

United States Statistics on Trade in Services

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Services account for a significant share of the international trade of the United States. In 1999, U.S. exports of services amounted to \$272 billion, or 28 percent of total U.S. exports of goods and services. U.S. imports of services were \$191 billion, 16 percent of total U.S. imports of goods and services. The balance on services trade—a surplus of \$81 billion—offset almost one-fourth of the \$345 billion deficit on trade in goods recorded in the U.S. international transactions accounts for 1999.

In 1997—as of this writing, the most recent year for which data on sales through foreign affiliates are available—the values of services delivered to foreign markets by majority-owned foreign affiliates of U.S. companies, and to U.S. markets by majority-owned U.S. affiliates of foreign companies, equaled or exceeded the respective values of cross-border exports and imports of services. In that year, sales of services to foreign (non-U.S.) persons by majority-owned foreign affiliates of U.S. companies were, at \$258 billion, almost identical to the \$259 billion in cross-border exports. Sales of services in the United States by majority-owned U.S. affiliates of foreign companies totaled \$206 billion, which was 23 percent higher than the \$167 billion in cross-border services imports in 1997.

To meet the needs associated with growth in the value of trade in services, trade negotiations, and the development of new and more detailed international guidelines for statistical compilation, the United States has taken a variety of steps over roughly the past 15 years to improve the coverage, specificity, and international comparability of its statistics on trade in services. Included among them have been improvements in data on both trade in the conventional sense of exchanges between residents and nonresidents and services delivered through locally established affiliates, the latter corresponding broadly to the General Agreement on Trade in Services commercial presence mode of supply and commonly referred to as "foreign affiliates trade in services", or FATS. In this paper, I will describe the U.S. data collection system for trade in services, discuss improvements that have been made in it, and identify some improvement tasks that remain.

Institutional environment.--The Bureau of Economic Analysis (BEA)—a statistical agency within the U.S. Department of Commerce—is the U.S. Government agency with the primary responsibility for collecting and disseminating data on U.S. international sales and purchases of

services. BEA's core mission is to compile the nation's economic accounts. Among the statistical systems that it maintains are the national income and product accounts, the international transactions (balance of payments) accounts, the input-output accounts, a regional economic information system, and an information system dealing with U.S. multinational companies and with foreign-owned companies operating in the United States. For the most part, BEA does not itself collect the data it uses, but obtains it from other government agencies, private sources, and—in a few cases—data exchanges with foreign statistical offices or from international organizations. However, it is a primary data collector in the area of trade in services, including both data on cross-border trade and data on services delivered through affiliates.

Before describing the data collected, a word should be said about the legal framework for data collection. All of the surveys conducted by BEA are mandatory under a law known as the International Investment and Trade in Services Survey Act. Among its provisions, this act requires the periodic collection of data on trade in services, makes reporting mandatory for U.S. businesses that engage in international services trade, and provides that the data reported will be held confidential and used for statistical purposes only. Under the last provision, the data reported cannot be used for other purposes, such as regulation, taxation, or investigation. Thus, firms must respond to the questionnaires, but they do so in the knowledge that others are having to do the same and that their responses will be held confidential and cannot be used in any legal proceeding. The act has existed in essentially its present form since 1984, when legislation authorizing the collection of data on international investment was broadened to cover trade in services as well.

A second law governing the collection of data on trade in services (as well as on other topics) is the Paperwork Reduction Act of 1995. Under this act, which is the current version of legislation originally passed in 1980, U.S. Government surveys must undergo an approval process in which the agency collecting the data is required to demonstrate to the approving authority—the Office of Management and Budget—that the data are necessary, that they cannot be obtained from an existing source, and that their collection does not place an unreasonable burden on respondents. The act requires that proposals to collect information be publically announced and

that the public be invited to comment on, among other things, the necessity of the collection and the accuracy of the agency's estimate of respondent burden. Normally, approval of a given survey must be renewed every 3 years.

Data sources.—It is within the context of this environment—and within the additional constraint of its own budget—that BEA conducts its surveys of international services. A list of the surveys is contained in the Annex at the end of the paper; facsimiles of the forms and instructions may be downloaded from BEA's Internet site, <www.bea.doc.gov>.¹ Included in the list are both surveys dealing exclusively with services and direct-investment-related surveys that include questions on services transactions within multinational firms. In a few instances, two surveys are listed as a pair; in these cases, one is a benchmark survey—essentially a census—and the other is a sample survey.²

Where they exist, benchmark surveys are usually conducted every five years. They have lower reporting thresholds than the sample surveys and usually are more detailed in terms of the items covered. For periods not covered by a benchmark survey, estimates for data reported only on the benchmark survey are derived by extrapolating forward the data reported on the benchmark survey, based on growth in the data reported on the sample surveys. This approach is used for financial services, for a group of "selected" (mainly miscellaneous business, professional, and technical) services, and for all of the direct investment surveys. This pairing of benchmark and sample surveys allows estimates covering the universe of transactions to be

¹For surveys other than those related to direct investment, survey methodologies and copies of the forms and instructions are included in U.S. Department of Commerce, Bureau of Economic Analysis, *U.S. International Transactions in Private Services: A Guide to the Surveys Conducted by the Bureau of Economic Analysis* (Washington, DC: U.S. Government Printing Office, March 1998). This publication is also downloadable from the BEA Internet site.

²To date, "sampling" in BEA's international services and investment surveys has taken the form of cut-off sampling, in which all transactions or firms above a specified threshold must be reported. Some aggregate information, not disaggregated by trading partner or type of service, on transactions below the reporting thresholds is supplied to BEA voluntarily or in certifying eligibility for exemption; to improve the overall accuracy of the estimates and, in particular, to avoid understatement, these data are included in the estimates, allocated geographically and by type of service according to the distribution of the reported data.

produced for all periods, while reducing respondent burden and processing costs below those that would otherwise be required.

While the BEA surveys provide a large share of the U.S. data on trade in services, other sources are used as well, sometimes in conjunction with BEA survey data. In some of these cases, one source is used to obtain a unit value or per capita amount, which is then multiplied by a volume measure obtained from another source to derive an estimate of the total dollar value of the transactions. For some types of transportation services, for example, sample data on transportation carriers' revenues and expenses collected in BEA surveys are expanded to universe estimates by multiplying the sample data on these items by the ratio of the total shipping weights tabulated by the Census Bureau from export and import declarations to the corresponding sample data on shipping weights obtained from the BEA surveys. As another example of this methodology, estimates of expenditures by air travelers are derived by multiplying a sample-based estimate of expenditures per traveler, obtained from an in-flight survey conducted by the International Trade Administration of the Department of Commerce, by figures on the total number of travelers obtained from the U.S. Immigration and Naturalization Service. Estimates of transactions in education services are similarly derived through multiplication of per capita figures on tuition and student living expenses by figures on the total number of U.S. students studying abroad or foreign students studying in the United States; the data used to derive the estimates are obtained from a variety of outside sources.

Detail provided.—Through this eclectic use of its own surveys and outside sources of information, and as a result of a variety of steps to improve its data, BEA now produces what it believes are substantially complete estimates of resident-nonresident trade in services. Monthly, quarterly, and annual estimates are provided. By type of service, the least detail is provided for the monthly estimates, and the most detail, for the annual estimates. For most services, the source data upon which the estimates are based are collected annually or quarterly; a few highly aggregated series are estimated monthly by the use of indicator series.

Table 1 shows the detail in which the estimates are provided, indicating for each item the frequency of release and the dollar values for 1997 and 1998. The data in the table are as published in an annual article that is designed to present data on services trade in as much detail as

possible.³ In the article, many of the items shown are further disaggregated by trading partner, with separate figures provided for trade with almost all APEC member economies.

³See "U.S. International Services: Cross-Border Trade in 1998 and Sales Through Affiliates in 1997," *Survey of Current Business*, October 1999: 48-94. Preliminary estimates for 1999 have since been released for the items marked as being available quarterly, and the estimates of these items for 1997 and 1998 have been revised. For the items marked as being available annually, updated and revised estimates will be released in an article scheduled for publication in the October 2000 issue of the *Survey*.

Table 1.-United States Cross-Border Trade in Private Services, by Type of Service, 1997-98

(Millions of dollars)

	Frequency of release	Exports		Imports	
		1997	1998	1997	1998
Total private services.....	M	240,443	245,688	152,447	165,321
Travel.....	M	73,301	71,250	52,051	56,105
Passenger fares.....	M	20,789	19,996	18,138	19,797
Other transportation.....	M	27,006	25,518	28,959	30,457
Freight.....	Q	11,789	11,178	17,654	19,412
Port services.....	Q	15,217	14,340	11,305	11,048
Royalties and license fees.....	M	33,781	36,808	9,390	11,292
Affiliated.....	Q	25,024	26,761	6,967	8,374
U.S. parents' transactions.....	Q	23,221	24,712	989	1,169
U.S. affiliates' transactions.....	Q	1,803	2,049	5,978	7,205
Unaffiliated.....	Q	8,757	10,047	2,423	2,918
Industrial processes.....	Q	3,552	4,138	1,418	1,546
Other.....	Q	5,205	5,909	1,006	1,372
Other private services.....	M	85,566	92,116	43,909	47,670
Affiliated services.....	Q	27,272	28,321	17,728	19,095
U.S. parents' transactions.....	Q	17,271	18,212	8,927	9,730
U.S. affiliates' transactions.....	Q	10,001	10,109	8,801	9,365
Unaffiliated services.....	Q	58,294	63,795	26,181	28,575
Education.....	Q	8,343	8,964	1,395	1,538
Financial services.....	Q	11,539	13,698	3,563	3,771
Insurance, net.....	Q	2,485	2,842	6,002	6,908
Premiums.....	Q	6,133	6,985	15,233	18,581
Losses.....	Q	3,648	4,143	9,231	11,673
Telecommunications.....	Q	3,949	3,689	8,351	8,125
Business, professional, and technical services.....	Q	22,467	24,338	6,358	7,684
Accounting, auditing, and bookkeeping.....	A	331	344	280	329
Advertising.....	A	624	575	859	1046
Agricultural services.....	A	23	21	9	9
Computer and data processing services.....	A	2,065	2,037	276	365
Construction, engineering, architectural, and mining services.....	A	3,498	4,053	461	699
Data base and other information services.....	A	1467	1954	141	139
Industrial engineering.....	A	1,366	1,550	211	311
Installation, maintenance, and repair of equipment.....	A	3,630	3,668	316	432
Legal services.....	A	2,152	2,451	560	688
Mailing, reproduction, and commercial art.....	A	17	17	31	33
Management of health care facilities.....	A	22	24	10	10
Management, consulting, and public relations services.....	A	1,596	1,657	731	914
Medical services.....	A	1,113	1,204	n.a.	n.a.
Miscellaneous disbursements/1/.....	A	589	533	1090	1379
Operational leasing.....	A	2,002	2,303	306	186
Personnel supply services.....	A	97	106	19	20
Research, development, and testing services...	A	896	943	568	630
Sports and performing arts.....	A	192	140	260	253
Training services.....	A	442	388	155	158
Other business, professional and					

technical services/2/.....	A	345	370	77	84
Other unaffiliated services/3/.....	A	9,511	10,264	511	549
Addendum: Total services, including government	M	258,828	263,661	166,907	181,011

n.a. Not available

Frequency indicators: M - monthly; Q - quarterly; A - annual

1. Includes disbursements to fund news-gathering costs, production costs of motion pictures and of broadcast material other than news, disbursements to maintain tourism and business promotion offices, disbursements for sales promotion and representation, and disbursements to participate in foreign trade shows.

2. Other business, professional, and technical services consists of language translation services, security services, collection services, actuarial services, salvage services, satellite photography services, oil spill and toxic waste cleanup services, and merchanting services.

3. Exports include mainly film and television tape rentals and expenditures of foreign governments and international organizations in the United States. Imports include mainly expenditures of U.S. residents temporarily working abroad and film and television tape rentals.

International comparability / data improvements.—Current international guidelines for the compilation of statistics on trade in services are, of course, provided by the fifth edition of the International Monetary Fund's *Balance of Payments Manual*, known as "BPM5". Among the more significant innovations of BPM5, in comparison with its predecessors, was to provide sharper distinctions among goods, services, and income transactions in the current account and to provide more detailed guidance for recording trade in services. The forthcoming *Manual of Statistics on Statistics of International Trade in Services* (MSITS), now circulating in draft form, will provide still more detailed guidance on services trade statistics.

For the most part, the U.S. data on trade in services are in conformity with BPM5. As the reader familiar with BPM5 will recognize from table 1, their breakdown by type of service is in fact somewhat more detailed than that suggested by the BPM5 standard components for services and includes a number of the items needed to meet the requirements of the Extended Balance of Payments Services Classification of the draft MSITS. Since the appearance of BPM5—or, in some cases, in anticipation of its appearance—several changes have been made to improve conformity. In addition, BEA has taken a number of steps to improve the accuracy, comprehensiveness, and detail of its data on trade in services. These not only have improved conformity with BPM5 but have improved the general quality of the data and added to BEA's ability to meet the detailed needs of data users. Several of the steps that have been taken are outlined below.⁴

Perhaps the most important steps have been those to improve the coverage of trade in services. Major improvements in coverage have resulted from the institution of two new families of surveys—one that collects data on a variety of "selected" services and another that collects data on financial services. In both cases, the survey family consists of a benchmark survey conducted at 5-year intervals and a less detailed annual survey. The survey of selected services was first

⁴The discussion of changes in the text is intended to be illustrative rather than comprehensive. BEA attempts to improve the international accounts on an ongoing basis, as allowed by source data and by its own resources, and in most recent years it has been able to implement at least some improvements in its estimates of trade in services. Each year, the revisions and methodological changes are documented in the *Survey of Current Business*. In recent years, this has been done in the July issue, and in 1995 and earlier years, in the June issue. Included in the documentation is information on the year for which the improvements first became reflected in the data.

conducted for 1986 and collected data for 18 different types of services. Over time, as new and emerging services have been identified, they have been added to the survey, generally at the time of a benchmark survey; currently about 30 types of services are separately reported. The survey of financial services was first conducted for 1994 and collects data for 9 different categories of financial services.

While most of the improvements in coverage have resulted from the new surveys, BEA has increased its efforts to use outside source data to develop estimates of services that are not covered by its own surveys. Medical services and educational services provide the most significant examples of this approach. In addition, the quality of data on some of the already-covered services was improved in the late 1980's, when previously voluntary surveys were made mandatory under the International Investment and Trade in Services Survey Act.

Among methodological and presentational changes that have been made to improve the usefulness of the data on trade in services, a significant one was to record trade in services between affiliated enterprises on a gross basis. Before 1992, services transactions between U.S. parent companies and their foreign affiliates had been netted and recorded under services exports, while similar transactions between U.S. affiliates of foreign companies and their foreign parents had been netted and recorded under services imports. This treatment obscured the two-way flows of intrafirm services trade, caused an understatement of total exports and imports of services, and was inconsistent with the principle of recording current account transactions on a gross basis. The adoption of a gross methodology for recording these transactions was implemented for both royalty and license fee transactions and for transactions recorded in "other private services."

Significant changes in the definition and presentation of services in the current account were made in 1989 and 1990. In 1989, a new subtotal for services was introduced. Initially, it included receipts and payments of income as well as transactions that constitute "trade in services" as the term is now generally used. To better align the nomenclature with general usage and improve the analytical usefulness of the estimates, in the following year "services" was redefined to exclude income, which was reclassified to a new subtotal of its own.

Recent changes to meet new international guidelines have included the reclassification of operational leasing and computer software royalties and license fees. Before 1998, all operational

leasing of transportation equipment had been recorded in the transportation account. In that year, operational leasing of transportation equipment without crew was grouped with recently improved data on leasing of other types of equipment in a separate "operational leasing" category, consistent with the BPM5 recommendations. In the same year, royalties and licensing fees for general use computer software were reclassified from computer and data processing services to royalties and license fees. The new treatment better reflected the affected transactions as involving intangible, nonproduced assets, and also improved consistency with BPM5.

Unfinished business.—While BEA has made considerable progress in improving its trade-in-services data and in aligning it with international guidelines, a number of data-improvement tasks remain. For the most part, these tasks can be grouped under two headings—those needed to further improve conformity with international guidelines and those needed to maintain and improve the quality of the data. The discussion below illustrates what may be involved in each case.

Although the U.S. accounts are in general conformity with BPM5, it must be acknowledged that there remain some areas in which conformity is lacking or incomplete. In some cases, resource constraints or source data limitations have precluded conformity, while in others, the variance has not been judged significant enough in the context of the U.S. accounts to justify breaking the continuity of long-established time series. In still other cases, the issues are under review and, if deemed feasible and if permitted by available resources, changes will be made in the future. A comprehensive review of these issues is beyond the scope this paper, but a few examples can illustrate what is involved.

One area in which additional work is needed concerns services transactions between affiliated enterprises. As shown in table 1, transactions between parents and affiliates in royalties and license fees and in "other private services" are shown separately from transactions between unaffiliated parties. For royalties and license fees, BPM5 requires only a total, so in this case the separate categories for affiliated and unaffiliated transactions simply represent additional detail. For the services recorded under "other private services," in contrast, BPM5 requires a total for each type of service, including affiliated and unaffiliated transactions alike. However, in table 1, the affiliated transactions are not disaggregated by type of service, making it impossible to derive

such totals. To provide the tools necessary to construct totals, BEA first requested that sales of services between parents and affiliates be broken down into a few broad types of services in its 1994 benchmark survey of U.S. direct investment abroad. Similar questions were added to the 1997 benchmark survey of foreign direct investment in the United States. These questions subsequently were carried over to the quarterly sample surveys for these types of investment. Over time, BEA will be investigating the best way to integrate these data into the accounts.

While the new questions on the types of services traded between parents and affiliates have the potential to improve conformity with BPM5, complete conformity in this area appears unachievable, as BEA's experience in collecting these data has indicated that respondents cannot break down all such transactions by type of service. Some transactions between parents and affiliates simply represent allocated charges to affiliates for a variety of overhead-type expenses incurred by the parent, and information on the specific types of services involved may not be maintained in company accounting systems. Thus, even if BEA is able to integrate the data on transactions between parents and affiliates with the data on unaffiliated transactions, it still will be left with some data that cannot be assigned to specific services. Fortunately, the Extended Balance of Payments Services Classification of the draft MSITS, which may be viewed as representing current international thinking on classification of services trade, contains the residual category "services between related enterprises, n.i.e.", under which such unclassifiable transactions may be recorded.

Another area where there is a variance from the BPM5 guidelines is in travel. One difference is that travel is not broken down as recommended between business and personal travel. Implementation of this change would require an expansion of the sample frame of the International Trade Administration's in-flight surveys to raise the quality of the responses to the questions relating to this item.

Two areas where changes are being considered for possible future implementation are insurance and royalties and license fees. For insurance, the figures shown in table 1 represent the difference between premiums and claims, which is simply the balance of all insurance-related cash flows and, as such, may not always capture the true economic value of the insurance services performed during a given period. In the coming months, BEA plans to conduct research on the

conceptual and practical issues that would have to be addressed in deriving more refined measures of insurance services performed, along the lines suggested by BPM5.

An analogous situation exists in royalties and license fees, which currently include receipts and payments for both the use and the outright sale or purchase of nonproduced intangible assets, rather than just those for the use of such assets, as recommended by BPM5. BEA has done some preliminary work to investigate the feasibility of changing its survey report forms to require that sale and use transactions in intangible assets be separately reported. One issue must be addressed concerns the conventions to follow in borderline cases, where it may not be entirely clear whether the transaction should be regarded as involving sale or use.

While it cannot be described as a specific problem or data improvement, treatment of these topics cannot be considered complete without some mention of the challenge and the necessity of keeping abreast of new services that come into existence and of new ways of delivering services. The most obvious examples involve the Internet. In recent years, as surveys have come up for renewal, instructions have been added to indicate that the criteria for reporting are based on whom the transactions are between, not on the location of the buyer or seller at the time of the transaction. Thus, the instructions indicate, transactions conducted over the Internet or other computer-mediated networks are to be reported if they otherwise meet the criteria for reporting. In addition, where new Internet-related services fall within the scope of existing services categories, definitions are revised to mention them specifically. Thus, the instructions for telecommunications services recently were changed to indicate that Internet backbone and broadband access services were to be included. Similarly, instructions for computer and data processing services were changed to indicate that Web site design and Web site management were to be included, and Internet domain names were added as an example of the type of intangible assets covered by the survey for royalties and license fees. When the next benchmark survey of "selected" services is conducted, a new category related to auction services likely will be added, reflecting the emergence of online auctions and the relative ease of participation by residents of different countries.

FATS statistics.--For information on services delivered through foreign affiliates--"FATS" statistics--BEA relies entirely on its own surveys. As will have been made evident by the

presentations on the MSITS, the domain of FATS statistics encompasses a variety of indicators of affiliate operations, organized in a way that highlights the role of services. Although the initial data were collected without any particular regard for services, BEA (and its predecessor organization, the Office of Business Economics) has now collected statistics that could qualify as FATS statistics for a full half century. Data on foreign affiliate operations were first collected in a benchmark survey of U.S. direct investment abroad covering 1950. Similar data were collected for the first time for foreign direct investment in the United States in a benchmark survey covering 1959. Over time the variables collected have expanded, and annual data are now available covering both the key variables noted in the MSITS and others, for both foreign affiliates of U.S. companies (available annually beginning with 1982) and U.S. affiliates of foreign companies (available annually beginning with 1977).

As interest in services grew and as it became apparent that services would be included in negotiations, a key adjustment was made to accommodate this new emphasis. In particular, questions on sales were expanded to request that this item be broken down into sales of goods and sales of services, and definitions were provided to distinguish between the two. In addition, when industry classifications were revised, additional detail was provided for services industries.

Perhaps the most important change was requesting that sales of services be reported separately from sales of goods. Because the data on affiliate operations are classified according to the primary industry of the affiliate, all of an affiliate's sales are recorded in a single industry, even if the affiliate has operations in multiple industries. Many manufacturing firms and other goods producers have secondary operations in services, but these operations would not be recognized as services in a breakdown by primary industry alone, thus leading to an understatement in the role and importance of services.⁵ The breakdown of sales into goods and services avoids this understatement. It would be better still if sales could be broken down by product—that is, by type of good or service—but from the standpoints of respondent burden and processing costs, BEA did not feel justified in requesting this. Disaggregating sales as between goods and services thus served as a compromise solution, which avoided misstatement without imposing a large increase

⁵It is, of course, also possible for services firms to have secondary operations in goods, but this tends to be less common than for goods producers to have secondary services operations.

in reporting burden or processing costs.

In its annual detailed article on international services, BEA has presented the following two items: (1) sales of services to foreign persons by majority-owned nonbank foreign affiliates of U.S. companies, and (2) sales of services to U.S. persons by majority-owned nonbank U.S. affiliates of foreign companies. The foreign affiliates' sales to U.S. customers, and U.S. affiliates' sales to foreign customers, are excluded from this integrated presentation because they are already reflected in the data on cross-border trade.⁶ The data are for nonbank affiliates only, because the surveys from which the data are derived exclude banks from coverage. The coverage is restricted to majority-owned affiliates for both practical and conceptual reasons. For foreign affiliates, the breakdown of sales as between U.S. and foreign sales is available only for majority-owned affiliates.⁷ In addition, the exclusion of minority-owned affiliates may be preferred conceptually because the direct investor may own as little as 10 percent of a minority-owned affiliate and thus have less interest than local investors in the affiliate's sales.

The industry breakdown of these statistics is as given in table 2. As can be seen, a transition in classifications is underway, with a new system based on the North American Industry Classification System (NAICS) being introduced beginning with data for 1997 in the statistics for U.S. affiliates of foreign companies. This classification system will be introduced for foreign affiliates of U.S. companies beginning with data for 1999. NAICS is the new industry classification system of the United States, Canada, and Mexico. In the United States, it supplants the 1987 Standard Industrial Classification System. Among other improvements, NAICS better reflects new and emerging industries, industries involved in the production of advanced technologies, and services industries.

In addition to the sales variable shown in table 2, BEA's data on affiliate operations include a variety of other indicators. Among these are balance sheets, income statements, employment and employee compensation, research and development expenditures, taxes, and

⁶However, data on these sales are available, as are data on total sales (including sales of goods), in a separate data publication.

⁷The foreign sales are, in turn, further disaggregated into local sales and sales to third countries.

sources of external financing. Although sometimes presented using different nomenclature, the variables covered include both the "basic" and the optional "additional" FATS variables suggested in the draft MSITS.

In addition to being broken down by industry of affiliate (and, for foreign affiliates, also by industry of U.S. parent), all of the variables collected are disaggregated geographically. For foreign affiliates, the disaggregation is based on the location of the affiliate whose operations are being described. For U.S. affiliates of foreign companies, it is based on the location of the ultimate beneficial owner (UBO) of the affiliate.⁸ The UBO is considered preferable to the foreign parent as the basis for geographical classification of U.S.-affiliate operations because the UBO is the person that ultimately owns or controls the affiliate and that therefore ultimately derives the benefits from ownership or control.

⁸The UBO is that person, proceeding up a U.S. affiliate's ownership chain, beginning with and including the foreign parent, that is not owned more than 50 percent by another person. (The foreign parent is the first foreign person in the affiliate's ownership chain.)

Table 2.—Sales of Services Through Majority-Owned Affiliates, by Industry

(Millions of dollars)

A. By SIC-based industry

	Sales of services to foreign persons by nonbank majority-owned foreign affiliates of U.S. companies		Sales of services to U.S. persons by nonbank majority-owned U.S. affiliates of foreign companies
	1996	1997	1996
All industries	223,175	258,253	168,444
Petroleum	9,789	12,413	3,278
Manufacturing	20,478	17,280	11,577
Food and kindred products	210	312	483
Chemicals and allied products	82	93	2,820
Primary and fabricated metals	39	231	565
Machinery	16,190	(D)	3,427
Other manufacturing	3,958	(D)	4,282
Wholesale trade	15,099	14,847	8,996
Retail trade	1,220	(D)	504
Finance, except depository institutions	(D)	(D)	10,736
Insurance	41,000	47,240	56,820
Real estate	(D)	(D)	11,489
Services	82,968	93,589	43,250
Hotels and other lodging places	2,866	3,335	7,833
Advertising	(D)	(D)	3,652
Equipment rental and leasing, except autos and computers .	(D)	(D)	1,845
Computer and data processing services	28,862	(D)	4,660
Motion pictures, including television tape and film	8,513	8,415	5,054
Engineering, architectural, and surveying services	8,682	9,338	3,472
Accounting, research, management and related services ...	7,738	8,529	2,037
Health services	487	351	3,540
Other services	(D)	(D)	11,157
Other industries	29,632	(D)	21,795
Agriculture, forestry, and fishing	127	87	94
Mining	132	104	37
Construction	716	269	1,157
Transportation	10,621	11,061	12,114
Communication	6,351	8,807	5,975
Public utilities	11,684	(D)	2,418

B. By NAICS-based industry

	Sales of services to U.S. persons by nonbank majority- owned U.S. affiliates of foreign companies
	1997
All industries	205,548
Manufacturing	10,244
Of which:	
Food	1,626
Chemicals	2,805
Primary and fabricated metals	510
Machinery	1,963
Computers and electronic products	775
Electrical equipment, appliances, and components	(D)
Transportation equipment	285
Wholesale trade	12,071
Of which:	
Motor vehicles and motor vehicle parts and supplies	5,160
Professional and commercial equipment and supplies	1,799
Retail trade	503
Information	32,065
Publishing industries	10,494
Newspaper, periodical, book, and database publishers	10,143
Software publishers	350
Motion picture and sound recording industries	9,601
Motion picture and video industries	4,591
Sound recording industries	5,010
Broadcasting and telecommunications	9,301
Broadcasting, cable networks, and program distribution	(D)
Telecommunications	(D)
Information services and data processing services	2,669
Information services	2,526
Data processing services	142
Finance (except depository institutions) and insurance	72,865
Finance, except depository institutions	13,907
Nondepository credit intermediation and related services	2,306
Securities, commodity contracts, and other intermediation and related activities ..	11,471
Funds, trusts, and other financial vehicles	130
Insurance carriers and related activities	58,958
Insurance carriers, except life insurance carriers.....	29,807
Life insurance carriers	25,809
Agencies, brokerages, and other insurance related activities	3,342
Real estate and rental and leasing	14,867
Real estate	12,197
Rental and leasing (except real estate)	2,671
Professional, scientific, and technical services	11,977
Architectural, engineering, and related services	3,066
Computer systems design and related services	3,771
Management, scientific, and technical consulting	459

Other	4,681
Legal services	(D)
Accounting, tax preparation, bookkeeping, and payroll services	0
Specialized design services	21
Scientific research and development services	433
Advertising and related services	3,976
Other professional, scientific, and technical services	(D)
Other industries	50,955
Agriculture, forestry, fishing, and hunting	148
Mining	2,123
Utilities	1,479
Construction	2,283
Transportation and warehousing	13,684
Of which:	
Air transportation	416
Rail transportation	1,363
Water transportation	2,244
Truck transportation	(D)
Support activities for transportation	6,888
Management of companies and enterprises	100
Administration, support, and waste management	11,393
Administrative and support services	(D)
Of which:	
Employment services	4,776
Travel arrangement and reservation services	2,475
Waste management and remediation services	(D)
Health care and social assistance	4,727
Accommodation and food services	11,001
Accommodation	6,539
Food services and drinking places	4,462
Miscellaneous services	4,017
Educational services	453
Arts, entertainment, and recreation	1,702
Other services (except public administration and private households)	1,861

D Suppressed to avoid disclosure of data of individual companies.

Annex: Bureau of Economic Analysis Surveys of International Services

The following list includes both surveys dealing exclusively with services and direct-investment-related surveys that include some questions dealing with services. As noted in the text, facsimiles of the forms and instructions may be downloaded from BEA's Internet site, <www.bea.doc.gov>, and for surveys other than those related to direct investment, survey methodologies and copies of the forms and instructions are included in U.S. Department of Commerce, Bureau of Economic Analysis, *U.S. International Transactions in Private Services: A Guide to the Surveys Conducted by the Bureau of Economic Analysis*.

Survey(s)	Content / purpose
Benchmark Survey of Selected Services Transactions with Unaffiliated Foreign Persons (BE-20) and Annual Survey of Selected Services Transactions with Unaffiliated Foreign Persons (BE-22)	Exports and imports of about 30 different types of mainly business, professional and technical services. The benchmark survey has a lower reporting threshold and covers a few more services than the annual survey.
Annual Survey of Construction, Engineering, Architectural, and Mining Services Provided by U.S. Firms to Unaffiliated Foreign Persons (BE-47)	U.S. sales of the listed services. (Purchases of these services are collected on the BE-20 and BE-22 surveys.) Items collected include gross operating revenues (sales), merchandise exports included in gross operating revenues, and foreign expenses or disbursements. Gross value of new contracts received also is collected, as an indicator of future sales.
Annual Survey of Reinsurance and Other Insurance Transactions by U.S. Insurance Companies with Foreign Persons (BE-48)	Premiums and claims related to reinsurance assumed from or ceded to insurance companies resident abroad and to primary insurance sold to foreign persons. U.S. purchases of primary insurance (which typically would not involve U.S. insurance companies) are collected on the BE-20 and BE-22 surveys rather than on this survey.

Benchmark Survey of Financial Services Transactions Between U.S. Financial Services Providers and Unaffiliated Foreign Persons (BE-80) and Annual Survey of Financial Services Transactions Between U.S. Financial Services Providers and Unaffiliated Foreign Persons (BE-82)

Sales and purchases of financial services by U.S. financial services providers. The benchmark survey has a lower reporting threshold than the annual survey. Data on several different types of financial services are collected separately. These surveys cover only financial services providers; purchases of financial services by other types of firms are collected on the BE-20 and BE-22 surveys.

Annual Survey of Royalties, License Fees, and Other Receipts and Payments for Intangible Rights Between U.S. and Unaffiliated Foreign Persons (BE-93)

Receipts and payments related to intangible rights. Intangibles are broken down into 8 categories.

Foreign Ocean Carriers' Expenses in the United States (BE-29)

Foreign ocean carriers expenses in the United States. Expenses are broken down into several categories, including fuel, which is the largest item of goods procured in ports. The survey also collects information on the shipping weight of the cargo handled.

Ocean Freight Revenues and Foreign Expenses of United States Carriers (BE-30)

U.S. carriers' revenue from outbound cargo and from inbound cargo, outbound and inbound shipping weights, and expenses incurred in foreign countries.

Foreign Airline Operators' Revenues and Expenses in the United States (BE-36)

Foreign airlines' freight revenues, shipping weights, and U.S. expenses. The Expenses are broken down into several categories, including fuel.

U.S. Airline Operators' Foreign Revenues and Expenses (BE-37)

U.S. airlines' revenues from carriage of cargo from the United States to foreign destinations; transportation of cargo and passengers between foreign locations; foreign expenses; and interline settlement receipts and payments with foreign airline operators.

Direct Transactions of U.S. Reporter with Foreign Affiliate (BE-577)

Services transactions (and other items) related to outward direct investment. Recently expanded to require annual detail by type of service.

Transactions of a U.S. Affiliate, Except a U.S. Banking Affiliate, with Foreign Parent (BE-605) and Transactions of a U.S. Banking Affiliate with Foreign Parent (BE-605-BANK).

Services transactions (and other items) related to inward direct investment. Recently expanded to require annual detail by type of service.

Benchmark Survey of U.S. Direct Investment Abroad (BE-10) and Annual Survey of U.S. Direct Investment Abroad (BE-11)

A variety of indicators of the operations of foreign affiliates of U.S. companies (i.e., outward FATS), and of U.S. parent companies. The benchmark survey also collects balance of payments transactions, and is used in creating universe estimates from the data collected on the BE-577 survey, which is a cut-off sample survey. The benchmark survey has a lower reporting threshold and is more detailed than the annual survey.

Benchmark Survey of Foreign Direct Investment in the United States (BE-12) and Annual Survey of Foreign Direct Investment in the United States (BE-15)

A variety of indicators of the operations of U.S. affiliates of foreign companies (i.e., inward FATS). The benchmark survey also collects balance of payments transactions, and is used in creating universe estimates from the data collected on the BE-605 and BE-605 BANK surveys, which are cut-off sample surveys. The benchmark survey has a lower reporting threshold and is more detailed than the annual survey.

Initial Report on a Foreign Person's Direct or Indirect Acquisition, Establishment, or Purchase of the Operating Assets, of a U.S. Business Enterprise, Including Real Estate (BE-13)

Initial report for newly established or acquired U.S. affiliates of foreign companies. Collects information on investment outlays, type of investment (e.g., established or acquired), source of funding, and a few key operating statistics.