and restaurants, and travel agency services became the priority program of the working group in 2007–08.

[49] Buehrer, "Workshop on Capturing FDI in Services," May 2008.

[50] United Nations Economic Commission for Latin America and the Caribbean (ECLAC), "Official Statistics in Latin America and the Caribbean," August 2009.

will allow the various Brazilian government entities that oversee particular service sector transactions to coordinate the production of services trade statistics according to the four modes of supply, beginning in 2010.[51]

Nevertheless, basic data, such as timely and complete registers of businesses and economic censuses, are mostly lacking in the region. Quarterly production of macroeconomic data on GDP in the services sector occurs in only about half of the region's countries. Without such benchmark resources, statistics on cross-border international trade in services are largely inadequate. In addition, with the exception of Trinidad and Tobago, Latin American and Caribbean countries do not produce statistics on the activities of foreign affiliates.[52]

In an effort to overcome current data deficiencies in the region, the Statistical Conference of the Americas, established by the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), has identified the implementation of the newest international standard for national account statistics (SNA 2008) as a top priority through 2015.[53] The conference has established a working group on national accounts to aid national, subregional, and regional capacity-building activities, which have included, for example, a workshop on international trade in services statistics held in Brazil in 2009.

Since 2005, the Caribbean Community (CARICOM) has established a regional database on trade in services and conducted workshops to strengthen statistical expertise, funded by USAID.[54] Further, the Organization of Eastern Caribbean States recently implemented a questionnaire for businesses so that member countries could collect data according to the EBOPS categories in 2010.

Commonwealth of Independent States (CIS)

Most CIS countries have accelerated the production of services trade statistics in recent years. In 2008, all CIS countries compiled partner country data on total services cross-border exports and imports, nearly all reported trade data for the 11 broad services categories in BPM5, and a majority estimated trade data for at least some EBOPS subcategories. Although all countries compiled FDI data, none compiled FATS. At a regional capacity-building workshop on services trade data in 2008, CIS-country representatives from national statistical offices and central banks identified, in particular, the need to improve and augment services trade data in the region, especially for insurance, financial, and tourism services. Among other priorities, workshop participants advocated the strengthening of national legal and institutional frameworks to align with the UN Statistical Commission's fundamental principles of official statistics.[55]

[51] Government of Brazil, Ministry of Development, Industry and Foreign Trade, "The Brazilian Effort in Measuring Its Foreign Trade in Services," October 21, 2009.

[52] Caribbean Community (CARICOM) Secretariat, "Efforts and Developing Statistics," October 22, 2009; ECLAC, "Development of Official Statistics in Latin America and the Caribbean," December 10, 2009, 7, 12–13.

[53] ECLAC, "Report on the Activities of the Working Group on National Accounts," August 4, 2009; "Strategic Plan 2005–15," May 18, 2007, 7.

[54] CARICOM Secretariat, "Efforts and Developing Statistics," October 22, 2009. For more information on statistics on trade in services for CARICOM member states, see CARICOM, *CARICOM's Trade in Services*.

[55] UNSD, "Workshop on Statistics of International Trade in Services," October 2008.

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CHAPTER 10
Services Roundtable Summary

The Commission hosted its third annual services roundtable on December 2, 2009.[1] The roundtable comprised services sector experts from industry, government, and academia, including individuals from Citigroup, Georgetown University, and the World Bank. The principal topic of the roundtable was the impact of services trade liberalization on employment. Subtopics included the domestic employment effects of foreign direct investment in services, the role of small- and medium-sized enterprises (SMEs) in U.S. services trade, and the overall status of services trade liberalization. The discussion highlighted the urgent need for empirical analysis of the domestic employment effects of outbound services investment and the potential impact that augmenting developing countries' regulatory structures would have on their gains from liberalization.

Impact of Foreign Direct Investment on U.S. Employment

Given that the majority of services worldwide are provided by foreign affiliates, roundtable participants first discussed the importance of understanding how foreign direct investment in affiliates affects domestic employment.[2] While a positive impact on foreign employment is likely when a U.S. company establishes foreign affiliates, the effect on domestic employment is less well known. Some participants, drawing on industry experience, stated that establishing foreign affiliates positively affects both domestic and foreign employment markets, since U.S. companies employ both domestic and overseas professionals for legal, accounting, and other services when expanding abroad. Domestic employment effects, or "headquarters effects," specifically entail the management, finance, accounting, and other jobs created to direct and assist foreign affiliates. Another participant, referring to recent academic research, noted that service industries, like manufacturing industries, show a positive relationship between the establishment of foreign affiliates and domestic employment. Other participants noted that while domestic employment may be promoted through foreign direct investment, such investment is also vital to building and maintaining U.S. firms' global competitiveness. Further elaborating this point, others suggested that certain firms or industries would not exist if it were not for the ability to invest abroad, which would unambiguously decrease domestic employment.

[1] The following summary is based on a transcript of proceedings at the Commission's third annual services roundtable and reflects only the principal points made by roundtable participants. The views expressed in the summary should be considered to be those of roundtable participants and not of the Commission or the participants' respective organizations.

[2] Foreign affiliates (i.e., U.S. parent companies' majority-owned, nonbank affiliates) provide services to foreign consumers in markets outside the United States, and U.S. affiliates (i.e., foreign parent companies' majority-owned, nonbank affiliates) provide services to U.S. consumers in the U.S. market. Affiliate trade data captures data on services supplied by foreign affiliates of U.S. firms and by U.S. affiliates of foreign firms.

The Role of Small- and Medium-Sized Enterprises (SMEs) in U.S. Exports

Roundtable participants also discussed the exporting behavior of SMEs, a topic of recent Commission studies. Participants noted that partly because services trade statistics do not separately distinguish SME activity, the trade behavior of SMEs is not well understood. Participants presented various ideas regarding the dynamics of SME services exports. One participant noted that U.S. data demonstrate that small service firms are less likely to export than large service firms, attributing this to higher productivity levels found among the latter. Higher productivity drives growth and improves competitiveness by enabling firms to cover the fixed and variable costs associated with establishing a foreign commercial presence and exporting. An additional thought was that SMEs with highly skilled workers and new or unique offerings are better positioned to enter foreign markets, while SMEs with lower skills or less unique service offerings are likely to remain focused on the domestic market.

In offering their thoughts, speakers repeatedly mentioned the paucity of data on services SMEs. It was noted that certain data collection methods in the United States, intended to reduce the reporting burden on small firms, necessarily limit SME data. Participants remarked, for example, that detailed trade reporting is mandatory only for firms with export values exceeding a certain amount, whereas firms with lower export values are required to submit far less information. It was further noted that in some service industries, small firms play a large role in trade though indirect exports. For example, in the U.S. motion picture industry, there are an estimated 115,000 SMEs that contribute production and distribution services to studios that export films worldwide, but these services are not captured in official trade data.

The State of Services Trade Liberalization

Roundtable participants discussed the effectiveness of multilateral liberalization under the General Agreement on Trade in Services (GATS). Currently, there is a gap between existing GATS commitments made by developed and developing countries, with the former typically far more liberal than the latter. In addition, it was noted that in many developing countries, de facto market and regulatory practices are far less restrictive than the commitments those countries negotiated in the World Trade Organization (WTO). Liberalization undertaken since the close of the Uruguay Round in 1995 in sectors such as telecommunications, finance, and distribution services is captured neither by existing commitments nor in many cases by existing Doha Round offers. This led some participants to question the efficacy of current negotiations, though others affirmed the importance of current negotiations as effective means to ensure continued market access and regulatory predictability.

Participants agreed that addressing regulatory issues is an important challenge in international services trade. For example, participants discussed that assisting developing countries in developing regulatory structures, to achieve both regulatory reciprocity and international harmonization, could reduce the risks entailed in relaxing regional cooperation and harmonized regulations in areas within Africa. Improving regulatory practices, it was agreed, was likely something that could be pursued outside the WTO, both because the WTO has necessarily left many regulatory issues aside and because

greater regulatory expertise exists in other organizations, like the International Telecommunication Union. Roundtable participants agreed that it would be worthwhile to identify other such national or international regulatory bodies and evaluate whether their expertise could be leveraged in countries contemplating liberalization, to help develop regulatory structures and practices that would ensure that the benefits of liberalization are realized.

List of external participants at the Commission's services roundtable held on December 2, 2009

Name	Title/Affiliation
Erik Autor	Vice President, International Trade Counsel National Retail Federation
Maria Borga	Economist Bureau of Economic Analysis U.S. Department of Commerce
Sarah Donovan	International Economist Bureau of International Labor Affairs U.S. Department of Labor
Geza Feketekuty	Distinguished Professor of Commercial Diplomacy Monterey Institute of International Studies
Brad Jensen	McDonough School of Business Georgetown University
Rick Johnston	Vice President for International Government Affairs Citigroup
David Long	Services Unit International Trade Administration U.S. Department of Commerce
Aaditya Mattoo	Lead Economist Development Research Group World Bank
Christopher Melly	Deputy Assistant USTR for Services Office of the U.S. Trade Representative
Lene Skou	Deputy Director Weissman Center for International Business
Brad Smith	Vice President, International Relations American Council of Life Insurers
Sarah F. Thorn	Senior Director for Trade and Investment Walmart Stores
Anissa Whitten	Vice President of International Affairs and Trade Policy Motion Picture Association of America