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

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With the growing integration of the world economy, foreign direct investment has flourished, and the multinational company (MNC) has become a major force in the delivery of goods and services to overseas markets. Interest in analyzing foreign trade from the perspective of MNC's has grown accordingly. In response, BEA has prepared a supplemental disaggregation of the U.S. current account along ownership lines by combining information from its direct investment surveys with information from the standard current account. The new disaggregation builds on a proposal introduced in an earlier BEA study of alternative balance-of-payments frameworks. It presents information on the sales by MNC's through their affiliates as well as through cross-border trade. By viewing the activities of MNC's and their affiliates in the context of a formal economic accounting framework, these activities can be analyzed in a more consistent fashion than previously was possible.

This new disaggregation, presented for 1982–93, breaks down cross-border trade according to whether it is between affiliated parties—that is, within MNC's—or between unaffiliated parties. Trade within MNC's ("intrafirm trade") is further disaggregated according to whether it is between U.S. parent companies and their foreign affiliates or between U.S. affiliates of foreign companies and their foreign parent groups. In addition, details on receipts and payments of direct investment income are provided to show how the income is derived from the production and sales of affiliates.

The disaggregation of the current account presented here provides information not available in the standard disaggregation. The standard disaggregation breaks down cross-border trade in goods and services on the basis of the commodity classifications of the goods and services traded and the geographic location of the parties involved, but it generally does not indicate relationships between the exporters and importers. Nor does it show how production and sales by foreign affiliates give rise to income on direct investments.

In a previous SURVEY OF CURRENT BUSINESS article, BEA described and evaluated three frameworks that supplement the information on cross-border trade shown in the standard balance of payments accounts with information on sales and purchases abroad by the foreign affiliates of U.S. companies and on sales and purchases in the United States by the U.S. affiliates of foreign companies.[1] Two of the frameworks had been suggested earlier, one by a National Academy of Sciences study panel and one by DeAnne Julius. Both of these frameworks used ownership as the basis for determining the nationality of transactors and, thus, the boundary between domestic (U.S.) and international transactions. The third framework, introduced in the article, differed from the others in that—like the standard balance of payments accounts—it used residency rather than ownership to determine this boundary. By doing so, it retained the linkages to economic activity in specific economies provided by the standard balance of payments accounts. As with the other frameworks, however, it provided a number of new details that facilitate analyses of ownership relationships and of the scope and importance of intrafirm trade.

The present article focuses on the third framework and extends it in five ways: First, it places the ownership-based disaggregation of cross-border trade and net receipts or payments resulting from sales by affiliates, shown in the framework presented in the previous article, into the framework of the overall U.S. current account; second, it further breaks down the ownership-based components of cross-border trade into trade in goods and trade in services;[2]

1. See "Alternative Frameworks for U.S. International Transactions," SURVEY OF CURRENT BUSINESS 73 (December 1993): 50–61, which discusses technical issues pertaining to the three frameworks and presents estimates of U.S. sales and purchases under each framework for 1991.

2. For technical reasons, an acceptable estimate of this breakdown could not be made for net receipts resulting from sales by affiliates. One reason is that 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

third, it records net receipts or payments resulting from sales by affiliates on a current-cost, rather than on a historical-cost, basis; fourth, it shows data for affiliates in banking for the first time (though without the detail provided for non-banks); and fifth, it presents estimates for the period 1982–93 rather than for only 1 year.

The following are among the patterns that emerge when the current account is viewed along ownership lines. Many of these patterns confirm or reinforce the conclusions of earlier BEA analyses of affiliate operations.

- Transactions within MNC's accounted for a significant share—about one-third—of both U.S. exports and U.S. imports of goods and services throughout 1982–93. Intrafirm trade accounted for a growing share of U.S. imports of goods and services—37 percent in 1993, compared with 32 percent in 1982—reflecting the rapid rise in foreign direct investment in the United States during the late 1980's. However, much of this trade simply represented goods imported by U.S. wholesale trade affiliates established by foreign companies to facilitate the distribution of their goods, largely to unaffiliated customers, in the United States. The share of intrafirm trade in U.S. exports fluctuated somewhat, but it ended the 1982–93 period at the same level—30 percent—as it began.
- Trade in goods—rather than in services—accounted for the predominant share of both unaffiliated trade and intrafirm trade, but the share was higher for intrafirm trade. For exports, goods tended to account for about 85 percent of intrafirm trade, compared with about 70 percent of unaffiliated trade. For imports, the difference was even more marked, with goods tending to account for about 95 percent of intrafirm trade, compared with about 75 percent of unaffiliated trade. The higher share of goods in intrafirm trade partly reflects the absence of some types of services—such as travel and other services sold to individuals—from trade within firms.
- Both intrafirm exports and intrafirm imports of goods and services were largely accounted for by transactions in which affiliates were used as distribution channels for their parents' output (sometimes with further processing), rather than as sources of supply. Exports by U.S. parent companies to their foreign affiliates accounted for roughly two-thirds to three-quarters of total intrafirm exports, while imports by U.S. affiliates from their foreign parents accounted for 55–64 percent of total intrafirm imports.
- Direct investment income—that is, net returns to direct investors resulting from sales by their affiliates—was a small component of both total exports and total imports of goods, services, and income: 7–9 percent of exports and less than 2 percent of imports. The particularly low import share largely reflects the low returns foreigners have realized on their direct investments in the United States.
- All account balances—that on the overall current account and those on various groupings of its components—were more negative at the end of 1982–93 than at the beginning. However, the balance on goods, services, and net receipts resulting from sales by affiliates was more favorable than the others in every year since 1985. This balance, which shows the net result of all active participation of companies in international markets (that is, through both cross-border trade and sales by affiliates), went from a $2.2 billion deficit in 1982 to an $18.5 billion deficit in 1993. By comparison, the deficit on cross-border trade alone increased from $24.2 billion to $74.8 billion during the same period. The difference between the two balances is attributable to the sizable surplus throughout the period on net receipts and payments resulting from sales by affiliates.
- Notwithstanding the importance of affiliates as distribution channels for their parents' output, most of the content of affiliates' sales is of local (or, for foreign affiliates, non-U.S) origin: 88–92 percent of the content of the output of foreign affiliates originated abroad, and 80–84 percent of the output of U.S. affiliates originated in the United States. Most of the local content represented payments for locally procured inputs.

The remainder of this article consists of four sections and a technical note. The first section describes in more detail the differences between the ownership-based disaggregation and the standard disaggregation of the U.S. current account. The second section explains the structure of the ownership-based disaggregation. The third sec-

sold. Another is that some of the income from a given affiliate may reflect the affiliate's earnings that are derived from its ownership of other affiliates 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.

tion reviews patterns of transactions, focusing particularly on changes in composition during 1982–93. The fourth section discusses the derivation of net receipts or payments resulting from sales by affiliates and the origin of the content of affiliates' sales. The technical note provides details on the sources and methods used for making the estimates.

Ownership-Based and Standard Disaggregation Compared

The ownership-based disaggregation of the U.S. current account presented in this article covers the same transactions as those in the standard current account, but it provides a different way of viewing the information. Perhaps its main distinguishing characteristic is its grouping of cross-border transactions in goods and services on the basis of the relationship between importers and exporters rather than on the basis of the types of goods and services traded. Information on whether these transactions are in goods or in services is provided, but as a secondary breakdown.

Another distinguishing characteristic concerns the information provided on direct investment income. Whereas the standard disaggregation simply shows the income itself—the end result, from the direct investor's perspective, of the activities of its affiliates—the disaggregation introduced here adds detail on the sales, expenses, and other deductions from sales that, taken together, determine the income. To highlight the link between direct investment income and the activities that produce it, this income, for purposes of the presentation, is redesignated as net receipts or payments resulting from sales by affiliates.

A third distinguishing characteristic of the ownership-based disaggregation is the inclusion of a balance on cross-border trade and net receipts resulting from sales by affiliates as a memorandum item. This balance, like any balance on groups of transactions, may be subject to different interpretations; however, it highlights two facts: 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.

Finally, the presentation provides addenda to show the source of the content of both foreign and U.S. affiliates' sales (other than to affiliates of the same parent). For both types of affiliates, output sold (or added to inventory) is broken down between U.S. and foreign content. For foreign affiliates of U.S. companies, foreign content is further broken down between the affiliates' own value added and other foreign content; for U.S. affiliates of foreign companies, the U.S. content is similarly broken down. These content measures do not enter the current account, but rather complement the information used to derive net receipts and payments resulting from sales by affiliates.

Structure of the Ownership-Based Disaggregation

At its highest level, the ownership-based disaggregation of the current-account is identical to the standard disaggregation. Specifically, it is broken down into three components: Exports of goods, services, and income; imports of goods, services, and income; and net unilateral transfers (table 1). At the next level of disaggregation, however, the breakdown is quite different from the standard one. Exports and imports of goods, services, and income are first disaggregated into two categories: (1) U.S. receipts or payments from cross-border trade and net receipts or payments resulting from sales by affiliates and (2) other income receipts or payments. The first category—which records the results of activities involving direct participation by enterprises 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 net receipts or 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 intrafirm transactions. For intrafirm transactions, a further disaggregation breaks down transactions into those between U.S. parent companies and their foreign affiliates (that is, intrafirm trade related to U.S. direct investment abroad) and those between U.S. affiliates and their foreign parents (intrafirm trade related to foreign direct investment in the United States). 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

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	**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	**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 (intrafirm exports)	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	19.7	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	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
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 of the same parent	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 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
20	**Imports of goods, services, and income**	**355.8**	**377.6**	**474.2**	**484.0**	**528.5**	**592.7**	**662.5**	**719.8**	**756.7**	**732.5**	**766.8**	**829.7**
21	**Payments resulting from cross-border imports and sales by U.S. 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	**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	366.6	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 (intrafirm imports)	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 of U.S. companies	42.1	45.8	55.0	56.5	57.5	63.6	73.1	79.6	85.9	88.9	99.4	108.8
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 parent (group) of U.S. affiliates	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**	**.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	.7	4.9
29	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	1,185.9	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	1,090.6
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 of the same parent	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	.7	.8	.7	1.4	1.3	.2	1.5	.5	–1.4	–.5	–.4	.4
36	**Other 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**
	Memoranda:												
40	Balance on goods and services	–24.2	–57.8	–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 resulting from sales by affiliates	–2.2	–35.0	–86.5	–98.5	–114.6	–120.5	–74.9	–42.5	–24.1	26.2	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	–65.8
43	Balance on current account	–11.4	–44.0	–99.0	–124.2	–150.9	–166.3	–127.1	–103.8	–92.7	–7.4	–61.5	–99.9
	Addenda:												
	Source of the content of nonbank foreign affiliates' sales (except to other foreign affiliates of the same parent):												
44	Output sold or added to inventory, total (line 10 minus line 15 plus the change in inventories)	802.9	746.7	773.7	779.0	800.9	908.1	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	272.1	276.1	280.4	298.8	348.2	383.1	403.1	440.0	441.6	440.6	440.5
47	Other foreign content	451.2	408.5	422.4	419.5	419.4	467.7	525.3	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	128.8	138.8	147.4	156.4
	Source of the content of nonbank U.S. affiliates' sales (except to other U.S. affiliates of the same parent):												
49	Output sold or added to inventory, total (line 29 minus line 34 plus the change in inventories)	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

n.a. Not available

for nonbank and bank affiliates. For nonbank affiliates, net receipts are derived as affiliates' sales less their purchases from the United States, their costs and profits accruing to foreigners, and their sales to other foreign affiliates of the same U.S. parent company. For bank affiliates, only total net receipts are shown, because annual information on sales and deductions from sales is unavailable. Information on net U.S. payments to foreign companies resulting from sales by their U.S. affiliates is presented in a parallel fashion.

Other receipts or payments consist of other private and U.S. Government transactions. These transactions differ from those recorded under cross-border trade and net receipts from sales by affiliates in terms of the nature of the transactor's involvement: Rather than entailing an active involvement in the production or sale of goods and services by the cross-border exporter or by the direct investor and its affiliates, these receipts and payments cover transactions in which individuals or firms make an investment and receive a return, but without being actively involved in the activities generating the return.

Patterns of Transactions

This section focuses on changes in the composition of the various ownership-based categories that comprise the current account. Before examining these changes, however, it can be noted that during the period covered, 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, the current-dollar value of overall U.S. economic activity—whether measured by gross domestic product or gross national product—increased by a factor of 2.0, roughly the same as the growth in exports and imports.

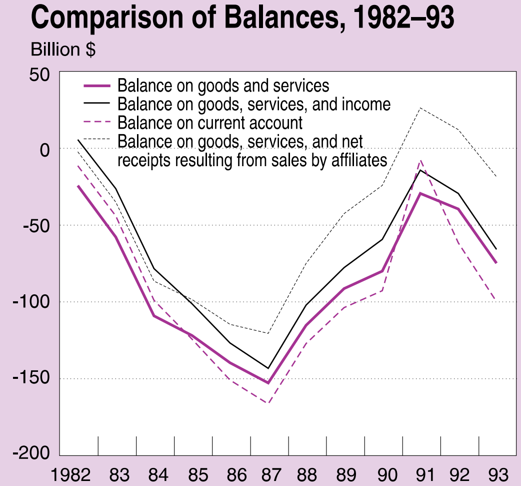
Reflecting the tendency for differences in growth of opposing flows to result in much larger relative movements in the corresponding net balances, changes in the balances on the current account and its components were, in relative terms, quite large, even though the major components from which the balances are derived grew at similar rates. Although there were several years in which they moved in a positive direction, all of the balances were more negative in 1993 than in 1982. The total deficit on current account rose from $11.4 billion to $99.9 billion (chart 1 and 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 deficit on goods, services, and net receipts resulting from sales by affiliates increased from $2.2 billion to $18.5 billion (line 41). Throughout 1982–93, this measure showed a smaller deficit (or, in 1991 and 1992, a surplus) than was recorded for the balance on cross-border trade in goods and services alone, because net U.S. receipts from sales by foreign affiliates consistently exceeded net U.S. payments to foreign companies from sales by their U.S. affiliates. The deficit on cross-border trade in goods and services increased from $24.2 billion to $74.8 billion (line 40).

Changes in composition

The period 1982–93 saw numerous developments that might have been expected, directly or indirectly, to have had a material impact on the composition of the ownership-based current-account components: 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, rapid increases in foreign direct investment in the United States, and cyclical fluctuations in economic activity. Given these developments and the length of the period studied, significant changes in the composition of these components would have been expected. As described in this section, some

CHART 1

Comparison of Balances, 1982–93



U.S. Department of Commerce, Bureau of Economic Analysis changes did occur; however, somewhat surprisingly, the overall picture is one more of stability than of change.

Throughout 1982–93, cross-border exports of goods and services accounted for a substantially larger share of total exports of goods, services, and income than either net receipts from sales by affiliates or other income receipts (chart 2). The share of exports of goods and services remained in the range of 74–78 percent through 1990 and then rose to a peak of over 84 percent in 1993. The rise in 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 and lending to foreigners by U.S. banks declined in response to sluggish economic conditions in several major borrowing areas. The share of receipts from sales by affiliates was relatively stable, ranging from just under 7 percent to over 9 percent.

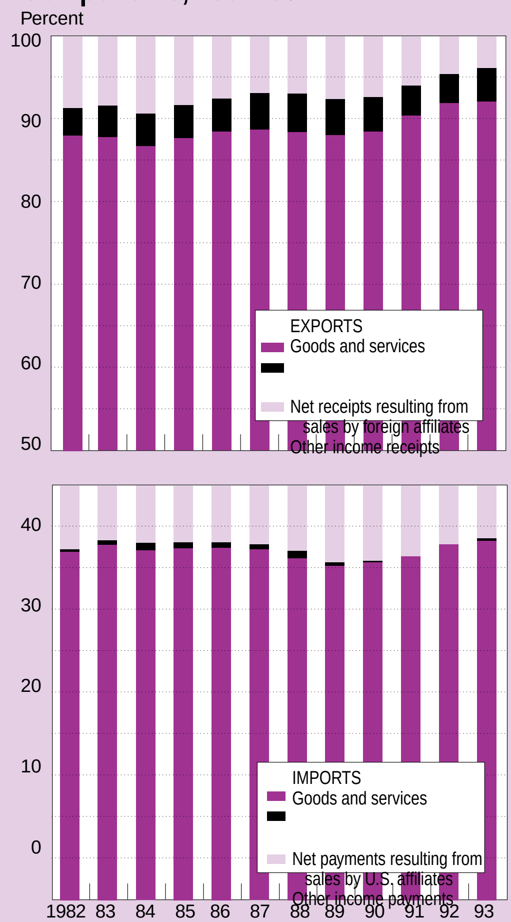
For U.S. imports of goods, services, and income, similar patterns held. Trade in goods and services accounted for an even larger share of imports than of exports, ranging from 81 percent to 87 percent. The share of "other income payments" was next largest, ranging from nearly 13 percent to over 18 percent. The share of payments resulting from sales by U.S. affiliates was consistently the 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.[3]

For both exports and imports, goods consistently accounted for a much larger share of total trade in goods and services than did services, probably because of the generally greater "tradeability" of goods (which usually are transportable and storable) than of services (which usually are not) in foreign markets. The share of goods in imports was particularly high—80–83 percent. For exports, the share of goods was somewhat lower, and it tended to decline as growth in services exports outpaced growth in goods exports.[4] The share of goods did rise noticeably in 1988, when U.S. merchandise exports grew at an unusually high 28-percent rate because of a convergence of favorable price and demand factors, but it fell steadily thereafter.

By type of transactor.—Most trade in goods and services represented trade with unaffiliated foreigners rather than intrafirm trade. For exports, the share of unaffiliated transactions ranged from 66 to 71 percent, ending the period at the same level as it began (chart 3). For imports, the share of unaffiliated transactions trended downward over much of the period, from 68 percent in 1982 to 63 percent in 1993. The decline was reflected in both goods and services and mostly occurred in the late 1980's; during this period, foreign direct investment in the United States was growing very rapidly, boosting imports by U.S. affiliates from their foreign parents.

CHART 2

Exports and Imports of Goods, Services, and Income: Shares of the Major Components, 1982–93



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

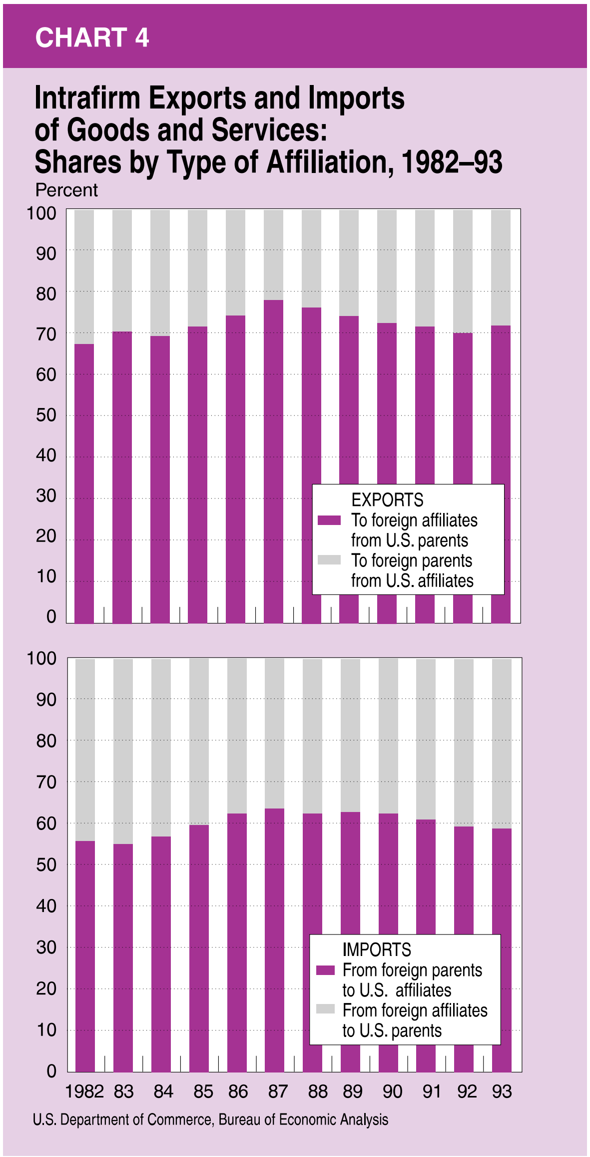
3. For further discussion of the returns on foreign direct investment in the United States, see "Rates of Return on Direct Investment," SURVEY 72 (August 1992): 79–86.

4. 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 over the period, as it did in every year except 1988, when special factors boosted merchandise exports.

The aforementioned tendency for goods to account for the predominant share of total trade in goods and services holds for both unaffiliated and intrafirm trade, but the share is higher for intrafirm trade than for unaffiliated trade. For exports, goods accounted for 82–88 percent of intrafirm trade, compared with 66–72 percent of unaffiliated trade. For imports, the differences were even more marked: Goods accounted for 94–97 percent of intrafirm trade, compared with 72–77 percent of unaffiliated trade.

The tendency for goods to dominate intrafirm trade held for trade involving both inward and outward investment. 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. Although 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 overall U.S. comparative advantage in services evidently is a more significant determinant of the distribution of intrafirm trade between goods and services than the type of affiliation between transactors.

To some extent, the larger share of goods in intrafirm trade than in unaffiliated trade reflects the fact that some services—most notably travel, which is the largest services item in the U.S. balance of payments accounts—by their very nature are not applicable to trade within multinational firms. It also reflects exporters' use of locally established wholesale trade affiliates as conduits for distributing their goods abroad. This practice is particularly widespread among foreign exporters to the United States and helps to explain the ex-



tremely large share of goods in U.S. imports from affiliated foreigners.[5]

Intrafirm exports accounted for 29–34 percent of total U.S. exports of goods and services and largely comprised transactions associated with outward investment. U.S. parents' exports to their foreign affiliates accounted for roughly two-thirds to three-quarters of total intrafirm exports (chart 4). In most years, U.S. parents' exports to their foreign affiliates accounted for over 20 percent of total U.S. exports of goods and services, compared with a share of 10 percent or less for U.S. affiliates' exports to their foreign parents.

Intrafirm imports accounted for 32–37 percent of total U.S. imports of goods and services and largely comprised transactions associated with inward investment. Imports by U.S. affiliates from their foreign parents accounted for 55–64 percent of total intrafirm imports. These imports accounted for roughly 20 percent of total U.S. imports of goods and services, somewhat above the 13–15 percent share accounted for by U.S. parents' 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* their parents. Put another way, using affiliates as conduits for the parents' output (sometimes with further processing) appears to be a more common business practice among both U.S.-based and foreign-based multinational companies than does using affiliates as sources of supply.

Supplemental Details on Affiliate Operations

In addition to providing an alternative disaggregation of U.S. current-account 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 supplying international markets. Two related types of information are given: Estimates used in deriving net receipts and payments resulting from sales by nonbank affiliates, and estimates of the content of nonbank affiliates' output.

Net receipts and payments resulting from affiliates' sales

As explained earlier, net U.S. receipts from sales by foreign nonbank affiliates are derived as sales less three items: 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 (lines 11–16 of table 1). Purchases from the United States and costs and profits accruing to foreigners represent outlays that must be deducted from sales in order to arrive at the earnings that accrue to the U.S. parent company. The deduction for sales to other foreign affiliates of the same U.S. parent is made to avoid duplicating goods and services that are embodied in the sales of more than one affiliate.[6] Net U.S. payments to foreign companies from sales by their U.S. affiliates are derived in a parallel fashion.

Turning to the specific results under this methodology, the relationships among the items used to derive net receipts or payments changed relatively little over time and were similar for U.S. and foreign affiliates. Compared with total sales by nonbank affiliates, net receipts tended to be quite small—1 percent or less for U.S. affiliates and 2–4 percent for foreign affiliates. For both types of affiliates, the largest portion of the sales dollar went to "locally" supplied factors of production (in the case of foreign affiliates, to all factors supplied by countries other than the United States). For foreign affiliates of U.S. companies, 70–78 percent of sales went to costs and profits accruing to foreigners, and the shares tended to be higher during the earlier years; most of these costs and profits represented items other than employee compensation—probably payments for locally procured inputs for the most part. For U.S. affiliates of foreign companies, 79–85 percent of sales went to costs and profits accruing to U.S. residents; as with outward investment, most of these costs and profits were for items other than employee compensation and probably were largely payments for locally procured goods and services.

Content of affiliates' sales

The addenda to table 1 examine nonbank affiliates' sales from a related, but somewhat different,

5. The role of U.S. affiliates in facilitating the distribution in the United States of goods produced by their foreign parents is discussed in "Merchandise Trade of U.S. Affiliates of Foreign Companies," SURVEY 73 (October 1993): 52–65.

6. Rather than being treated as an item to be eliminated through consolidation, sales between affiliates of the same parent company could have been recorded as a "purchases" item, to be deducted as a cost accruing to foreigners (because, according to the rules of residency used in the U.S. international accounts, 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.

perspective from that taken above.[7] These items focus on the output of affiliates and, in particular, on the output's geographic origin and whether it represents production by affiliates themselves or by firms that supply them with intermediate inputs. Specifically, sales (plus the change in inventories) of U.S. and foreign nonbank affiliates, excluding sales to other affiliates of the same parent, are separated into two components: U.S. content and foreign content. The U.S. content of U.S. affiliates' sales to nonaffiliates 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 in a parallel fashion.

During 1982–93, foreign affiliates' output and U.S. affiliates' output had similar, quite stable structures. As would be expected, the location of the affiliate largely determines the origin of the output: The bulk—88–92 percent—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 the U.S.-content share of the output of U.S. affiliates to be lower than the foreign-content share of the output of foreign affiliates appears largely to reflect U.S. affiliates' higher import propensities; however, it also reflects U.S. affiliates' lower profitability (profits are included in local content as a component of the affiliates' own value added) and the fact that the "foreign" content of the output of foreign affiliates includes content attributable to third countries.

Affiliates' own value added accounted for a minority of both the foreign content of foreign affiliate output and the U.S. content of U.S. affiliate output. For foreign affiliates, own value added accounted for roughly 40 percent of foreign content. For U.S. affiliates, own value added accounted for a somewhat lower share of U.S. content—roughly 25 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 newer than foreign affiliates, and it is possible that as they mature they will tend to rely more on their own production and less on local suppliers (as well as on foreign suppliers). There is little evidence for such a pattern in the available data, which show only a small variation in the value-added share of local content over an 11-year period; however, because the period includes several years of rapid growth in foreign direct investment in the United States, entries into the direct investment universe may have reduced or eliminated growth in the average age of all affiliates.

7. This information is not available on an annual basis for bank affiliates.

Data Availability

Estimates of value added (gross product) of nonbank majority-owned foreign affiliates of U.S. parent companies for 1983–88 are now available; the estimates are disaggregated by country and industry of affiliate and by component. Previously, such estimates were available only for 1977, 1982, and 1989–93. (The aggregate estimates for all nonbank affiliates presented in table 1 were derived from the estimates for majority-owned affiliates, as described in the technical note.) For information on how to obtain the new estimates, call (202) 606–9867, or write to Research Branch, International Investment Division (BE-50), Bureau of Economic Analysis, Washington, DC 20230.

Technical Note: Sources and Methods

Most of the data shown in table 1 are taken directly from either the U.S. balance of payments accounts or from BEA's annual surveys of financial and operating data of U.S. parents, their foreign affiliates, and foreign-owned U.S. affiliates. Some items had to be estimated because data were not available for them in the form required. A few items were derived as residuals. The sources for the various line items of table 1 follow; line references appear in parentheses. Except where specifically noted, data on import items have been taken from the same sources as the data on exports or from corresponding sources.

Total cross-border exports of goods and services (3, 3a, and 3b) were taken from the balance of payments accounts. Cross-border exports of goods and services to affiliated foreigners (5, 5a, and 5b) 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 of U.S. companies (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 parent groups (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 parent groups (7b), from BEA's quarterly surveys of transactions between U.S. affiliates and their foreign parents. Cross-border exports of goods and services to unaffiliated foreigners (4, 4a, and

4b) were derived as a residual, by subtracting exports to affiliated foreigners from total exports.

U.S. companies' net receipts resulting from sales by their foreign affiliates (8) are equivalent to direct investment income as shown in the balance of payments accounts. Estimates of this income are derived from BEA's quarterly surveys of transactions between U.S. parents and their foreign affiliates. Before being entered into the balance of payments accounts, the estimates are adjusted to a current-cost basis. Distribution of the current-cost adjustment among industries is not possible, and in 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 derived by subtracting line 16 from line 8; line 12 is derived as line 10 minus lines 8, 11, and 15 plus line 16; and line 14 is the residual derived by subtracting line 13 from line 12. Finally, survey data on sales by foreign affiliates to other foreign affiliates of the same parent (15) were obtained from the annual surveys of U.S. direct investment abroad but were only available for majority-owned affiliates; an estimate for all nonbank affiliates was extrapolated from these data, 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 other lines that are related to net payments to foreign companies for sales by their U.S. affiliates (27–35) were derived in a manner analogous to those for net receipts.

Other income receipts (17–19), other income payments (36–38), and net unilateral transfers (39) were taken directly from the balance of payments 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 balance of payments accounts. They also can be derived from other lines as line 3 minus line 22, line 1 minus line 20, and line 1 minus line 20 plus line 39, respectively. The balance on goods, services, and net receipts resulting from sales by affiliates (41), the new balance shown in this article, 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 or added to inventory (excluding sales to other foreign affiliates of the same parent) (44) by nonbank foreign affiliates is equal to line 10 minus line 15 plus the annual change in inventory (estimated for all nonbank affiliates by extrapolating data for majority-owned affiliates from BEA's annual surveys of U.S. direct investment abroad, based on the relationship between total assets of all nonbank affiliates and total assets of nonbank majority-owned affiliates). U.S. content (48) is equal to line 11. Foreign content (45) is the residual obtained by subtracting line 48 from line 44. Value added by foreign affiliates of U.S. companies (46) was estimated from BEA's annual surveys of U.S. direct investment abroad (by extrapolation of estimates for majority-owned affiliates). Other foreign content (47) is a residual derived by subtracting line 46 from line 45.

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, no special estimates for minority-owned affiliates had to be prepared.