A Profile of U.S. Exporters and Importers of Services

Evidence From New Linked Data on International Trade in Services and Operations of Multinational Companies

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IN CONTRAST to a large and growing deficit on trade in goods, the United States has historically run a surplus on trade in services. In 2011, a $193.5 billion surplus on trade in private services partially offset a $738.3 billion deficit on trade in goods.[1] Despite the importance of services trade and widespread interest in topics such as offshore outsourcing and recent policy initiatives aimed at boosting U.S. exports, little information about an important group of U.S. exporters—firms that trade in private services—is publicly available.

This article presents summary information about U.S. firms that trade in services—both exporters and importers—through the use of a new data set that combines data on cross-border trade in services from surveys administered by the Bureau of Economic Analysis (BEA) with data on the operations of multinational companies (MNCs) for 2008, the most recent year for which final data are available for MNCs.[2] Linking these data was necessary to compile information about the characteristics of MNCs engaged in international trade in services because BEA's surveys of trade in services do not collect operating data, such as employment, sales, or value added. Information from the newly linked data set can answer questions about the characteristics of firms that trade in services that may be used to inform policymakers and to enable new research.[3]

In 2008, trade in the services that are covered by BEA surveys and included in this study—financial services; insurance; royalties and license fees; telecommunications; and business, professional, and technical (BPT) services (excluding medical services)—totaled $302.3 billion in exports and $195.6 billion in imports (table A).[4] These services, which represent most U.S. international services transactions by businesses (excluding transactions related to passenger and freight transportation), accounted for more than half of total private services exports and imports. The surplus on trade in services covered by this study, $106.7 billion, accounted for nearly three-quarters of the $148.3 billion U.S. surplus on private services trade in 2008.

This analysis of international trade in services based on new linked data yields several key findings:

- Trade in the services covered in this article account for a substantial share of the overall surplus on U.S. private services trade. In 2008, much of the $106.7 billion surplus was attributable to U.S. parent companies, and the remainder was due to non-MNCs. In contrast, U.S. affiliates had a deficit on trade in services, mainly due to their large imports of insurance and to a lesser extent, BPT services and royalties and license fees.
- Firms in industries that are typically associated with the production or sales of goods are significant services exporters and importers. Manufacturing was among the largest sectors that exported and imported services and MNCs dominated trade by

1. Private services exclude service transactions by the U.S. government, including the military.

2. See the box "Linking BEA Surveys on International Trade in Services with Surveys on Operations of MNCs."

3. See the box on "Using the Linked Data for Research on International Trade in Services and MNCs."

4. In this article, the terms *total exports*, *total imports*, and *total trade in services* are used to refer to total exports or imports of the services covered by this study, which are based on data collected by BEA on its surveys. For more information on these surveys, see the box "BEA Surveys of International Trade in Services and Direct Investment."

Table A. U.S. Trade in Private Services, 2008

[Millions of dollars]

	Exports	Imports	Balance
Total private services [1]	519,540	371,196	148,344
Of which:			
Covered private services [2]	302,303	195,555	106,748

1. As published in international transactions accounts table 3.
2. Includes all private services covered by BEA surveys and included in this study: royalties and license fees; financial services; insurance; telecommunications; and business, professional, and technical services (except medical services).

manufacturing firms. Trade in services by manufacturers largely consisted of transactions related to the use or creation of intellectual property as well as to the provision of headquarters and support services or the allocation of expenses. For exports and imports, royalties and license fees (especially industrial processes and trademarks) and BPT services (especially "management and consulting" and "research and development (R&D) and testing") were the largest categories of services traded, and most of the trade was attributable to affiliated transactions.

- MNCs are important services traders, accounting for a substantial portion of both affiliated and unaffiliated trade in services. U.S. parents accounted for a larger portion of trade than U.S. affiliates, both overall and for most types of services.[5] U.S. parents tend to have larger transactions and trade with more countries, whereas U.S. affiliates generally traded with fewer countries, and much of their trade was limited to transactions with members of their foreign parent group.
- The prevalence of MNCs' two-way transactions in "royalties and license fees" and "R&D and testing" services indicates that innovative activities are being carried out across locations and not just at the firm headquarters. Trade in management and consulting services was also common among both U.S. parents and U.S. affiliates for both exports and imports, reflecting the importance of costs or business functions that are centralized in one location but that may benefit other parts of the firm. In some cases, these transactions reflect allocated expenses; in others, they reflect headquarters services that are carried out by one unit for another affiliated unit.
- U.S. parents and U.S. affiliates dominated trade in both financial and insurance services. For financial services, much of the trade was with unaffiliated parties. For insurance, much of the trade was due to reinsurance, which is used extensively by large insurers to manage concentrated risks. Other factors that may affect U.S. demand for reinsurance from abroad include tax and regulatory policies and the fact that major reinsurance centers are primarily located outside the United States, particularly in the United Kingdom, Switzerland, Germany, and Bermuda.
- Transactions by non-MNCs were much smaller than those by MNCs for all but a few types of services, including financial services and various types of BPT services, including legal and "computer and information" services.
- Affiliated transactions dominated MNCs' trade in many services, especially BPT services and "royalties and license fees." Affiliated trade tended to be more important for U.S. affiliates than for U.S. parents, especially for imports. On average, over 80 percent of U.S. affiliates' imports were from affiliated parties, but just over half of U.S. parents' imports were affiliated. Although many of the same services tended to be dominated by affiliated trade—such as "R&D and testing" and industrial engineering—the affiliated shares tended to be lower for U.S. parents, which appeared to make more use of outsourced unaffiliated services than did U.S. affiliates. The same was true for exports, but the differences were much narrower, both overall and among service types. Among both U.S. parents and U.S. affiliates, exports of several types of services—including advertising, management and consulting, and accounting and related services—tended to be to affiliated parties. Transactions in these services mainly reflect allocated expenses or headquarters and support services provided among units of the MNC.
- Many small firms engage in services trade, but large firms dominate the value of services trade. Although their share of the total number of service traders tends to be small, large and very large firms account for most of the value of services trade. The extent to which service trade was concentrated among large firms was similar to patterns observed for goods traders. This was particularly evident for U.S. parents and, to a lesser extent, U.S. affiliates. By industry, small affiliates tended to garner the largest share of total exports or imports in finance and insurance. In this sector, small firms—in terms of number of employees—could be large traders because a small number of employees can execute large-valued transactions.

The remainder of this article has two sections. The first section presents general information on all U.S. firms that engage in international trade in services and on the subset of firms that are not MNCs. The second section examines in more detail the characteristics of MNCs that export and import services using data from BEA's surveys of the operations of MNCs. This section discusses the trade in services of U.S. parents and majority-owned U.S. affiliates by their primary industry of activity, by affiliation of transactors, by partner

5. A U.S. parent is a U.S. resident that owns at least 10 percent, directly or indirectly, of a foreign business enterprise, which is called a foreign affiliate. A U.S. affiliate is a U.S. business enterprise that is owned, directly or indirectly, at least 10 percent by a foreign resident, which is the foreign parent. A U.S. parent is also a U.S. affiliate if the U.S. parent is in turn owned 10 percent or more by a foreign company.

countries, by size, and in comparison to their goods trade.

All U.S. Services Traders

U.S. exporters and importers of services covered in this study were classified in a variety of industries, including those that are not generally associated with services, including manufacturing.[6] This section uses information from BEA's trade in services surveys to examine the trade by industry of all U.S. firms that trade services and the role of the subset of those firms that are not MNCs in services trade.

Trade in services by industry

Finance and insurance firms were the largest exporters and importers of services in 2008. Firms classified in manufacturing were the second leading exporters and importers of services (table B). Much of the trade in manufacturing was related to intellectual property and to headquarters and support services.

Exports. In 2008, "finance and insurance" and manufacturing firms were the largest services exporters: each accounted for about one-quarter of total exports. Within finance and insurance, firms classified in finance accounted for about three-quarters of exports. Exports by the finance and insurance sector mainly consisted of financial services and, to a lesser extent, business, professional, and technical (BPT) services and insurance.

Within manufacturing, exporters were spread across industries but two industries in which intellectual property is particularly important—chemicals manufacturing and transportation equipment manufacturing—together accounted for more than half of services exported by manufacturing firms. Firms classified in manufacturing primarily produce goods, but they may have sizable services transactions related to intellectual property that they hold, support services that they provide to affiliated parties, and/or secondary activities in services industries.

The next largest services exporting sector was information, which was led by firms in publishing and in broadcasting. Royalties and license fees, especially for software and film and TV tape distribution, was the largest category of exports for firms in information. Exports of telecommunications services were also substantial.

Imports. Imports of services were largest for the finance and insurance sector, which accounted for more than a third of the total. Firms classified in manufacturing were the next largest importers by sector, accounting for about a quarter of services imports.

Within finance and insurance, insurers accounted for the large majority of imports. Insurers mainly imported insurance services, especially reinsurance. Large imports of reinsurance reflect insurers' efforts to pool and mitigate their risks, particularly if their risk exposure is concentrated in a particular geographic area or type of hazard. Large reinsurance imports also reflect that the big reinsurance centers are located abroad, particularly in the United Kingdom, Switzerland, Germany, and Bermuda. Tax

6. BEA surveys of international services transactions are conducted at the enterprise level; a reporting entity's industry classification is based on the industry that best describes the entity's major activity. Thus, entities classified in a particular industry could have activities in a variety of other industries. For example, a firm classified in computer equipment manufacturing may have secondary activities in computer systems design and related services.

Table B. Trade in Services by Major Industry, 2008

[Millions of dollars]

	Total	Financial services	Insurance	Royalties and license fees	Telecommunications	Business, professional, and technical services[1]					
						Total	Computer and information	Management and consulting	Research and development and testing	Operational leasing	Other
Exports											
All industries	302,303	63,027	13,403	102,125	9,999	113,750	13,120	29,708	17,345	7,728	45,849
of which:											
Manufacturing	77,594	(D)	(D)	40,626	184	35,903	2,784	9,741	8,702	632	14,044
Information	51,359	(D)	(D)	31,201	9,454	(D)	4,029	2,555	(D)	(D)	1,925
Finance and insurance	78,995	55,548	10,641	(D)	(D)	12,316	1,049	5,183	(D)	(D)	(D)
Professional, scientific, and technical services	38,527	(D)	(D)	14,448	(D)	23,991	3,169	4,005	3,498	0	13,318
Imports											
All industries	195,555	17,218	58,913	29,623	7,761	82,039	16,895	22,766	16,322	1,680	24,376
of which:											
Manufacturing	51,420	931	1,569	15,941	115	32,865	1,935	8,809	9,896	111	12,114
Information	25,061	(D)	(D)	6,822	7,171	10,975	(D)	4,259	2,237	(D)	2,849
Finance and insurance	73,281	15,130	50,778	195	79	7,099	1,854	4,080	(D)	(D)	1,099
Professional, scientific, and technical services	19,322	(D)	(D)	1,530	(D)	(D)	(D)	2,697	2,085	(D)	2,950

D Suppressed to avoid disclosure of data of individual companies.
1. For this article, business, professional, and technical services excludes medical services.

and regulatory policies may also affect U.S. demand for reinsurance.

In manufacturing, service importers were spread across industries, but, like exports, imports were largest for industries in which intellectual property is particularly important, such as chemicals manufacturing and transportation equipment manufacturing. By type of service, BPT services were the largest for manufacturers; imports of "R&D and testing services" and "management and consulting" services were the largest components. Royalties and license fees, mainly payments for the use of industrial processes and trademarks, was the next largest type of service imported by firms in manufacturing.

The role of non-MNCs in services trade

By linking BEA's surveys of trade in services to its surveys of the operations of MNCs, the transactions of firms that are not MNCs can be identified. Overall, non-MNCs accounted for $53.2 billion of exports and $33.1 billion of imports, resulting in a surplus of $20.1 billion (table C). While it is possible to separately identify transactions of non-MNCs at an aggregate level, detailed information by type of service (as in table D) cannot be presented for these firms due to confidentiality concerns that arise from the overlap between U.S. parents and U.S. affiliates in cases where a U.S. parent is owned by a foreign MNC.

Exports. The largest exports by non-MNCs were financial services and BPT services. Within BPT services, non-MNCs were especially important exporters of legal services and architectural, engineering, and other technical services.

Compared with MNCs, non-MNCs were smaller exporters. The average value of exports per non-MNC was $17 million compared to $233 million per U.S. parent and $64 million per U.S. affiliate. In addition, non-MNCs traded, on average, with fewer countries (12 countries) than U.S. parents (21 countries) but more than U.S. affiliates (9 countries). Among non-MNCs, about a third traded with just one country (chart 1). Non-MNCs also typically exported only one type of service, compared with U.S. parents and U.S. affiliates, which exported three types of service on average. Among non-MNCs, 90 percent exported just one type of service, compared with roughly half of U.S. parents and two-thirds of U.S. affiliates (chart 2).

Imports. Non-MNCs were important importers of BPT services, especially computer and information services, management and consulting services, R&D and testing services, as well as insurance. Similar to exports, the average value of services imports per non-MNC ($12 million) was less than that for U.S. parents ($176 million) and that for U.S. affiliates ($65 million). In addition, non-MNCs traded with 8 countries on average, fewer than U.S. parents (16 countries), but more than U.S. affiliates (5 countries). Among non-MNCs, 82 percent imported only one type of service, compared with 50 percent of U.S. parents and 56 percent of U.S. affiliates.

Table C. MNC and Non-MNC Trade, 2008
[Millions of dollars]

	Exports	Imports	Balance
Total	302,303	195,555	106,748
MNC	249,133	162,480	86,653
Non-MNC	53,170	33,075	20,095

MNC Multinational company
NOTE. The total for MNCs removes the overlap that occurs when a U.S. parent is, in turn, owned 10 percent or more by a foreign company. In 2008, total exports for firms that were both a U.S. parent and a foreign-owned U.S. affiliate (both majority owned and minority owned) were $26.3 billion, and imports were $33.2 billion.

Table D. Trade in Services by Type of Service and Type of Firm, 2008
[Millions of dollars]

	Exports			Imports		
	All firms	U.S. parents	U.S. affiliates[1]	All firms	U.S. parents	U.S. affiliates[1]
Total	302,303	219,487	51,926	195,555	121,662	70,235
Financial	63,027	41,573	7,757	17,218	13,271	1,901
Insurance	13,403	9,559	5,052	58,913	33,880	30,334
Royalties and license fees	102,125	91,937	7,186	29,623	16,520	16,715
Telecommunications	9,999	5,405	3,063	7,761	3,901	2,620
Business, professional and technical[2]	113,750	71,012	28,868	82,039	54,090	18,665
of which:						
Computer and information	13,120	9,615	1,575	16,895	10,360	3,871
Management and consulting	29,708	19,663	10,257	22,766	14,478	8,537
Research and development and testing	17,345	9,392	7,123	16,322	11,856	3,190
Advertising	4,256	3,223	822	2,079	1,810	123
Architectural, engineering, and other technical	5,793	1,865	1,043	1,049	730	201
Installation, maintenance, and repair	10,019	5,427	847	5,742	3,968	344
Legal	7,317	1,902	135	1,918	1,196	139

NOTE. Throughout this article, statistics are presented separately for U.S. parents and for majority-owned U.S. affiliates; the statistics are not adjusted for the double-counting that happens when a firm is both a U.S. parent and a majority-owned U.S. affiliate, which can occur when a U.S. parent is, in turn, owned more than 50 percent by a foreign company. In such cases, exports and imports of services are included in the statistics for U.S. parents and for majority-owned U.S. affiliates. In 2008, total exports for firms that were both a U.S. parent and a majority-owned U.S. affiliate were $23.2 billion, and imports were $31.1 billion. The overlap can be removed in the aggregate statistics, but not by type of service due to confidentiality concerns.
1. The term "U.S. affiliates" is used throughout this article to refer to majority-owned U.S. affiliates. In 2008, exports of services by minority-owned U.S. affiliates totaled $4.0 billion and imports totaled $3.7 billion.
2. For this article, business, professional and technical services excludes medical services.

MNCs that Export and Import Services

U.S. parents exported $219.5 billion of services in 2008 and imported $121.7 billion, resulting in a trade surplus of $97.8 billion. Majority-owned U.S. affiliates exported $51.9 billion of services and imported $70.2 billion, resulting in a trade deficit of $18.3 billion (table D).[7]

MNCs are important traders for a number of reasons. First, services that relate to the use or creation of intellectual property, such as “royalties and license fees” and “R&D and testing services,” are typically traded among affiliated parties, thus the transactions will be concentrated among MNCs. Second, certain business functions or expenses may be centralized at particular units of an MNC but may benefit other units, which gives rise to transactions for headquarters services provided by parents to affiliates or for support services provided by affiliates to parents. Third, MNCs are typically large firms, and for many types of services, trade tends to be concentrated in the largest firms. Lastly, by definition, MNCs are connected to international markets, which makes them more likely to trade both goods and services. However, U.S. affiliates tend to be smaller exporters and importers of services than U.S. parents because the aim of U.S. affiliates in most services industries is to access and serve the U.S. market.[8] Furthermore, transactions for the provision of headquarters services or charges for allocated

7. In this article, the focus is on majority-owned affiliates rather than all U.S. affiliates because more detailed information is available about them and because a majority ownership stake implies a greater degree of control by the foreign parent.

8. The term “U.S. affiliates” is used for the remainder of this article to refer to majority-owned U.S. affiliates.

Chart 1. Number of Trading-Partner Countries by Firm Type, 2008

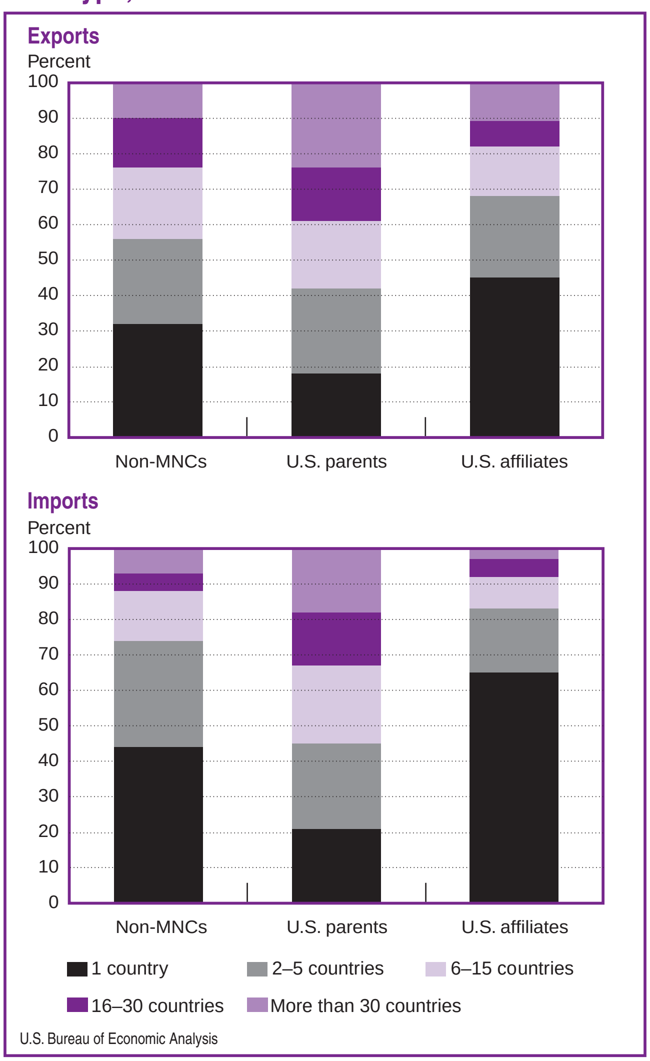
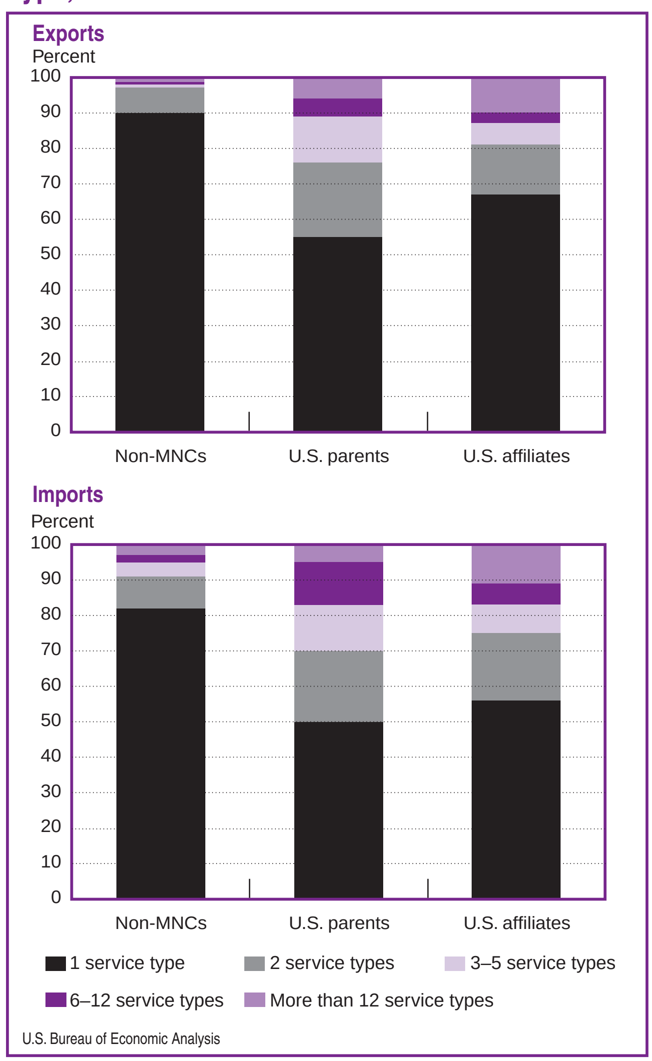


Chart 2. Number of Service Types Traded by Firm Type, 2008



expenses, which are charged for overhead costs incurred at one unit but beneficial to all units, would more likely result in exports by a multinational parent than by an affiliate.

This section examines the trade in services of U.S. parents and of U.S. affiliates by industry, by affiliation of the transactors, by partner country, by firm size, and in comparison with their trade in goods.

U.S. parents

In 2008, U.S. parents accounted for 73 percent of exports and 62 percent of imports of services covered in this article. While U.S. parents' trade in services accounted for a majority of U.S. services trade, they were small compared to other measures of their operations. U.S. parents' exported services were only 2.4 percent of their sales and their imported services were just 1.8 percent of their purchased inputs.[9] Comparing production with international purchases of services, U.S. parents contributed nearly $21 of value added to the U.S. economy for every dollar of services that they imported. Overall, U.S. parents exported about $10,000 of services and imported nearly $5,000 of services per employee.

By industry

Manufacturing was among the top sectors that export and import services, largely due to transactions related to intellectual property and intrafirm trade in headquarters and support services.

Exports. The largest exporters of services by industry were firms classified in manufacturing, which accounted for nearly a third of total exports (table E). Within manufacturing, U.S. parents classified in chemicals manufacturing and in transportation equipment manufacturing were the largest services exporters. In both of these industries, intellectual property forms an important part of firms' competitive advantage, which gives rise to transactions in "royalties and license fees" and "R&D and testing services" (included in business, professional, and technical (BPT) services). U.S. parents' exports of R&D and testing services reflect both services performed by one unit for another and allocated expenses related to the firm's R&D. Due to the sensitive nature of intellectual property with respect to firms' competitiveness, it is common for firms to keep their intellectual property within the firm, using foreign affiliates to exploit their intellectual property abroad rather than licensing it to unaffiliated parties. In addition, exports of management and consulting services are also significant. Management and consulting services exports between affiliated parties tend to be substantial and reflect both allocated expenses and headquarters services that may be carried out on behalf of foreign affiliates. More than three-quarters of exports by manufacturing parents were to affiliated parties.

The next largest services exporting sector was finance and insurance, which accounted for 26 percent of U.S. parents' exports. Exports of financial services, especially to unaffiliated persons, composed the major part of exports for the sector. By type of financial service, the largest exports were of securities services, which consist of brokerage services, underwriting and private placement services, and management and advisory services. For both insurance and financial services, the dominant role of U.S. parents is likely a reflection of their size, prominent market position, and international presence.

Imports. U.S. parents classified in finance and insurance accounted for 40 percent of total U.S. parents' imports. Like exports, the vast majority of services imports for the finance and insurance sector were unaffiliated transactions. Imports of insurance, especially reinsurance, accounted for the largest part of imports. Latin America and Other Western Hemisphere and Europe were the main sources of imports, reflecting the location of large reinsurance centers in those locations.

Table E. U.S. Parents' Trade in Services and in Goods, by Major Industry and Firm Size, 2008

[Millions of dollars]

	Services		Goods	
	Exports	Imports	Exports	Imports
All U.S. parents	219,487	121,662	553,658	708,706
Small and medium firms	8,596	6,004	29,466	23,951
Large and very large firms	210,890	115,658	524,192	684,755
Manufacturing	69,653	40,012	474,718	523,677
Small and medium firms	762	613	18,922	10,601
Large and very large firms	68,891	39,399	455,797	513,076
Wholesale and retail trade	16,223	4,976	56,275	175,755
Small and medium firms	192	137	8,990	13,073
Large and very large firms	16,031	4,838	47,285	162,682
Information	40,436	14,129	2,073	1,092
Small and medium firms	1,205	326	415	(D)
Large and very large firms	39,231	13,802	1,658	(D)
Finance and insurance	57,632	48,953	(D)	(D)
Small and medium firms	5,163	4,587	(D)	(D)
Large and very large firms	52,468	44,366	(D)	(D)
Professional, scientific, and technical services	20,761	10,079	(D)	(D)
Small and medium firms	253	48	(D)	(D)
Large and very large firms	20,507	10,031	(D)	(D)
All other industry sectors	14,782	3,513	(D)	(D)
Small and medium firms	1,021	292	(D)	(D)
Large and very large firms	13,762	3,222	(D)	(D)

D Suppressed to avoid disclosure of data of individual companies.

9. Inventory change data for U.S. parents are not available. Therefore, U.S. parents' measure of purchased inputs, calculated as sales minus value added, includes inventory change. However, the value of inventory change, compared with the value of sales and shipments, is very small. For example, in the Census Bureau 2010 Annual Survey of Manufactures, inventory change accounted for less than 1 percent of total shipments in 2009 and 2010.

The next largest importers of services were firms classified in manufacturing, which accounted for a third of imports. U.S. parents classified in transportation equipment manufacturing and chemicals manufacturing were the largest importers of services within the manufacturing sector. The largest category of services was BPT services, which were broadly based by type of service, with the largest imports attributable to "R&D and testing services" and "management and consulting services." Like U.S. parents' exports of BPT services, especially management and consulting services, imports of these services may reflect allocated expenses incurred at one unit and spread among others, as well as support services carried out for another unit, in this case, services performed by an affiliate for the U.S. parent. U.S. imports of R&D and testing services reflect reimbursement of affiliates for their R&D expenses, cost-sharing arrangements for the development of new technology by affiliates, or payments for services provided to the parent. A substantial amount of R&D is conducted by the foreign affiliates of U.S. MNCs in order to better meet local demand or to benefit from proximity to new sources of knowledge or talent.[10] In 2008, 17 percent, or $41.7 billion, of U.S. MNCs' total worldwide R&D expenditures were performed by affiliates. Royalties and license fees were the second largest category of services imported by U.S. parents in manufacturing; payments related to industrial processes were the largest component.

By affiliation

Affiliated trade accounted for 52 percent of exports and 45 percent of imports (table F). As expected, affiliated trade in services by U.S. parents was almost entirely between parents and their foreign affiliates, accounting for 94 percent of affiliated services exports and 80 percent of affiliated services imports and resulting in a surplus of $62.4 billion. Trade with the foreign parent groups accounted for just 3 percent of total services exports and 9 percent of total services imports.[11] In contrast to trade with foreign affiliates, trade with the foreign parent groups ran a small deficit of $3.6 billion.

Exports. For every type of service except financial services, trade was predominately with affiliated parties on average (chart 3).[12] On average, accounting services were almost entirely exported to affiliated parties, and more than 90 percent of mining, performing arts, management and consulting, and trade-related services exports were to affiliated parties. Financial services, with 19 percent, and computer and information services, with 63 percent, had the lowest shares of affiliated trade.

10. See Kevin B. Barefoot and Raymond J. Mataloni Jr., "U.S. Multinational Companies: Operations in the United States and Abroad: Preliminary Results from the 2009 Benchmark Survey," Survey of Current Business 91 (November 2011): 29–55.

11. The foreign parent group of a U.S. affiliate consists of (1) the foreign parent, (2) any foreign person, proceeding up the foreign parent's ownership chain who owns more than 50 percent of the person below it, up to and including the ultimate beneficial owner, and (3) any foreign person proceeding down the ownership chains of each of these members that is owned more than 50 percent by the person above it.

12. Insurance services are not included in the discussion or in charts 3 and 4 because all insurance transactions, even those between affiliated companies, are deemed to be with unaffiliated parties because the services are deemed to be provided to policyholders who pay insurance premiums and are not affiliated with either company. This treatment is consistent with BEA's treatment of insurance in published services statistics and in the International Transactions Accounts. However, insurance services are included in the aggregate "all services" line and contributed to its lower share of affiliated trade than most individual services.

Table F. U.S. Parents' Exports, Imports, and Balance on Trade in Services and Goods, 2008

[Millions of dollars]

	Services			Goods		
	Exports	Imports	Balance	Exports	Imports	Balance
Total	219,487	121,662	97,824	553,658	708,706	–155,048
Unaffiliated	106,340	67,329	39,010	277,011	310,201	–33,190
Affiliated	113,147	54,333	58,814	276,647	398,505	–121,858
of which:						
with foreign affiliates	106,104	43,682	62,422	227,586	272,604	–45,018
with foreign parent group	7,043	10,651	–3,608	49,061	125,901	–76,840
	Shares (percent)					
Total	100	100	100	100	100	100
Unaffiliated	48	55	40	50	44	21
Affiliated	52	45	60	50	56	79

Using the Linked Data for Research on International Trade in Services and MNCs

The link between BEA surveys on international trade in services and on the operations of multinational companies (MNCs) is a valuable resource for researchers. Several projects that use the linked data are currently underway at BEA. One project considers patterns of international trade in research and development (R&D) and testing services with respect to R&D activities carried out at MNCs. Another analyzes U.S. services imports from affiliates with respect to the productive resources available at the foreign affiliates of multinational companies. Planned research includes a project to assess international transactions related to intellectual property with respect to patterns in the returns to those assets and the resources used to produce them in U.S. MNCs. Other projects aim to examine the choice of serving foreign markets via affiliates or through cross-border transactions for services as well as trends in the characteristics of service traders.

Most affiliated trade consisted of transactions with foreign affiliates. On average, R&D exported to the foreign parent group accounted for about a quarter of parents' exported R&D services, which was the largest share for all U.S. parents' exports to the foreign parent group by type of service.

Imports. The average share of U.S. parents' imports with affiliated parties varied more by type of service than it did for their exports (chart 4). On average, about 70 percent of management and consulting services, but only 24 percent of legal services, were imported from affiliated parties.

For several services, affiliated transactions accounted for the majority of the average composition for both exports and imports, including management and consulting, R&D and testing, performing arts, industrial engineering, construction, and architectural and engineering services. The majority of trade in financial services was unaffiliated for both exports and imports. The share with unaffiliated parties was much higher for imports than for exports for legal, mining, accounting, operational leasing, advertising, training, and telecommunications services.

On average, most of U.S. parents' affiliated imports were from their foreign affiliates. Imports from the foreign parent group for management and consulting services accounted for an average of about 20 percent of parents' imports of those services, which was the largest average share for all of U.S. parents' imports from the foreign parent group by type of service.

Chart 3. Average Composition of U.S. Parents' Exports by Type of Service and Affiliation, 2008

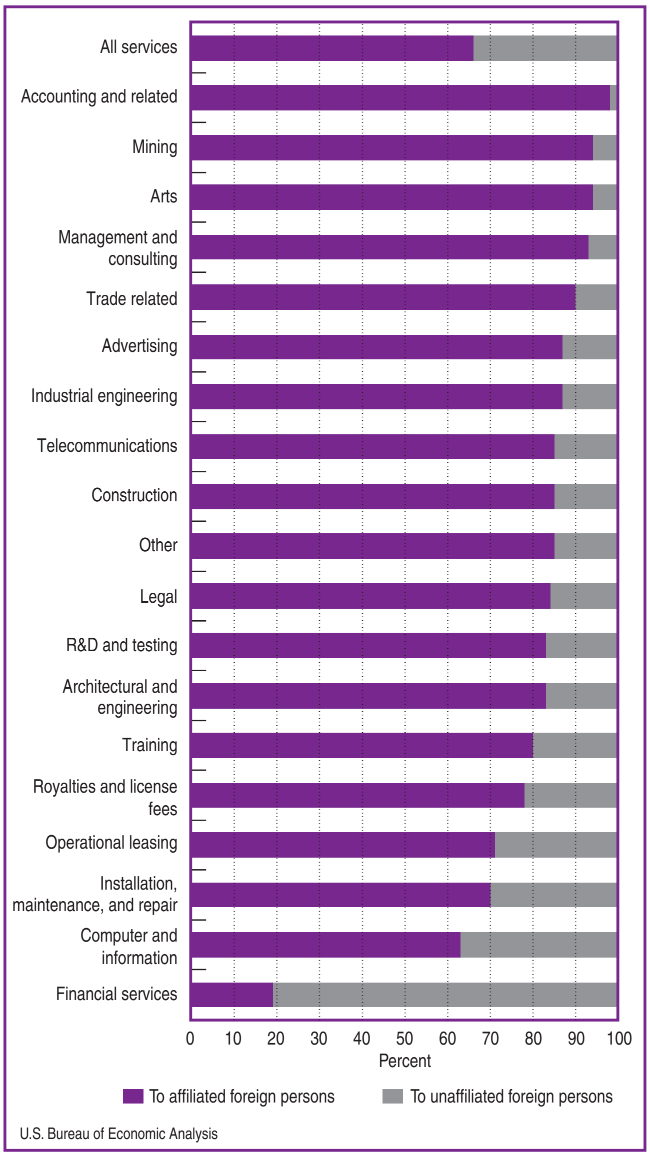
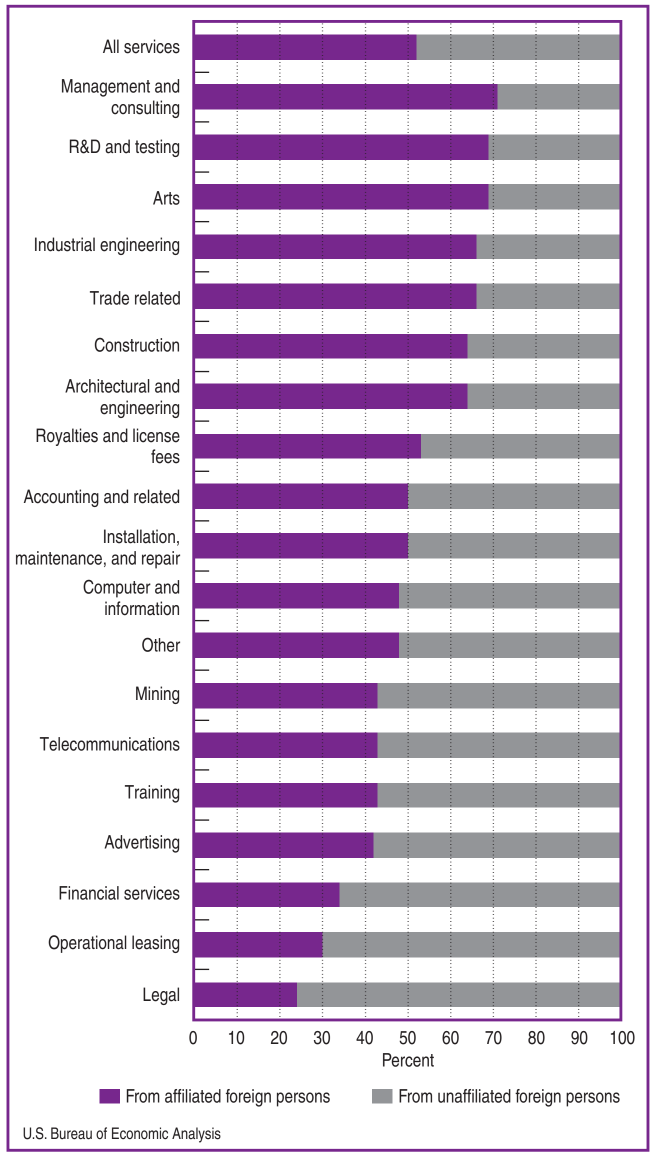


Chart 4. Average Composition of U.S. Parents' Imports by Type of Service and Affiliation, 2008



By partner country

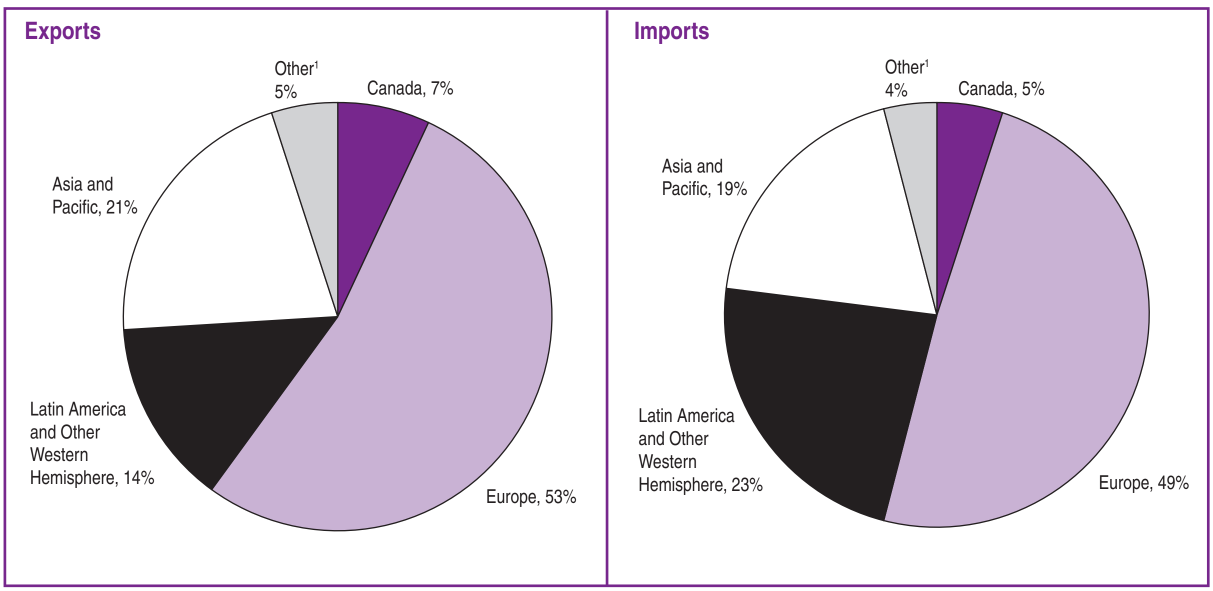
The majority of U.S. parents' trade in services was with Europe, for both exports and imports; more than 75 percent of U.S. parents that traded services traded with Europe. By major region of partner country, the distribution of U.S. parents' exports and imports was consistent with the distribution of total trade in services covered by this study.

Exports. Europe was the top destination for U.S. parents' services exports, accounting for 53 percent of total U.S. parents' exports (chart 5). By affiliation, 59 percent of U.S. parents' services exports to Europe consisted of affiliated trade. (Full detail on trade by destination and by affiliation are not shown to protect the confidentiality of the data.)

The next largest destination was Asia and Pacific, which accounted for 21 percent of total U.S. parents' services exports. More than two-thirds of parents exported to Asia and Pacific, and 42 percent of exports were to affiliated parties.

Latin America and Other Western Hemisphere accounted for 14 percent of total U.S. parents' services

Chart 5. Trading Partners of U.S. Parents by Major Area, 2008



1. Other includes Africa, Middle East, and unallocated.

U.S. Bureau of Economic Analysis

Linking BEA Surveys on International Trade in Services with Surveys on Operations of MNCs

The U.S. Bureau of Economic Analysis conducts a series of surveys to collect information on trade in international services and on the operations of multinational companies. The data collection system for international trade in services, including the unique firm identifiers in each data set, differs from that for the operations of multinational companies.

The project to link these data sets is the first of its kind conducted at the BEA in terms of scope. The project covered all three of the major surveys of international trade in services—the financial services surveys, insurance surveys, and selected services and transactions in intellectual property surveys—as well as surveys of the operations of both U.S. parents and U.S. affiliates. Previous projects had linked the insurance survey to the U.S. parent survey and the selected services and transactions in intellectual property surveys to the U.S. parent survey. This project expands on the previous efforts to link the two sets of surveys for 2006–2008 and aims to include 2009 as well.

The surveys were linked via a series of "bridge" files that identified common reporters in each survey through a multistep process. First, reporters were linked by employer identification numbers (EINs), which are collected on most BEA surveys and are used for reporting on U.S. tax forms. Among those firms not linked by an EIN, a second phase attempted to link reporters by their standardized names, which incorporate standard naming conventions. This step required particularly careful review because of its tendency to produce false matches, which were removed. Finally, large unmatched international services transactors, especially those that indicated that they had affiliated exports or imports, were reviewed to determine if a match should exist but was not identified in the earlier procedures. The overall quality of the link was good and resulted in a high degree of coverage by linked entities overall and particularly among affiliated transactions.

exports. About 60 percent of parents exported to Latin America and Other Western Hemisphere. By affiliation, the value of U.S. parents' exports with Latin America and Other Western Hemisphere was almost evenly split between affiliated parties and unaffiliated parties.

Imports. Like exports, European firms accounted for the largest share, 49 percent, of U.S. parents' imports of services. By affiliation, the value of U.S. parents' imports from Europe was almost evenly split between trade with affiliated parties and unaffiliated parties. (Full detail on trade by origin and by affiliation are not shown to protect the confidentiality of the data.)

Latin America and Other Western Hemisphere accounted for the next largest share, 23 percent, of total U.S. parents' imports. About half of U.S. parents traded with Latin America and Other Western Hemisphere. Unlike exports, imports from the region were overwhelmingly from unaffiliated parties.

Asia and Pacific accounted for 19 percent of total U.S. parents' imports. More than 60 percent of U.S. parents traded with Asia and Pacific. By affiliation, about two-thirds of imports were from affiliated parties.

By firm size

In 2008, about 40 percent of U.S. parents exported services, 30 percent of U.S. parents imported services, and almost a quarter of U.S. parents both exported and imported services. The tendency to engage in services trade and the value of services traded by U.S. parents increased with firm size as measured by employment (table G). Of the 535 small U.S. parents (those parents with up to 500 employees), about 20 percent exported services, and 13 percent imported services; in contrast, of the 401 very large U.S. parents (those with more than 10,000 employees), 68 percent exported services, and 57 percent imported services. In addition, the number of partner countries and the number of service types traded also increased with size. Smaller parents tended to trade fewer types of services with fewer partner countries than larger parents.

Exports. Very large U.S. parents and large U.S. parents (those with 1,001–10,000 employees) and very large U.S. parents accounted for almost four-fifths of U.S. parent exporters and for 96 percent of U.S. parents' total exports. By sector, U.S. parents in manufacturing accounted for almost half of large and very large exporters, but only about a third of their exports. Within the manufacturing sector, chemicals, transportation equipment, computers and electronic products, and machinery were the leading exporting industries. Large and very large manufacturing parents primarily exported royalties and license fees, management and consulting services, R&D and testing, and installation, maintenance, and repair services, which combined accounted for over 80 percent of total exported services.

Finance and insurance parents accounted for 13 percent of the total number of large and very large exporters and accounted for a quarter of the value of the industry's services exports. About two-thirds of services exported by large and very large finance and insurance parents were financial services, insurance, operational leasing, and management and consulting services. Information parents accounted for 10 percent of the total number of large and very large exporters and accounted for 19 percent of services exports. Over 70 percent of exported services by large and very large information parents were royalties and license fees, followed distantly by telecommunications.

While large and very large U.S. parents dominated

Table G. U.S. Parents' Trade in Services and Goods and Other Selected Measures by Employment Size, 2008

	Total number of firms	Services				Goods				Employment (thousands)	Sales	Value added	Purchased Inputs[1]
		Number of firms		Value (millions of dollars)		Number of firms		Value (millions of dollars)					
		Exporters	Importers	Exports	Imports	Exporters	Importers	Exports	Imports		Millions of dollars		
All U.S. parents	2,197	911	665	219,487	121,662	1,283	1,093	553,658	708,706	22,273	9,274,878	2,500,543	6,774,335
Small and medium firms	809	196	129	8,596	6,004	449	377	29,466	23,951	456	321,608	67,846	253,762
0-500 employees	535	108	72	2,134	1,567	271	231	15,151	12,150	189	170,810	31,216	139,593
501-1,000 employees	274	88	57	6,462	4,437	178	146	14,315	11,802	267	150,799	36,630	114,169
Large and very large firms	1,388	715	536	210,890	115,658	834	716	524,192	684,755	21,818	8,953,270	2,432,697	6,520,572
1,001-10,000 employees	987	444	307	55,267	28,477	634	524	170,876	150,684	3,989	2,084,561	555,891	1,528,670
More than 10,000 employees	401	271	229	155,624	87,181	200	192	353,316	534,071	17,829	6,868,709	1,876,807	4,991,902
	Shares (percent)												
All U.S. parents	100	100	100	100	100	100	100	100	100	100	100	100	100
Small and medium firms	37	22	19	4	5	35	34	5	3	2	3	3	4
0-500 employees	24	12	11	1	1	21	21	3	2	1	2	1	2
501-1,000 employees	12	10	9	3	4	14	13	3	2	1	2	1	2
Large and very large firms	63	78	81	96	95	65	66	95	97	98	97	97	96
1,001-10,000 employees	45	49	46	25	23	49	48	31	21	18	22	22	23
More than 10,000 employees	18	30	34	71	72	16	18	64	75	80	74	75	74

1. Inventory change data are not available for U.S. parents. Therefore, U.S. parents' measure of purchased inputs, calculated as sales minus value added, includes inventory change. However, the value of inventory change compared to sales and shipments is very small. For example, in the Census 2010 Annual Survey of Manufactures, inventory change accounted for less than 1 percent of total shipments for manufacturing in 2009 and 2010.

service exports, exported services by large and very large U.S. parents were only 2.4 percent of their sales. Exports of services were 2.7 percent of sales of small U.S. parents and medium (those with 501–1,000 employees) U.S. parents. Small and medium firms tended to export more per employee, about $19,000 worth of services per employee, than did large and very large parents, about $10,000 worth of services per employee.

Small and medium parents each accounted for about 10 percent of the total number of exporters but accounted for less than 5 percent of parents' total exported services. Small and medium parents were primarily in manufacturing, which accounted for 44 percent of exporters but only 9 percent of the value of small and medium parents' exports. Companies in finance and insurance accounted for 60 percent of exports by small and medium parents.

Smaller firms tended to trade with fewer countries (chart 6). By employment size, about 65 percent of small parents exported to 5 or fewer countries, while about 16 percent exported to more than 15 countries. In contrast, 57 percent of very large parent companies exported to more than 15 countries.

Smaller firms also tended to trade in fewer types of services than the largest firms (chart 7). By employment size, about 76 percent of small parents exported one or two types of services, while 24 percent exported more than two types. In contrast, 64 percent of very large parents exported one or two types, while 36 percent exported more than two types.

Imports. Similar to exports, large and very large U.S. parents accounted for four-fifths of U.S. parent importers and 95 percent of total imports. By sector, U.S. parents in manufacturing accounted for 48 percent of large and very large importers and 34 percent of

Chart 6. Number of Partner Countries of U.S. Parents by Employment Size, 2008

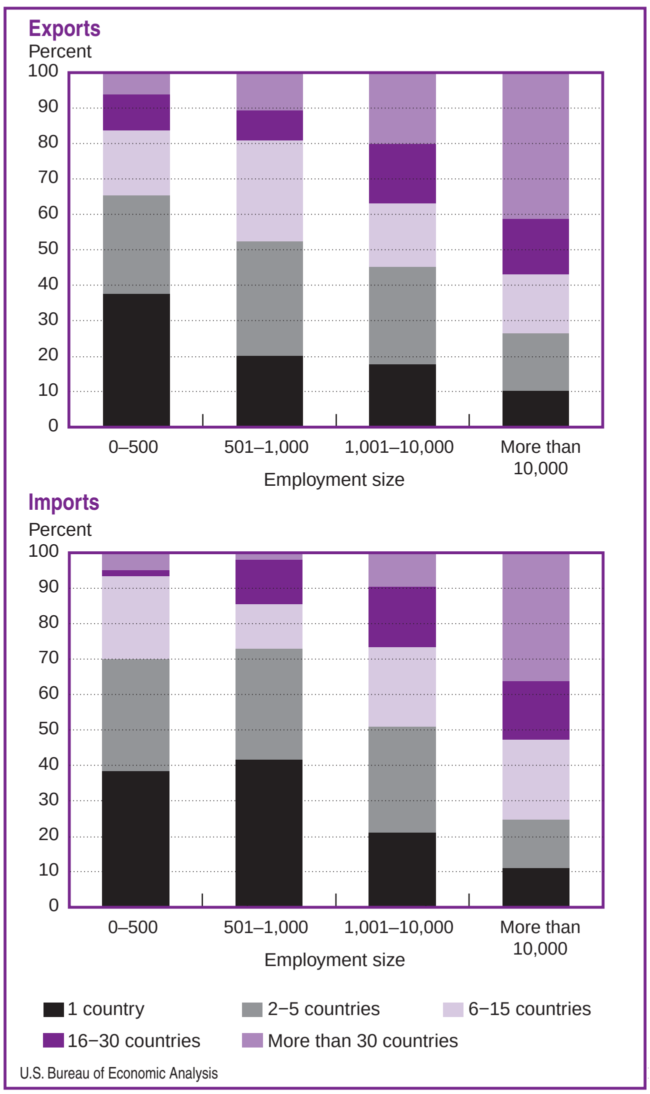
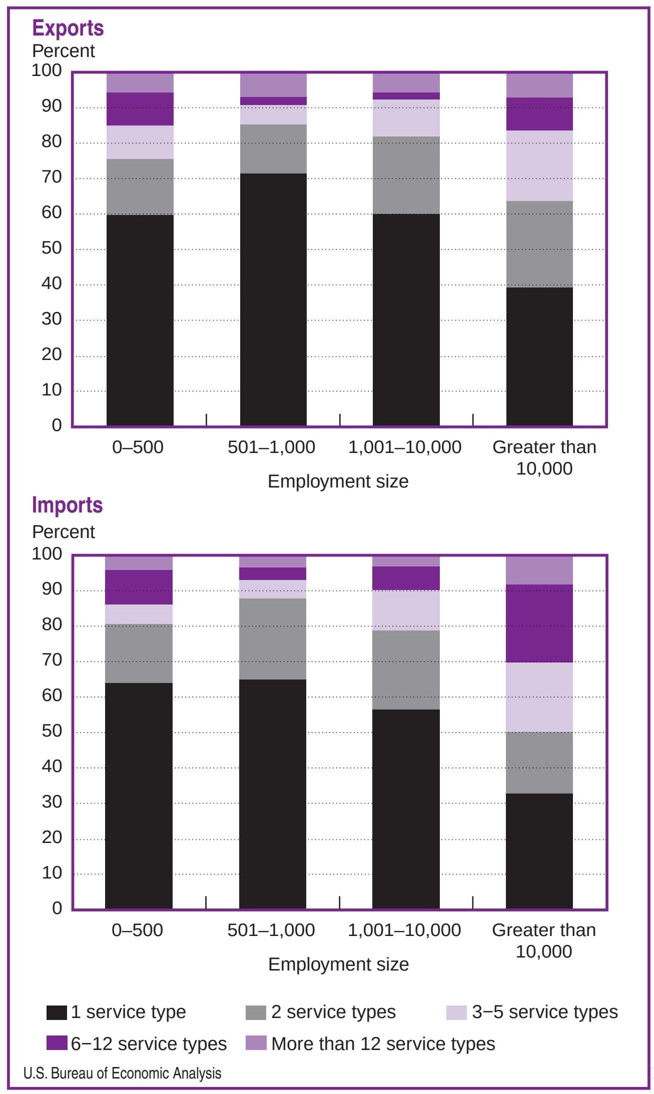


Chart 7. Number of Service Types Traded by U.S. Parents by Employment Size, 2008



the value of their imports. Within the manufacturing sector, chemicals, transportation equipment, computers and electronic products, and machinery accounted for about 60 percent of the total importers and about 80 percent of total imports. Large and very large manufacturing parents primarily imported royalties and license fees, management and consulting services, R&D and testing services, industrial engineering services, and maintenance services, which combined accounted for over 80 percent of imported services.

Finance and insurance parents accounted for 16 percent of large and very large importers and 38 percent of the value of the industry's imports. Large and very large finance and insurance parents primarily imported insurance services, which accounted for about two-thirds of their imported services, followed by financial services.

Imported services were 1.8 percent of purchased inputs of large and very large parents and 2.4 percent of purchased inputs of small and medium parents. Comparing production and international purchases of services, large and very large U.S. parents contributed $21 of value added to the U.S. economy for every dollar of services that they imported, while small and medium parents contributed about $11 of value added.

Small and medium parents accounted for 19 percent of importers but only 5 percent of parents' total imported services. While firms in manufacturing accounted for more small and medium importers than other sectors, companies in finance and insurance accounted for 76 percent of imported services by small and medium parents.

Larger U.S. parents tended to import from more countries. About 70 percent of small parents imported from 5 or fewer countries, while less than 7 percent imported from more than 15 countries. In contrast, 53 percent of very large parents imported from more than 15 countries, while about a quarter imported from 5 or fewer countries.

BEA Surveys of International Trade in Services and Direct Investment

The Bureau of Economic Analysis (BEA) conducts 18 surveys to collect information on U.S. international trade in services and on the operations of multinational companies (MNCs). This project used several of these data sets, which are the source of data for statistics included in the U.S. international accounts or for statistics on the operations of MNCs. Each of the survey forms described below can be found on the BEA's Web site www.bea.gov by clicking on "Survey forms and related materials" under the section "International."

BEA conducts three main sets of surveys on U.S. international trade in services:

- **Surveys of transactions in selected services and intellectual property.** The BE–120 benchmark survey is conducted every five years, most recently completed for 2006 and currently being conducted for 2011. The BE–125 is a quarterly survey. These surveys cover U.S. international trade in all types of services and intellectual property that are not collected on other BEA surveys or available from other sources. They cover transactions in the following types of services: accounting, auditing and bookkeeping; advertising; auxiliary insurance (except by U.S. insurance companies); computer and data processing; construction; database and other information; educational and training; engineering, architectural, and surveying; financial (payments only); industrial engineering; industrial-type maintenance, installation, alteration, and training; legal; management, consulting, and public relations (including allocated expenses); merchanting (receipts only); mining; operational leasing; performing arts, sports, and other live performances, presentations, and events; premiums paid and losses covered for primary insurance (payments only); research, development and testing; telecommunications; trade-related; "other" (type must be specified).
- **Surveys of insurance transactions.** The BE–140 benchmark survey is conducted every five years, most recently for 2008. The BE–45 is a quarterly survey. These surveys collect data on premiums and losses by insurance companies that have engaged in transactions with foreign persons. They cover transactions for reinsurance, primary insurance (receipts only), and auxiliary insurance.
- **Surveys of financial services transactions.** The BE–180 benchmark is conducted every five years, most recently for 2009. The BE–185 is a quarterly survey. These surveys cover transactions in the following types of financial services between U.S. financial services providers and foreign persons: brokerage services related to equity; other brokerage services; underwriting and private placement; financial management services; credit-related services (except card); credit card services; financial advisory and custody; securities lending; electronic funds transfer; and "other" (type must be specified).

BEA conducts two sets of benchmark and annual surveys on the operations of multinational companies:

- **Surveys of U.S. direct investment abroad.** The BE–10 benchmark survey is conducted every five years, most recently for 2009. The BE–11 survey is conducted annually. The annual and benchmark surveys collect detailed information on the finances and operations of U.S. parents and their foreign affiliates, including information on income statements, balance sheets, R&D, employment, and trade in goods.
- **Surveys of foreign direct investment in the United States.** The BE–12 benchmark survey is conducted every five years, most recently for 2007. The BE–15 survey is conducted annually. Like the surveys of U.S. direct investment abroad, the annual and benchmark surveys collect detailed information on the finances and operations of U.S. affiliates of foreign multinational companies, including information on income statements, balance sheets, R&D, employment, and trade in goods.

Smaller firms also tended to import fewer types of services than larger firms. In 2008, 80 percent of small parents imported one or two types of services, while 14 percent imported more than five types. Only half of very large parents imported one or two types, while 30 percent imported more than five types.

Trade in goods comparison

U.S. parents were more engaged in trading goods than trading services in terms of both the number of firms that trade and the value of trade. The value of goods exports, $553.7 billion, was more than twice the value of services exports, $219.5 billion. Imports of goods surpassed imports of services by a factor of more than five: U.S. parents imported $708.7 billion in goods in 2008, compared with $121.7 billion in services.

The balance of U.S. parents' trade in services, a surplus of $97.8 billion, contrasts with the balance on trade in goods, a deficit of $155.0 billion. The surplus on services trade reflects surpluses for both affiliated trade, which accounted for about 60 percent of the surplus, and unaffiliated trade. The deficit on trade in goods consisted mostly of a deficit on affiliated trade, which was 79 percent of the total deficit. Overall, the positive balance on trade in services partly offsets the deficit on goods, yielding a combined deficit on U.S. parents' trade in goods and services of $57.2 billion.

Exports. In 2008, U.S. parents were more engaged in exporting goods than in exporting services; 58 percent of U.S. parents exported goods, compared with 41 percent that exported services. U.S. parents' exports of goods were about 6.0 percent of their total sales, while exports of services were about 2.4 percent of sales. However, among very large parents, a higher proportion of firms exported services (68 percent) than exported goods (50 percent). The value of both services and goods exports per employee decreased with firm size: large and very large parents exported about $24,000 worth of goods and about $10,000 worth of services per employee, and small and medium parents exported about $65,000 worth of goods and about $19,000 worth of services per employee.

By industry, goods exporters were primarily classified in manufacturing, which accounted for 86 percent of goods exports. The top 25 goods exporters in manufacturing also exported services, and 11 of these top goods exporters were among the top 25 exporters of services.

By affiliation, both services and goods trade was evenly split between trade with affiliated parties and unaffiliated parties. In 2008, 52 percent of services exports were to affiliated parties, compared with 50 percent of goods exports.

Imports. In 2008, U.S. parents were more engaged in importing goods than in importing services; about half of U.S. parents imported goods, while 30 percent imported services. U.S. parents' imports of goods accounted for about 10.5 percent of their total purchased inputs, while U.S. parents' imports of services were much smaller, just 1.8 percent of total purchased inputs. However, more very large parents imported services (57 percent) than imported goods (48 percent). The share of imported goods in purchased inputs of small and medium parents (9.4 percent) was slightly less than that of large and very large parents (10.5 percent), but the share of imported services in their purchased inputs (2.4 percent) was slightly higher than that of large and very large parents (1.8 percent).

By industry, goods importers were concentrated in industries that typically produce and sell goods, namely manufacturing (74 percent) and wholesale and retail trade (25 percent). Within manufacturing, the largest importers of goods also tended to be the largest importers of services. Among the top 25 goods importers, all but 3 also imported services, and 10 were also among the top 25 importers of services.

By affiliation, the majority of services imports were from unaffiliated parties, while the majority of goods imports were from affiliated parties. Unaffiliated trade accounted for 55 percent of services imports, while unaffiliated trade accounted for 44 percent of goods imports.

U.S. affiliates

In 2008, majority-owned U.S. affiliates of foreign MNCs accounted for $51.9 billion (17 percent) of U.S. exports and $70.2 billion (36 percent) of U.S. imports (table H). Although U.S. affiliates' exports and imports

Table H. U.S. Affiliates' Trade in Services and Goods by Major Industry and Firm Size, 2008

[Millions of dollars]

	Services		Goods	
	Exports	Imports	Exports	Imports
All industries	51,926	70,235	244,106	602,805
Small and medium firms	13,898	20,392	66,090	194,532
Large and very large firms	38,028	49,843	178,016	408,273
Manufacturing	7,763	13,976	139,831	261,266
Small and medium firms	660	2,223	27,386	58,096
Large and very large firms	7,103	11,752	112,445	203,170
Wholesale and retail trade	11,809	6,248	91,102	319,455
Small and medium firms	1,571	793	35,463	131,534
Large and very large firms	10,237	5,455	55,639	187,921
Information	9,304	8,288	2,760	(D)
Small and medium firms	2,008	1,845	(D)	(D)
Large and very large firms	7,296	6,443	(D)	(D)
Finance and insurance	16,107	31,573	0	(*)
Small and medium firms	6,516	10,010	0	(D)
Large and very large firms	9,592	21,563	0	(D)
Professional, scientific, and technical services	2,904	4,226	957	352
Small and medium firms	852	(D)	(D)	(D)
Large and very large firms	2,052	(D)	(D)	(D)
All other industry sectors	4,039	5,925	(D)	(D)
Small and medium firms	2,290	(D)	(D)	(D)
Large and very large firms	1,749	(D)	(D)	(D)

* A nonzero value between –$500,000 and $500,000.
D Suppressed to avoid disclosure of data of individual companies.

of services were substantial in size, they were small compared with other measures of their operations. As a percentage of sales, services exports were equivalent to just 1.5 percent of sales, and as a percentage of purchased inputs, services imports amounted to just 2.7 percent. Comparing production and international purchases of services, U.S. affiliates contributed more than $9 of value added to the U.S. economy for every dollar of services that they imported. Overall, U.S. affiliates exported about $9,000 of services per employee and imported about $12,500 per employee.

By industry

U.S. affiliates in finance and insurance were the largest service traders, but affiliates in two sectors associated with goods, "wholesale and retail trade" and manufacturing, were also important traders.

Exports. The largest exporters were affiliates in finance and insurance, which accounted for nearly a third of U.S. affiliates' exports. Financial services and insurance accounted for much of the sector's exports.

Affiliates classified in the "wholesale and retail trade" and manufacturing sectors were also large exporters of services, together accounting for more than a third of U.S. affiliates' exports. For these sectors, transactions that relate to the creation or use of intellectual property (including "royalties and license fees" and "R&D and testing services") were particularly large. U.S. affiliates accounted for more than 40 percent of U.S. exports of R&D and testing services included in business, professional, and technical (BPT) services, largely because of substantial exports to their foreign parent groups. Foreign MNCs often find the United States to be an attractive location for their R&D activities because of the access to new sources of knowledge, a supply of skilled labor, and opportunities for collaboration through proximity to leading universities and clusters of industrial research activity. In addition, the large domestic market may attract R&D to tailor products to local requirements or customers' needs. As a result, U.S. affiliates performed $40.7 billion of R&D in 2008.

Imports. U.S. affiliates classified in finance and insurance accounted for nearly half of imports; insurance, mainly reinsurance, accounted for most of the industry's imports. Latin America and Other Western Hemisphere and Europe were the main sources of imports, reflecting the location of large reinsurance centers in those areas.

The next largest imports by sector were attributable to manufacturing, especially chemicals and transportation equipment manufacturers. Most imports by manufacturing affiliates were "royalties and license fees" and BPT services.

By affiliation

While U.S. affiliates would be expected to be important contributors to affiliated trade in services due to transactions with foreign parent groups, they also have substantial unaffiliated transactions (table I). In 2008, affiliated trade accounted for 62 percent of U.S. affiliates' total exports of services and 52 percent of imports. Most affiliated trade by U.S. affiliates was with their foreign parent groups.[13]

Table I. U.S. Affiliates' Exports, Imports, and Balance on Trade in Services and Goods by Affiliation, 2008

[Millions of dollars]

	Services			Goods		
	Exports	Imports	Balance	Exports	Imports	Balance
Total	51,926	70,235	–18,309	244,106	602,805	–358,699
Unaffiliated	19,782	33,799	–14,016	108,695	112,564	–3,869
Affiliated	32,143	36,436	–4,293	135,411	490,241	–354,830
with foreign affiliates	5,051	1,474	3,578	22,149	35,775	–13,626
with foreign parent group	27,092	34,963	–7,870	113,262	454,466	–341,204
	Shares (percent)					
Total	100	100	100	100	100	100
Unaffiliated	38	48	77	45	19	1
Affiliated	62	52	23	55	81	99

Exports. By type of service, the average share of exports attributable to affiliated transactions was at least 90 percent for all major service types except three (chart 8). Among those service types with the highest average share of affiliated exports, most were BPT services. In most cases, U.S. affiliates' receipts for these services likely reflect foreign parents reimbursing affiliates for their overhead costs or other expenses. For example, because many U.S. affiliates that report exports of advertising, management and consulting, legal, and accounting services do not report sales in industries most closely associated with these services, their exports of these services likely reflect allocated expenses or reimbursement for services that U.S. affiliates purchased from other firms rather than receipts for services that U.S. affiliates performed on behalf of the parent. In contrast, affiliated exports for "R&D and testing" and industrial engineering might reflect transactions to reimburse affiliates for their expenses and for services performed for foreign parents.

Financial services had by far the lowest average share of affiliated exports, less than 30 percent, followed by operational leasing and "royalties and license fees." Within financial services, unaffiliated transactions dominated exports of brokerage, financial advisory, and financial management services.

Imports. Like exports, on average, affiliated transactions tend to dominate U.S. affiliates' imports of most service types (chart 9). Affiliated trade accounted

13. Like the treatment of U.S. parent companies, insurance services are not included in this discussion or in charts 8 and 9 because all insurance transactions are deemed to be with unaffiliated parties.

most service types (chart 9). Affiliated trade accounted for an average of at least 90 percent of imports for 12 of the major service types, led by legal services; installation, maintenance and repair; R&D and testing; operational leasing; and industrial engineering. The high average shares of affiliated trade in these services reflects the importance of headquarters or other services provided by foreign parent groups to U.S. affiliates as well as payments by affiliates to cover their share of corporate expenses. The lowest average affiliated shares of imports were for trade-related services, training, and financial services.

By partner country

Europe was the top destination for U.S. affiliates' exports and the top source for their imports. Overall, the distribution of U.S. affiliates' exports and imports by location of trade partner resembled that of total services trade.

Exports. Europe was the top destination for U.S. affiliates' exports of services in 2008, followed by Asia and Pacific and Latin America and Other Western Hemisphere. Exports to Europe totaled $27.2 billion, accounting for more than half of affiliates' exports

Chart 8. Average Composition of U.S. Affiliates' Exports by Type of Service and Affiliation, 2008

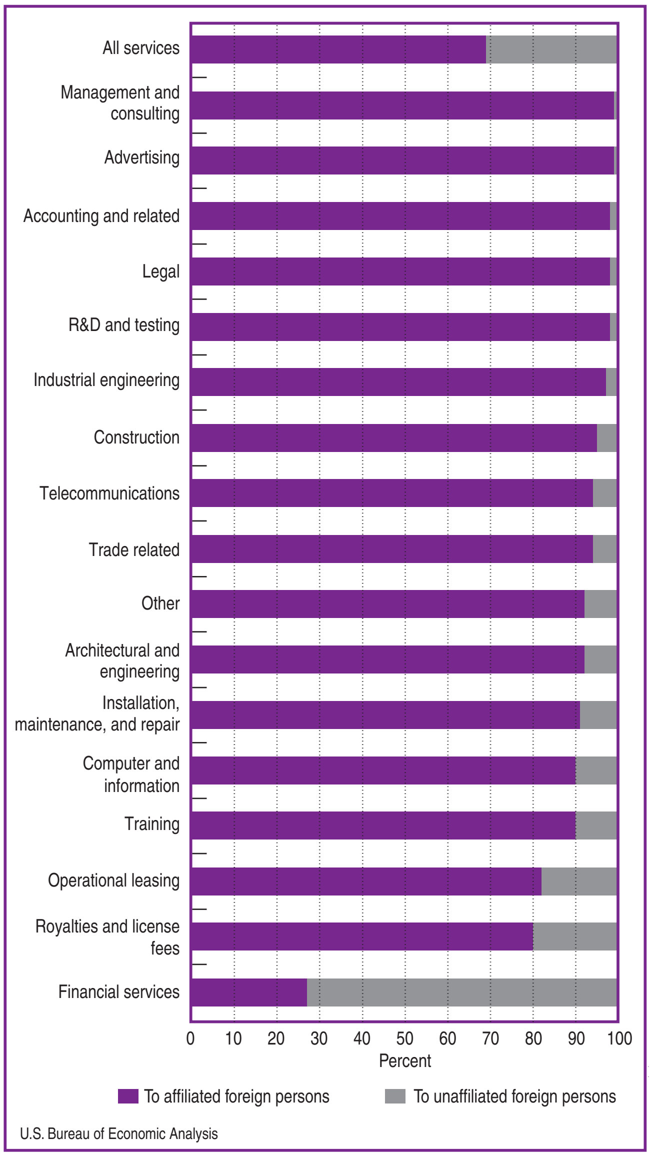
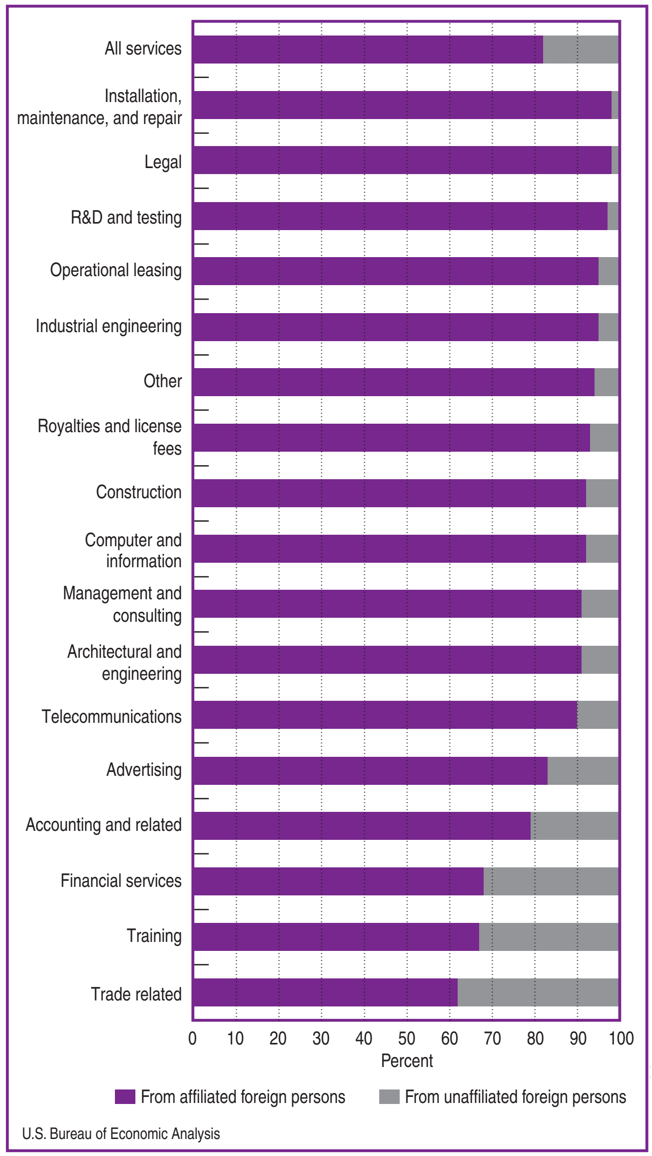


Chart 9. Average Composition of U.S. Affiliates' Imports by Type of Service and Affiliation, 2008



country where its foreign parent or ultimate beneficial owner (UBO) was located accounted for more than half of exports to Europe; most exports to the country of an affiliate's foreign parent or UBO were affiliated trade (chart 11).[14]

U.S. affiliates exported $10.5 billion of services to Asia and Pacific. Transactions between affiliates and the country in which their foreign parent or UBO is located accounted for about half of exports to the region; these exports largely consisted of affiliated transactions.

Exports to Latin America and Other Western Hemisphere totaled $8.4 billion and were largely attributable to transactions with unaffiliated persons. Consistent with the low share of affiliated trade to this region, the share of total exports attributable to transactions between an affiliate and its country of foreign parent or UBO was just 19 percent.

Imports. Europe was the largest source of U.S. affiliates' imports, followed by Latin America and Other Western Hemisphere and Asia and Pacific. Imports from Europe totaled $43.2 billion; transactions between affiliates and the country in which their foreign parent or UBO is located accounted for more than 60 percent of imports from the region.

Imports from Latin America and Other Western Hemisphere totaled $11.7 billion and largely consisted of insurance services. The share of imports from this region attributable to transactions between an affiliate and its country of foreign parent or UBO was relatively low.

U.S. affiliates imported $11.6 billion in services from Asia and Pacific. The share of imports attributable to transactions between U.S. affiliates and their country of foreign parent or UBO was especially high for this region (82 percent), with most trade attributable to affiliated transactions.

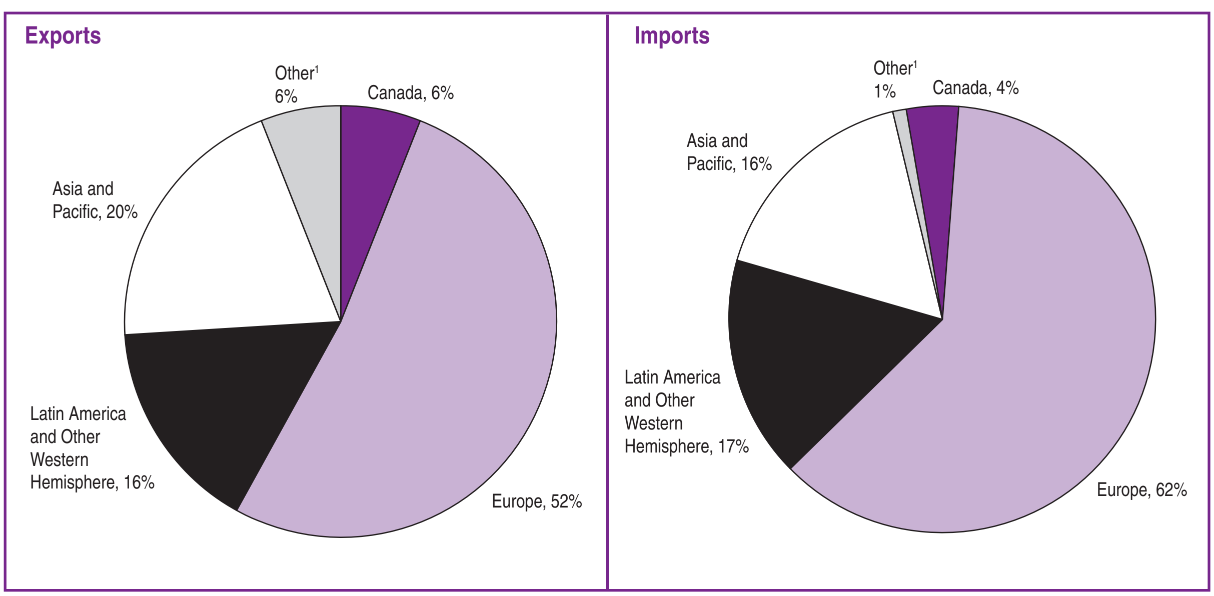
By firm size

The tendency of affiliates to engage in trade in services increased with size (table J). For example, only 10 percent of small affiliates (up to 500 employees) exported services, and 14 percent imported services. In contrast, more than half of very large affiliates (those with more than 10,000 employees) exported or imported services.

Exports. Together, small and medium affiliates (those with 501–1,000 employees) accounted for nearly two-thirds of exporters, but they accounted for

14. A foreign parent is the first person outside the United States in a U.S. affiliate's ownership chain that has a direct investment interest in the affiliate. The UBO is that person, proceeding up the affiliate's ownership chain that is not owned more than 50 percent by another person and is that person that ultimately owns or controls the U.S. affiliate and therefore ultimately derives the benefits of ownership or control. Unlike the foreign parent, the UBO of an affiliate may be located in the United States. For most affiliates, the country of UBO is the country of the foreign parent: the country of the UBO and the country of the foreign parent were the same for about 80 percent of affiliates in 2008.

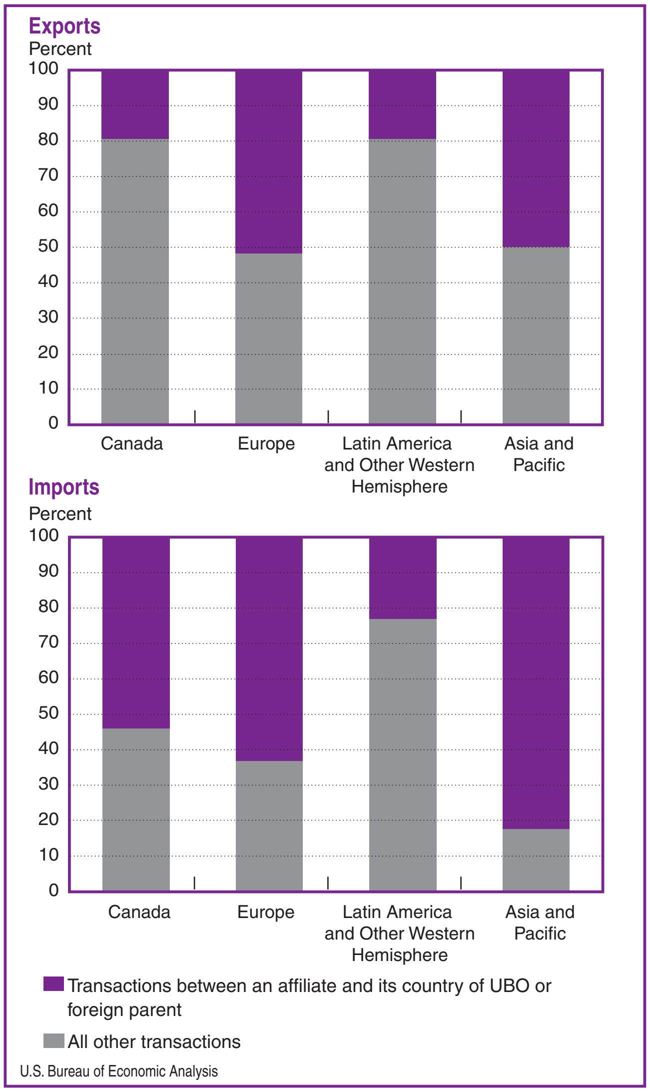
Chart 10. Trading Partners of U.S. Affiliates by Major Area, 2008



1. Other includes Africa, Middle East, and unallocated.

U.S. Bureau of Economic Analysis

Chart 11. Composition of U.S. Affiliates' Trade in Services by Selected Region, 2008



only about a quarter of exports. In contrast, very large affiliates accounted for less than 10 percent of exporters, but they accounted for 30 percent of services exports. Together, large affiliates (those with 1,001–10,000 employees) and very large affiliates accounted for nearly three-quarters of services exported by U.S. affiliates. By industry, large and very large affiliates tend to dominate exports of services in most industries; for example, they accounted for 91 percent of services exports in manufacturing and 87 percent in wholesale and retail trade.

Comparing services exports with U.S. affiliates' sales demonstrates that service exports are small compared with their overall operations, regardless of firm size. As a percentage of total sales, exports of services accounted for 1.5 percent of sales of large and very large affiliates and 1.4 percent of sales of small and medium affiliates. However, small and medium affiliates were more intensive service exporters than large and very large affiliates in terms of exports per employee. In 2008, small and medium affiliates exported nearly $17,000 of services per employee; large and very large affiliates exported about $8,000 of services per employee.

In contrast to the dominance of large and very large affiliates in some industries, small and medium affiliates were significant exporters in "all other industry sectors," where they accounted for more than half of exports. Within "all other industry sectors," the largest services exports were by small and medium affiliates in transportation and warehousing, in real estate and rental and leasing, and in management of companies. Small and medium affiliates also accounted for a sizable portion of exports in finance and insurance—industries in which it is possible for high value transactions to be carried out by a relatively small staff. Financial services accounted for the largest portion of

Table J. U.S. Affiliates' Trade in Services and Goods and Other Selected Measures by Employment Size, 2008

	Total number of firms	Services				Goods				Employment (thousands)	Sales	Value added	Purchased inputs [1]
		Number of firms		Value (millions of dollars)		Number of firms		Value (millions of dollars)					
		Exporters	Importers	Exports	Imports	Exporters	Importers	Exports	Imports		Millions of dollars		
All U.S. affiliates	4,949	705	975	51,926	70,235	2,324	2,417	244,106	602,805	5,636	3,516,484	646,648	2,590,493
Small and medium	4,175	464	669	13,898	20,392	1,893	1,988	66,090	194,532	827	988,393	115,142	780,023
0–500 employees	3,701	365	519	9,326	16,003	1,603	1,700	43,874	127,668	488	695,878	69,705	557,920
501–1,000 employees	474	99	150	4,571	4,389	290	288	22,216	66,864	339	292,516	45,438	222,103
Large and very large	774	241	306	38,028	49,843	431	429	178,016	408,273	4,810	2,528,091	531,506	1,810,470
1,001–10,000 employees	669	184	246	22,340	24,627	378	373	109,909	225,110	1,988	1,255,080	242,807	914,684
More than 10,000 employees	105	57	60	15,688	25,216	53	56	68,106	183,163	2,821	1,273,012	288,699	895,786
	Shares (percent)												
All U.S. affiliates	100	100	100	100	100	100	100	100	100	100	100	100	100
Small and medium	84	66	69	27	29	81	82	27	32	15	28	18	30
0–500 employees	75	52	53	18	23	69	70	18	21	9	20	11	22
501–1,000 employees	10	14	15	9	6	12	12	9	11	6	8	7	9
Large and very large	16	34	31	73	71	19	18	73	68	85	72	82	70
1,001–10,000 employees	14	26	25	43	35	16	15	45	37	35	36	38	35
More than 10,000 employees	2	8	6	30	36	2	2	28	30	50	36	45	35

1. Purchased inputs have been computed as gross output (sales plus inventory change) minus value added.

Financial services accounted for the largest portion of small and medium affiliates' exports, but they also had substantial exports of insurance (especially reinsurance).

In general, larger affiliates tend to trade with more countries than smaller affiliates. Among small affiliates, 62 percent exported to just one country; of those affiliates, 85 percent exported to the country of their UBO or their foreign parent (chart 12). In contrast, only 13 percent of very large affiliates traded with just one country. Although the majority of exports by those affiliates were to affiliated parties, none were to the country where the foreign parent or UBO was located. In addition to trading with fewer countries, smaller affiliates tend to export fewer types of services than larger affiliates. More than three-quarters of small affiliates exported just one type of service, while just over half of large and very large affiliates exported just one type of service (chart 13).

Imports. Together, small and medium affiliates accounted for more than two-thirds of importers, but they accounted for a little more than a quarter of imports. In contrast, large and very large affiliates accounted for 31 percent of importers, but they accounted for 71 percent of imports. Consistent with their large share of total imports of services, large and very large affiliates accounted for the dominant share of imports in most industries, with more than three-quarters of imports in manufacturing and wholesale and retail trade. Small and medium affiliates were more important importers in finance and insurance where they accounted for almost a third of imports;

Chart 12. Number of Partner Countries of U.S. Affiliates by Employment Size, 2008

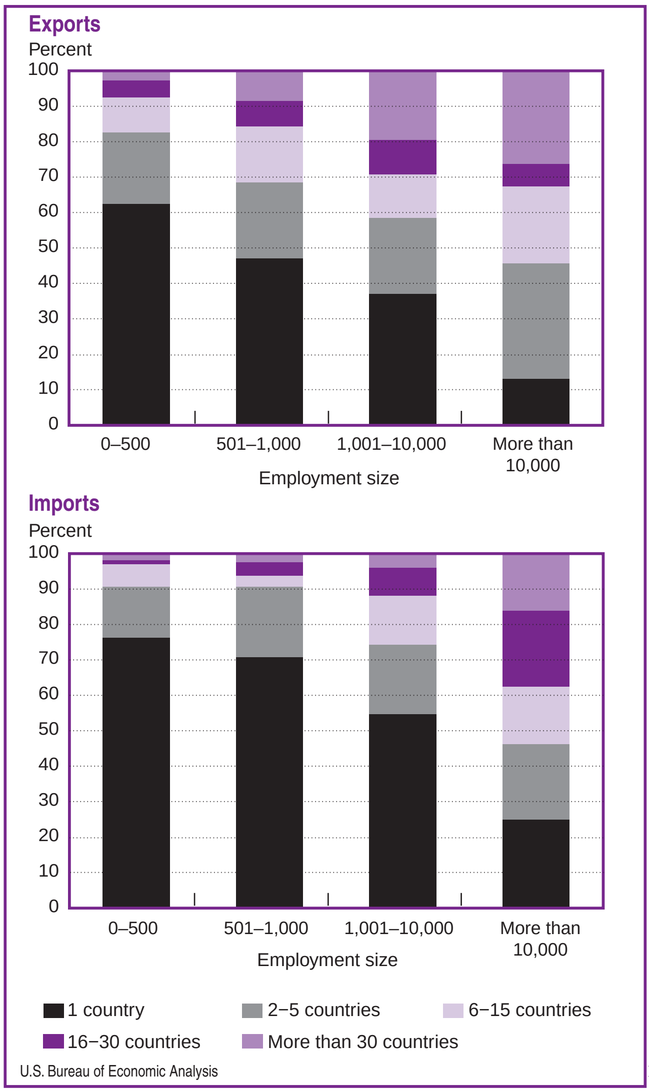
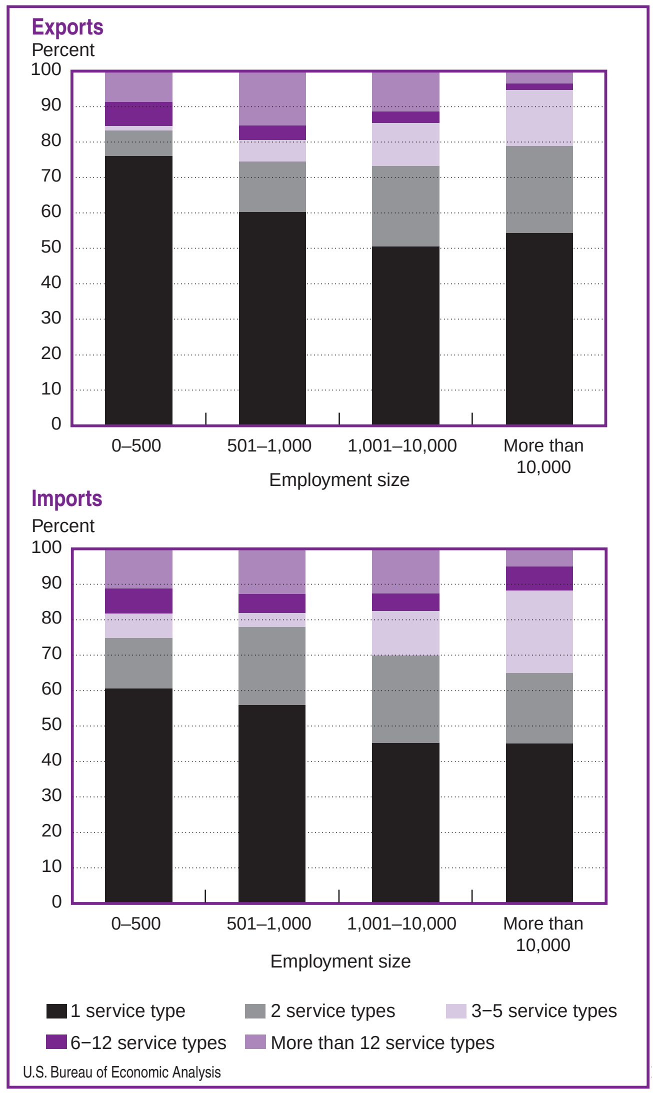


Chart 13. Number of Service Types Traded by U.S. Affiliates by Employment Size, 2008



most of their imports were attributable to insurance, especially reinsurance.

Services imports accounted for 2.8 percent of purchased inputs for both large and very large affiliates and for 2.6 percent of purchased inputs for small and medium affiliates. Although their imports of services were small in value, small and medium affiliates were much more intensive service importers than large and very large affiliates relative to their number of employees. Small and medium affiliates imported nearly $25,000 of services per employee, compared with imports of roughly $10,000 per employee for large and very large affiliates. Similarly, production relative to imported services was greater for large and very large affiliates than for small and medium affiliates. Small and medium affiliates had about $6 of value added for every dollar of imported services, compared with about $11 for large and very large affiliates.

Larger firms tend to import from more countries. Over 90 percent of small and medium firms imported from fewer than five countries. In contrast, just one-quarter of very large firms imported from one country, and more than half imported from more than five countries. Among small affiliates that imported from just one country, 89 percent imported from the country of either their foreign parent or UBO. Among very

Exporters-Importers and U.S. International Trade in Services—Continues

There is a significant degree of overlap between exporter and importer firms. In many cases, exporters and importers are one and the same. In 2008, nearly half of service exporters also imported; the same was true for importers. Not surprisingly, multinational companies (MNCs) commonly engaged in both exporting and importing services. More than 60 percent of MNCs that exported also imported. Even among firms that are not part of a multinational company, more than 40 percent of exporters also imported.

U.S. parents that both exported and imported. Across all employment size classes, 57 percent of U.S. parents that exported services also imported services and accounted for 87 percent of the total value of U.S. parents' services exports. For imports, 80 percent of U.S. parents that imported services also exported services and accounted for 97 percent of the total value of U.S. parents' services imports.

By employment size class, very large parents (those with more than 10,000 employees) that both exported and imported services accounted for about 75 percent of the number of very large exporters and almost 90 percent of very large importers. Very large parents that both exported and imported services also accounted for over 95 percent of the value of exported and imported services by very large parents. Similarly, more than half of the number of large exporters (those with 1,001–10,000 employees) and almost 80 percent of the number of large importers were both exporters and importers. Large parents that both exported and imported accounted for about 65 percent of exported services and about 95 percent of imported services by large parents. Small (up to 500 employees) and medium parents (those with 501–1,000 employees) that both exported and imported services accounted for less than half of the number of their respective exporters and about 70 percent of the number of their respective importers. These exporter-importer parents accounted for about 70 percent of services exports and about almost 95 percent of services imports by small and medium firms.

Intraindustry trade in services. A substantial amount of intraindustry trade, or trade in the same type of products or between the same industries, has been identified in global trade flows in the empirical and theoretical literature. Intraindustry trade is typically associated with differentiated products (for example, brands and types of automobiles) and with operations of multinational companies. In the data on U.S. service traders, more than three-quarters of firms identified as both an exporter and an importer of services engaged in both exporting and importing the same type of service. As shown in the table, intraindustry trade composes a substantial portion of trade in services.[1] Multinational companies accounted for most of the value of intraindustry transactions with more than 90 percent of both intraindustry exports and imports.

In 2008, 57 percent of total exports and 65 percent of total imports were attributable to intraindustry trade. The extent to which firms engaged in intraindustry trade varied by service type.

For exports, the share of intraindustry trade ranged from a low of 45 percent for business, professional, and technical (BPT) services to a high of 70 percent for insurance services. Intraindustry transactions accounted for more than two-thirds of telecommunications exports.

1. Intraindustry exports and imports were identified as exports of a particular type of service by a firm that also imports the same type of service. Within the broad categories of financial services, insurance, and royalties and license fees, 'service types' were identified at a more detailed level than that shown in the table. Among financial services, the types identified were securities transactions, management and advisory, credit, and other financial services and among insurance services, covered types included reinsurance, primary insurance and auxiliary insurance services. Among royalties and license fees, intraindustry transactions were identified for each reported type of intellectual property—industrial processes, books, trademarks, software, franchising fees, broadcasting, film and TV tape distribution, and other intangibles. Intraindustry transactions in business, professional, and technical services were determined for each specific service type.

none imported from the country of their foreign parent or UBO.

Larger affiliates also tended to import more service types: 45 percent of large and very large affiliates imported just one type of service compared with 61 percent of small affiliates.

Trade in goods comparison

U.S. affiliates are much more engaged in goods trade than in services trade in terms of both the value of trade and the number of firms that engage in trade. U.S. affiliates had a negative balance on trade in both goods and services in 2008, but the $18.3 billion deficit on services trade was dwarfed by the $358.7 billion deficit on goods trade. For services, much of the deficit was attributable to unaffiliated trade, which reflected large imports of insurance. For goods trade, almost the entire deficit was attributable to affiliated trade. In particular, the large and persistent deficit on affiliates' trade in goods reflects the role of many U.S. affiliates primarily as distributors of parents' goods. With this role and their focus on selling to the U.S. market, it is unsurprising that U.S. affiliates would import far more than they export.

By country of UBO, there are striking differences in the balance on trade in goods and services (table K).

Exporters-Importers and U.S. International Trade in Services

For imports, the share of intraindustry trade ranged from 52 percent for BPT services to 95 percent for telecommunications. Intraindustry transactions also accounted for a substantial share of insurance imports. Within insurance, most intraindustry trade was attributable to reinsurance; U.S. firms that provide reinsurance to foreign persons are also important purchasers of reinsurance from abroad. Given the large size of imports by these firms relative to exports, it appears that premiums paid to foreign reinsurers are, to a large extent, related to policies underwritten for U.S. customers. There are also some differences in the destination of insurance exports versus the source of imports. While insurance imports primarily come from Latin America and Other Western Hemisphere and Europe, exports are destined to a range of regions including Europe, Latin America and Other Western Hemisphere, Asia and Pacific, and Canada.

In telecommunications, intraindustry trade is common because basic international communications services are typically provided jointly. For example, a U.S. firm would record a receipt for its share of the service of transmitting phone messages originating abroad to a U.S. destination; likewise, the U.S. firm would record a payment to foreign firms that complete the transmission of messages originating in the United States to a foreign destination.

The low share of exports and imports attributable to intraindustry trade for BPT services reflects low levels of intraindustry trade for a number of its component service types. Intraindustry trade makes up a small share of trade in computer and information services, legal services, and advertising. In contrast, management and consulting has a relatively high share of exports and imports attributable to intraindustry transactions, mainly due to transactions of MNCs, which often charge or pay these fees for headquarters or support services provided between units or to allocate expenses among operating units. Other services that tend to be traded extensively within multinationals—such as research and development (R&D) and testing as well as accounting services—also had relatively high shares of intraindustry trade. Firms that both import and export R&D services from the same region are not uncommon. Because the data are not further distinguished within types of services, it is possible that imports of R&D services might include different types of services compared with exports. For example, imports might reflect payments for clinical trials or routine functions, while exports may reflect development of advanced technologies.

Intraindustry Trade in Services by Type of Service, 2008

[Millions of dollars]

	Exports		Imports	
	Total	*of which:* Intraindustry [1]	Total	*of which:* Intraindustry [2]
All services	302,303	171,431	195,555	127,396
Financial services	63,027	38,010	17,218	13,263
Insurance	13,403	9,322	58,913	46,677
Royalties and license fees	102,125	66,317	29,623	17,793
Telecommunications	9,999	6,806	7,761	7,346
Business, professional and technical services	113,750	50,976	82,039	42,316
of which:				
Computer and information	13,120	6,126	16,895	4,780
Management and consulting	29,708	19,690	22,766	18,031
R&D and testing	17,345	10,958	16,322	9,676

1. Intraindustry exports have been identified as exports of a particular type of service by a firm that also imports the same type of service. Within the broad categories of financial services, insurance, and royalties and license fees, 'service types' were identified at a more detailed level than that shown in the table above. Among financial services, the types identified were securities transactions, management and advisory, credit, and “other” and among insurance services, covered types included reinsurance, primary insurance and auxiliary insurance services. Among royalties and license fees, intraindustry transactions were identified for each reported type of intellectual property: industrial processes, books, trademarks, software, franchising fees, broadcasting, film and TV tape distribution, and other intangibles. Intraindustry transactions in business, professional, and technical (BPT) services were determined for each detailed service type.

2. Intraindustry imports have been identified as imports of a particular type of service by a firm that also exports the same type of service. See footnote 1 for more information.

Affiliates with UBOs in Asia and Pacific were the largest contributors to the deficit on goods trade, accounting for almost half of the deficit, while their balance on trade in services was a very small deficit, accounting for just 1 percent of the total deficit on services trade. Affiliates with UBOs in "other"—which includes the United States, the Middle East, and Africa—had a surplus on trade in services, as they exported more than they imported for all major types of services except telecommunications.[15] European-owned affiliates accounted for a much larger share of the deficit on services trade than goods trade, and much of the deficit was attributable to affiliates in finance and insurance.

Exports. In 2008, U.S. affiliates' goods exports were $244.1 billion, compared with their services exports of $51.9 billion. Exports of goods accounted for a slightly larger share of goods sales (9 percent) than the share of services sales (8 percent) accounted for by services exports. While just 14 percent of U.S. affiliates exported services, nearly half exported goods. In addition, U.S. affiliates were much more intensive exporters of goods than of services: they had goods exports of more than $43,000 per employee, compared with services exports of about $9,000 per employee. Despite the large difference in the size of services exports and goods exports, the two had similar patterns of trade by firm size, by UBO location, and by industry.

By firm size, the tendency to export both goods and services increased as firm size increased. For example, 11 percent of small and medium affiliates exported services, and 45 percent exported goods, while 31 percent of large and very large affiliates exported services, and 56 percent exported goods. Like services trade, large and very large affiliates accounted for just 19 percent of goods exporters but for 73 percent of exports.

Despite accounting for a small share of total goods exports, like their trade in services, small and medium affiliates' goods exports per employee were higher than those of large and very large affiliates. Small and medium affiliates exported about $80,000 in goods per employee, compared with large and very large affiliates' goods exports of about $37,000 per employee.

By location of UBO, the distribution of goods exports and services exports is similar. European-owned affiliates accounted for the largest share of both services and goods exports, though their share of services trade was somewhat higher. Affiliated transactions accounted for a majority of European-owned affiliates' exports of both services and goods. Among European-owned affiliates, those with UBOs in Germany were the largest exporters of goods ($35.8 billion), followed by those with UBOs in the United Kingdom ($28.7 billion) and the Netherlands ($9.8 billion). (Full detail by country of UBO is not shown in the table to protect the confidentiality of the data.) German-owned affiliates were also among the largest exporters of services ($6.4 billion), second only to Switzerland ($7.8 billion). By industry, European-owned affiliates in finance and insurance were the largest exporters of services, followed by those in manufacturing; among European-owned affiliates, manufacturing affiliates were the largest exporters of goods. The next largest exporters by location of UBO were affiliates with UBOs in Asia and Pacific, which accounted for a larger share of goods exports than of services exports. Within Asia and Pacific, affiliates with UBOs in Japan were the largest exporters of both goods and services. By industry, affiliates in wholesale and retail trade were the largest exporters of both goods and services for the region.

By industry, services exporters were distributed across all the major industries, including industries typically associated with the production and sales of goods. Although it is common for goods producers to have secondary activities and transactions in services, it is less common for firms in most services industries to also produce goods. Therefore, goods exporters were mainly limited to industries that produce and sell goods, particularly manufacturing and "wholesale and retail trade," which together accounted for 95 percent

15. Unlike the foreign parent, the UBO of an affiliate may be located in the United States. See footnote 14.

Table K. U.S. Affiliates' Trade in Services and Goods and Other Selected Measures by Location of UBO, 2008

[Millions of dollars]

	Number of firms	Services		Goods		Total sales	Value added	Purchased inputs[1]	Employment (thousands)
		Exports	Imports	Exports	Imports				
All U.S. affiliates	4,949	51,926	70,235	244,106	602,805	3,516,484	646,648	2,590,493	5,636
By major region of UBO									
Canada	486	2,706	5,951	9,664	40,686	254,774	63,806	165,306	510
Europe	2,259	30,297	44,595	130,096	238,109	2,106,537	403,605	1,472,191	3,645
Latin America and Other Western Hemisphere	275	3,452	6,026	11,696	38,349	195,380	48,702	136,871	372
Asia and Pacific	1,625	12,238	12,240	75,506	238,405	767,945	107,911	649,907	939
Other[2]	304	3,233	1,423	17,143	47,255	191,849	22,624	166,219	171

UBO Ultimate beneficial owner
1. Purchased inputs has been computed as gross output minus value added.
2. "Other" includes Africa, Middle East, and United States.

retail trade," which together accounted for 95 percent of goods exports. Within these goods-producing industries, there is less overlap among the top firms that export goods and the top exporters of services than among U.S. parents. Among the top 25 manufacturing affiliates that exported goods, 11 had no exports of services, and only 7 were among the top 25 services exporters in that sector.

Imports. In 2008, U.S. affiliates' goods imports were $602.8 billion, compared with their services imports of $70.2 billion. As a share of purchased inputs, good imports were much more significant than services imports. Goods imports accounted for 23.3 percent of purchased inputs, while services imports accounted for just 2.7 percent. Comparing production with imports of goods and services, U.S. affiliates' value added per dollar of imported goods was $1, compared with $9 of value added for every dollar of imported services. Engagement in goods importing was much more common than services importing: nearly half of U.S. affiliates imported goods, but only 20 percent imported services. In addition, U.S. affiliates imported more goods per employee than services; they imported about $107,000 of goods per employee, compared with about $12,500 of services. As mentioned earlier, the prevalence of goods importing by U.S. affiliates is unsurprising, given the important role they play as distributors for their foreign parents' products.

By firm size, the pattern of importing is similar to that of exporting; small and medium firms make up a substantial portion of importers but their share of transactions is much smaller. Small and medium affiliates were more than two-thirds of services importers and more than three-quarters of goods importers, but their share of services imports was just 29 percent and their share of goods imports was 32 percent. In addition smaller affiliates tend to import more goods per employee than larger affiliates. In 2008, small and medium affiliates imported more than $235,000 of goods per employee, while large and very large affiliates imported about $85,000 of goods per employee.

By location of UBO, European-owned affiliates were relatively larger importers of services than of goods, while affiliates with UBOs in Asia and Pacific were relatively smaller importers of services than of goods. European-owned affiliates were by far the largest importers of services, accounting for 63 percent of total imports. By country, Swiss-owned affiliates and German-owned affiliates were the largest importers of services, while German-owned affiliates were the largest importers of goods ($63.4 billion), followed by British-owned affiliates ($60.2 billion). (Full detail by country of UBO is not shown in the table to protect the confidentiality of the data.) Among European-owned affiliates, those in finance and insurance were the largest importers of services, followed by those in manufacturing; manufacturers accounted for the largest share of Europe's goods imports. Among affiliates with UBOs in Asia and Pacific, affiliates with UBOs in Japan were the largest importers of both goods and services. Korean-owned affiliates were the next largest importers of goods, while Indian-owned affiliates were the second largest importers of services.

By industry, affiliates in finance and insurance had the largest imports of services, followed by those in manufacturing. The largest goods imports by industry were attributable to wholesale and retail trade, followed by manufacturing, which reflects affiliates' important role as distributors. In manufacturing, which accounted for large imports of both goods and services, 16 of the top 25 importers of goods also imported services, but only 8 were among the top 25 importers of services; all but 3 of the top 25 services importers also imported goods. To some extent, there may be some degree of substitutability between goods imports and services imports among manufacturers because foreign MNCs could meet U.S. demand either by exporting goods to their U.S. affiliate, who would act mainly as a distributor with minimal processing and assembly functions, or by licensing their industrial processes and product designs to the U.S. affiliate who would manufacture the products in the United States. The first scenario would give rise to goods imports, while the second would give rise to services imports, particularly of royalties and license fees. However, the fact that many affiliates are major importers of both goods and services suggests instead that goods and services imports may be complementary or unrelated.