

U.S. International Transactions, Revised Estimates for 1983–94

By Christopher L. Bach

As is customary each June, the estimates of U.S. international transactions have been revised to incorporate methodological and statistical changes. This year, like last year, a number of improvements have been implemented as part of a multiyear effort by the Bureau of Economic Analysis (BEA) to address gaps in coverage of transactions. These gaps were noted by BEA in its Mid-Decade Review and strategic plan for improving BEA's economic accounts (see the [February and April 1995 issues](#) of the *SURVEY OF CURRENT BUSINESS*). The improvements also address various gaps noted by the International Monetary Fund, the National Academy of Sciences, and the General Accounting Office. In large part, these gaps have arisen because of the dynamic nature of international markets. The major improvements this year respond to rapid changes in both the services markets and the international capital markets.

- In the services markets, transportation of goods by truck between the United States and Canada has grown in recent years with the rise in volume of goods shipped between the two countries. Previously, the lack of key source data prevented the construction of reliable estimates of freight receipts and payments for truck transportation between the two countries. Because key source data have now been developed, estimates of these receipts and payments are introduced into the "other transportation" accounts for 1986–94.
- In the capital markets, integration and innovation have led to a surge in foreign borrowing through medium-term note programs in the United States and to an increase in foreign private placements of bonds in the U.S. market. Neither type of transaction is completely captured in the current reporting of capital transactions, so data from market sources have been obtained that supplement coverage from regular reporting systems. New estimates for these

transactions are introduced into the "foreign securities" account for 1991–94.

- For U.S. direct investment abroad, a new methodology using information from the 1989 benchmark survey is introduced to estimate capital outflows, income receipts, and services transactions for 1983–88.

In addition to these improvements, incorporation of updated source data led to substantial revisions to U.S. Government economic and military grants and related deliveries of goods and services, to U.S. nonbanking concerns' claims and liabilities, and to capital and income flows for both U.S. direct investment abroad and foreign direct investment in the United States.

Annual revisions to the current account were small for years prior to 1992 ([table 1](#)). For 1992–94, the sizable revisions made to the direct investment and portfolio capital accounts as a result of updated source data had a substantial impact on the related income accounts: Income receipts were revised up, while income payments were revised down, thus lowering the current-account deficit for these years. Details for both the data improvements and the major revisions attributable to updated source data are shown in [table 2](#).

The revised estimates were prepared under the general direction of Anthony DiLullo, with the assistance of Cynthia McPherson. Anthony DiLullo, Michael Mann, and Ed Dozier prepared the new estimates of freight charges for truck transportation between the United States and Canada; Lori Trawinski and Kimberly Chesley, the new estimates of foreign securities transactions; and Jane Newstedt, the consolidation of the revisions to portfolio income. The revised estimates of direct investment income, capital flows, royalties and license fees, and services were prepared under the general direction of Betty Barker, Chief of the International Investment Division (IID); Jeffrey Lowe and Ernest Wilcox oversaw the revisions, with the assistance of other IID staff.

Revisions resulting from new seasonal factors were an additional source of change to the quarterly estimates. For the accounts other than merchandise trade, revisions due to the new seasonal factors are small in comparison with revisions due to the introduction of new methodologies or the incorporation of newly available or updated source data. For series that were substantially revised as a result of new methodologies or source data, seasonal factors were reestimated from the point at which the revisions begin. For merchandise trade, the application of new seasonal factors accounted for most of the quarterly revisions for 1994, but revisions were also made to reflect the inclusion of errata, the retabulation of data to incorporate timing adjustments, and revisions to some balance-of-payments adjustments.

Other transportation

Estimates of freight charges for the transportation of goods by truck between the United States and Canada are introduced for 1986–94. The charges cover receipts by U.S. carriers and payments to Canadian carriers for the transportation of U.S. exports and U.S. imports of goods between the two countries.

The addition of these charges recognizes the impact of deregulation in the United States and Canada during the 1980's, which has opened truck transportation in each country to the other's carriers; of the growing importance of

transportation of goods by truck as the volume of U.S.-Canadian trade has expanded; and of the encouragement of commerce between the United States and Canada as the North American Free Trade Agreement has been implemented. Transportation of goods by truck between the United States and Mexico is not covered in these new estimates, because regulations have largely restricted U.S. carriers' operations in Mexico and Mexican carriers' operations in the United States.

Chart 1 presents the conceptual model used to prepare the estimates and illustrates how the estimates were constructed from source data. Freight charges paid to U.S. carriers by Canadian residents (U.S. receipts) are depicted in segments 1 and 2. Freight charges paid to Canadian carriers by U.S. residents (U.S. payments) are depicted in segments 3 and 4. By convention, it is assumed that the importer pays the freight charges for transportation services from the border to the destination and that the exporter pays the freight charges for transportation services from the point of origin to the border. This convention is adopted by international balance-of-payments compilers to avoid double-counting or misclassifying certain freight charges, which, according to balance-of-payments accounting principles, are included in the value of goods.

Each of the four segments requires a separate estimation methodology because of the varied nature of the source data. For receipts to U.S.

Table 1.—Revisions to the Current-Account Estimates

[Millions of dollars; quarterly data are seasonally adjusted at annual rates]

	Exports of goods, services, and income			Imports of goods, services, and income			Unilateral transfers			Balance on current account		
	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision
1983	350,776	351,306	530	-377,495	-377,573	-78	-17,741	-17,718	23	-44,460	-43,985	475
1984	394,961	395,850	889	-474,122	-474,203	-81	-20,612	-20,598	14	-99,773	-98,951	822
1985	381,572	382,747	1,175	-483,994	-484,037	-43	-22,950	-22,954	-4	-125,372	-124,243	1,129
1986	400,337	401,843	1,506	-527,363	-528,513	-1,150	-24,176	-24,189	-13	-151,201	-150,859	342
1987	447,262	449,514	2,252	-591,307	-592,745	-1,438	-23,052	-23,107	-55	-167,097	-166,338	759
1988	557,630	560,426	2,796	-660,847	-662,487	-1,640	-24,977	-25,023	-46	-128,194	-127,083	1,111
1989	641,471	642,025	554	-718,157	-719,758	-1,601	-26,134	-26,106	28	-102,820	-103,839	-1,019
1990	696,841	697,426	585	-754,926	-756,694	-1,768	-33,663	-33,393	270	-91,748	-92,661	-913
1991	717,041	718,194	1,153	-730,680	-732,486	-1,806	6,687	6,869	182	-6,952	-7,424	-472
1992	731,373	737,394	6,021	-767,217	-766,796	421	-32,042	-32,148	-106	-67,886	-61,549	6,337
1993	755,533	763,826	8,293	-827,312	-829,668	-2,356	-32,117	-34,084	-1,967	-103,896	-99,925	3,971
1994	832,871	838,820	5,949	-954,422	-954,304	118	-34,121	-35,761	-1,640	-155,673	-151,245	4,428
1992: I	182,890	183,312	422	-184,330	-183,420	910	-6,917	-6,881	36	-8,357	-6,989	1,368
II	182,880	184,496	1,616	-191,643	-192,263	-620	-7,776	-7,746	30	-16,539	-15,513	1,026
III	181,966	183,222	1,256	-193,533	-192,980	553	-7,040	-7,030	10	-18,607	-16,788	1,819
IV	183,641	186,367	2,726	-197,716	-198,133	-417	-10,308	-10,491	-183	-24,383	-22,257	2,126
1993: I	184,968	187,428	2,460	-197,535	-197,290	245	-7,283	-7,521	-238	-19,850	-17,383	2,467
II	188,906	191,023	2,117	-207,308	-207,751	-443	-7,200	-7,609	-409	-25,602	-24,337	1,265
III	186,565	188,544	1,979	-206,808	-207,342	-534	-7,613	-8,234	-621	-27,856	-27,032	824
IV	195,095	196,834	1,739	-215,661	-217,288	-1,627	-10,021	-10,722	-701	-30,587	-31,176	-589
1994: I	194,616	197,173	2,557	-219,756	-220,073	-317	-7,098	-7,371	-273	-32,238	-30,271	1,967
II	202,299	204,161	1,862	-231,755	-233,369	-1,614	-8,371	-8,778	-407	-37,827	-37,986	-159
III	212,928	214,305	1,377	-245,703	-245,645	58	-8,073	-8,374	-301	-40,848	-39,714	1,134
IV	223,032	223,180	148	-257,211	-255,218	1,993	-10,579	-11,239	-660	-44,758	-43,277	1,481

NOTE.—Quarters may not add to annual totals due to rounding.

carriers for the transportation of U.S. imports from the point of origin in Canada to the border (segment 2), data are available that directly measure charges received; the data are compiled by the Bureau of the Census from U.S. customs documents for the U.S. Department of Transportation.

For payments to Canadian carriers for the transportation of U.S. exports from their point of origin in the United States to the border (segment 3), partial data on freight payments are available from Statistics Canada; the data are based on Canadian customs documents. The data are used in conjunction with information on the value of U.S. exports transported by truck, available from U.S. customs documents.

For payments to Canadian carriers for the transportation of U.S. imports from the border to their destination in the United States (segment 4), no data are available that directly measure freight charges. BEA estimates these charges by first identifying 65 major trucking routes from their Canadian origin to their U.S. destination, based on identification of shipments by province of origin, port of entry into the United States, region of destination in the United States, average distance from origin to destination, and value of goods shipped on each route; these characteristics are obtained from various surveys and studies by Statistics Canada's Transportation Division and from U.S. customs documents. The freight charges are then estimated by multiply-

ing the reported charges from segment 2 by the ratio of the estimated distance traveled in the United States to the estimated distance traveled in Canada for each route. For example, if the average distance for a typical trip from a city in Ontario to a border port of entry is 100 miles and the associated charges are \$5,000, and if the typical distance traveled from this port of entry to the destination in the Northeast region of the United States is 150 miles, then charges for transporting the goods from the border to their U.S. destination are estimated to be \$7,500.

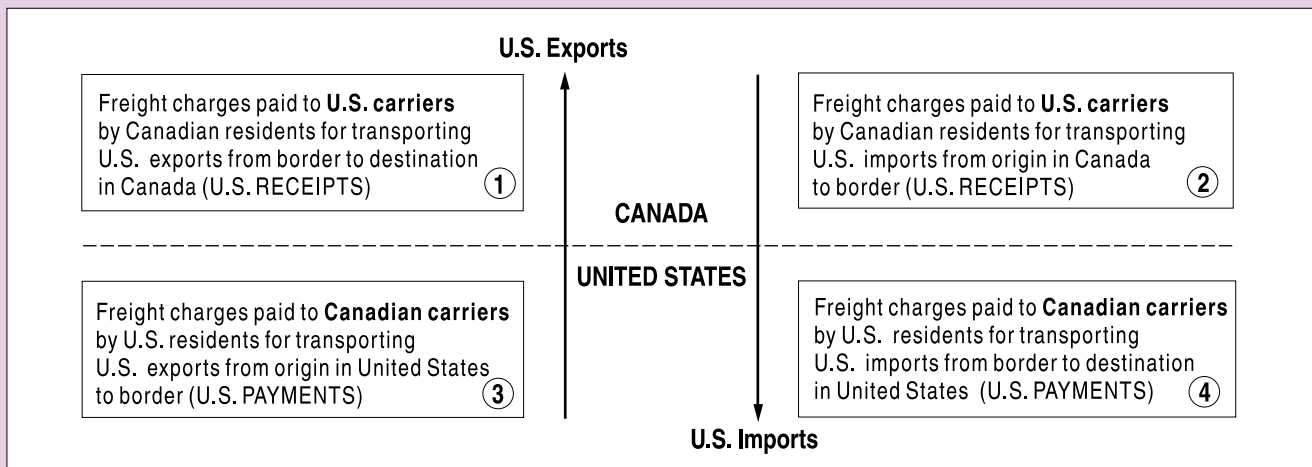
For receipts by U.S. carriers for the transportation of U.S. exports from the border to their destination in Canada (segment 1), no data are available that directly measure freight charges. BEA estimates these charges by developing freight rates for major trucking routes from the border to the Canadian destination, based on the rates developed in segment 2. These rates are then applied to the reported value of U.S. exports transported by truck for each route, available from Canadian customs documents.

A small adjustment is made to both U.S. receipts and U.S. payments for the transportation of goods between two or more points within each country by carriers of the other country. Regulations highly restrict this type of activity, but it is known that a small amount of this activity exists.

For 1994, the new estimates for trucking raise other transportation receipts \$1.3 billion and other transportation payments \$2.5 billion.

CHART 1

Framework for Estimating U.S. Receipts and Payments for Truck Transportation Between the United States and Canada



Foreign securities

Transactions in foreign securities have been revised to incorporate new source data on new issues of foreign bonds placed in the U.S. market. Previous coverage had not completely captured the rapid growth in securities issued under a ruling in 1990 by the U.S. Securities and Exchange Commission (SEC) and in medium-term notes.

For both types of new issues, BEA has obtained new data from market sources that supplement coverage from regular reporting systems. New estimates are introduced as a component of the "foreign securities" account for 1991-94.

In April 1990, the SEC adopted Rule 144A, which provided an exemption from the registration requirements of the Securities Act of 1933 for specified resales of restricted securities to quali-

Table 2.—Major Sources of Revisions, 1983-94

[Millions of dollars]

(Credits +; debits -) ¹	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Transfers under U.S. Government military agency sales contracts (line 4):												
Revised						9,284	8,564	9,932	11,135	11,693	12,650	12,418
Revisions due to updated source data						-5	-23	-32	211	865	1,237	1,573
Previously published						9,289	8,587	9,964	10,924	10,828	11,413	10,845
Other transportation receipts (line 7):												
Revised				15,784	17,471	19,811	21,106	22,745	23,331	23,691	23,982	26,078
Changes due to trucking				(*)	137	355	573	791	1,010	1,172	1,183	1,303
Revisions due to updated source data									-28	-185	-352	42
Previously published				15,784	17,334	19,456	20,533	21,954	22,349	22,704	23,151	24,733
U.S. direct investment abroad income receipts (line 12):												
Revised	26,950	31,262	30,547	31,968	39,608	52,092			52,198	51,912	61,579	67,702
Changes due to backward benchmarking	422	682	917	1,118	1,528	1,656						
Revisions due to updated source data									74	2,023	4,064	1,117
Previously published	26,528	30,581	29,630	30,850	38,080	50,436			52,124	49,889	57,515	66,585
Other private income receipts (line 13):												
Revised									76,781	59,399	52,561	65,835
Changes due to foreign securities (bonds)									15	109	231	530
Revisions due to updated source data										1,843	1,058	1,073
Previously published									76,766	57,447	51,272	64,232
Other transportation payments (line 21):												
Revised				-17,817	-19,057	-20,969	-22,260	-25,168	-25,204	-25,459	-26,558	-28,373
Changes due to trucking				-1,102	-1,269	-1,435	-1,601	-1,767	-1,934	-2,059	-2,145	-2,462
Revisions due to updated source data									27	60	89	-193
Previously published				-16,715	-17,788	-19,534	-20,659	-23,401	-23,297	-23,460	-24,502	-25,718
Foreign direct investment income payments (line 26):												
Revised									3,433	-317	-5,250	-22,621
Revisions due to updated source data									189	1,859	-140	2,567
Previously published									3,244	-2,176	-5,110	-25,188
Other private income payments (line 27):												
Revised										-67,549	-63,437	-77,251
Revisions due to updated source data										-296	-198	578
Previously published										-67,253	-63,239	-77,829
U.S. Government grants (line 30):												
Revised						-10,513	-10,892	-17,417	24,194	-15,083	-16,311	-15,814
Revisions due to updated source data						5	26	268	235	-73	-1,691	-1,282
Previously published						-10,518	-10,918	-17,685	23,959	-15,010	-14,620	-14,532
U.S. direct investment abroad capital (line 44):												
Revised	-7,728	-12,344	-14,065	-19,025	-28,355	-16,175			-31,369	-42,640	-72,601	-49,370
Changes due to backward benchmarking	-2,839	-1,396	-664	-1,935	-1,174	-727						
Revisions due to updated source data									-74	-1,636	-14,731	9,052
Previously published	-4,889	-10,948	-13,401	-17,090	-27,181	-15,448			-31,295	-41,004	-57,870	-58,422
Foreign securities (line 45):												
Revised									-45,673	-46,415	-141,807	-49,799
Changes due to foreign bonds									-899	-1,250	-2,571	-5,617
Revisions due to updated source data									-34	-51	-19,253	16,439
Previously published									-44,740	-45,114	-119,983	-60,621
U.S. nonbanking concerns' claims on unaffiliated foreigners (line 46):												
Revised											1,580	-32,621
Revisions due to updated source data											2,178	-10,493
Previously published											-598	-22,128
Foreign direct investment capital (line 57):												
Revised									22,004	17,600	41,108	49,448
Revisions due to updated source data									-4,082	7,712	19,742	-10,623
Previously published									26,086	9,888	21,366	60,071
U.S. nonbanking concerns' liabilities to unaffiliated foreigners (line 60):												
Revised											10,489	-4,324
Revisions due to updated source data											-3,793	-17,037
Previously published											14,282	12,713

NOTE.—Line references are to table 1 of "U.S. International Transactions, First Quarter 1995," in this issue of the SURVEY OF CURRENT BUSINESS.

* Less than \$500,000 (+/-).

1. Credits (+): An increase in U.S. receipts and U.S. liabilities, or a decrease in U.S. payments and U.S. claims. Debits (-): An increase in U.S. payments and U.S. claims, or a decrease in U.S. receipts and U.S. liabilities.

fied institutional buyers. Because most securities issued by foreigners under this rule have been private placements, these new issues are not easily captured by current statistical reporting systems.

Medium-term note programs provide issuers with considerable flexibility in meeting borrowing needs. After establishing a maximum amount for a program, issuers can borrow at a time of their own choosing in numerous tranches of long- or short-term notes in a variety of fixed, floating, or zero-coupon instruments. The rapid increase of these programs has not been captured completely in current statistical reporting systems.

The adjustment for undercoverage of both types of new issues resulted in the addition of \$2.6 billion in gross sales of securities by foreigners in 1993 and \$5.6 billion in 1994. Related adjustments to income raised other private income receipts \$0.2 billion in 1993 and \$0.5 billion in 1994.

Large revisions to foreign securities in 1993 and 1994 reflected substantial revisions in source data from the U.S. Treasury Department. For 1994, net U.S. purchases of foreign securities were reduced \$16.4 billion.

U.S. direct investment abroad

Estimates of income receipts, capital outflows, and services transactions related to U.S. direct investment abroad for 1983–88 were revised to take account of information from BEA's 1989 benchmark survey, or census, of U.S. direct investment abroad. This is the first time that benchmark survey results have been used to revise estimates for years prior to a benchmark survey year. In the past, benchmark survey results were used only to extrapolate estimates forward from the benchmark year. This new procedure eliminates the discontinuity, or break-in-series, that had occurred at a benchmark year; the discontinuity arose because the estimates prior to the benchmark year were extrapolated forward from the previous benchmark survey, whereas the estimates subsequent to the benchmark year were extrapolated forward from the current survey. Thus, estimates for 1983–88 that previously were only extrapolated forward from the 1982 benchmark survey have now also been interpolated backwards between the 1989 and the 1982 benchmark surveys, thereby eliminating the discontinuity at 1989.

Two major types of revisions were made to the 1983–88 estimates. First, the estimates were adjusted to reflect U.S. direct investments that were made between 1983 and 1988 but that were not

known by, or reported to, BEA until the 1989 benchmark survey (referred to as “unreported births”). Second, the estimates were adjusted to reflect U.S. direct investments that were sold, liquidated, or otherwise disposed of between 1983 and 1988 but whose change in status was not known to BEA until the 1989 benchmark survey (referred to as “unreported deaths”). In both cases, most of the investments were below the exemption level for reporting in BEA's quarterly sample survey of U.S. direct investment abroad, which obtains data for nonbenchmark years.

With one minor exception, the net effect of the revisions was upward for all years and for all of the affected accounts. The net upward revisions reflected the larger impact of “unreported births” than of “unreported deaths” on most data items (table 3).

For income, the revisions range from \$0.4 billion in 1983 to \$1.7 billion in 1988. For net receipts on royalties and license fees, they range from \$31 million in 1983 to \$329 million in 1988, and for net receipts for other private services, they range from –\$2 million in 1983 to \$256 million in 1988. For capital outflows, the upward revisions were more erratic than for the other accounts; they fell from \$2.8 billion in 1983 to \$0.7 billion in 1985, rose to \$1.9 billion in 1986, and fell to \$0.7 billion in 1988. This erratic pattern reflected the net impact of separately adjusting the individual components of capital outflows—equity capital increases and decreases, intercompany debt receivables and payables, and reinvested earnings—some of which had positive effects on the total and some of which had negative effects.

The position estimates for U.S. direct investment abroad for 1983–88 have also been revised to incorporate this new methodology. For more information, see “[Direct Investment Positions on a Historical-Cost Basis, 1994: Country and Industry Detail](#)” in this issue.

Transfers under U.S. military sales contracts and other U.S. Department of Defense (DOD) transfers

Estimates were revised for 1988–94 to record more completely the transfer of goods and services under military grant programs administered by DOD. Deliveries of goods and services under the Foreign Assistance Act's Section 506a (“Special Authority”) and Sections 516–519 (“Transfers of Excess Defense Articles”) are now identified more completely; updated source data and accounting records have made these revisions possible.

Also identified more completely are deliveries that reflect DOD's expanded role abroad for the provision of humanitarian assistance, narcotics control, and nuclear threat reduction. The revisions raised deliveries \$1.2 billion for 1993 and \$1.6 billion for 1994. Financing for deliveries included in these transactions is included in "U.S. Government grants."

U.S. Government grants

Revisions to U.S. Government grants for 1988-94 reflect the availability of new accounting records and updated source data. The largest addition to grant outflows for 1993-94 resulted from newly available data on commodity shipments from the U.S. Department of Agriculture, which has just completed a 2-year effort to update and improve its accounting system. Other additions to grant outflows for 1993-94 resulted from more complete identification of shipments of military equipment by the DOD under legislation for emergency drawdowns and excess defense ar-

titles, as well as more complete identification of DOD's expanded efforts abroad for humanitarian assistance, narcotics control, and nuclear threat reduction. For 1993 and 1994, grant outflows were raised \$1.7 billion and \$1.3 billion, respectively.

U.S. nonbanking concerns' claims on and liabilities to unaffiliated foreigners

Last year, BEA began substituting source data prepared by the Bank for International Settlements (BIS) for data obtained from U.S. statistical reporting systems. The new source data measure claims and liabilities reported by banks in foreign financial centers with U.S. nonbanking concerns in the United States. The BIS data for both claims and liabilities of U.S. nonbanking concerns have been revised substantially for 1993 and 1994, leading to large revisions in the U.S. accounts. For U.S. nonbanking concerns' claims, several major changes (based on more complete reporting

Table 3.—Revisions to 1983-88 Estimates for U.S. Direct Investment Abroad

[Millions of dollars]

(Credits +; debits -) ¹	Estimates extrapolated forward from 1982 benchmark survey	Revisions				Revised estimates
		Total	Due to:			
			Unreported births	Unreported deaths	Other ²	
Income:						
1983	26,528	422	784	-337	-25	26,950
1984	30,581	681	929	-229	-19	31,262
1985	29,630	917	1,132	-211	-4	30,547
1986	30,850	1,118	1,387	-273	4	31,968
1987	38,080	1,528	1,758	-254	24	39,608
1988	50,436	1,656	2,037	-409	28	52,092
Capital outflows:						
1983	-4,889	-2,839	-2,581	-153	-105	-7,728
1984	-10,948	-1,396	-2,636	1,182	58	-12,344
1985	-13,401	-664	-2,869	2,301	-96	-14,065
1986	-17,090	-1,935	-3,236	1,582	-281	-19,025
1987	-27,181	-1,174	-3,923	2,914	-165	-28,355
1988	-15,448	-727	-4,193	3,467	.....	-16,175
Royalties and license fees, net:						
1983	3,789	31	45	-15	1	3,820
1984	4,129	74	91	-20	3	4,203
1985	4,314	123	141	-24	6	4,437
1986	5,698	179	197	-27	9	5,877
1987	7,245	256	265	-41	32	7,501
1988	8,767	329	338	-32	23	9,096
Other private services, net:						
1983	2,532	-2	56	-58	.....	2,530
1984	2,483	53	114	-61	.....	2,536
1985	2,490	93	176	-83	.....	2,583
1986	3,024	162	247	-84	.....	3,186
1987	2,446	162	333	-171	.....	2,608
1988	3,091	256	424	-168	.....	3,347
Position:						
1983	207,203	4,947	2,581	1,583	782	212,150
1984	211,480	6,613	5,217	673	723	218,093
1985	230,250	8,119	8,086	-787	820	238,369
1986	259,800	10,672	11,323	-1,751	1,100	270,472
1987	314,307	11,946	15,266	-4,585	1,265	326,253
1988	335,893	11,286	19,459	-8,173	.....	347,179

1. Credits (+): An increase in U.S. receipts and U.S. liabilities, or a decrease in U.S. payments and U.S. claims. Debits (-): An increase in U.S. payments and U.S. claims, or a decrease in U.S. receipts and U.S. liabilities.

2. Adjustments to reported data and revisions to withholding taxes.

by foreign banks to the BIS) came too late to be incorporated into the quarterly revisions.

For U.S. nonbanking concerns' liabilities, revisions were also made based on more complete reporting to the BIS. In addition, revisions were made to minimize duplicate coverage of securities transactions commingled with banking transactions; the duplicate coverage emerged after BEA began using the BIS data last year.

For 1994, the increase in U.S. nonbanking concerns' claims were revised up \$10.5 billion,

and the reduction in U.S. nonbanking concerns' liabilities shifted \$17.0 billion to an increase.

Direct investment capital and income

The direct investment capital and income accounts, for both U.S. direct investment abroad and foreign direct investment in the United States, reflect rather sizable revisions that are attributable to the incorporation of data from BEA's annual surveys into the estimates. 