A Guide to BEA Statistics on U.S. Multinational Companies

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Statistics on U.S. multinational companies (MNC's) produced by the Bureau of Economic Analysis (BEA) provide a comprehensive and integrated data set for empirical analysis of MNC's and of the effects of MNC's on the economies of home and host countries. When this data set began in 1929, its scope was limited to one data item—the value of foreign commercial assets controlled by U.S. companies. Since then, the scope of these statistics has greatly expanded in step with the growth in MNC's and the increasing integration of the global economy.[1] BEA's current data on U.S. MNC's are among the most diverse in the world, ranging from traditional balance-of-payments items that most countries produce to "financial and operating" items that few other countries produce but that allow a much broader understanding of U.S. MNC's (see box "Note on International Comparability"). This article provides an introductory guide to these statistics.

The statistics on U.S. MNC's support numerous activities by the government and the private sector, including the following:

- Compilation of the U.S. economic accounts by BEA;
- Conduct of bilateral and multilateral negotiations to reduce barriers to investment and trade;
- Studies by academic and government researchers to assess the impact of U.S. investment abroad on the U.S. and foreign economies; and
- Strategic planning by U.S. businesses.

This guide is intended to familiarize the reader with the statistics available on U.S. MNC's (sections I and II), some of the major questions they can and cannot answer (section III), and some details on their presentation (section IV). Many topics are covered in less than full detail; a more detailed and technical methodology can be found in *U.S. Direct Investment Abroad: 1989 Benchmark Survey, Final Results*.[2]

In this guide, the following terms are used extensively. *Direct investment* is investment in which a resident of one country obtains a lasting interest in, and a degree of influence over the management of, a business enterprise in another country. In the United States, the criterion used to distinguish *U.S. direct investment abroad* (USDIA) from other types of investment abroad is the ownership of at least 10 percent of a foreign business enterprise; thus, USDIA is the ownership or control, directly or indirectly, by one U.S. resident of 10 percent or more of the voting securities of an incorporated foreign business enterprise or the equivalent interest in an unincorporated foreign business enterprise.[3] A *U.S. parent company* (also referred to as "U.S. parent" or "parent") is a U.S. business that undertakes USDIA; a *foreign affiliate* (also referred to as "affiliate") is a foreign business in which the U.S. parent has a direct investment interest; and a *U.S. MNC* is the combined operations of the parent and its affiliates.

BEA produces two broad sets of data on U.S. MNC's: (1) Balance of payments and direct investment position data and (2) financial and operating data. The *balance of payments and direct investment position data* focus solely on the value of transactions between U.S. parents and

1. From 1929 to 1950, the Commerce Department conducted five surveys of U.S. MNC's to determine the book value of American business investments in foreign countries. A census covering 1957 represented a significant expansion in the scope and purpose of these surveys. Its goal was to evaluate "...the full effects of U.S. business investments both on our domestic economy and on the economies of foreign countries..." (U.S. Department of Commerce, Office of Business Economics, *U.S. Business Investments in Foreign Countries: A Supplement to the Survey of Current Business* (Washington, DC, U.S. Government Printing Office, 1962): iii). To fulfill this goal, the data items collected were greatly expanded to include, for instance, condensed balance sheets and income statements, employment, and U.S. merchandise trade of foreign affiliates. In both form and function, the 1957 survey can be regarded as the prototype for all of BEA's later U.S.-MNC surveys.

2. *U.S. Direct Investment Abroad: 1989 Benchmark Survey, Final Results*, U.S. Department of Commerce, Bureau of Economic Analysis (Washington, DC: U.S. Government Printing Office, October 1992).

3. This definition is consistent with guidelines established by the International Monetary Fund (IMF) and the Organisation for Economic Co-operation and Development (OECD). See IMF, *Balance of Payments Manual*, 5th ed. (Washington, DC: IMF, 1993): 86–87 and OECD, *Detailed Benchmark Definition of Foreign Direct Investment*, 2nd ed. (Paris: OECD, 1992).

their foreign affiliates and the cumulative value of parents' investments in their affiliates. The *financial and operating data*, in contrast, provide a wide variety of indicators of the overall domestic and foreign operations of U.S. MNC's, irrespective of the degree of intra-MNC funding. For example, total foreign-affiliate assets (which can be funded by internal affiliate funds, by funds received from foreigners and unaffiliated U.S. persons, as well as by funds received from U.S. parents) were $1.7 trillion in 1992, and the direct investment position (which measures the portion of affiliate assets that are funded by U.S. parents) was $499 billion.

Both types of data are collected in mandatory surveys conducted regularly by BEA. Benchmark surveys (or censuses), which are currently conducted every 5 years, are the most comprehensive surveys in several respects: (1) They collect both types of data, (2) they cover virtually the entire population—or universe—of U.S. MNC's in terms

Note on International Comparability

International guidelines for the compilation of balance of payments and direct investment position data have been set forth by several international organizations. Recently, these guidelines have undergone major revisions, as part of an internationally coordinated effort to modernize and extend international standards for economic accounting and to improve harmonization among the recommendations of different organizations. The BEA data on direct investment discussed in this article conform closely with these guidelines. The data of other countries generally conform less closely, and thus often are not comparable with BEA's data, but efforts to improve conformity are under way in many countries. As a result, the international comparability of direct investment statistics, while incomplete, is improving and should continue to improve as these efforts continue.

The most detailed recommendations specifically pertaining to direct investment appear in the International Monetary Fund's (IMF) *Balance of Payments Manual* and the Organisation for Economic Cooperation and Development's (OECD) *Detailed Benchmark Definition of Foreign Direct Investment;* recommendations consistent with these are employed in the external sector of the international *System of National Accounts 1993* (SNA).[1] As now constructed, this body of recommendations provides comprehensive and detailed international standards for recording both positions (stocks) and flows related to direct investment.[2] The recommendations cover a wide range of issues, including concepts and definitions, time of recording, geographical allocation, and valuation.

Direct investment statistics are currently available for roughly 100 countries. However, many of these countries' statistics deviate significantly from international guidelines.[3] One of the most common deviations is the lack of information on reinvested earnings. Although a major source of financing for direct investment—accounting for almost 60 percent of capital outflows for U.S. direct investment abroad in 1994—reinvested earnings are not covered in the statistics of the many countries that must use central bank statistics, rather than survey information obtained from direct investors or their affiliates, as their primary data source. (Unlike equity capital flows or distributions of dividends, reinvested earnings do not give rise to foreign exchange transactions that would flow through the banking system.) Japan and France, for example, are among the many countries lacking information on reinvested earnings. As efforts to improve conformity with international guidelines proceed, perhaps the most important task, as well as one of the most difficult, will be achieving more widespread coverage of reinvested earnings.

Another common deviation is the use of a percentage-ownership threshold different from the recommended 10-percent level for identifying an investment as "direct." For example, the United Kingdom and Germany use a threshold of 20 percent. In addition, some countries do not use ownership percentages as the sole criteria for defining direct investment; instead, they attempt to evaluate individual investments subjectively in determining whether the degree of influence or control is consonant with the general concept of direct investment.

A few other variances from international guidelines may be observed in the statistics of some countries. For instance, some countries exclude certain types of intercompany debt from direct investment, while others may exclude investment in certain industries. Still other countries base their statistics on government approvals of investments rather than on actual flows of funds.

Compared with direct investment balance of payments and position data, financial and operating data for MNC's are much less widely available. In fact, the United States is one of only a very few countries that now produce such data. However, the need for such data is becoming more widely recognized, and several countries are trying to find ways to develop them. Major factors that have heightened interest in these data include the increasing economic interdependence of world economies, the adoption by many companies of global business strategies and internationally integrated production processes, and the increasingly common practice of broadening bilateral and multilateral commercial agreements to cover not only trade issues, as in the past, but also investment issues. Among the financial and operating data items that appear to be of primary interest are intra-firm trade flows and local sales by foreign affiliates (sometimes termed "establishment trade"). Because of the pioneering role of the United States in developing financial and operating data for MNC's, BEA is frequently consulted by national statistical offices and international organizations in connection with attempts to develop such data for other countries.

1. See *System of National Accounts 1993* (Brussels/Luxembourg, New York, Paris, and Washington, DC: Commission of the European Communities, IMF, OECD, United Nations, and World Bank, 1993).

2. The new (5th) edition of the IMF *Manual* is the first to deal with the measurement of stocks of investment; previous editions dealt only with flow items included in balance of payments accounts. This change not only was an improvement in its own right, but it also improved harmonization between the *Manual* and the SNA. (A major change introduced in the latest revision of the SNA was improved integration in the treatment of stocks and flows.) Other major changes introduced in the revised *Manual* include provision of more detailed guidance for recording trade in services and transactions involving new and emerging financial instruments.

3. The United Nations recently published a compendium of direct investment statistics worldwide; see United Nations Conference on Trade and Development, *World Investment Directory*, vol. I–VI (New York: United Nations, 1994). For more detailed information on direct investment definitions used by OECD members, see OECD, "Technical Notes," *International Direct Investment Statistics Yearbook 1994* (Paris: OECD, 1994): 266–312.

of dollar value, and (3) they obtain more data items than are collected in the other surveys.

In addition to the benchmark surveys, BEA conducts quarterly and annual sample surveys. The balance of payments and direct investment position estimates are based on data collected in the quarterly surveys, and the financial and operating estimates are based on data collected in the annual surveys. In the sample surveys, reports are not required for small affiliates, in order to reduce the reporting burden on the U.S. companies that must file. Instead, BEA estimates the data for these affiliates by extrapolating forward their data from the most recent benchmark survey on the basis of the movement of the sample data. Thus, coverage of the U.S.-MNC universe is complete in nonbenchmark, as well as benchmark, periods.

Balance of Payments and Direct Investment Position Data

Balance of payments and direct investment position data track transactions between U.S. parents and their foreign affiliates and the cumulative value of parents' investment in their affiliates, respectively. These data are essential inputs to the U.S. economic accounts; they contribute to the balance of payments accounts, the U.S. international investment position (IIP), the national income and product accounts (NIPA's), and the input-output (I-O) accounts.

The balance of payments accounts measure economic transactions between U.S. and foreign residents and consist of two major accounts: The current account, which covers transactions in goods, services, income, and unilateral transfers, and the capital account, which covers changes in financial claims and liabilities. Direct investment *current-account flows* measure receipts and payments between parents and affiliates for the use of capital or the provision of services, such as royalties paid by affiliates to their U.S. parents for the use of a production process. Direct investment *capital-account flows* measure movements of capital between parents and affiliates, such as equity investment by parents in their affiliates or loans between parents and affiliates.

The IIP measures the accumulated stocks of U.S. assets abroad and foreign assets in the United States. One important component of the IIP is the *U.S. direct investment position abroad*, which measures the value of the net accumulated stock of capital that U.S. parents have provided to their foreign affiliates.

The NIPA's measure the Nation's output of goods and services. Direct investment current-account flows are included in two key summary NIPA measures—gross domestic product (GDP) and gross national product (GNP). All U.S.-parent receipts under current-account flows enter GNP because they reflect the value of output of labor and property supplied by U.S. residents (regardless of the location of the labor or property—in the United States in a U.S. parent company or abroad in a foreign affiliate).[4] However, only those U.S.-parent receipts under current-account flows that reflect the output of labor and property located in the United States (that is, U.S.-parent exports of goods and services) enter GDP.[5]

The I-O accounts depict the economic interactions between industries in the U.S. economy. They show, for each industry, the amount of its output that goes to each other industry as raw materials or semifinished products, and the amount that is sold to the final markets of the economy, placed in inventory, or exported; U.S.-parent exports of goods and services are included in the exports. From a different perspective, the I-O accounts show each industry's contribution to the production process—in the form of value added as well as its consumption of the products of other domestic industries and imported products; U.S.-parent imports of goods and services are included in the imports.[6]

Current-account flows

As mentioned earlier, direct investment current-account flows measure receipts and payments

4. GNP measures the output of labor and property (located either here or abroad) supplied by U.S. residents.

5. GDP measures the output of labor and property located in the United States.

6. For a more detailed explanation of the structure and concepts of the I-O accounts, see "Benchmark Input-Output Accounts for the U.S. Economy, 1987," SURVEY OF CURRENT BUSINESS 74 (April 1994): 73–115.

Table 1.—Current-Account Flows on U.S. Direct Investment Abroad, 1993

[Millions of dollars]

Income	57,515
Earnings	56,117
Distributed earnings	26,552
Reinvested earnings	29,565
Interest	1,398
U.S. parents' receipts	3,746
U.S. parents' payments	2,349
Royalties and license fees	14,926
U.S. parents' receipts	15,158
U.S. parents' payments	232
Other services	4,908
U.S. parents' receipts	10,497
U.S. parents' payments	5,589

NOTE.—Income includes a current-cost adjustment. All estimates are before deduction of withholding taxes.

that accrue between U.S. parents and their foreign affiliates in return for providing capital to, or performing services for, one another.[7] These receipts and payments fall into three categories: Direct investment income, royalties and license fees, and charges for other services (table 1). *Direct investment income* is the U.S. parents' return on capital that they have provided to their foreign affiliates. It comprises (1) U.S. parents' claims on the earnings (or profits) of foreign affiliates and (2) U.S. parents' interest receipts on loans to their foreign affiliates, less the parents' interest payments on loans from their foreign affiliates.[8] The earnings component of direct investment income is computed after foreign income taxes and excluding capital gains and losses. No distinction is made between earnings that are distributed to the parent and those that are reinvested; both are included in direct investment income.

> EXAMPLE: A U.S. parent has an 80-percent equity interest in a Korean affiliate, and the affiliate has after-tax earnings of $100 million. The affiliate distributes one-half of its earnings to its owners and reinvests the remainder. In this case, assuming there are no interest receipts and payments between the parent and the affiliate, the parent's direct investment income from that affiliate would be $80 million, or 80 percent of the $100 million in after-tax earnings.

The remaining direct investment current-account flows—royalties and license fees and charges for other private services—represent receipts and payments that accrue between U.S. parents and foreign affiliates for providing services to one another. *Royalties and license fees* represent charges for intangible property or rights, such as patents, trademarks, copyrights, franchises, manufacturing rights, and other intangible assets or proprietary rights. For example, a U.S. parent in the computer industry may collect royalties from its foreign affiliate when the affiliate sells computer networks that use operating systems developed by the parent. *Charges for other services* cover fees for management, professional, or technical services; rentals for the use of tangible property; and film and television tape rentals. For example, a U.S. automobile company may collect fees from its foreign affiliate when it provides technical assistance in introducing new manufacturing systems and techniques or when it performs research and development on behalf of its affiliate.

The data on direct investment current-account flows that are collected in BEA surveys are adjusted before they are incorporated into the balance of payments accounts and the NIPA's. Direct investment income is converted from a financial accounting basis to an economic accounting basis, so that its earnings component will reflect the contribution of direct investment capital to current-period production.[9] In addition, the effect of withholding taxes is removed from all reported current-account flows.[10]

Capital-account flows

Direct investment capital flows measure funds that U.S. parent companies provide to their foreign affiliates (outflows), *net of* funds that affiliates provide to their parents (inflows) during a given period.[11] These funds can be supplied in three forms: Equity capital, intercompany debt, and reinvested earnings (chart 1).

Equity capital outflows occur when a U.S. parent increases its equity investment in one of its existing foreign affiliates or makes a new equity investment in a foreign business enterprise, either by acquiring an existing foreign business or by establishing a new one (chart 1, first arrow). Equity capital inflows occur when a U.S. parent reduces its equity interest in an existing affiliate (chart 1, second arrow).

> EXAMPLE: If a U.S. company acquires a British company by purchasing all of that company's

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7. Receipts and payments between U.S. parents and foreign affiliates for providing goods to one another (U.S. merchandise exports and imports) also are included in the current account, but they are not separately identified. (They are, however, separately identified in the direct investment financial and operating data; see the section "Financial and Operating Data.")

8. In all the examples in this article, the voting interest (the basis for distinguishing direct investment) is assumed to be the same as the financial interest (the basis for apportioning claims on earnings) that the U.S. parent has in its foreign affiliate. This is usually the case, but the two sometimes differ.

9. The conversion is accomplished through four adjustments. First, as noted earlier, capital gains and losses are removed from reported earnings, because they represent changes in the dollar value of existing assets, not charges against current production. Second, a capital consumption adjustment is made to convert depreciation charges from a historical-cost basis to a current- (or replacement-) cost basis. Third, charges for the depletion of natural resources are added back to earnings because these charges are not treated as production costs in the NIPA's. Fourth, expenses for mineral exploration and development are reallocated across time periods to ensure that they are written off over their economic lives rather than all at once. Except for the removal of capital gains and losses, these adjustments are made to direct investment income only at the global level; the other adjustments cannot be made below the global level because the required data are not available. For additional information, see "U.S. International Transactions: First Quarter 1992 and Revised Estimates for 1976–91," SURVEY 72 (June 1992): 72–75.

10. Withholding taxes are taxes withheld by governments on income or other funds that are distributed or remitted, such as payments for services.

The direct investment current-account flow totals that enter the balance of payments accounts and NIPA's are gross of withholding taxes, in accordance with international guidelines. However, detailed estimates of these flows by country and by industry are net of withholding taxes because country-specific information on some types of withholding taxes is not available.

11. A rare exception to this rule occurs when a foreign affiliate has an equity interest in its U.S. parent. In this case, changes in the affiliate's equity interest in its U.S. parent are not recorded as capital inflows on USDIA, but rather as capital inflows on foreign direct investment in the United States if the interest is at least 10 percent or on foreign portfolio investment in the United States if the interest is less than 10 percent.

stock for $500 million, a $500 million equity capital outflow would be recorded. If, after a time, the U.S. company sells this stock to a foreign resident for $500 million, a $500 million equity capital inflow would be recorded.

Intercompany debt flows are of two types: U.S.-parent receivables and U.S.-parent payables. U.S.-parent *receivables* represent loans that a U.S. parent extends to its foreign affiliate.[12] An outflow on U.S.-parent receivables occurs when the parent extends a new loan to its affiliate (chart 1, third arrow); an inflow occurs when an affiliate repays part or all of a loan from its U.S. parent (chart 1, fourth arrow).

EXAMPLE: If a U.S. parent makes a $50 million loan to its Canadian affiliate in the first quarter of the year and the affiliate repays one-half of the principal in the second quarter, a $50 million outflow in the first quarter and a $25 million inflow in the second quarter would be recorded under U.S.-parent receivables.

U.S.-parent *payables* represent loans that a foreign affiliate extends to its U.S. parent. An outflow on U.S.-parent payables occurs when the parent repays part or all of a loan from its foreign affiliate (chart 1, fifth arrow); an inflow occurs when an affiliate extends a new loan to its U.S. parent (chart 1, sixth arrow).

Reinvested earnings are the U.S. parent's claim on the undistributed after-tax earnings of its foreign affiliate. They are computed as the difference between a parent's claim on its affiliate's current earnings and the dividends that the affiliate pays to its parent in a given period.[13] Reinvested earnings are positive when a parent has a claim on positive current earnings of its affiliate in excess of the dividends that it receives from its affiliate (chart 1, seventh arrow).

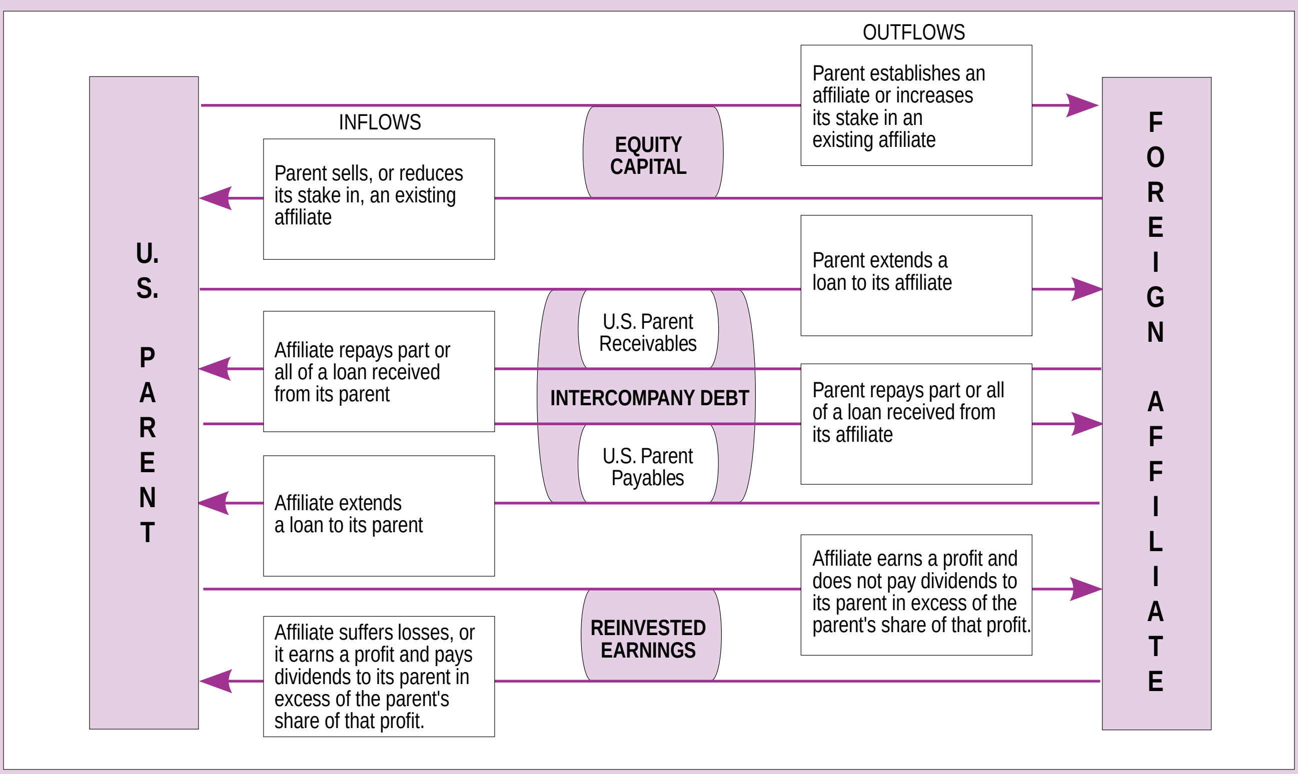
EXAMPLE: A wholly owned French affiliate earns $100 million after taxes and pays a $20 million dividend to its U.S. parent; the $80 million dif-

12. The word "loan" is used loosely to signify all classes of financial obligations, which include trade accounts, notes payable, and dividends payable as well as loan obligations.

13. The word "dividend" is used loosely to signify all distributions from cumulative retained earnings, including earnings distributions from unincorporated affiliates as well as dividends from incorporated affiliates.

CHART 1

Components of Capital Inflows and Outflows on U.S. Direct Investment Abroad



U.S. Department of Commerce, Bureau of Economic Analysis ference between earnings and dividends would be recorded as reinvested earnings.

Reinvested earnings are negative when an affiliate's current earnings are negative or the parent receives dividends in excess of its claim on current earnings (chart 1, eighth arrow).[14]

Direct investment position

In contrast to the current- and capital-account items discussed above, which measure flows during a given period of time, the U.S. *direct investment position* abroad (also referred to as the "position") is a stock item. As such, it measures the total outstanding level of USDIA at a given point in time. The position is measured as the yearend value of U.S. parents' equity (including retained earnings) in, and net outstanding loans to, their foreign affiliates.

Three alternative valuations of the position are available: Historical cost, current cost, and market value. The historical-cost position measures USDIA at its book value, which in most cases is the initial acquisition price. Book value is the standard valuation method for financial accounting and thus is used by MNC's when reporting direct investment data to BEA. Its analytical usefulness is limited, however, because it reflects prices of various years and thus cannot be interpreted as either a constant- or a current-dollar value.

To meet the need for measures that are valued at prices of the current period, BEA has developed current-cost and market-value estimates of the position.[15] The direct investment position at *current cost* revalues that portion of the position that represents U.S. parents' claims on the tangible assets of affiliates (such as plant, equipment, and inventories), using price indices appropriate to each of a few broad asset classes. The direct investment position at *market value* revalues both the tangible and intangible assets on which U.S. parents have claims, using aggregate stock price indices for foreign countries.[16] Market-value estimates tend to be more volatile than those based on historical or current cost (chart 2) because of the high volatility of stock market prices.

The current-cost and market-value estimates are produced only at the global level and not by country or industry.

Year-to-year change in the position.—The year-to-year change in the position is the sum of direct investment capital flows and *valuation adjustments* (table 2). Valuation adjustments are broadly defined to include all changes in the position other than capital outflows; they result from price changes, exchange-rate changes, and other factors. Valuation adjustments to the historical-cost position consist of translation adjustments, other capital gains and losses, and other adjustments. Valuation adjustments to the

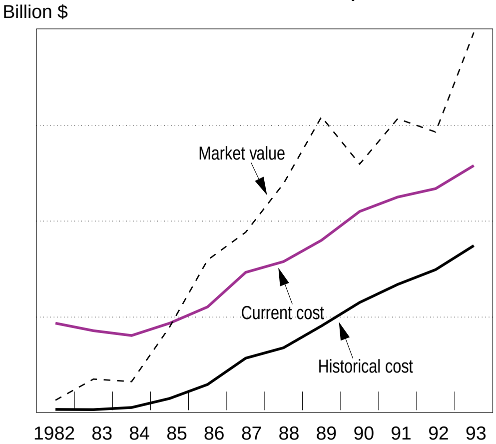
14. Dividends may exceed current earnings because they are paid out of cumulative retained earnings, and thus they may reflect prior-period, as well as current-period, earnings.

15. These two measures not only enhance the analysis of direct investment but also put direct investment on valuation bases consistent with those used for other types of assets included in the IIP. See "Valuation of the U.S. Net International Investment Position," SURVEY 71 (May 1991): 40–49.

16. These indices are from Morgan Stanley Capital International. BEA's market-value estimates revalue only the owners' equity portion of the position; the intercompany debt portion is assumed to be approximately valued at current-period prices.

CHART 2

Alternative Valuations of the U.S. Direct Investment Position Abroad, 1982–93



U.S. Department of Commerce, Bureau of Economic Analysis

Table 2.—Change in the U.S. Direct Investment Position Abroad by Account

[Millions of dollars]

Line		Historical cost	Current cost	Market value
1	**Position, yearend 1992**	**498,991**	**668,181**	**785,903**
2	Capital outflows, 1993	58,094	57,870	57,870
3	Equity capital	17,423	17,423	17,423
4	Increases	24,322	24,322	24,322
5	Decreases	6,898	6,898	6,898
6	Intercompany debt	10,882	10,882	10,882
7	U.S. parent receivables (increases +; decreases –)	14,694	14,694	14,694
8	U.S. parent payables (increases –; decreases +)	–3,811	–3,811	–3,811
9	Reinvested earnings	29,789	29,565	29,565
10	Valuation adjustments, 1993	–8,441	–9,888	149,378
11	Translation adjustments	–5,818	–10,344	–18,360
12	Other capital gains and losses	614	n.a.	n.a.
13	Price changes	n.a.	2,855	166,899
14	Other	–3,237	–2,399	839
15	**Position, yearend 1993 (line 1 + line 2 + line 10)**	**548,644**	**716,163**	**993,151**

n.a. Not applicable.

current-cost and market-value positions consist of translation adjustments, price changes, and other adjustments.

Translation adjustments reflect the effects of movements in exchange rates on the dollar value of affiliate assets and liabilities (on which the parent has a claim) between the periods for which the position is calculated. These adjustments are made to the position on all three valuation bases because all three require translation of foreign-currency-denominated affiliate assets (and liabilities) into dollars.

> EXAMPLE: A U.S. parent company has a wholly owned affiliate in the United Kingdom and the affiliate's assets are valued at £100 million, both at yearend *t* and yearend *t-1*. If, at yearend *t-1*, the exchange rate is £1=$2, the dollar value of the parent's position in the affiliate would be $200 million. If there are no direct investment capital flows in year *t*, but if at yearend *t*, the pound has strengthened to £1=$4, the dollar value of the parent's position would double during year *t* from $200 million to $400 million. In this case, the change in the parent's position would be fully accounted for by a $200 million translation adjustment made to reflect the rise in the investment's dollar value that resulted from the appreciation of the pound.

In the historical-cost position, *other capital gains and losses* represent the revaluation of the assets (on which the parent has a claim) of ongoing affiliates for reasons other than exchange-rate changes. Other capital gains and losses may occur for a variety of reasons, but they most commonly result from the partial sale of an affiliate's assets for an amount different from the assets' historical cost.

> EXAMPLE: At yearend *t-1*, a U.S. parent's direct investment position in its French affiliate is $100 million—$80 million in an automobile assembly plant and $20 million in an engine plant. If the affiliate sells the engine plant in year *t* for $30 million, realizing a gain of $10 million, and then reinvests the sale proceeds in its assembly plant, a $10 million valuation adjustment (to reflect the gain) would be recorded to raise the direct investment position to $110 million.

In the current-cost and market-value positions, *price changes* represent the revaluation of the assets (on which the parent has a claim) of ongoing affiliates from one year's prices to the next.

Other valuation adjustments reflect any changes in the value of affiliates' assets (on which the parent has a claim) that are not reflected in capital flows or the preceding adjustments. For historical-cost estimates, these adjustments most commonly reflect capital gains and losses booked by *U.S. parents* when they sell their full interest in a foreign affiliate. For the current-cost and market-value estimates, they are also related to capital gains and losses on the sale of affiliate assets; however, rather than reflecting the full amount of the capital gain or loss, they only reflect any difference between the realized current value of the investment and what BEA had estimated it to be.

Financial and Operating Data

The financial and operating data provide a wide variety of indicators of the overall operations of U.S. MNC's and of the separate operations of U.S. parents and foreign affiliates. These data are collected to address questions about the economic impact of MNC's on home and host countries that cannot be addressed by the balance of payments data alone. Some of these questions—such as "How many people do U.S. MNC's employ in the United States or abroad?"—can be answered with a single data item. Others require several data items, perhaps in combination with data from outside sources; for example, "Are U.S. MNC's producing less of what they sell and becoming more reliant on outside suppliers?" To answer such questions, data are needed on the activities of U.S. MNC's as a whole, regardless of the U.S. parent's ownership share or the source of financing. Therefore, the foreign-affiliate financial and operating data are not adjusted for the percentage of U.S.-parent ownership.

Financial and operating data are separately tabulated for two foreign-affiliate groups: All foreign affiliates and *majority-owned foreign affiliates (MOFA's)*. MOFA's are foreign affiliates in which the combined ownership of all U.S. parents exceeds 50 percent. Some types of analysis require MOFA data. For example, MOFA data should be used when examining the distribution, between the United States and abroad, of the worldwide resources that U.S. parents control.[17] In addition, MOFA data must be used to analyze some aspects of affiliate operations because the necessary data items are not collected for other affiliates.

Financial and operating data include the following: (1) Balance sheets and income statements, (2) sales by type (such as goods or services) and destination (such as local or nonlocal), (3) employment and employee compensation, (4) U.S. merchandise trade, (5) technology, and (6) external financing (table 3). Each of these categories includes many more individual data items; for example, detailed components of the

17. Although effective control can sometimes be obtained with a minority interest, unambiguous control requires a majority interest.

balance sheet (inventories, net property, plant, and equipment, etc.) are available annually for MOFA's. The amount of additional detail available within many of the categories is much greater in benchmark survey years than in other years.

One of the most useful measures of U.S.-MNC operations, *gross product*, is derived from financial and operating data. U.S.-MNC gross product measures the value of goods and services produced by MNC's, either in the United States (U.S.-parent gross product) or abroad (MOFA gross product) (table 3).[18] For a firm, gross product (or value added) differs from sales because sales include the inputs that the company purchases from outsiders as well as what it produces itself.

MNC gross product estimates have a variety of uses. For instance, they can be used to measure the contribution of U.S.-parent and MOFA production (U.S.-parent and MOFA gross product) to total home- or host-country production (U.S.- or foreign-country GDP). In addition, the ratio of gross product to output (sales plus inventory changes) for parents and MOFA's measures the extent to which parents and MOFA's produce

18. Estimates for U.S. parents are available only in benchmark survey years, because the data items necessary to derive them are not collected in other years; estimates for MOFA's are available annually.

Table 3.—Selected Financial and Operating Data for Nonbank U.S. Parents, Foreign Affiliates, and MOFA's, 1989 and 1992

[Millions of dollars or thousands of employees, unless otherwise noted]

Selected data items	Latest benchmark survey data, covering 1989			Latest annual survey data, covering 1992		
	U.S. parents	All foreign affiliates	MOFA's	U.S. parents	All foreign affiliates	MOFA's
Balance sheet						
Assets	4,852,373	1,330,028	1,080,247	5,570,464	1,746,757	1,463,521
Liabilities	3,613,323	838,098	673,173	4,237,922	n.a.	925,800
Owners' equity	1,239,050	491,930	407,074	1,332,542	n.a.	537,721
Income statement						
Income	3,258,875	1,336,208	1,060,058	n.a.	n.a.	1,341,862
Costs and expenses	3,088,212	1,250,866	987,916	n.a.	n.a.	1,278,244
Net income	170,663	85,342	72,142	43,409	74,015	63,618
Sales by type and destination						
Total sales	3,136,837	1,284,894	1,019,966	3,353,017	1,578,683	1,298,532
Goods	2,204,073	n.a.	889,875	2,309,111	n.a.	1,113,043
Services	786,491	n.a.	109,631	897,209	n.a.	153,674
Investment income [1]	146,273	n.a.	20,461	146,697	n.a.	31,817
To U.S. customers	2,841,052	n.a.	114,719	n.a.	n.a.	130,518
Affiliated [2]	....	n.a.	92,968	....	n.a.	104,067
Unaffiliated	2,841,052	n.a.	21,751	n.a.	n.a.	26,451
To foreign customers	295,785	n.a.	905,247	n.a.	n.a.	1,168,015
Affiliated [2]	130,487	n.a.	153,198	n.a.	n.a.	220,087
Unaffiliated	165,298	n.a.	752,049	n.a.	n.a.	947,929
Employment and employee compensation						
Employment	18,765.4	6,622.1	5,114.0	17,617.2	6,727.5	5,359.8
Employee compensation	666,196	165,804	132,565	722,796	201,408	169,623
Compensation per hour of production workers in manufacturing (dollars)	n.a.	n.a.	10.37	n.a.	n.a.	n.a.
U.S. merchandise trade						
Exports	223,352	102,558	97,488	245,475	120,255	114,139
Imports	181,095	97,394	84,298	199,858	109,235	98,850
Technology						
Research and development funded by	59,925	n.a.	7,048	71,796	n.a.	10,159
Research and development performed by	82,227	n.a.	7,922	n.a.	n.a.	n.a.
External financial position of MOFA's						
Balance at close of year:						
Total external funds [3]	....	....	754,015	....	....	1,061,160
By provider:						
U.S. parents	....	....	215,929	....	....	306,272
Other U.S. persons	....	....	22,846	....	....	42,154
Persons in affiliate's country of location	....	....	401,854	....	....	535,597
Other foreign persons	....	....	113,385	....	....	177,137
Gross product	**1,044,884**	**n.a.**	**319,994**	**n.a.**	**n.a.**	**363,696**

n.a. Not available.

1. Some parents and MOFA's, primarily those in finance and insurance, include investment income in sales or gross operating revenues. Most parents and MOFA's not in finance or insurance consider investment income an incidental revenue source and include it in their income statements in a separate "other income" category, rather than in sales. BEA collects separate data on investment income to ensure that—where it is included in total sales—it is not misclassified as sales of services.

2. Sales among parents and affiliates that belong to the same MNC. Because U.S. parents represent the fully consolidated domestic operations of a U.S. MNC, they have no sales to affiliated U.S. persons.

3. External funds (debt and equity) exclude MOFA retained earnings; thus, they represent financing that is not internally generated.

MOFA Majority-owned foreign affiliate

what they sell rather than relying on outside suppliers.[19]

Frequently Asked Questions About U.S. MNC's

This section discusses some of the most frequently asked questions about U.S. MNC's—such as "Where are U.S. MNC's investing?" "Are U.S. companies shifting their operations abroad?" and "What portion of U.S. cross-border trade is between U.S. parents and their foreign affiliates?" This section identifies the various BEA data that can be used to address these and other questions, as well as the limitations of the data.

Where are U.S. MNC's investing?—The balance of payments and direct investment position data and the financial and operating data can both be used to measure the extent of U.S.-MNC investment in a particular country. The choice of data set depends on whether one wants to know the amount of funds that a country received from U.S. direct investors in a given period or cumulatively or whether one wants to know the size of U.S.-owned business operations in a country. If one wants to know the amount of funds that a country received during a given period from U.S. direct investors, capital outflows (a balance of payments data item) during that period would be the appropriate measure. If one wants to know the cumulative amount of funds that a country received from U.S. direct investors (together with any subsequent valuation adjustments), the direct investment position at yearend would be the appropriate measure. In 1992, for instance, the historical-cost U.S. direct investment position abroad was largest in the United Kingdom ($83 billion), Canada ($69 billion), and Germany ($34 billion). If, however, one wants to know the size of U.S.-owned business operations in a country, a financial and operating data item (such as employment, total assets, or property, plant, and equipment) or gross product of affiliates would be a good indicator. In 1992, for instance, affiliate employment was largest in the United Kingdom (917,000), Canada (873,000), and Mexico (661,000).

Direct investment capital flows passing through third countries—such as offshore financial centers—en route to their ultimate destination can cause the balance of payments and direct investment position data to be grossly out of proportion to the financial and operating data for those countries. In Bermuda, for example, the direct investment position was $26 billion in 1992, but affiliate employment was only 2,800; thus, U.S. parents had invested $9 million per affiliate employee in that country, compared with a worldwide average of $74,000. This anomaly occurs because direct investment capital flows (and thus the direct investment position) are attributed to the country of immediate destination, whereas the financial and operating data are always attributed to the country in which an affiliate's physical assets are located or in which its primary activity is carried out.

> EXAMPLE: A U.S. manufacturer sends $100 million to its holding-company affiliate in Panama, which, in turn, sends the funds to Germany to build a factory. The capital flow and position are recorded against Panama, because that is the country with which the U.S. company had a direct transaction. By contrast, the property, plant, and equipment (a financial and operating data item) associated with the new factory is recorded in Germany because that is where the U.S.-controlled operations are located and the funds are ultimately spent.

Except for the small group of countries that tend to serve as offshore financial centers, however, a host country's level of affiliate activity can usually be determined using either data set—the direct investment position or the financial and operating data.

What are the primary factors determining the location of manufacturing affiliates?—In choosing locations for their manufacturing affiliates, U.S. parents seek to optimize the conditions that will affect their return on investment. Two desirable conditions are access to large and prosperous markets and access to low-wage labor. Data on manufacturing affiliate employment and sales suggest that access to markets is the more important condition. In 1992, 65 percent of employment by manufacturing MOFA's was in relatively high-wage countries (table 4). In that same year (as in previous years), Europe was the most popular location for newly acquired or established affiliates. The popular notion that manufacturing affiliates are established abroad primarily in low-wage countries to produce for U.S. markets appears unfounded; in 1992, only 12 percent of sales by manufacturing MOFA's were to U.S. customers.[20]

19. For more information on the derivation and uses of U.S.-MNC gross product estimates, see "Gross Product of U.S. Multinational Companies, 1977–91," SURVEY 74 (February 1994): 42–63.

20. For a discussion of the factors determining the location of manufacturing MOFA's and for an analysis of shifts in their location among high-wage and low-wage countries during 1982–91, see "U.S. Multinational Companies: Operations in 1991," SURVEY 73 (July 1993): 47–49.

Table 4.—Employment and Wage Rates for Manufacturing MOFA's in High-Wage and Low-Wage Host Countries, 1992

	Average hourly wage rate, 1989 (dollars) [1]	Employment by manufacturing MOFA's	
		Thousands of employees	Share of sample total (percent) [2]
All sample countries	....	**3,067.0**	**100.0**
High-wage-country sample [3]	....	2,005.6	65.4
Australia	12.99	87.2	2.8
Belgium	16.04	69.6	2.3
Canada	16.71	386.4	12.6
France	15.69	201.7	6.6
Germany	17.03	398.0	13.0
Ireland	10.17	39.3	1.3
Italy	16.73	108.1	3.5
Japan	20.89	82.2	2.7
Netherlands	18.39	80.3	2.6
Spain	10.81	88.3	2.9
Sweden	18.69	16.3	.5
Switzerland	17.86	21.0	.7
United Kingdom	12.11	427.2	13.9
Low-wage-country sample [3]	....	1,061.4	34.6
Argentina	3.49	32.6	1.1
Brazil	4.17	252.0	8.2
Colombia	3.87	20.1	.7
Hong Kong	2.98	36.4	1.2
Korea, Republic of	4.44	18.6	.6
Malaysia	1.78	71.8	2.3
Mexico	2.28	372.8	12.2
Philippines	1.50	53.5	1.7
Portugal	5.60	14.5	.5
Singapore	3.13	67.2	2.2
South Africa	4.47	14.5	.5
Taiwan	4.55	37.0	1.2
Thailand	1.11	36.1	1.2
Venezuela	3.59	34.3	1.0
Addendum:			
Non-sample countries	....	206.8	....

1. Average hourly wage paid to production workers of MOFA's, 1989.
2. To ensure the statistical significance of the data underlying the distinction between "high-wage" and "low-wage" countries, the analysis is restricted to a sample of host countries having the largest presence of manufacturing MOFA's, based on the 1989 benchmark survey of U.S. direct investment abroad. To be included in the sample, a country must have hosted manufacturing MOFA's that together had at least 10,000 employees in that year; such countries accounted for roughly 95 percent of all employment by manufacturing MOFA's in that year.
3. The distinction between "high-wage" and "low-wage" countries is based on estimates of average hourly wages of production workers of manufacturing MOFA's from the 1989 benchmark survey. High-wage countries are defined as those with average hourly wages higher than $9.30 (the unweighted average hourly wage in 1989 of all countries included in the sample), and low-wage countries are defined as those with average hourly wages lower than that level.
MOFA Majority-owned foreign affiliate

Are U.S. MNC's shifting production (and employment) abroad?—Gross product and employment data for U.S. parents and MOFA's can be summed to measure the global production and employment of MNC's over which U.S. parents exert unambiguous control. Changes in the U.S.-parent share of these measures indicate changes in the domestic (U.S.) share of worldwide U.S.-MNC production. On the whole, only slight changes have occurred over the last decade. Between 1982 and 1989 (the latest year for which data are available), the U.S.-parent share of worldwide U.S.-MNC gross product edged down 1 percentage point to 77 percent, as a decrease in manufacturing was largely offset by an increase in other industries (table 5).[21] Between 1982 and 1992, the U.S.-parent share of worldwide U.S.-MNC employment declined 2 percentage points to 77 percent (table 6).

Some analysts have wondered whether it would be possible for U.S. MNC's to shift some foreign-affiliate production *back to* the United States; that is, to what extent can exports by U.S. parents substitute for affiliate production? Such questions cannot be answered using BEA (or other) data alone; the answers depend on what would happen in the absence of foreign-affiliate production, which is unknown. To address these questions, therefore, analysts must use BEA data in combination with *assumptions* about the relationship between parent and affiliate production. However, this relationship may be quite variable from one MNC to another: For some firms, domestic and foreign production may be equally viable al-

21. For further discussion of these changes, see "Gross Product of U.S. Multinational Companies, 1977–91," SURVEY 74 (February 1994): 42–63.

Table 5.—Gross Product of Nonbank U.S. MNC's, U.S. Parents, and MOFA's, by Industry of Parent, 1982 and 1989

	Millions of dollars						Share of U.S. parents in worldwide MNC total (percent)	
	MNC's worldwide		U.S. parents		MOFA's			
	1982	1989	1982	1989	1982	1989	1982	1989
All industries	1,019,734	1,364,878	796,017	1,044,884	223,717	319,994	78	77
Manufacturing	542,689	793,771	421,050	586,568	121,639	207,203	78	74
Other	477,045	571,107	374,967	458,316	102,078	112,791	79	80

MNC Multinational company
MOFA Majority-owned foreign affiliate

Table 6.—Employment by Nonbank U.S. MNC's, U.S. Parents, and MOFA's, by Industry of Parent, 1982 and 1992

	Thousands of employees						Share of U.S. parents in worldwide MNC total (percent)	
	MNC's worldwide		U.S. parents		MOFA's			
	1982	1992	1982	1992	1982	1992	1982	1992
All industries	23,727.0	22,977.0	18,704.6	17,617.2	5,022.4	5,359.8	79	77
Manufacturing	14,247.3	13,094.4	10,532.8	9,307.4	3,714.5	3,787.0	74	71
Other	9,479.7	9,882.6	8,171.8	8,309.8	1,307.9	1,572.8	86	84

MNC Multinational company
MOFA Majority-owned foreign affiliate

ternatives, while for others, it may be possible to compete effectively abroad or to sustain domestic operations only if at least some output is produced overseas. Results of analyses of the impact of USDIA have thus varied widely, both in magnitude and direction, depending upon the assumptions chosen and methods of analysis used.[22]

What percentage of U.S. merchandise trade is accounted for by U.S. MNC's?—Because U.S. parents have a significant presence in the U.S. economy and because they account for many of the largest and most globally oriented U.S. firms, they naturally account for a large share of U.S. merchandise trade. U.S.-MNC-associated merchandise trade encompasses (1) intra-MNC trade, or trade between U.S. parents and their foreign affiliates, and (2) MNC trade with others, or trade between U.S. parents and unaffiliated foreigners and trade between foreign affiliates and unaffiliated U.S. persons. In 1992, U.S.-MNC-associated trade accounted for 58 percent of U.S. merchandise exports and for 41 percent of U.S. merchandise imports. Intra-MNC trade accounted for 23 percent of U.S. merchandise exports and 17 percent of U.S. merchandise imports (table 7). (A significant share of the remaining trade is associated with U.S. affiliates of foreign MNC's.[23])

Through what channels do U.S. MNC's serve foreign markets?—Despite their large share of U.S. merchandise exports, the ultimate delivery of goods and services to foreign markets by U.S. MNC's is primarily through sales by affiliates rather than through U.S. exports. Of all U.S.-MNC sales to unaffiliated foreigners in 1992, 85 percent were sales by MOFA's and the remainder were exports by U.S. parents (table 8).[24] The dominance of sales by MOFA's reflects many factors, such as the following: (1) Many sales to foreigners would not be feasible through exporting from the United States, because of trade barriers and transportation costs, (2) sales of many services (such as lodging) require a local presence, and (3) MOFA's are often better positioned than their parents to design, manufacture, distribute, and service products for the special requirements of the host-country markets. Recognition of the size and significance of sales by MOFA's has spurred recent work on the development of supplemental

22. See, for example, G.C. Hufbauer and F.M. Adler, *Overseas Manufacturing Investment and the Balance of Payments*, U.S. Treasury Department Tax Policy Research Study No. 1 (Washington, DC: U.S. Government Printing Office, 1968); United States Senate Committee on Finance, *Implications of Multinational Firms for World Trade and Investment and for U.S. Trade and Labor* (Washington, DC: U.S. Government Printing Office, 1973); and Robert E. Lipsey, "Outward Direct Investment and the U.S. Economy," National Bureau of Economic Research Working Paper No. 4691 (March 1994).

23. For a discussion of the pattern of U.S. affiliates' trade in 1977–91, see "Merchandise Trade of U.S. Affiliates of Foreign Companies," SURVEY 73 (October 1993): 52–65.

24. These ratios understate the role of U.S.-parent exports in serving foreign markets, to some extent, because all U.S.-parent exports to MOFA's (table 8, lines 2 and 4) are counted as MOFA sales (table 8, line 9). When a MOFA simply resells goods and services received from its U.S. parent, credit for the sale is, in effect, accorded to the MOFA; yet, in many, if not most, such cases, the MOFA is merely an intermediary that facilitates sales by its U.S. parent.

Table 7.—U.S. Merchandise Trade Associated with Nonbank U.S. MNC's, 1992

[Millions of dollars]

	1992
MNC-associated U.S. exports, total	**261,051**
Intra-MNC trade	**104,679**
Shipped by U.S. parents to MOFA's	99,140
Shipped by U.S. parents to other foreign affiliates	5,539
MNC trade with others	**156,372**
Shipped by U.S. parents to other foreigners	140,796
Shipped to foreign affiliates by other U.S. persons	15,576
To MOFA's	14,999
To other foreign affiliates	577
MNC-associated U.S. imports, total	**216,479**
Intra-MNC trade	**92,614**
Shipped by MOFA's to U.S. parents	85,139
Shipped by other foreign affiliates to U.S. parents	7,475
MNC trade with others	**123,865**
Shipped by other foreigners to U.S. parents	107,244
Shipped by foreign affiliates to other U.S. persons	16,621
By MOFA's	13,711
By other foreign affiliates	2,910
Addenda:	
All U.S. merchandise exports	448,166
MNC-associated U.S. exports as a percentage of total	58
Intra-MNC exports as a percentage of total	23
All U.S. merchandise imports	532,663
MNC-associated U.S. imports as a percentage of total	41
Intra-MNC imports as a percentage of total	17

MNC Multinational company
MOFA Majority-owned foreign affiliate

Table 8.—Channels for Delivering Goods and Services to Foreign Markets by Nonbank U.S. MNC's, 1992

[Millions of dollars]

Line		1992
	Cross-border sales to unaffiliated foreigners by U.S. parents:	
1	Cross-border merchandise exports	245,475
2	*Less*: Merchandise exports to foreign affiliates	104,679
3	*Plus*: Sales of services to foreigners	35,651
4	*Less*: Sales of services to foreign affiliates	7,290
5	*Equals*: Cross-border sales to unaffiliated foreigners	169,157
	Sales to unaffiliated foreigners by MOFA's:	
6	Total sales	1,298,532
7	*Less*: Sales to other foreign affiliates	220,087
8	*Less*: Sales to the United States	130,518
9	*Equals*: Sales to unaffiliated foreigners	947,927
10	Total sales to unaffiliated foreigners by U.S. MNC's (line 5 + line 9)	1,117,084
	Addenda:	
	Share of total sales to unaffiliated foreigners by U.S. MNC's (percent):	
11	Cross-border sales by U.S. parents ((line 5/line 10) * 100)	15
12	Sales by MOFA's ((line 9/line 10) * 100)	85

MNC Multinational company
MOFA Majority-owned foreign affiliate

balance of payments accounts that more fully incorporate, or more fully illustrate, the returns to U.S. persons from sales by MOFA's.[25]

What is the investment climate in a particular foreign country?—BEA does not collect information on the investment climate or other aspects of the host countries for USDIA. Other public and private sources provide this type of information. For example, the International Trade Administration (ITA)—a separate agency of the U.S. Department of Commerce—provides summaries of foreign market conditions.[26] Additionally, some private consulting firms produce extensive information on doing business in foreign countries.

How much do U.S. MNC's spend to acquire or establish affiliates in a particular foreign country?—At present, BEA does not collect data on outlays by U.S. MNC's to establish or acquire affiliates in foreign countries. Direct investment capital flows capture only the portion of these investments that are funded by U.S. parents; they do not measure funds from other sources, such as funds supplied by foreign affiliates, that are used to establish or acquire new affiliates. Moreover, these flows are not always attributed to their ultimate country of destination. For these reasons, direct investment capital outflows should not be used as a proxy for gross spending on new investments by U.S. MNC's in a particular country.

On the basis of financial and operating data, new foreign affiliates are identified each year, and a summary of their distribution by area and by industry, as measured by their assets or employment, is presented in the SURVEY.[27] However, these data do not indicate the amount of U.S. MNC's initial investments in these affiliates.

Data Presentation

Confidentiality

Information collected by BEA is protected against public disclosure by the International Investment and Trade in Services Survey Act (P.L. 94–472, 90 Stat. 2059, 22 U.S.C. 3101–3108, as amended), which provides the legal authority for BEA's investment surveys. Under the act, information collected by BEA cannot be published or released in such a manner that the person or company that furnished it can be specifically identified.[28] Furthermore, the information collected may be used only for statistical and analytical purposes. Use of an individual company's data for tax, investigative, or regulatory purposes is prohibited. Ensuring confidentiality is essential to securing the cooperation of respondents and maintaining the integrity of the statistical system.

To ensure confidentiality, the data are aggregated and then tested before publication to determine if they should be shown or if they should be suppressed. In the published tables, "(D)" is placed in any data cell that might disclose individual company data. The published data are sufficient for most types of analysis, but BEA can make special tabulations, or perform regressions on the company-specific data, at cost, within the limits of available resources and subject to the legal requirements to avoid disclosure of data of individual companies.[29]

Industry classification

BEA classifies U.S.-MNC activities into 135 International Surveys Industry (ISI) groups adapted from the *Standard Industrial Classification (SIC) Manual, 1987*, the all-inclusive industry classification system used in Federal economic statistics. To facilitate the comparison of MNC data with data that are classified according to the SIC, BEA has prepared a concordance between its ISI codes and the corresponding SIC codes (table 9).

The precision of industry-level MNC data may be limited by the degree of consolidation in U.S.-parent and foreign-affiliate data. U.S.-parent and foreign-affiliate data are not collected for individual *establishments* (or plants) or even for individual business *enterprises* (or companies), which may consist of a number of establishments.[30] Rather, they are collected for a group of

25. See "Alternative Frameworks for U.S. International Transactions," SURVEY 73 (December 1993): 50–61.

26. For details, call the ITA's Trade Development unit at (202) 482–1461.

27. "U.S. Multinational Companies: Operations in 1992," SURVEY 74 (June 1994): 45.

28. BEA frequently receives requests for the names of U.S. MNC's, but the act prohibits it from providing the information. Such requests are sometimes directed to private sources that have produced publicly available directories of U.S. MNC's. One such publication is the *Directory of American Firms Operating in Foreign Countries* 13th ed. (New York, NY: Uniworld Business Publications, Inc., 1994), which provides a list of the names and addresses of U.S. companies that have foreign affiliates, by host country. Additionally, the *International Directory of Corporate Affiliations* (New Providence, NJ: National Register Publishing Company, 1994) provides a list of the names and addresses of major companies worldwide that have foreign affiliates, by company.

29. Data users requiring special tabulations should submit their requests in writing, including a justification of need, and BEA will consider each request on a case-by-case basis. Requests for, or questions about, special tabulations should be directed to the International Investment Division (BE-50), Data Retrieval and Analysis Branch, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230.

30. A business establishment is a business or industrial unit at a single geographic location (such as a sporting goods store) that produces or distributes goods or performs services.

A business enterprise is a business organization consisting of one or more establishments that are part of the same legal entity (such as a company-owned chain of sporting goods stores). A *consolidated business enterprise* is

Table 9.—International Surveys Industry (ISI) Categories and the Corresponding 1987 Standard Industrial Classification (SIC) Categories

Industry	Corresponding 1987 SIC code
Petroleum:	
Oil and gas extraction:	
Crude petroleum extraction (no refining) and natural gas	132 and part of 131
Oil and gas field services	138
Petroleum and coal products:	
Integrated petroleum refining and extraction	Part of 131 and part of 291
Petroleum refining without extraction	Part of 291
Petroleum and coal products, nec	295 and 299
Petroleum wholesale trade	517
Other:	
Petroleum tanker operations	Part of 44
Petroleum and natural gas pipelines	4612, 4613, and part of 492
Petroleum storage for hire	Part of 4226
Gasoline service stations	554
Manufacturing:	
Food and kindred products:	
Grain mill and bakery products:	
Grain mill products	204
Bakery products	205
Beverages	208
Other:	
Meat products	201
Dairy products	202
Preserved fruits and vegetables	203
Other food and kindred products	206, 207, and 209
Chemicals and allied products:	
Industrial chemicals and synthetics	281, 282, and 286
Drugs	283
Soap, cleaners, and toilet goods	284
Agricultural chemicals	287
Chemical products, nec	285 and 289
Primary and fabricated metals:	
Primary metal industries:	
Ferrous	331, 332, and 339
Nonferrous	333, 334, 335, and 336
Fabricated metal products:	
Metal cans, forgings, and stampings	341 and 346
Cutlery, hand tools, and screw products	342 and 345
Heating and plumbing equip. and structural metal prod.	343 and 344
Fabricated metal prod., nec, ordnance, and services	347, 348, and 349
Machinery, except electrical:	
Farm and garden machinery	352
Construction, mining, and materials handling machinery	353
Computer and office equipment	357
Other:	
Engines and turbines	351
Metalworking machinery	354
Special industry machinery	355
General industry machinery and equipment	356
Refrigeration and service industry machinery	358
Machinery, except electrical, nec	359
Electric and electronic equipment:	
Household appliances	363
Household audio and video, and communications equipment.	365 and 366
Electronic components and accessories	367
Electrical machinery, nec	361, 362, 364, and 369
Transportation equipment:	
Motor vehicles and equipment	371
Other	372, 373, 374, 375, 376, and 379
Other manufacturing:	
Tobacco products	21
Textile products and apparel:	
Textile mill products	22
Apparel and other textile products	23
Lumber, wood, furniture, and fixtures:	
Lumber and wood products	24
Furniture and fixtures	25
Paper and allied products:	
Pulp, paper, and board mills	261, 262, and 263
Other paper and allied products	265 and 267
Printing and publishing:	
Newspapers	271
Miscellaneous publishing	272, 273, 274, and 277
Commercial printing and services	275, 276, 278, and 279
Rubber products	301, 302, 305, and 306
Miscellaneous plastics products	308
Glass products	321, 322, and 323
Stone, clay, and other nonmetallic mineral products	324, 325, 326, 327, 328, and 329
Instruments and related products:	
Measuring, scientific, and optical instruments	381, 382, and 387
Medical instruments and supplies and opthalmic goods	384 and 385
Photographic equipment and supplies	386
Other:	
Leather and leather products	31
Miscellaneous manufacturing industries	39
Wholesale trade:	
Durable goods:	
Motor vehicles and equipment	501
Lumber and construction materials	503
Professional and commercial equipment and supplies	504
Metals and minerals	505
Electrical goods	506
Hardware, plumbing, and heating equipment and supplies	507
Machinery, equipment and supplies, nec	508
Durable goods, nec	502 and 509
Nondurable goods:	
Paper and paper products	511
Drugs, proprietaries, and sundries	512
Apparel, piece goods, and notions	513
Groceries and related products	514
Farm-product raw materials	515
Nondurable goods, nec	516, 518, and 519
Banking	6011, 602, 608, and 6712
Finance (except banking), insurance, and real estate:	
Finance, except banking:	
Savings institutions and credit unions	603 and 606
Business franchising	6794
Other	609, 61, 62, and 67 (except 671, 6732, part of 6794, and 6798)
Insurance:	
Life insurance	631
Accident and health insurance	632
Other	633, 635, 636, 637, 639, and 64
Real estate	65 and 6798
Holding companies	6719
Services:	
Hotels and other lodging places	70
Business services:	
Advertising	731
Equipment rental (excluding automotive and computers)	735
Computer and data processing services:	
Computer processing and data preparation services	7374
Information retrieval services	7375
Computer related services, nec	737 (except 7374 and 7375)
Business services, nec:	
Services to buildings	734
Personnel supply services	736
Other	732, 733, and 738
Automotive rental and leasing	751
Motion pictures, including television tape and film	78
Health services	80 and part of 8741
Engineering, architectural, and surveying services	871
Management and public relations services	874 (except part of 8741)
Other:	
Automotive parking, repair, and other services	75 (except 751)
Miscellaneous repair services	76
Amusement and recreation services	79
Legal services	81
Educational services	82
Accounting, auditing, and bookkeeping services	872
Research, development, and testing services	873 (except 8733)
Other services provided on a commercial basis	72, 83, 84, 86, and 89
Other industries:	
Agriculture, forestry, and fishing:	
Agricultural production—crops	01
Agricultural production—livestock	02
Agricultural services	07
Forestry	08
Fishing, hunting, and trapping	09
Mining:	
Metal mining:	
Iron ores	101
Copper, lead, zinc, gold, and silver ores	102, 103, and 104
Other metallic ores	106 and 109
Metal mining services	108
Nonmetallic minerals:	
Coal	122 and 123
Coal mining services	124
Nonmetallic minerals, except fuels	14 (except 148)
Nonmetallic minerals services, except fuels	148
Construction	15, 16, and 17
Transportation:	
Railroads	401
Water transportation	Part of 44
Transportation by air	45
Pipelines, except petroleum and natural gas	4619
Passenger transport arrangement	472
Transportation and related services, nec	41, 42 (except part of 4226), and 47 (except 472)
Communication and public utilities:	
Telephone and telegraph communications	481 and 482
Other communications services	483, 484, and 489
Electric, gas, and sanitary services	49 (except part of 492)
Retail trade:	
General and merchandise stores	53
Food stores	54
Apparel and accessory stores	56
Eating and drinking places	58
Retail trade, nec	52, 55 (except 554), 57, and 59

nec Not elsewhere classified.

enterprises under common control (referred to as "a consolidated business enterprise"). Enterprises can be consolidated to different degrees.[31] U.S.-parent-company data tend to be more consolidated than foreign-affiliate data; U.S. parents represent the fully consolidated domestic operations of a U.S. MNC. The data for highly diversified U.S. parent companies may include a wide variety of activities conducted by many different establishments. Foreign-affiliate data tend to be less consolidated because under BEA's reporting requirements, foreign-affiliate operations can be consolidated only if they are in the same country and in the same three-digit industry or if they are integral parts of the same business operation.

EXAMPLE: A U.S. company's German unit A manufactures tires and a majority of its sales are to its German unit B, which assembles automobiles. In this case, units A and B may be consolidated into one foreign affiliate. If the two units' operations are unrelated (such as an insurance company and a tire manufacturer), then each is recorded as a separate affiliate with its own industry classification.

In most tabulations, all of the operations of a given U.S. parent or foreign affiliate are assigned to one primary industry, even if the parent or affiliate has secondary activities in other industries. The primary industry is assigned in the following manner:

(1) A U.S. parent or foreign affiliate is first classified in the major industry that accounts for the largest percentage of its sales. The major industry groups used for this purpose are (a) agriculture, forestry, and fishing, (b) mining, (c) petroleum, (d) construction, (e) manufacturing, (f) transportation, communication, and public utilities, (g) wholesale trade, (h) retail trade, (i) finance, insurance, and real estate, and (j) services.

(2) Within the major industry group, the parent or affiliate is classified in the two-digit ISI subindustry in which its sales are largest.

(3) Within this two-digit industry, the parent or affiliate is classified in the three-digit ISI subindustry in which its sales are largest.

This procedure ensures that the parent or affiliate is not assigned to a three-digit subindustry that is outside its major industry group.

The following example illustrates the three-stage classification procedure. Suppose a parent's or an affiliate's sales were distributed as follows:

Industry code	Sales (Percentages of total)		
351			5
352		30	10
353	55		15
367		25	
508	45		

where industry codes 351, 352, 353, and 367 are in manufacturing and code 508 is in wholesale trade. Because 55 percent of the parent's or affiliate's sales were in manufacturing and only 45 percent were in wholesale trade, the parent's or affiliate's major industry is manufacturing. Because 30 percent of its sales within manufacturing were in two-digit industry 35 (nonelectrical machinery)—that is, the sum of the percentages in 351, 352, and 353 is 30 percent—and 25 percent were in two-digit industry 36 (electrical machinery), the parent's or affiliate's two-digit industry is 35. Finally, because its sales within industry 35 were largest in subindustry 353, the parent's or affiliate's three-digit subindustry is 353. Thus, the three-stage classification procedure results in the parent or affiliate being assigned to subindustry 353, even though its sales in that subindustry were smaller than its sales in either subindustries 508 or 367.

Consolidating diverse activities into one primary industry weakens the precision of industry-level data for parents and affiliates, but the degree of imprecision depends on the number of different activities that are consolidated. For this reason, the industrial classifications of U.S. parents tend to be less precise than those of foreign affiliates.

Tabulating data on the parents' and affiliates' sales by industry of sales, rather than by industry of affiliate, yields greater precision. BEA collects sales data by three-digit ISI code for each of a U.S. parent's eight largest industries of sales and for each of a foreign affiliate's five largest industries of sales. When classified this way, a parent's or affiliate's sales in secondary industries are shown in those industries rather than in the parent's or affiliate's primary industry.

Several key data items for affiliates (such as assets, sales, and employment) are tabulated by *industry of U.S. parent* as well as by industry of affiliate in BEA's published data. Nonduplicative affiliate data (such as gross product, capital expenditures, or employment) by industry of

a group of enterprises under common ownership or control. For example, a corporate conglomerate consisting of a holding company and its majority-owned manufacturing and financial services subsidiaries is a consolidated business enterprise.

31. For example, suppose a corporation called "Acme Inc." owns an ice cream manufacturing company (with several plants, or establishments) and a wholesale distribution subsidiary (with multiple depots, or establishments). All three business entities are enterprises, but Acme Inc. is the most consolidated.

parent can be added to parent data by industry in order to obtain data on the worldwide operations of U.S. MNC's by industry of parent.

EXAMPLE: A U.S. automobile manufacturer has an affiliate A in the United Kingdom that assembles automobiles, an affiliate B in Canada that casts automobile wheel rims, and an affiliate C in Mexico that manufactures automobile audio components. By industry of affiliate, data for affiliate A would be classified in motor vehicles and equipment manufacturing; those for affiliate B, in metal cans, forgings, and stampings manufacturing; and those for affiliate C, in audio, video, and communications equipment manufacturing. By industry of U.S. parent, however, data for all three affiliates would be classified in motor vehicles and equipment manufacturing.

Table formats

U.S.-MNC data are presented in a variety of table formats in order to provide the fullest possible detail by country and by industry, while ensuring the confidentiality of company-specific information. For foreign affiliates, BEA publishes tables on selected data items (such as the direct investment position and affiliate employment) that show each country in which there is USDIA, along with regional subtotals (but with no cross-classification by industry). Likewise, tables showing data by each three-digit ISI code, along with two-digit subtotals (but with no cross-classification by country) are also published.[32] Tables showing data crossclassified by country and industry are less detailed; tables 13 and 14 (at the end of the article) illustrate the level of detail available.

Revision sequence

Preliminary estimates of the U.S.-MNC data are released as soon as the accuracy of the estimates can be reasonably ensured. Preliminary balance of payments flow estimates for a quarter are released 10 weeks after the end of the quarter; preliminary annual financial and operating data are generally released 1½ years after the end of a year (table 10). The data are then periodically revised as reported data are substituted for BEA estimates of missing data or as reported data are revised.

32. Balance of payments and direct investment position data are shown in these formats in an annual article in the SURVEY (usually in the August issue) that presents detail for historical-cost position and related capital and income flows. Financial and operating data are shown in these formats in separate publications (see "Data Availability").

Table 10.—Revision Sequence for U.S.-MNC Data Sets

Estimate	Usual release date
Balance of payments data:	
Quarterly releases:	
Preliminary estimate	10 weeks after end of quarter [1]
First revision	22 weeks after end of quarter [1]
Annual releases [2]:	
Preliminary estimate	10 weeks after end of year [1]
First revision	6 months after end of year
Second revision	1 1/2 years after end of year
Third revision	2 1/2 years after end of year
Benchmark revision	Approximately 3 1/2 years after end of benchmark survey year
Financial and operating data:	
Preliminary estimate	1 1/2 years after end of year [3]
Final estimate	2 1/2 years after end of year [3]

1. This is a press release date. The data are subsequently published in the SURVEY OF CURRENT BUSINESS; see table 11 for details.
2. In annual and benchmark revisions, all quarters for the year are revised.
3. In benchmark survey years and immediately following years, data are generally released 1 to 4 months later.

Table 11.—U.S.-MNC Data Series: Types of Information and Publications

U.S-MNC data series	Types of information	SURVEY OF CURRENT BUSINESS articles and related publications
Balance of payments and direct investment position data	Direct investment income; royalties and license fees; and other services transactions between U.S. parents and their foreign affiliates; direct investment capital flows; and the direct investment position.	Quarterly data on direct investment capital, income, and other flows appear in the March, June, September, and December SURVEY articles on U.S. international transactions. Annual direct investment position data appear in the June SURVEY article on the direct investment positions on a historical-cost basis. Detailed annual data on the position and related capital, income, and other flows between parents and affiliates generally appear in the August SURVEY. Some historical data are available in separate BEA publications (see table 12). [1]
Financial and operating data	U.S. parents' and foreign affiliates' balance sheets and income statements; sales by type and destination; employment and employee compensation; U.S. merchandise trade; gross product (value added) [2]; and technology. Also external financing for MOFA's.	Summary annual financial and operating data appear in articles on U.S. multinational companies' operations, usually in the June SURVEY. More detailed data appear in separate BEA publications (see table 12).

1. It should be noted, however, that the data prior to 1982 do not reflect certain definitional changes that BEA instituted in recent years. For details on these changes, see "U.S. Direct Investment Abroad: Detail for Position and Balance of Payments Flows, 1989," SURVEY 70 (August 1990): 57 and "U.S. International Transactions: First Quarter 1992 and Revised Estimates for 1976-91," SURVEY 72 (June 1992): 70-77.
2. U.S. parent gross product data are only available in the benchmark survey years of 1977, 1982, and 1989.
MNC Multinational company
MOFA Majority-owned foreign affiliate

Data availability

BEA makes its U.S.-MNC data available through a variety of media: In publications (both in the SURVEY and in separate data publications), on diskette, on CD-ROM (the National Trade Data Bank CD-ROM), and on the Internet.[33] Table 11 summarizes the availability of published BEA data on U.S. MNC's, and table 12 provides ordering information for specific publications and diskettes. Additionally, a comprehensive list of articles, publications, and diskettes on direct investment is available from the International Investment Division, Bureau of Economic Analysis, U.S. Department of Commerce, BE-50, Washington, DC 20230.

33. Full issues of the SURVEY, individual Survey articles on MNC's, and the data from the National Trade Data Bank CD-ROM are on STAT-USA's World Wide Web system, which is available for a modest subscription fee. To access this information, go to http://www.stat-usa.gov/BEN/Services/beahome.html. For further information, contact the STAT-USA Help Line on (202) 482–1986.

Table 12.—Ordering Information for BEA Publications and Diskettes on U.S. MNC's

Year(s) covered	Title	Publication: Source	Publication: Acession or stock number	Publication: Price	Diskette: BEA accession number	Diskette: Price
	Balance of payments and direct investment position data					
1950–76	Selected Data on U.S. Direct Investment Abroad, 1950–76	NTIS	PB87–121869	$36.50		
1977–81	U.S. Direct Investment Abroad: Balance of Payments and Direct Investment Position Estimates, 1977–81.	NTIS	PB87–178265	$19.50		
1982–93	U.S. Direct Investment Abroad: Balance of Payments and Direct Investment Position Estimates, computer printout (annual).	BEA	50–94–20–577	$10.00 per year		
1989–93	U.S. Direct Investment Abroad: Balance of Payments and Direct Investment Position Estimates, 1989–93.	BEA	....	....	50–94–40–577	$20.00
	Financial and operating data					
1977	U.S. Direct Investment Abroad, 1977	NTIS	PB82–130634	$61.00		
1982	U.S. Direct Investment Abroad, 1982 Benchmark Survey Data	NTIS	PB86–169117	$52.00		
	U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and Their Foreign Affiliates:					
1983	Revised 1983 Estimates	BEA	50–86–10–103	$5.00	50–86–40–403	$20.00
1984	Revised 1984 Estimates	BEA	50–87–10–103	$5.00	50–87–40–409	$20.00
1985	Revised 1985 Estimates	BEA	50–88–10–103	$5.00	50–88–40–403	$20.00
1986	Revised 1986 Estimates	NTIS	PB90–114125	$19.50	50–89–40–403	$20.00
1987	Revised 1987 Estimates	NTIS	PB90–258898	$19.50	50–90–40–403	$20.00
1988	Revised 1988 Estimates	NTIS	PB92–101583	$19.50	50–91–40–403	$20.00
1989	U.S. Direct Investment Abroad, 1989 Benchmark Survey, Final Results	GPO	003–010–00234–4	$25.00	50–92–40–403	$20.00
	U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and Their Foreign Affiliates:					
1990	Revised 1990 Estimates	BEA	50–93–10–103	$6.50	50–93–40–403	$20.00
1991	Revised 1991 Estimates	GPO	003–010–00247–6	$6.50	50–94–40–403	$20.00
1992	Preliminary 1992 Estimates	GPO	003–010–00245–0	$6.50	50–94–40–404	$20.00

NOTE.—To place an order, use the forms found in the appendix to "User's Guide to BEA Information," SURVEY 75 (January 1995).
MNC Multinational company
BEA Bureau of Economic Analysis
GPO U.S. Government Printing Office
NTIS National Technical Information Service

Table 13.—Employment of Nonbank Foreign Affiliates, Country by Industry of Affiliate, 1992

[Thousands]

	All industries	Petroleum	Manufacturing								Wholesale trade	Finance (except banking), insurance, and real estate	Services	Other industries
			Total	Food and kindred products	Chemicals and allied products	Primary and fabricated metals	Machinery, except electrical	Electric and electronic equipment	Transportation equipment	Other manufacturing				
All countries	**6,727.5**	**230.2**	**4,006.5**	**495.1**	**587.1**	**198.9**	**507.2**	**557.0**	**738.7**	**922.4**	**550.8**	**150.3**	**569.1**	**1,220.8**
Canada	**872.7**	**25.0**	**406.5**	(D)	**48.0**	**31.6**	**26.3**	**32.4**	(D)	**111.8**	**74.4**	**28.5**	**69.9**	**268.4**
Europe	**2,790.9**	**76.7**	**1,666.3**	**167.3**	**264.8**	**86.9**	**279.1**	**166.5**	**313.8**	**387.9**	**307.1**	**72.5**	**336.4**	**331.9**
Austria	22.1	1.0	(D)	1.5	.5	.4	.8	.7	4.2	(D)	6.6	.4	2.1	(D)
Belgium	111.5	2.1	74.9	10.1	21.0	3.5	7.0	5.6	(D)	(D)	16.9	1.4	12.9	3.2
Denmark	19.9	.6	7.6	2.0	1.6	.6	(*)	1.1	.4	1.8	7.1	.3	3.3	.9
Finland	8.4	.5	2.7	.1	.5	.1	.3	.1	0	1.6	3.7	(*)	.8	.8
France	402.3	6.1	222.1	14.6	42.4	8.4	(D)	20.1	(D)	70.3	61.9	5.1	83.9	23.3
Germany	581.7	13.6	418.6	23.5	49.9	26.0	70.1	(D)	(D)	81.4	44.3	4.9	36.1	64.2
Greece	11.3	.5	4.8	1.5	1.8	0	0	.3	0	1.3	3.6	.4	2.1	0
Ireland	43.5	.5	39.7	1.9	4.8	1.5	7.1	6.4	1.5	16.5	1.8	.4	.5	.5
Italy	176.8	4.0	114.1	10.8	25.0	3.1	24.9	13.2	15.0	22.1	24.8	2.1	9.4	22.4
Luxembourg	7.9	.1	6.3	0	0	.7	.4	.1	.3	4.8	.1	.1	.8	.6
Netherlands	145.1	8.4	84.9	12.6	17.8	7.5	(D)	9.5	1.8	(D)	18.0	(D)	21.3	(D)
Norway	21.3	(D)	4.0	.3	.4	(D)	.4	.2	0	(D)	(D)	.1	3.6	.9
Portugal	24.5	.4	15.1	3.9	3.5	.1	(D)	(D)	2.5	(D)	5.4	.2	2.6	.9
Spain	138.7	.8	102.0	16.3	20.2	3.3	7.2	9.3	(D)	(D)	16.0	2.2	6.7	11.1
Sweden	42.7	.6	(D)	1.0	2.6	(D)	6.5	.8	(D)	5.4	11.1	.4	2.2	(D)
Switzerland	53.2	.9	22.2	(D)	1.6	.6	2.0	1.4	.1	(D)	16.4	1.5	(D)	(D)
Turkey	21.6	1.4	15.8	2.1	2.6	1.0	.4	(D)	4.9	(D)	2.6	0	1.4	.4
United Kingdom	917.9	24.9	462.8	44.8	62.3	28.2	86.1	51.0	(D)	(D)	58.9	(D)	135.8	(D)
Other	40.5	(D)	(D)	(D)	6.4	0	.2	(D)	(D)	3.7	(D)	.1	(D)	3.2
Latin America and Other Western Hemisphere	**1,395.1**	**29.5**	**997.3**	**161.4**	**147.3**	**47.4**	**54.9**	**163.4**	**206.0**	**216.9**	**41.9**	**14.2**	**67.9**	**244.2**
South America	601.6	22.7	452.1	(D)	82.7	27.4	33.4	33.4	108.8	(D)	24.4	5.7	26.3	70.5
Argentina	61.0	4.0	41.6	12.9	9.9	1.2	.9	(D)	8.3	(D)	5.2	.8	1.9	7.4
Brazil	349.9	5.8	315.3	32.7	48.6	16.7	32.2	23.7	(D)	(D)	5.5	1.1	12.0	10.3
Chile	25.6	1.3	9.8	1.1	2.4	3.6	(*)	.4	0	2.3	4.9	2.9	2.2	4.5
Colombia	43.0	4.1	23.9	3.7	7.8	2.5	0	1.2	(D)	(D)	2.2	.5	3.5	8.8
Ecuador	9.9	.9	6.3	1.4	1.1	.7	0	.3	.5	2.3	.6	.1	0	2.0
Peru	12.9	1.7	3.4	1.1	1.3	.4	0	.1	0	.5	(D)	0	.5	(D)
Venezuela	91.9	4.3	48.0	(D)	11.4	2.2	.3	5.5	7.2	(D)	(D)	.3	6.1	(D)
Other	7.4	.5	3.7	(D)	.2	.2	0	(D)	0	.8	.2	.1	.1	2.8
Central America	746.7	3.9	528.8	91.7	61.6	20.1	21.5	129.8	97.2	106.9	14.5	6.4	(D)	(D)
Costa Rica	27.6	(*)	14.4	3.9	1.7	1.0	0	(D)	0	(D)	1.3	0	.1	11.8
Guatemala	11.4	.3	5.8	2.7	1.0	.3	0	0	0	1.9	.3	.2	.1	4.6
Honduras	22.0	.2	6.9	4.2	1.1	(*)	0	0	0	1.5	.3	.2	(*)	14.5
Mexico	661.0	1.6	493.7	79.4	56.4	18.4	21.5	126.6	97.2	94.2	11.2	5.7	(D)	(D)
Panama	19.5	1.1	3.9	.8	1.0	(*)	0	0	0	2.0	(D)	.2	.4	(D)
Other	5.2	.6	4.1	.6	.3	.4	0	(D)	0	(D)	(D)	.1	.1	(D)
Other Western Hemisphere	46.9	3.0	16.5	(D)	3.1	0	0	.2	0	(D)	3.0	2.1	(D)	(D)
Bahamas	8.0	.1	.4	.1	.3	0	0	0	0	.1	.1	.2	6.4	.8
Barbados	1.1	.2	.4	0	0	0	0	0	0	.4	.1	(*)	.4	0
Bermuda	2.8	.4	.1	(*)	0	0	0	0	0	(*)	.3	1.1	1.0	(*)
Dominican Republic	19.4	.1	(D)	(D)	.7	0	0	.1	0	(D)	.6	.2	.4	(D)
Jamaica	6.4	.2	2.6	0	.9	0	0	0	0	1.6	.9	.2	(D)	(D)
Netherlands Antilles	1.3	.3	.2	.1	.1	0	0	0	0	0	.1	(*)	.7	.1
Trinidad and Tobago	2.6	.7	1.0	.1	.7	0	0	0	0	.2	0	.4	.5	0
United Kingdom Islands, Caribbean	3.0	(*)	1.8	0	.4	0	0	.1	0	1.2	.9	.1	.3	(*)
Other	2.4	1.0	(D)	.1	0	0	0	0	0	(D)	.2	(*)	.4	(D)
Africa	**124.1**	**16.6**	**64.7**	(D)	**10.7**	**6.1**	**6.0**	**2.6**	(D)	(D)	**6.7**	**.9**	**7.5**	**27.7**
Egypt	14.1	1.4	7.0	(D)	1.8	.4	(D)	.5	(D)	0	1.0	(*)	(D)	(D)
Nigeria	10.6	5.1	2.7	.6	1.0	.2	0	(D)	(D)	0	2.4	.4	(*)	0
South Africa	39.1	(D)	31.2	.7	5.5	2.7	(D)	.6	1.0	(D)	1.8	0	.8	(D)
Other	60.4	(D)	23.8	3.9	2.4	2.9	.2	(D)	.4	(D)	1.5	.5	(D)	23.3
Middle East	**50.0**	**7.0**	**19.1**	(D)	**5.3**	**1.8**	**.5**	**4.9**	**.4**	(D)	**1.9**	**.6**	**18.4**	**3.1**
Israel	29.0	(D)	12.5	(D)	(D)	1.3	.5	4.7	.4	2.5	.4	.2	13.4	(D)
Saudi Arabia	13.2	1.7	6.2	.1	4.0	.5	0	.1	0	1.5	.3	(*)	4.5	.5
United Arab Emirates	3.1	1.3	.1	0	(*)	0	0	(*)	0	0	.9	.1	.4	.3
Other	4.6	(D)	.3	0	(D)	0	0	.1	0	(D)	.2	.3	.1	(D)
Asia and Pacific	**1,466.9**	**63.0**	**852.6**	**110.7**	**110.9**	**25.1**	**140.5**	**187.2**	**105.3**	**172.9**	**118.8**	**33.6**	**69.0**	**329.9**
Australia	366.2	9.1	110.3	(D)	18.6	5.7	9.2	5.5	(D)	23.5	(D)	4.9	27.3	(D)
China	32.4	.4	29.2	(D)	3.6	.3	2.1	(D)	(D)	2.0	2.1	(*)	.1	.7
Hong Kong	85.8	.7	53.5	(D)	1.3	(D)	4.9	(D)	.1	22.3	12.0	3.1	4.5	12.0
India	40.5	.8	36.4	.5	14.7	3.3	9.3	1.1	1.9	5.6	(D)	(*)	(D)	0
Indonesia	47.0	(D)	12.8	(D)	4.5	.6	.4	(D)	0	2.9	1.8	.6	.2	(D)
Japan	394.9	13.8	228.2	5.6	33.1	4.0	52.2	23.4	60.8	49.1	47.7	(D)	17.6	(D)
Korea, Republic of	53.9	(D)	37.4	4.5	4.4	.9	3.0	8.8	5.9	9.9	4.4	(D)	7.2	.8
Malaysia	84.3	3.3	72.6	.7	2.2	(D)	(D)	48.1	0	14.8	2.9	1.8	(D)	(D)
New Zealand	(D)	(D)	(D)	.3	(D)	.1	0	.2	(D)	12.5	3.1	.7	1.0	17.3
Philippines	87.9	(D)	79.6	40.0	9.7	2.3	.3	(D)	(D)	15.3	1.9	1.6	.5	(D)
Singapore	90.7	3.9	68.9	(D)	1.5	1.3	32.3	28.2	.9	(D)	5.8	(D)	3.8	(D)
Taiwan	57.7	.3	43.4	(D)	6.4	1.6	3.2	(D)	(D)	5.8	5.2	(D)	2.8	(D)
Thailand	73.1	3.1	57.1	(D)	3.3	1.8	(D)	8.3	0	5.0	5.2	1.9	1.6	4.2
Other	(D)	2.0	(D)	(D)	(D)	.1	(*)	.5	0	(D)	.6	.2	.1	(D)
International [1]	**27.9**	**12.4**	....	....	....	....	....	....	....	....	....	....	....	**15.5**
Addenda:														
Eastern Europe [2]	33.3	(D)	(D)	(D)	1.3	0	.2	(D)	.5	3.7	(D)	.1	.1	2.5
European Communities (12) [3]	2,581.2	62.1	1,552.7	142.1	250.2	82.8	268.5	149.9	294.1	365.1	258.9	70.1	315.3	322.1
OPEC [4]	182.3	36.3	76.2	17.2	22.1	4.2	.7	7.1	8.5	16.4	10.9	1.4	11.3	46.2

* Less than 50 employees.

D Suppressed to avoid disclosure of data of individual companies.

1. "International" affiliates are those that have operations in more than one country and that are engaged in petroleum shipping, other water transportation, or operating movable oil- and gas-drilling equipment.

2. "Eastern Europe" comprises Albania, Armenia, Azerbaijan, Belarus, Bulgaria, Czechoslovakia, Estonia, Hungary, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Moldova, Poland, Romania, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan.

3. European Communities (12) comprises Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain, and the United Kingdom.

4. OPEC is the Organization of Petroleum Exporting Countries. Through yearend 1992, its members were Algeria, Ecuador, Gabon, Indonesia, Iran, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

Table 14.—Employment of Nonbank Foreign Affiliates, Industry of Affiliate by Country, 1992

[Thousands]

	Total	Canada	Europe							Latin America and Other Western Hemisphere	Africa	Middle East	Asia and Pacific			International
			Total	Of which:									Total	Of which:		
				France	Germany	Italy	Netherlands	Switzerland	United Kingdom					Australia	Japan	
All industries	**6,727.5**	**872.7**	**2,790.9**	**402.3**	**581.7**	**176.8**	**145.1**	**53.2**	**917.9**	**1,395.1**	**124.1**	**50.0**	**1,466.9**	**366.2**	**394.9**	**27.9**
Petroleum	**230.2**	**25.0**	**76.7**	**6.1**	**13.6**	**4.0**	**8.4**	**.9**	**24.9**	**29.5**	**16.6**	**7.0**	**63.0**	**9.1**	**13.8**	**12.4**
Oil and gas extraction	97.0	8.9	25.3	.2	1.2	.6	(D)	.2	11.6	12.3	8.8	5.6	29.8	4.0	(*)	6.2
Crude petroleum extraction (no refining) and natural gas	60.3	(D)	15.3	(*)	.7	(*)	(D)	(*)	4.5	4.7	(D)	2.6	24.1	(D)	0	....
Oil and gas field services	36.7	(D)	10.0	.1	.5	.6	.4	.2	7.0	7.6	(D)	3.1	5.6	(D)	(*)	6.2
Petroleum and coal products	71.7	14.6	30.1	(D)	4.3	(D)	(D)	0	11.1	5.8	(D)	(D)	19.2	(D)	7.4	....
Integrated petroleum refining and extraction	(D)	(D)	8.9	(D)	(D)	0	(D)	0	(D)	2.1	0	(D)	(D)	0	(D)	....
Petroleum refining without extraction	36.9	(D)	19.8	(D)	(D)	(D)	2.2	0	(D)	1.8	(D)	0	13.7	(D)	5.3	....
Petroleum and coal products, nec	(D)	.2	1.4	0	.3	.1	.1	0	0	1.9	.6	(*)	(D)	.1	(D)	....
Petroleum wholesale trade	39.5	1.0	13.8	.8	(D)	.2	.4	.6	1.6	10.6	5.7	.2	8.3	(D)	2.8	....
Other	21.9	.5	7.5	(D)	(D)	(D)	.4	.1	.7	.9	(D)	(D)	5.7	(*)	3.6	6.1
Manufacturing	**4,006.5**	**406.5**	**1,666.3**	**222.1**	**418.6**	**114.1**	**84.9**	**22.2**	**462.8**	**997.3**	**64.7**	**19.1**	**852.6**	**110.3**	**228.2**	....
Food and kindred products	495.1	(D)	167.3	14.6	23.5	10.8	12.6	(D)	44.8	161.4	(D)	(D)	110.7	(D)	5.6	....
Grain mill and bakery products	89.8	9.8	41.9	5.5	8.5	3.2	2.1	0	8.5	24.5	(D)	.1	(D)	(D)	.2	....
Beverages	(D)	(D)	29.7	(D)	(D)	(D)	(D)	.5	11.3	28.1	1.5	0	(D)	(D)	1.8	....
Other	(D)	28.7	95.7	(D)	(D)	(D)	(D)	(D)	25.1	108.8	(D)	(D)	43.3	9.7	3.6	....
Chemicals and allied products	587.1	48.0	264.8	42.4	49.9	25.0	17.8	1.6	62.3	147.3	10.7	5.3	110.9	18.6	33.1	....
Industrial chemicals and synthetics	173.3	19.0	75.8	8.6	17.2	5.2	11.0	.5	15.2	45.8	.4	2.4	30.0	(D)	10.4	....
Drugs	187.0	11.1	93.0	(D)	14.1	11.1	1.8	.7	19.0	36.8	4.5	0	41.6	4.1	(D)	....
Soap, cleaners, and toilet goods	149.4	9.1	62.5	6.9	(D)	5.3	2.4	.3	17.6	45.6	(D)	(D)	26.3	2.8	7.3	....
Agricultural chemicals	10.7	.5	3.0	.6	0	.6	.2	0	.3	3.4	0	0	3.9	.3	.3	....
Chemical products, nec	66.7	8.2	30.6	(D)	(D)	2.8	2.3	.2	10.2	15.9	(D)	(D)	9.3	(D)	(D)	....
Primary and fabricated metals	198.9	31.6	86.9	8.4	26.0	3.1	7.5	.6	28.2	47.4	6.1	1.8	25.1	5.7	4.0	....
Primary metal industries	54.6	10.3	17.8	1.3	4.0	1.4	2.7	(*)	4.8	15.9	2.7	.3	7.5	1.8	.6	....
Ferrous	11.3	(D)	(D)	.7	(D)	(D)	(D)	(*)	1.8	1.0	(D)	0	3.0	(D)	.1	....
Nonferrous	43.3	(D)	(D)	.6	(D)	(D)	(D)	0	2.9	14.9	(D)	.3	4.5	(D)	.4	....
Fabricated metal products	144.4	21.3	69.1	7.1	22.0	1.7	4.8	.6	23.4	31.5	3.4	1.5	17.6	3.9	3.5	....
Machinery, except electrical	507.2	26.3	279.1	(D)	70.1	24.9	(D)	2.0	86.1	54.9	6.0	.5	140.5	9.2	52.2	....
Farm and garden machinery	(D)	.4	14.4	(D)	(D)	.1	0	0	4.9	(D)	0	0	.4	0	.2	....
Construction, mining, and materials handling machinery	72.2	2.0	(D)	11.8	3.8	1.0	(D)	.4	8.0	9.0	(D)	0	24.5	1.8	13.0	....
Computer and office equipment	235.2	14.7	127.0	(D)	35.4	(D)	9.6	.2	31.6	9.9	.1	.1	83.5	1.1	(D)	....
Other	(D)	9.1	(D)	(D)	(D)	(D)	3.8	1.5	41.7	(D)	(D)	.4	32.2	6.4	(D)	....
Electric and electronic equipment	557.0	32.4	166.5	20.1	(D)	13.2	9.5	1.4	51.0	163.4	2.6	4.9	187.2	5.5	23.4	....
Household appliances	106.3	11.2	37.3	1.9	10.0	6.2	.2	(*)	15.4	42.0	0	0	15.9	2.1	0	....
Household audio and video, and communication equipment	41.3	4.2	16.1	1.0	2.4	(D)	(D)	(*)	2.4	9.5	0	2.4	9.0	.9	0	....
Electronic components and accessories	306.9	6.1	75.5	8.9	(D)	3.5	2.3	.5	21.8	72.5	0	2.5	150.2	.7	21.5	....
Electrical machinery, nec	102.5	10.9	37.5	8.3	5.0	(D)	(D)	.8	11.4	39.4	2.6	(*)	12.0	1.8	1.9	....
Transportation equipment	738.7	(D)	313.8	(D)	(D)	15.0	1.8	.1	(D)	206.0	(D)	.4	105.3	(D)	60.8	....
Motor vehicles and equipment	706.9	(D)	302.8	14.0	(D)	(D)	1.7	.1	74.2	204.6	(D)	0	104.1	(D)	60.7	....
Other	31.8	17.9	11.0	(D)	.4	(D)	.2	(*)	(D)	1.3	0	.4	1.2	.1	.1	....
Other manufacturing	922.4	111.8	387.9	70.3	81.4	22.1	(D)	(D)	(D)	216.9	(D)	(D)	172.9	23.5	49.1	....
Tobacco products	65.4	2.4	(D)	.4	(D)	1.1	(D)	(D)	(D)	(D)	10.2	0	4.2	(D)	0	....
Textile products and apparel	106.4	11.0	39.3	8.5	8.4	1.1	1.4	0	10.8	30.5	0	0	25.6	3.4	1.3	....
Lumber, wood, furniture, and fixtures	54.4	13.1	16.8	(D)	(D)	.4	.2	.1	(D)	10.9	(D)	0	(D)	.4	.3	....
Paper and allied products	166.4	(D)	(D)	(D)	15.2	2.6	(D)	.2	(D)	42.3	.1	1.4	(D)	(D)	3.4	....
Printing and publishing	34.1	8.6	(D)	(D)	1.1	.7	1.5	.2	8.9	(D)	.2	0	4.5	2.3	.3	....
Rubber products	84.9	(D)	28.9	3.6	7.6	1.3	0	(*)	7.8	30.0	(D)	0	9.3	.2	1.7	....
Miscellaneous plastics products	55.5	3.7	26.4	6.4	3.8	2.2	(D)	.2	4.5	14.2	.3	1.0	10.0	1.7	(D)	....
Glass products	54.1	1.7	(D)	2.7	.8	(D)	.9	.1	(D)	18.6	(D)	.2	7.5	.1	(D)	....
Stone, clay, and other nonmetallic mineral products	36.2	11.2	14.0	1.7	4.0	(D)	.6	(*)	3.2	5.5	0	.5	5.0	.8	1.6	....
Instruments and related products	195.5	7.9	112.3	18.8	18.4	8.6	7.5	2.2	43.1	26.1	1.5	.4	47.3	6.6	(D)	....
Other	69.6	(D)	32.9	5.3	10.1	.7	.3	.2	7.4	11.3	0	(D)	20.5	1.2	.6	....
Wholesale trade	**550.8**	**74.4**	**307.1**	**61.9**	**44.3**	**24.8**	**18.0**	**16.4**	**58.9**	**41.9**	**6.7**	**1.9**	**118.8**	(D)	**47.7**	....
Durable goods	380.7	(D)	225.2	48.7	30.6	18.3	13.7	11.4	40.6	22.2	(D)	1.7	79.8	(D)	35.2	....
Nondurable goods	170.0	(D)	81.9	13.2	13.8	6.5	4.3	5.0	18.3	19.6	(D)	.2	39.0	6.1	12.5	....
Finance (except banking), insurance, and real estate	**150.3**	**28.5**	**72.5**	**5.1**	**4.9**	**2.1**	(D)	**1.5**	(D)	**14.2**	**.9**	**.6**	**33.6**	**4.9**	(D)	....
Finance, except banking	51.0	7.7	27.5	2.1	3.2	.9	.8	1.2	16.1	(D)	(*)	(D)	11.8	3.0	5.5	....
Insurance	94.0	18.2	43.4	2.8	1.4	.9	3.4	.2	(D)	(D)	(D)	.2	21.1	1.9	(D)	....
Real estate	3.2	(D)	.6	.2	0	.1	(D)	0	(*)	(*)	(D)	.1	.4	0	(*)	....
Holding companies	2.1	(D)	1.1	(*)	.3	.2	.1	.1	.3	.2	(*)	(D)	.4	0	0	....
Services	**569.1**	**69.9**	**336.4**	**83.9**	**36.1**	**9.4**	**21.3**	(D)	**135.8**	**67.9**	**7.5**	**18.4**	**69.0**	**27.3**	**17.6**	....
Hotels and other lodging places	54.0	4.0	16.7	2.0	5.1	.6	.5	.4	3.0	17.6	(D)	(D)	6.3	4.0	.1	....
Business services	332.2	38.2	208.0	61.1	18.4	(D)	13.8	(D)	82.2	39.9	(D)	(D)	35.6	10.9	13.0	....
Advertising	44.3	3.8	29.5	(D)	4.0	1.6	3.7	.5	5.9	2.6	.8	.4	7.2	(D)	1.0	....
Equipment rental (ex. automotive and computers)	11.4	(D)	8.9	.2	(D)	0	.1	0	5.0	.7	(D)	.2	.1	0	.1	....
Computer and data processing services	82.4	5.0	56.7	11.9	5.4	(D)	4.1	2.7	24.8	3.6	(*)	1.8	15.3	3.1	(D)	....
Business services, nec	194.1	(D)	113.0	(D)	(D)	.7	5.9	(D)	46.6	32.9	.1	(D)	13.0	(D)	(D)	....
Automotive rental and leasing	(D)	1.9	(D)	(D)	(D)	.4	.1	.3	(D)	.1	0	0	1.3	.8	0	....
Motion pictures, including television tape and film	(D)	(D)	14.2	.4	.5	.3	(D)	(*)	10.8	.4	.1	(*)	.5	.1	.2	....
Health services	17.1	1.7	5.6	0	0	0	0	.7	4.1	(D)	0	(*)	(D)	(D)	0	....
Engineering, architectural, and surveying services	36.7	2.2	24.8	1.0	(D)	(D)	2.8	.1	(D)	(D)	(*)	2.9	(D)	1.1	.6	....
Management and public relations services	18.9	1.4	13.1	.8	1.6	.6	.3	1.2	5.2	.8	(*)	(*)	3.6	.8	1.7	....
Other	69.0	(D)	(D)	(D)	6.4	2.3	(D)	.8	7.3	5.2	(D)	(D)	9.2	(D)	2.0	....
Other industries	**1,220.8**	**268.4**	**331.9**	**23.3**	**64.2**	**22.4**	(D)	(D)	(D)	**244.2**	**27.7**	**3.1**	**329.9**	(D)	(D)	**15.5**
Agriculture, forestry, and fishing	80.2	.2	(D)	1.0	.2	.3	.2	(*)	.7	55.2	(D)	0	11.7	(*)	.3	....
Mining	91.6	10.4	.8	.3	0	0	(*)	0	0	44.9	15.9	(*)	19.5	11.7	(*)	....
Metal mining	72.1	(D)	.3	0	0	0	0	0	0	33.6	(D)	(*)	18.5	10.8	0	....
Nonmetallic minerals	19.6	(D)	.5	.3	0	0	(*)	0	0	11.3	(D)	0	.9	.9	(*)	....
Construction	73.3	8.8	(D)	8.5	7.2	(D)	1.0	(*)	(D)	6.4	(D)	.8	11.8	7.9	.1	....
Transportation	89.8	(D)	48.4	3.4	(D)	(D)	(D)	(D)	(D)	1.7	1.4	(D)	(D)	1.5	.9	15.5
Communication and public utilities	172.5	(D)	25.9	.3	(D)	(D)	4.6	0	(D)	(D)	0	.6	(D)	(D)	.3	....
Retail trade	713.4	213.1	208.5	9.8	35.8	.4	1.4	1.7	152.0	(D)	0	(D)	260.7	(D)	(D)	....

* Less than 50 employees.

D Suppressed to avoid disclosure of data of individual companies.

nec Not elsewhere classified.