An Ownership-Based Disaggregation of the U.S. Current Account, 1982-93

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In the U.S. international accounts, a transaction must be between a resident and a nonresident of the United States if it is to be considered "international," and thus within the scope of the accounts. In the current account, transactions determined to be international are disaggregated largely on the basis of what is transacted, not on the basis of who is involved in the transaction. Thus, the nature of the transactors and the relationship between them generally is not revealed. This paper seeks to provide some such detail. Using data from Bureau of Economic Analysis (BEA) direct investment surveys in conjunction with data from the standard international transactions (or "balance of payments") accounts, it presents a supplemental disaggregation of U.S. current account transactions (transactions in goods, services, income, and unilateral transfers) along ownership lines for the years 1982-93. In this disaggregation, the primary focus is on whether the transactions are between affiliated or unaffiliated parties and, if the former, whether they represent transactions within U.S.-based or foreign-based multinational companies, not on whether they involve trade in particular types of merchandise or services. (Information on whether the transactions are in goods or in services is, however, provided for several of the ownership-based components, in a second-level breakdown).

As a different way of viewing the same information, the presentation shown here is fully consistent conceptually with the standard accounts and could be regarded as a "satellite" of those accounts.[1] A somewhat less consistent presentation, in which gross transactions between entities having different countries of ownership are recorded, also is presented for purposes of comparison.

In addition to its different basis of disaggregation, the presentation of current account transactions in this paper differs from the standard presentation in its manner of recording direct investment income. Whereas the standard presentation simply

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[1] As described in the international System of National Accounts (SNA), satellite accounts are accounts that can augment the central national accounts by "expand[ing] the analytical capacity of national accounting for selected areas . . . in a flexible manner, without overburdening or disrupting the central system"; they may introduce additional information, alternative accounting frameworks, or "complementary or alternative concepts," while maintaining linkages to the central accounts. See Commission of the European Communities, International Monetary Fund, Organisation for Economic Co-operation and Development, and United Nations, System of National Accounts, 1993 (Brussels/Luxembourg, New York, Paris, and Washington, D.C: 1993): 489.

shows the income itself--the end result, from the direct investor's perspective, of the activities of its foreign affiliates--the presentation introduced here adds details that show its derivation as the net of the affiliates' sales, expenses, and other deductions from sales. Because of the added focus on the activities that produce it, this income is, for purposes of the presentation, redesignated as "net receipts or payments resulting from sales by affiliates."

Another distinguishing characteristic of the presentation is the inclusion of a "balance on cross-border trade and net receipts resulting from sales by affiliates" along with the conventional balances on the current account and on certain component subgroups that are shown in the standard presentation as memorandum items. While the nature and significance of any balance on groups of transactions may be subject to interpretation, this balance highlights the facts that cross-border trade and sales through foreign affiliates both represent methods of active participation in international markets for goods and services, and both may be contrasted with the more passively generated income on portfolio investment and the fundamentally different types of transactions recorded under unilateral transfers that comprise the remainder of the current account.

Finally, addenda have been added to show the source of the content of both foreign and U.S. affiliates' sales to unaffiliated customers. For both types of affiliates, output sold (or added to inventory) is broken down as between U.S. and foreign content. For foreign affiliates of U.S. companies, the foreign content is further broken down according to whether it represents the affiliates' own value added or other foreign content, and for U.S. affiliates of foreign companies, the U.S. content is broken down according to whether it represents the affiliates' own value added or other U.S. content. These content measures do not enter the balance of payments, but rather complement the information used to derive the balance of payments measure of net receipts and payments resulting from sales by affiliates.

In a previous article, BEA described and evaluated three measures of U.S. international sales and purchases of goods and services that supplement the conventional measure of the trade balance with information on sales and purchases abroad by U.S.-owned foreign companies and on sales and purchases in the United States by foreign-owned U.S. companies.[2] Two of the measures had been proposed

[2] See "Alternative Frameworks for U.S. International Transactions," Survey of Current Business 73 (December 1993): 50-61. This article discusses technical issues pertaining to the three measures, and the frameworks from which they are derived, and

earlier, one by DeAnne Julius and one by a National Academy of Sciences study panel. The third measure was introduced in the article. It differed from the others in that--like the conventional balance of payments measure--it used residency rather than ownership as the basis for determining the nationality of transactors and, thus, the boundary between domestic (U.S.) and foreign transactions. By maintaining this conventional boundary, it retained the linkages with economic activity in specific economies provided by the standard balance of payments framework. Like the other measures, however, it provided a number of new details that permit a more complete analysis of ownership relationships and of the scope and importance of intrafirm trade than is provided by the standard presentation. This paper updates and extends the earlier article by placing the ownership-based disaggregation of cross-border trade and net receipts or payments resulting from sales by affiliates into the framework of the overall U.S. current account, adding breakdowns of the ownership-based components of cross-border trade into trade in goods and trade in services[3]; recording net receipts resulting from sales by affiliates on a current-cost, rather than on a historical-cost, basis; showing data for affiliates in banking for the first time (though without the details provided for nonbanks); and presenting estimates for additional years.

The remainder of this paper contains three sections and a technical note. The first section explains the structure of the ownership-based disaggregation and explains why it, rather than another, more gross, method of accounting was chosen as the primary basis for presenting and analyzing the data. The second section reviews patterns of transactions, with a particular focus on changes in the composition of the

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presents estimates of U.S. sales and purchases under each framework for the year 1991. A preliminary version of the article was presented at the eighth Voorburg Group Meetings on Services Statistics in September 1993 in Oslo, Norway.

[3] For technical reasons, an acceptable estimate of this breakdown could not be made for net receipts resulting from sales by affiliates. One reason is because the data on affiliates' activities are classified according to the primary industry of the affiliate, rather than according to the type of good or service sold. Another is because some of the income from a given affiliate may reflect the affiliate's earnings derived as a result of its ownership of other affiliates that may operate in different industries. Similar considerations preclude a geographic breakdown of the ownership-based presentation: In some cases, income from one country may partly derive from the operations of indirectly owned affiliates located in other countries.

account, during 1982-93. The third section discusses the derivation of net receipts resulting from sales by affiliates and the source (whether U.S. or foreign) of the content of affiliates' sales to unaffiliated customers. The technical note provides details on the sources and methods used in making the estimates.

Structure of the Account

At the highest level of the ownership-based current-account disaggregation, as in the standard disaggregation, is the breakdown between unilateral transfers and exports and imports of goods, services, and income (table 1). Also like the standard disaggregation, unilateral transfers are presented on a net basis. Exports and imports of goods, services, and income, in contrast, are disaggregated quite differently in the new presentation than in the standard presentation. They are first disaggregated into two categories: (1) U.S. receipts and payments from cross-border trade and sales by affiliates and (2) other income receipts or payments. The first category--which records the results of activities involving direct participation in the production or sale of goods and services--is further disaggregated into U.S. cross-border exports or imports of goods and services and receipts and payments resulting from sales by affiliates. Each of these categories is, in turn, disaggregated in a unique manner.

Cross-border transactions in goods and services are disaggregated to show transactions with unaffiliated foreigners separately from transactions with affiliated foreigners, with the latter further disaggregated to show transactions between U.S. parent companies and their foreign affiliates (that is, intrafirm trade related to outward direct investment) separately from those between U.S. affiliates and their foreign parents (intrafirm trade related to inward direct investment). Separate estimates of trade in goods and trade in services are provided for each of these categories.

For net U.S. receipts resulting from sales by foreign affiliates, separate estimates are provided for nonbank and bank affiliates. For nonbank affiliates, the derivation of net receipts resulting from sales by affiliates is shown as affiliates' sales, less their purchases from the United States, costs and profits accruing to foreigners, and sales to other foreign affiliates of the same U.S. parent company as the affiliate making the sale. For bank affiliates, only the net receipts themselves are shown, because annual information on sales and deductions from sales is unavailable. The derivation of net U.S. payments to foreign companies resulting from sales by their U.S. affiliates is presented in an analogous manner.

Other receipts or payments consist of other private receipts or payments and U.S. government receipts or payments. These transactions differ from those in the two previous categories in terms of the nature of the transactor's involvement: Whereas cross-border trade in goods and services and transactions related to sales by affiliates entail an active involvement in the production or sale of goods and services by the cross-border exporter or by the direct investor, the other private and U.S. government receipts and payments relate to situations in which the investor makes an investment and receives a return, but without an active involvement.

To place the ownership-based disaggregation in perspective, it may be instructive to consider an alternative method of accounting for affiliates' sales that records these sales, and related expenses, in a more gross fashion: Using outward direct investment as an example, instead of recording the U.S. parent companies' earnings from their foreign affiliates, along with the details on the derivation of the earnings, the affiliates' gross sales abroad would, under this method, be recorded as U.S. exports of goods and services, and their foreign expenses (together with profits accruing to foreigners) as U.S. imports of goods and services, similar to the method recommended by international guidelines for recording construction transactions.[4] Thus, affiliates' operations abroad would be treated as extensions of the domestic (U.S.) operations of their parent companies, rather than as stand-alone foreign operations from which the U.S. investor derives earnings. Operations of U.S. affiliates of foreign companies would be treated in an analogous manner.

The method described above, which is adopted from the work of DeAnne Julius, has both advantages and disadvantages.[5] Perhaps its chief virtue lies in its ability to

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[4] The International Monetary Fund's Balance of Payments Manual (5th edition) recommends, for construction operations abroad, that the contractor's gross operating revenues be recorded as an export of construction services, that its foreign expenses be recorded as an import of "other business services," and that any exports of goods from the contractor's country to the foreign job site be deducted from merchandise exports (to avoid duplication of amounts already included in gross operating revenues). For affiliate operations abroad, purchases from the United States would, by analogy, be deducted from cross-border exports, to avoid duplication with the affiliate sales in which they become embodied.

[5] See DeAnne Julius, Global Companies and Public Policy: The Growing Challenge of Foreign Direct Investment (New York, NY: Council on Foreign

reflect in exports and imports the totality of interactions between foreign affiliates and foreign economies, while at the same time maintaining the correspondence between the net of these transactions and the measure of factor income attributable to domestically supplied factors of production located abroad that is required to compute gross national product.

Despite this advantage, this gross method was not chosen as the primary basis for presenting and analyzing data in this paper for several reasons. A major reason was that adopting it would have loosened linkages with the standard presentation and reduced consistency with international guidelines. Under this method, total exports and total imports of goods, services, and income differ from the totals recorded in the standard presentation (though net exports remain unchanged). In addition, the transactions related to a given type of investment tend to become scattered across the accounts, contrary to international guidelines, which recommend recording transactions related to a particular type of direct investment together--or on a "directional" basis--and which thus facilitate the analysis of a particular type of investment. Furthermore, the rules of residency contained in the System of National Accounts and the Balance of Payments Manual would have been violated (although, due to the treatment of all payments by affiliates for both primary factors of production and intermediate inputs supplied by foreigners as imports of the investor country, not in a manner that would distort the attribution of production by country). A final factor, specific to this particular application, that argued against the selection of this method was the inability to exclude sales by minority-owned affiliates from the affiliate sales data.[6] Unless sales of these affiliates can be separately identified and recorded, sales

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Relations Press, 1990).

[6] For some purposes, it would have been desirable to separately identify net receipts resulting from sales by majority-owned affiliates. So doing would have aligned the presentation more closely with the SNA concept of "foreign-controlled resident corporation" and with commonly held views on the concept of "establishment trade." Because of the way BEA's databases are currently structured and because some of the income received from majority-owned affiliates may derive from operations of indirectly held minority-owned affiliates, separate estimates for majority-owned affiliates could not readily be constructed for purposes of this paper. However, because most affiliates, both U.S. and foreign, are majority-owned, the overall patterns of transactions would not have diverged in a major way from those described here

by an affiliate owned to the extent of as little as 10 percent (the threshold for direct investment) are, in effect, attributed to the country of the minority investor, rather than to the country of the holder(s) of the majority interest. For example, some U.S. automobile manufacturers hold small stakes in foreign auto companies, largely for the purpose of facilitating trade and the sharing of technology, but few would regard the overseas sales of these minority-owned affiliates as attributable to the United States, even from a purely ownership-based perspective.

Although for these reasons it was not chosen as the primary basis for presenting and analyzing data in this paper, the results under this method may be of interest for some purposes, and they have been tabulated and are shown in table 8.

Patterns of Transactions

Because the theme of this paper concerns ownership relationships as they pertain to the current account, rather than variations in the overall magnitude of the transactions, much of the following discussion focuses on changes in the composition of the various ownership-based categories that comprise the current account, rather than on changes in their level. These changes in composition are depicted in a series of tables showing the composition of transactions at several levels of detail. Before examining them, however, it can be noted that during the period covered by table 1, each major category of transactions roughly doubled: From 1982 to 1993, U.S. exports of goods, services, and income increased by a factor of 2.1; imports of goods, services, and income, by a factor of 2.3; and net unilateral transfers, by a factor of 2.0. Over the same period, overall U.S. economic activity--whether measured by gross domestic product or gross national product--increased by a factor of 2.0, or slightly less than the growth in exports and imports.

Despite the rather similar movements in these major components, movements in the balances on the current account and its subcomponents were dramatic, at least in relative terms: The total deficit on current account rose from $11.4 billion in 1982 to $99.9 billion in 1993 (table 1, line 43), while the balance on goods, services, and income shifted from a surplus of $5.6 billion to a deficit of $65.8 billion (line 42). The balance on goods, services, and net receipts resulting from sales by affiliates

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even if separate estimates could have been constructed. (In 1993, majority-owned affiliates accounted for 81 percent of the sales of foreign affiliates of U.S. companies and for 84 percent of the sales of U.S. affiliates of foreign companies.)

fluctuated considerably, but it too showed a much larger deficit in 1993 than in 1982--$18.5 billion, compared to $2.2 billion (line 41). Because net U.S. receipts resulting from sales by foreign affiliates consistently exceeded net U.S. payments to foreign companies for sales by their affiliates in the United States, throughout 1982-93 this measure showed a smaller deficit (or, in 1991 and 1992, a surplus rather than a deficit) than was recorded for the balance on cross-border trade in goods and services alone; the latter measure increased from a deficit of $24.2 billion in 1982 to a deficit of $74.8 billion in 1993 (line 40).

To some extent, the seemingly large movements in balances in the face of only modest differences in growth rates of receipts and of payments reflects the nature of these balances as the net of much larger two-way flows; small differences in growth rates for opposing flows can and do result in much larger relative movements in the corresponding balances.

Changes in composition

Tables 2-7 describe the composition of the ownership-based disaggregation of transactions involving goods, services, and income--that is, of elements of the current account other than unilateral transfers (which cannot be examined in this fashion due to their net basis of recording). The period examined--1982-93--saw numerous developments that might have been expected, directly or indirectly, to have a material impact on these components--cyclical fluctuations in economic activity, major movements in exchange rates, rising trade and investment in services, growing integration of the world economy and of global financial markets, emergence of newly industrialized economies and liberalization of trade and investment policies by a number of developing countries, the political and economic transformation of Eastern Europe, and rapid increases in foreign direct investment in the United States. Against the backdrop of these developments, and given the length of the period, significant changes in the composition of these components would be expected, and, as described below, some changes did occur. Somewhat surprisingly, however, the overall picture is more one of stability than of change.

Throughout 1982-93, cross-border exports of goods and services accounted for a substantially higher share of total exports of goods, services, and income than either net receipts resulting from sales by affiliates or other income receipts (table 2). The share of exports of goods and services fluctuated in the range of 74-78 percent through 1990, then rose to a peak of 84 percent. The rise in the share toward the end of the period came at the expense of the share of "other" income receipts, which fell not only relatively but also in absolute terms in the early 1990's as interest rates declined and as lending to foreigners by U.S. banks fell in response to sluggish economic conditions in several major borrowing areas. Reflecting these developments, "other" income receipts, which began the period with a share well over twice that of receipts resulting from sales by affiliates, ended it with a share that was slightly lower. In comparison with that of "other" income, the share of receipts resulting from sales by affiliates was much more stable, varying within the range of just under 7 percent to over 9 percent.

For U.S. imports of goods, services, and income, similar patterns held. Compared to exports, cross-border imports of goods and services accounted for an even larger share of the total, ranging from 81 percent to 87 percent. The share of "other" income payments was next largest, ranging from nearly 13 percent to over 18 percent. The share of payments resulting from sales by U.S. affiliates was consistently smallest--less than 2 percent in all years; although foreign direct investment in the United States grew rapidly in the late 1980's and early 1990's, this growth generally did not translate into commensurately higher earnings for U.S. affiliates.[7]

For both exports and imports, trade in goods consistently accounted for a much larger share of total trade in goods and services than did trade in services--probably a reflection of the generally greater tradeability of goods (which usually are transportable and storable) than of services (which usually are not). The share of goods in imports was particularly high--it fluctuated narrowly within the range of 80-83 percent (table 3). For exports, the share of goods was somewhat lower, and it tended to decline, as growth in services exports outpaced growth in exports of merchandise.[8] The share of goods did rise significantly in 1988, when U.S. merchandise exports grew at an

[7] For possible explanations of the low returns on foreign direct investment in the United States, see "Rates of Return on Direct Investment," Survey, 72 (August 1992): 79-86.

[8] Some of the decline in the share of goods is a statistical artifact resulting from improvements in coverage of services transactions instituted in 1986. The improvements raised estimates of both exports and imports of services, but the effect on exports was larger. Even after allowing for this statistical factor, however, the services share of exports still would have increased, and as can be seen from table 3, the services share increased in every year except 1988, when special factors boosted growth in merchandise exports.

unusually high 28-percent rate due to a convergence of favorable price and demand factors, but it fell steadily thereafter.

By type of transactor, most trade in goods and services was with unaffiliated foreigners (that is, arms-length trade) rather than with affiliated foreigners (intrafirm trade). For exports, the share of unaffiliated transactions fluctuated within the range of 66-71 percent, ending the period at the same level as it began (table 4). For imports, the share of unaffiliated transactions trended downward over much of the period, from 68 percent in 1982 to 63 percent in 1993. Most of the decline occurred in the late 1980's and reflected the influence of increased imports by U.S. affiliates from their foreign parents during this period, when foreign direct investment in the United States was growing very rapidly; the decline resulted from declines in the share of unaffiliated transactions in both imports of goods and imports of services.

The abovementioned tendency for trade in goods to account for the predominant share of total trade in goods and services holds for trade with both unaffiliated and affiliated foreigners, but especially for the latter. For exports, trade in goods accounted for 66-72 percent of trade with unaffiliated foreigners, compared to 82-88 percent of trade with affiliated foreigners (table 5). For imports, the differences were even more marked: Imports of goods accounted for 72-77 percent of imports from unaffiliated foreigners, compared to 94-97 percent of imports from affiliated foreigners. To some extent, the higher share of goods in trade with affiliated foreigners than in trade with unaffiliated foreigners reflects the fact that some services, most notably travel--which is the largest services item in U.S. international transactions--by their very nature are not applicable to trade within multinational firms. The higher share of goods in trade with affiliated foreigners also reflects the extent to which exporters use locally established wholesale trade affiliates as conduits for marketing and distributing their goods abroad. This practice is particularly widespread in the case of foreign companies' exports to the United States, and helps to explain the extremely high share of goods in U.S. imports from affiliated foreigners.[9]

Intrafirm exports accounted for 29-34 percent of total U.S. exports of goods and services and were largely comprised of transactions associated with outward investment. Throughout 1982-93, U.S. parents' exports to their foreign affiliates

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[9] The role of U.S. affiliates in facilitating the distribution in the United States of goods produced by their foreign parent companies is discussed in "Merchandise Trade of U.S. Affiliates of Foreign Companies," Survey 73 (October 1993): 52-65.

accounted for roughly two-thirds to three-quarters of total U.S. exports to affiliated foreigners (table 6). In most years, parents' exports to their affiliates accounted for over one-fifth of total U.S. exports of goods and services, compared to a share of 10 percent or less for exports by U.S. affiliates of foreign companies to their foreign parent companies.

Intrafirm imports accounted for 32-37 percent of total U.S. imports of goods and services and, in contrast to affiliated exports, were largely comprised of transactions associated with inward investment. Imports by U.S. affiliates from their foreign parents accounted for 55-64 percent of total affiliated imports. These imports accounted for roughly one-fifth of total U.S. imports of goods and services, somewhat above the 13-15 percent share accounted for by U.S. parent companies' imports from their foreign affiliates.

From these figures, it can be seen that, for both exports and imports, the larger share of intrafirm trade was accounted for by sales by parents--whether U.S. or foreign--to their affiliates. Although affiliates are often established to provide goods and services to their parent companies, these figures suggest that it is more common for them to receive goods and services from the parents. Put another way, using affiliates as conduits for distributing, with or without further processing, the parents' output appears to be a more common business practice among both U.S.-based and foreign-based multinational companies than does using affiliates to locate production for home-country markets in foreign sites where costs may be lower or other conditions for production more favorable.

For both exports and imports, and for trade involving both inward and outward direct investment, trade in goods accounted for a much larger share of total intrafirm trade than did trade in services (table 7). In all cases, the share accounted for by services was less than 20 percent, and in many cases, particularly for imports, the services share was much lower--for example, only 5 percent of total imports from both foreign affiliates and foreign parent groups in 1993. While the services shares were uniformly rather low, it is noteworthy that they were larger for exports than for imports in the case of both trade between U.S. parents and foreign affiliates and trade between U.S. affiliates and foreign parents. Thus, the apparent overall U.S. comparative advantage in services, rather than the type of affiliation between transactors, would seem to be the key factor in determining the distribution of intrafirm trade between goods and services.

Supplemental Details on Affiliate Operations

In addition to providing a different type of disaggregation of transactions, table 1 provides a variety of details that assist in describing affiliate operations and analyzing the role of direct investment as a vehicle for delivering goods and services to international markets. Two related types of information--that used in deriving net receipts and payments resulting from sales by affiliates and information on the content of affiliate output--are given.

Net receipts and payments resulting from affiliates' sales

As explained earlier, net U.S. receipts resulting from sales by foreign nonbank affiliates are derived as sales less deductions for purchases from the United States, costs and profits accruing to foreigners, and sales by foreign affiliates to other foreign affiliates (of the same U.S. parent). Net U.S. payments to foreign companies resulting from sales by their affiliates in the United States are derived analogously. Using the derivation for foreign affiliates to illustrate the principles involved, the deductions from sales may be made for either of two reasons. Purchases from the United States and costs and profits accruing to foreigners represent outlays that must be deducted from sales to arrive at the earnings that accrue to the U.S. parent company. The deduction for sales to other foreign affiliates is made to avoid duplicating goods and services that are embodied in the sales of more than one affiliate.[10]

Turning to the specific results under this methodology, the relationships among the items used to derive net receipts or payments resulting from sales by affiliates changed relatively little over time, and their composition was very similar for U.S. and foreign affiliates. Compared with total sales by foreign affiliates, net receipts tended to be quite small for both outward and inward investment, but particularly for the latter--1 percent or less, compared to 2-4 percent for outward investment. For both types of investment, the largest portion of the sales dollar went to local factors of production (or, in the case of foreign affiliates, non-U.S. factors). For outward

[10] Rather than being treated as an item to be eliminated through consolidation, sales between affiliates having the same parent company could have been recorded as a "purchases" item, to be deducted as a cost accruing to foreigners. (Given the retention of the standard rules of residency, foreign affiliates are regarded as "foreigners," even though they are U.S.-owned.) However, so doing would have had no effect on total exports, total imports, or any of the balances presented in table 1.

investment, 70-78 percent of sales went to costs and profits accruing to foreigners, with the figures at the upper end of the range tending to be realized during the earlier years; about 82-85 percent of these costs and profits represented items other than employee compensation--probably locally procured inputs, for the most part. For inward investment, 79-85 percent of sales went to costs and profits accruing to U.S. residents; from 82 percent to 86 percent of these costs and profits were for items other than employee compensation and, as with outward investment, probably were accounted for largely by locally procured goods and services.

Content of affiliates' sales

Lines 44-53 of table 1 examine affiliates' sales from a related, but somewhat different, perspective from that taken above. Whereas the previous discussion focused on the derivation of direct investors' receipts resulting from sales by their foreign affiliates, these lines focus on the output of affiliates and, in particular, on its origin in geographic terms and in terms of whether it represents production by affiliates or production by the firms that supply affiliates with intermediate inputs. Specifically, sales of U.S. and foreign nonbank affiliates to non-affiliates are separated into components for U.S. content and foreign content. (This information is not available annually for bank affiliates.) The U.S. content of U.S. affiliates' sales to unaffiliated persons is then further broken down into the affiliates' own value added and other U.S. content, and the foreign content of foreign affiliates' sales is broken down into the affiliates' own value added and other foreign content.

The structures of the content of output of foreign affiliates and U.S. affiliates were similar to one another and quite stable over time. As would be expected, the location of the affiliate largely determined the origin of the content: The bulk--88-92 percent--of the content of the output of foreign affiliates originated abroad, while the bulk--80-84 percent--of the output of U.S. affiliates originated in the United States. The tendency for U.S. content to account for a lower share of the output of U.S. affiliates than foreign content did of the output of foreign affiliates appears largely to reflect U.S. affiliates' higher import propensities, but it is also a reflection of their lower profitability (profits count as local content) and the inclusion of content attributable to third countries, along with local content, in the measure of "foreign" content.

Affiliates' own value added accounted for only a minority of both the foreign content of the output of foreign affiliates and the U.S. content of the output of U.S.

affiliates. For foreign affiliates, own value added accounted for 38-41 percent of foreign content for the years for which estimates of gross product originating in affiliates are now available. For U.S. affiliates, affiliates' own value added accounted for a somewhat lower share of U.S. content--24-26 percent. In addition to low profitability, the lower value-added share for U.S. affiliates may reflect the influence of age. Overall, U.S. affiliates tend to be of more recent vintage than foreign affiliates, and it is possible that they will tend to rely more on their own production and less on local suppliers (as well as on foreign suppliers) as they mature. There is little evidence for such a pattern in the available data, which show only small variation in the value-added share of local content over an 11-year period, but because the period includes several years when foreign direct investment in the United States was growing very rapidly, it is possible that entries into the direct investment universe tended to counteract the effect of increases in the age of existing U.S. affiliates on the average age of all affiliates.

Technical Note: Sources and Methods

In general, most of the data shown in table 1 are taken directly from either the U.S. international transactions (balance of payments) accounts compiled by BEA and published quarterly in its monthly journal, the Survey of Current Business, or from BEA's annual surveys of financial and operating data of U.S. parents, their foreign affiliates, and foreign-owned U.S. affiliates. For some items, data were not available in the form required, and it was necessary to estimate them. A few items were derived as residuals. Following are the sources for the various line items of table 1; line references appear in parentheses. Except where specifically noted, data on imports of goods, services, and income have been taken from the same or corresponding sources as the data on exports.

Total U.S. cross-border exports of goods and services (lines 3, 3a, and 3b) were taken from the international transactions accounts. **Cross-border exports to affiliated foreigners** were derived as follows: Exports of goods to foreign affiliates of U.S. companies (6a) were taken from BEA's annual surveys of U.S. direct investment abroad; exports of services to foreign affiliates (6b), from BEA's quarterly surveys of transactions between U.S. parents and their foreign affiliates; exports of goods by U.S. affiliates to their foreign parents (7a), from BEA's annual surveys of foreign direct investment in the United States; and exports of services by U.S. affiliates to their foreign parents (7b), from BEA's quarterly surveys of transactions between U.S. affiliates and their foreign parents. **Cross-border exports to unaffiliated foreigners** were derived as a residual, by subtracting exports to affiliated foreigners from total exports.

Total U.S. cross-border imports (22-26b) were derived in an analogous manner from the same or corresponding sources.

U.S. companies' net receipts resulting from sales by their foreign affiliates (8) are equivalent to direct investment income as shown in the U.S. international transactions accounts. These data were derived from BEA's quarterly surveys of transactions between U.S. parents and their foreign affiliates. Before being entered into the international transactions accounts, they are adjusted to be on a current-cost basis. Distribution of the current-cost adjustment among industries is not possible, and for purposes of table 1 the adjustment has been allocated entirely to nonbank affiliates; the affected lines are lines 9 and 14. **Sales by [nonbank] foreign affiliates** (10) and **employee compensation** (13) were taken from BEA's annual surveys of U.S. direct investment abroad. **U.S. companies' net receipts resulting from sales by their foreign bank affiliates** (16) were taken from BEA's quarterly surveys of transactions between U.S. parents and their foreign affiliates. **Foreign affiliates' purchases of goods and services from the United States** (11) were taken from BEA's annual survey of U.S. direct investment abroad (for goods) and from BEA's quarterly survey of U.S. direct investment abroad (for services). **U.S. companies' net receipts resulting from sales by their foreign nonbank affiliates** (9), **costs and profits accruing to foreigners** (12), and **other costs and profits accruing to foreigners** (14) were derived from other lines as follows: Line 9 is the residual of lines 8-16; line 12 is derived as lines 10-8-11-15+16; and line 14 is the residual of lines 12-13. Finally, survey data on **sales by foreign affiliates to other foreign affiliates** (15), obtained from the annual surveys of U.S. direct investment abroad, were only available for majority-owned affiliates; these data were factored up to an estimate for all nonbank affiliates, based on the relationship between total sales by all nonbank affiliates and total sales by nonbank majority-owned affiliates.

On the import side of the accounts, **sales by U.S. affiliates to other U.S. affiliates** of the same foreign parent (34) could not be estimated. (However, due to the consolidated basis for reporting by U.S. affiliates, it is probably safe to assume that these sales were relatively small.) The remaining lines related to net payments to foreign companies for sales by their U.S. affiliates (27-35) were derived in an manner analogous to those for net receipts.

Other U.S. income receipts (17-19), **other U.S. income payments** (36-38), and net **unilateral transfers** (39) were taken directly from the international transactions accounts.

The **balance on goods and services** (40), **balance on goods, services, and income** (42), and **balance on current account** (43) were also taken from the international transactions accounts. They also can be derived as from other lines as lines 3-22, 1-20, and 1-20+39, respectively. The new balance shown in this paper, **balance on goods, services, and net receipts resulting from sales by affiliates** (41) was derived by subtracting line 21 from line 2.

The addenda items were derived mainly from data shown in the main body of table 1. **Output sold to unaffiliated persons or added to inventory** (44) by nonbank foreign affiliates is equal to lines 10-15 plus the annual change in inventory (taken from BEA's annual surveys of U.S. direct investment abroad). **U.S. content** (48) is equal to line 11. **Foreign content** (45) is the residual of lines 44 and 48. **Value added by foreign affiliates of U.S. companies** (46) was estimated from BEA's annual surveys of U.S. direct investment abroad. (Estimates for 1983-88 are not yet available.) The figures for all nonbank affiliates are estimates based on BEA's published data on value added, or gross product, by majority-owned affiliates. **Other foreign content** (47) is the residual of lines 45 and 46.

The addenda items for U.S. affiliates were derived analogously from the same or corresponding sources. However, because BEA publishes value added by all nonbank U.S. affiliates and no special estimates had to be prepared for this paper.

Table 1.--Ownership-based Disaggregation of the U.S. Current Account, 1982-93

[Billions of dollars]

line #		1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
1	**Exports of goods, services, and income**	361.4	351.3	395.9	382.7	401.8	449.5	560.4	642.0	697.4	718.2	737.4	763.8
2	**U.S. receipts resulting from cross-border exports and sales by foreign affiliates**	299.2	293.1	322.4	319.6	341.8	388.4	483.4	544.9	595.9	633.4	670.9	706.2
3	**U.S. cross-border exports of goods and services, total**	275.2	266.1	291.1	289.1	309.9	348.7	431.4	489.5	537.1	581.2	619.0	644.6
3a	Goods	211.2	201.8	219.9	215.9	223.3	250.2	320.2	362.1	389.3	416.9	440.4	456.8
3b	Services	64.1	64.3	71.2	73.2	86.5	98.5	111.1	127.4	147.8	164.3	178.6	187.8
4	To unaffiliated foreigners	193.3	183.9	196.5	189.7	212.3	246.8	306.5	342.5	382.4	413.2	431.9	452.4
4a	Goods	139.0	129.8	136.1	128.2	140.4	164.7	214.4	238.4	261.5	277.6	285.6	298.6
4b	Services	54.3	54.0	60.3	61.6	72.0	82.1	92.1	104.1	120.9	135.6	146.3	153.8
5	To affiliated foreigners	81.9	82.2	94.6	99.4	97.5	101.9	124.9	147.0	154.7	168.0	187.1	192.2
5a	Goods	72.2	72.0	83.8	87.8	83.0	85.5	105.8	123.7	127.8	139.3	154.8	158.2
5b	Services	9.8	10.3	10.8	11.6	14.6	16.4	19.1	23.3	26.9	28.7	32.3	33.9
6	To foreign affiliates of U.S. companies	55.4	58.0	65.6	71.3	72.7	79.7	95.4	109.2	112.5	120.6	131.4	138.4
6a	Goods	47.1	49.4	56.7	61.9	61.1	66.4	79.4	89.4	90.1	97.1	106.0	111.1
6b	Services	8.3	8.6	8.9	9.5	11.6	13.3	16.0	18.7	22.4	23.5	25.4	27.4
7	To foreign parent (group) of U.S. affiliates	26.5	24.3	29.0	28.0	24.9	22.2	29.4	37.8	42.2	47.4	55.7	53.7
7a	Goods	25.0	22.6	27.1	25.9	21.9	19.1	26.4	34.3	37.8	42.2	48.8	47.2
7b	Services	1.5	1.7	1.9	2.1	3.0	3.1	3.0	3.5	4.5	5.1	6.9	6.6
8	**U.S. companies' net receipts resulting from sales by their foreign affiliates**	23.9	27.0	31.3	30.5	32.0	39.6	52.1	55.4	58.7	52.2	51.9	61.6
9	Nonbank affiliates	20.5	23.9	28.4	28.6	30.6	39.3	50.3	55.1	58.4	51.9	49.7	57.8
10	Sales by foreign affiliates	935.8	886.3	896.6	895.5	928.9	1,052.8	1,194.7	1,284.9	1,493.4	1,541.6	1,574.1	1,573.9
11	Less: Foreign affiliates' purchases of goods and services from the United States	65.0	66.1	75.3	79.1	82.6	92.2	110.9	122.3	128.8	138.8	147.4	156.4
12	Less: Costs and profits accruing to foreigners	726.8	673.3	672.6	664.5	680.6	759.8	847.5	914.5	1,072.3	1,105.4	1,112.5	1,102.0
13	Employee compensation	111.7	102.8	100.7	102.4	117.6	136.1	151.5	165.8	184.8	196.1	201.5	201.8
14	Other	615.1	570.5	571.9	562.1	563.0	623.7	696.1	748.7	887.5	909.3	911.0	900.2
15	Less. Sales by foreign affiliates to other foreign affiliates	123.4	123.0	122.4	123.3	135.1	161.5	185.9	193.0	233.9	245.4	264.5	257.7
16	Bank affiliates	3.4	3.1	2.9	2.0	1.4	0.4	1.8	0.2	0.4	0.3	2.2	3.7
17	**Other U.S. income receipts**	62.3	58.2	73.5	63.1	60.0	61.1	77.0	97.2	101.5	84.8	66.5	57.7
18	Other private receipts	58.2	53.4	68.3	57.6	53.6	55.8	70.3	91.5	91.0	76.8	59.4	52.6
19	U.S. Government receipts	4.1	4.8	5.2	5.5	6.4	5.3	6.7	5.7	10.5	8.0	7.1	5.1

Line	Item	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
20	**Imports of goods, services, and income**	355.8	377.6	474.2	484.0	528.5	592.7	662.5	719.8	758.7	732.5	786.8	829.7
21	**U.S. payments resulting from cross-border imports and sales by U.S. foreign affiliates**	301.3	328.1	408.9	418.2	456.5	508.9	558.4	587.4	620.0	607.2	658.7	724.7
22	**U.S. cross-border imports of goods and services, total**	299.4	323.9	400.2	411.0	449.4	501.4	546.7	580.9	617.1	610.6	658.4	719.4
22a	Goods	247.6	268.9	332.4	338.1	368.4	409.8	447.2	477.4	498.3	490.5	536.5	589.4
22b	Services	51.7	55.0	67.7	72.9	81.0	91.7	99.5	103.5	118.8	119.6	122.0	130.0
23	From unaffiliated foreigners	204.0	221.6	272.7	270.8	296.2	326.2	351.4	366.8	388.0	382.3	413.7	453.9
23a	Goods	156.4	170.5	209.2	202.3	220.0	241.2	259.3	272.7	280.6	274.8	304.8	338.0
23b	Services	47.5	51.1	63.5	68.5	76.2	85.0	92.0	93.9	107.5	106.9	108.9	115.9
24	From affiliated foreigners	95.4	102.3	127.5	140.1	153.3	175.2	195.3	214.3	229.1	228.3	244.8	265.5
24a	Goods	91.2	98.4	123.2	135.8	148.4	168.6	187.9	204.7	217.8	215.6	231.7	251.5
24b	Services	4.2	3.9	4.2	4.4	4.8	6.7	7.5	9.6	11.3	12.7	13.1	14.1
25	From foreign affiliates	42.1	45.8	55.0	56.5	57.5	63.6	73.1	79.6	85.9	88.9	99.4	108.6
25a	Goods	39.3	43.6	52.8	54.0	55.0	60.4	69.5	74.7	80.3	83.5	93.9	102.9
25b	Services	2.8	2.2	2.2	2.4	2.5	3.2	3.6	4.9	5.6	5.4	5.5	5.9
26	From foreign parents	53.4	56.4	72.5	83.7	95.7	111.6	122.2	134.7	143.2	139.4	145.3	156.7
26a	Goods	51.9	54.8	70.5	81.7	93.4	108.2	118.4	129.9	137.5	132.2	137.8	148.5
26b	Services	1.4	1.6	2.0	1.9	2.3	3.4	3.9	4.8	5.8	7.3	7.5	8.2
27	**Net payments to foreign companies resulting from sales by their U.S. affiliates**	1.9	4.2	8.7	7.2	7.1	7.4	11.7	6.5	2.9	-3.4	0.3	5.3
28	Nonbank affiliates	1.2	3.4	8.0	5.9	5.8	7.2	10.2	6.0	4.3	-3.0	0.7	4.9
29	Equals: Sales by U.S. affiliates	518.1	536.6	593.6	633.0	672.0	744.6	886.4	1,056.6	1,175.9	1,165.9	1,232.0	1,302.1
30	Less: U.S. affiliates' purchases of goods and services from abroad	85.7	83.1	102.5	115.3	128.1	147.0	159.4	176.6	188.7	186.0	192.0	206.6
31	Less: Costs and profits accruing to U.S. persons	431.1	450.1	483.0	511.9	538.1	590.4	716.8	874.0	982.9	1,002.9	1,039.3	1,090.8
32	Employee compensation	61.5	66.8	73.2	79.9	86.5	96.0	119.6	144.2	163.6	176.0	182.1	190.3
33	Other	369.7	383.3	409.9	431.9	451.7	494.4	597.2	729.8	819.3	826.9	857.2	900.3
34	Less: Sales by U.S. affiliates to other U.S. affiliates (not available)	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
35	Bank affiliates	0.7	0.8	0.7	1.4	1.3	0.2	1.5	0.5	-1.4	-0.5	-0.4	0.4
36	Other U.S. income payments	54.5	49.5	65.3	65.9	72.0	83.9	104.1	132.4	136.7	125.3	108.0	105.0
37	Other private payments	35.2	30.5	44.2	42.7	47.4	57.7	72.4	94.0	95.7	83.8	67.5	63.4
38	U.S. Government payments	19.3	19.0	21.2	23.1	24.6	26.2	31.7	38.4	41.0	41.5	40.5	41.6
39	**Unilateral transfers, net**	-17.1	-17.7	-20.6	-23.0	-24.2	-23.1	-25.0	-26.1	-33.4	6.9	-32.1	-34.1

		1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
	Memoranda:												
40	**Balance on goods and services**	-24.2	-57.6	-109.1	-121.9	-139.6	-152.7	-115.3	-91.4	-80.0	-29.4	-39.5	-74.8
41	**Balance on goods, services, and net receipts from sales by affiliates**	-2.2	-35.0	-86.5	-98.5	-114.6	-120.5	-74.9	-42.5	-24.1	28.2	12.1	-18.5
42	**Balance on goods, services, and income**	5.6	-26.3	-78.4	-101.3	-126.7	-143.2	-102.1	-77.7	-59.3	-14.3	-29.4	-65.6
43	**Balance on current account**	-11.4	-44.0	-99.0	-124.2	-150.9	-166.4	-127.1	-103.6	-92.7	-7.4	-61.5	-99.9
	Addenda:												
	Source of the content of foreign affiliates' sales (to unaffiliated persons):												
44	Output sold to unaffiliated persons or added to inventory, total	802.9	746.7	773.7	779.0	800.9	906.1	1,019.4	1,094.2	1,277.0	1,294.8	1,304.1	1,308.4
45	Foreign content	737.9	680.6	698.5	699.9	718.2	815.9	908.4	971.9	1,148.2	1,156.0	1,156.6	1,152.1
46	Value added by foreign affiliates of U.S. companies	286.7	n.a	n.a	n.a	n.a	n.a	n.a	403.1	440.0	441.6	440.8	440.5
47	Other foreign content	451.2	n.a	n.a	n.a	n.a	n.a	n.a	568.8	708.2	714.4	716.1	711.6
48	U.S. content	65.0	66.1	75.3	79.1	82.6	92.2	110.9	122.3	128.6	138.8	147.4	156.4
	Source of the content of U.S. affiliates' sales (to unaffiliated persons):												
49	Output sold to unaffiliated persons or added to inventory, total	521.5	534.8	600.3	638.5	678.0	751.6	899.7	1,070.5	1,186.6	1,190.5	1,235.5	1,307.6
50	U.S. content	435.8	451.7	497.8	523.3	549.9	604.6	740.3	893.8	998.0	1,004.6	1,043.5	1,100.9
51	Value added by U.S. affiliates of foreign companies	103.5	111.5	128.8	134.9	142.1	157.9	190.4	223.4	239.3	257.6	266.3	290.4
52	Other U.S. content	332.3	340.2	369.0	388.4	407.8	446.7	550.0	670.4	758.7	746.9	777.2	810.5
53	Foreign content	85.7	83.1	102.5	115.3	128.1	147.0	159.4	176.6	188.7	186.0	192.0	206.6

Table 2.--Exports and Imports of Goods, Services, and Income--Shares of the Major Components, 1982-93
[Percent]

Year	Exports				Imports			
	Total	U.S. cross-border exports of goods and services	U.S. companies' net receipts resulting from sales by their foreign affiliates	Other U.S. income receipts	Total	U.S. cross-border imports of goods and services	Net payments to foreign companies resulting from sales by their U.S. affiliates	Other U.S. income payments
1982	100.0	76.2	6.6	17.2	100.0	84.1	0.5	15.3
1983	100.0	75.7	7.7	16.6	100.0	85.8	1.1	13.1
1984	100.0	73.5	7.9	18.6	100.0	84.4	1.8	13.8
1985	100.0	75.5	8.0	16.5	100.0	84.9	1.5	13.6
1986	100.0	77.1	8.0	14.9	100.0	85.0	1.3	13.6
1987	100.0	77.6	8.8	13.6	100.0	84.6	1.3	14.2
1988	100.0	77.0	9.3	13.7	100.0	82.5	1.8	15.7
1989	100.0	76.2	8.6	15.1	100.0	80.7	0.9	18.4
1990	100.0	77.0	8.4	14.6	100.0	81.6	0.4	18.1
1991	100.0	80.9	7.3	11.8	100.0	83.4	-0.5	17.1
1992	100.0	83.9	7.0	9.0	100.0	85.9	(*)	14.1
1993	100.0	84.4	8.1	7.5	100.0	86.7	0.6	12.7

* Less than 0.05 percent.

Table 3.--Shares of Cross-Border Exports and Imports Accounted for by Goods and by Services

[Percent]

	Exports			Imports		
Year	Total	Goods	Services	Total	Goods	Services
1982	100.0	76.7	23.3	100.0	82.7	17.3
1983	100.0	75.8	24.2	100.0	83.0	17.0
1984	100.0	75.6	24.4	100.0	83.1	16.9
1985	100.0	74.7	25.3	100.0	82.3	17.7
1986	100.0	72.1	27.9	100.0	82.0	18.0
1987	100.0	71.7	28.3	100.0	81.7	18.3
1988	100.0	74.2	25.8	100.0	81.8	18.2
1989	100.0	74.0	26.0	100.0	82.2	17.8
1990	100.0	72.5	27.5	100.0	80.8	19.2
1991	100.0	71.7	28.3	100.0	80.3	19.6
1992	100.0	71.1	28.9	100.0	81.5	18.5
1993	100.0	70.9	29.1	100.0	81.9	18.1

Table 4.--Shares of Cross-border Exports and Imports, by Transactor, 1982-93
[Percent]

Year	Exports			Imports		
	Total	To unaffiliated foreigners	To affiliated foreigners	Total	From unaffiliated foreigners	From affiliated foreigners
1982	100.0	70.2	29.8	100.0	68.1	31.9
1983	100.0	69.1	30.9	100.0	68.4	31.6
1984	100.0	67.5	32.5	100.0	68.1	31.9
1985	100.0	65.6	34.4	100.0	65.9	34.1
1986	100.0	68.5	31.5	100.0	65.9	34.1
1987	100.0	70.8	29.2	100.0	65.1	34.9
1988	100.0	71.1	28.9	100.0	64.3	35.7
1989	100.0	70.0	30.0	100.0	63.1	36.9
1990	100.0	71.2	28.8	100.0	62.9	37.1
1991	100.0	71.1	28.9	100.0	62.6	37.4
1992	100.0	69.8	30.2	100.0	62.8	37.2
1993	100.0	70.2	29.8	100.0	63.1	36.9

Table 5.--Shares of Cross-Border Exports and Imports, by Transactor, that are of Goods and of Services, 1982-93

[Percent]

Year	Exports						Imports					
	Total	To unaffiliated foreigners		Total	To affiliated foreigners		Total	From unaffiliated foreigners		Total	From affiliated foreigners	
		Goods	Services		Goods	Services		Goods	Services		Goods	Services
1982	100.0	71.9	28.1	100.0	88.0	12.0	100.0	76.7	23.3	100.0	95.6	4.4
1983	100.0	70.6	29.4	100.0	87.5	12.5	100.0	76.9	23.1	100.0	96.2	3.8
1984	100.0	69.3	30.7	100.0	88.6	11.4	100.0	76.7	23.3	100.0	96.7	3.3
1985	100.0	67.6	32.4	100.0	88.3	11.7	100.0	74.7	25.3	100.0	96.9	3.1
1986	100.0	66.1	33.9	100.0	85.1	14.9	100.0	74.3	25.7	100.0	96.8	3.2
1987	100.0	66.7	33.3	100.0	83.9	16.1	100.0	73.9	26.1	100.0	96.2	3.8
1988	100.0	70.0	30.0	100.0	84.7	15.3	100.0	73.8	26.2	100.0	96.2	3.8
1989	100.0	69.6	30.4	100.0	84.2	15.8	100.0	74.4	25.6	100.0	95.5	4.5
1990	100.0	68.4	31.6	100.0	82.6	17.4	100.0	72.3	27.7	100.0	95.1	4.9
1991	100.0	67.2	32.8	100.0	82.9	17.1	100.0	71.9	28.0	100.0	94.4	5.6
1992	100.0	66.1	33.9	100.0	82.7	17.3	100.0	73.7	26.3	100.0	94.7	5.3
1993	100.0	66.0	34.0	100.0	82.3	17.7	100.0	74.5	25.5	100.0	94.7	5.3

Table 6.--Shares of Affiliated Cross-border Exports and Imports, by Type of Affiliation, 1982-93
[Percent]

	Exports to affiliated foreigners			Imports from affiliated foreigners		
Year	Total	To foreign affiliates of U.S. companies	To foreign parent group of U.S. affiliates	Total	From foreign affiliates of U.S. companies	From foreign parent group of U.S. affiliates
1982	100.0	67.6	32.4	100.0	44.1	55.9
1983	100.0	70.5	29.5	100.0	44.8	55.2
1984	100.0	69.4	30.6	100.0	43.1	56.9
1985	100.0	71.8	28.2	100.0	40.3	59.7
1986	100.0	74.5	25.5	100.0	37.5	62.5
1987	100.0	78.2	21.8	100.0	36.3	63.7
1988	100.0	76.4	23.6	100.0	37.4	62.6
1989	100.0	74.3	25.7	100.0	37.1	62.9
1990	100.0	72.7	27.3	100.0	37.5	62.5
1991	100.0	71.8	28.2	100.0	38.9	61.1
1992	100.0	70.2	29.8	100.0	40.6	59.4
1993	100.0	72.0	28.0	100.0	41.0	59.0

Table 7.--Shares of Affiliated Cross-border Exports and Imports, by Type of Affiliation, that are of Goods and of Services, 1982-93

[Percent]

Year	Exports						Imports					
	Total	To foreign affiliates		Total	To foreign parent group		Total	From foreign affiliates		Total	From foreign parent group	
		Goods	Services		Goods	Services		Goods	Services		Goods	Services
1982	100.0	85.0	15.0	100.0	94.3	5.7	100.0	93.4	6.6	100.0	97.3	2.7
1983	100.0	85.2	14.8	100.0	93.0	7.0	100.0	95.2	4.8	100.0	97.1	2.9
1984	100.0	86.4	13.6	100.0	93.4	6.6	100.0	96.0	4.0	100.0	97.2	2.8
1985	100.0	86.7	13.3	100.0	92.3	7.7	100.0	95.7	4.3	100.0	97.7	2.3
1986	100.0	84.1	15.9	100.0	88.0	12.0	100.0	95.6	4.4	100.0	97.6	2.4
1987	100.0	83.3	16.7	100.0	86.2	13.8	100.0	94.9	5.1	100.0	96.9	3.1
1988	100.0	83.2	16.8	100.0	89.7	10.3	100.0	95.1	4.9	100.0	96.8	3.2
1989	100.0	81.9	18.1	100.0	90.7	9.3	100.0	93.9	6.1	100.0	96.5	3.5
1990	100.0	80.1	19.9	100.0	89.4	10.6	100.0	93.5	6.5	100.0	96.0	4.0
1991	100.0	80.5	19.5	100.0	89.1	10.9	100.0	93.9	6.1	100.0	94.8	5.2
1992	100.0	80.7	19.3	100.0	87.6	12.4	100.0	94.4	5.6	100.0	94.8	5.2
1993	100.0	80.2	19.8	100.0	87.8	12.2	100.0	94.6	5.4	100.0	94.8	5.2

Table 8.--Gross Ownership-Based Recording of Cross-Border Trade and Affiliate Activities (Julius Approach), 1982-93

[Billions of dollars]

line		1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993
1	**Sales by U.S. persons to foreigners (lines 2 - 3 + 7)**	1,337.8	1,302.8	1,349.8	1,364.8	1,438.7	1,612.1	1,889.2	2,147.6	2,453.4	2,539.5	2,607.9	2,667.8
2	**U.S. cross-border exports of goods and services**	275.2	266.1	291.1	289.1	309.9	348.7	431.4	489.5	537.1	581.2	619.0	644.6
3	**Less: Direct-investment-related exports**	126.8	121.7	135.3	137.6	135.2	140.9	180.1	210.0	222.7	237.5	252.2	262.4
4	To foreign affiliates of U.S. companies	65.0	66.1	75.3	79.1	82.6	92.2	110.9	122.3	128.8	138.8	147.4	156.4
5	By U.S. affiliates of foreign companies	61.7	55.6	60.1	58.6	52.5	52.5	75.6	94.3	101.7	107.1	114.8	117.0
6	Adjustment to remove duplication of exports by U.S. affiliates to their foreign affiliates (included in both lines 4 and 5)	n.a.	n.a.	n.a.	n.a.	n.a.	-3.8	-6.4	-6.6	-7.8	-8.4	-10.0	-11.0
7	**Plus: Local sales to U.S. affiliates of foreign companies or by foreign affiliates of U.S. companies**	1,189.3	1,158.3	1,194.0	1,213.4	1,264.0	1,404.3	1,637.9	1,868.1	2,139.0	2,195.7	2,241.1	2,285.6
8	U.S.-affiliate purchases from, and profits accruing to, U.S. persons	431.1	450.5	483.0	511.9	538.1	592.2	720.0	878.4	987.2	1,007.8	1,045.4	1,097.5
9	Total sales by U.S. affiliates of foreign companies	518.1	536.6	593.6	633.0	672.0	744.6	886.4	1,056.6	1,175.9	1,185.9	1,232.0	1,302.1
10	Less: U.S. imports to U.S. affiliates	85.7	83.1	102.5	115.3	128.1	147.0	159.4	176.6	188.7	186.0	192.0	206.6
11	Plus: Adjustment to add back imports to U.S. affiliates from their foreign affiliates	n.a.	n.a.	n.a.	n.a.	n.a.	1.7	3.2	4.3	4.4	4.9	6.1	7.3
12	Less: Sales to other U.S. affiliates	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
13	Less: Net payment of profits to foreign parents from sales by U.S. affiliates	1.2	3.0	8.0	5.9	5.8	7.2	10.2	6.0	4.3	-3.0	0.7	5.3
14	Sales by foreign affiliates of U.S. companies to unaffiliated foreigners	758.2	707.8	711.0	701.5	725.9	812.1	917.9	989.7	1,151.8	1,188.0	1,195.7	1,188.1
15	**Sales by foreigners to U.S. persons (lines 16 - 17 + 21)**	1,342.6	1,339.7	1,438.5	1,464.0	1,553.5	1,732.7	1,964.4	2,189.9	2,479.4	2,514.0	2,598.4	2,686.4
16	**U.S. cross-border imports of goods and services**	299.4	323.9	400.2	411.0	449.4	501.4	546.7	580.9	617.1	610.6	658.4	719.4
17	**Less: Direct-investment-related U.S. imports**	139.9	138.6	167.7	185.9	196.0	224.4	247.1	274.5	292.0	289.3	299.7	327.4
18	From foreign affiliates of U.S. companies	54.2	55.5	65.2	70.6	68.0	79.2	90.9	102.2	107.7	108.2	113.9	128.1
19	To U.S. affiliates of foreign companies	85.7	83.1	102.5	115.3	128.1	147.0	159.4	176.6	188.7	186.0	192.0	206.6
20	Adjustment to remove duplication of imports to U.S. affiliates from their foreign affiliates (included in both lines 18 and 19)	n.a	n.a	n.a	n.a	n.a	-1.7	-3.2	-4.3	-4.4	-4.9	-6.1	-7.3
21	**Plus: Local sales by U.S. affiliates of foreign companies or to foreign affiliates of U.S. companies**	1,183.2	1,154.4	1,206.0	1,238.9	1,300.1	1,455.7	1,664.8	1,883.5	2,154.3	2,192.7	2,239.7	2,294.4
22	U.S.-affiliate sales to unaffiliated U.S. persons	456.3	481.1	533.5	574.4	619.5	692.1	810.8	962.4	1,074.2	1,078.8	1,117.2	1,185.1
23	Foreign-affiliate purchases from, and profits accruing to, foreigners	726.8	673.3	672.6	664.5	680.6	763.6	854.0	921.1	1,080.1	1,113.9	1,122.5	1,109.3
24	Total sales by foreign affiliates of U.S. companies	935.8	886.3	898.6	895.5	928.9	1,052.8	1,194.7	1,284.9	1,493.4	1,541.6	1,574.1	1,573.9
25	Less: U.S. exports to foreign affiliates	65.0	66.1	75.3	79.1	82.6	92.2	110.9	122.3	128.8	138.8	147.4	156.4
26	Plus: Adjustment to add back exports by U.S. affiliates to their foreign affiliates	n.a.	n.a.	n.a.	n.a.	n.a	3.8	6.4	6.6	7.8	8.4	10.0	11.0
27	Less: Sales to other foreign affiliates	123.4	123.0	122.4	123.3	135.1	161.5	185.9	193.0	233.9	245.4	264.5	257.7
28	Less: Net receipts of profits by U.S. parents from sales by foreign affiliates	20.5	23.9	28.4	28.6	30.6	39.3	50.3	55.1	58.4	51.9	49.7	61.6
29	Net sales by U.S. persons to foreigners (lines 1 - 15)	4.8	36.9	88.7	99.2	-114.8	-120.6	-75.2	-42.3	-26.0	25.5	9.5	-18.6
	Addenda:												
30	Net U.S. cross-border exports (lines 2 - 16)	-24.2	-57.8	-109.1	-121.9	-139.6	-152.7	-115.3	-91.4	-80.0	-29.4	-39.5	-74.8
31	Standard balance on goods, services, direct investment income	-2.2	-35.0	-86.5	-98.5	-114.6	-120.5	-74.9	-42.5	-24.1	26.2	12.1	-18.5

n.a. not available

NOTE.--In this table "foreigners" are defined from an ownership based perspective; thus, it encompasses U.S. affiliates of foreign companies but does not encompass foreign affiliates of U.S. companies.

Sales are designated as "local" based on whether they occur in the United States or in other countries combined. Thus, "local sales to foreigners by a foreign affiliate of a U.S. company, for example, includes sales to all foreign (non-U.S.

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