U.S. International Transactions, Revised Estimates for 1982–98

By Christopher L. Bach

As is customary each June, the estimates of U.S. international transactions have been revised to incorporate methodological and statistical revisions. This year, like last year, a number of improvements have been implemented as part of continuing efforts by the Bureau of Economic Analysis (BEA) to address gaps in coverage of the transactions. In large part, the gaps have arisen because of the dynamic nature of international markets. The major improvements this year respond to rapid changes in both the capital markets and services markets.

Also this year, the treatment of current- and capital-account transactions is modified to bring it into closer alignment with international guidelines. BEA is among those agencies in the United States and in other countries that has been both a strong supporter of, and a major contributor to, the development of the international guidelines recommended in the fifth edition of the International Monetary Fund's *Balance of Payments Manual*.[1] Many important changes in the international guidelines are patterned after the innovations and changes undertaken by BEA in the U.S. international transactions and direct investment accounts in recent years. BEA has already adopted many of the most important changes included in the *Manual* and, with this change, it is moving forward to eliminate one of the few remaining differences between the guidelines and the U.S. international accounts.

- The accounts are now divided into three groups—a current account, a capital account, and a financial account. This change is made to provide a more focused picture of different types of transactions and to remove certain transactions from the current account that may distort the analysis of underlying trends in the balances on goods, services, income, and current transfers. Previously, the accounts were divided into a current account and a capital account.
- Certain income transactions that were previously included in services account are now reclassified to the income account, and their coverage has been expanded, for 1986–98. This change places all income transactions together; consequently, both the services account and income account are redefined.
- In the direct investment income and financial accounts, new measures of the current-cost adjustment are introduced for 1982–98. This change more closely aligns the accounts with economic, rather than business, accounting requirements.
- In the investment income account, greatly improved estimates of income receipts are introduced based on preliminary results of a benchmark survey of the stock of U.S. portfolio investment in long-term foreign securities as of December 31, 1997. The updated position estimates enable BEA to develop improved estimates of bond interest and dividend receipts for 1994–98. The new position data are included in the U.S. international investment position.
- In the services account, results from a one-time survey are incorporated into estimates of travel payments for 1997–98, and a revised methodology and updated source data for medical services receipts are introduced for 1995–98.
- In the new capital account, new estimates of immigrants' transfers are introduced for 1982–98; these estimates are a key component of this account.
- In the income account, new estimates of the compensation of temporary nonagricultural workers in the United States are introduced for 1986–98.
- In the goods account, improvements to the seasonal adjustment of exports for 1996–98 have reduced the amount of "residual" seasonality.

1. See "The International Monetary Fund's New Standards for Economic Statistics," Survey of Current Business 76 (October 1996): 37–47.

The new presentation and the newly available benchmark data, improved methodologies, and reclassification are discussed in the remaining sections of this article. In addition to these major revisions, revisions result from the incorporation of regularly available data from BEA's annual and quarterly surveys, from the U.S. Treasury Department's and the Federal Reserve System's quarterly and monthly surveys, and supplemental data from other U.S. Government agencies and private sources. For 1998, as a result of all changes, the current-account deficit is reduced $12.9 billion, to $220.6 billion (table 1). By account, $0.8 billion is removed from goods exports and $1.9 billion is removed from goods imports, resulting in a deficit that is $1.1 billion lower than previously estimated (table 2). For services, $3.3 billion is added to services receipts and $0.5 billion removed from services payments, resulting in a surplus that is $3.8 billion higher than previously estimated. For income, $15.7 billion is added to income receipts and $5.4 billion to income payments, resulting in a deficit that is $10.3 billion lower than previously estimated. For net unilateral current transfers, $2.2 billion is added, resulting in an increase in net current transfers of $2.2 billion. Net financial inflows and their components were revised down $27.3 billion, to $209.8 billion. Details on revisions to individual series are shown in table 4 at the end of the article.

Changes in presentation

Restructuring of the accounts.—U.S. international transactions are now presented in three groups—a current account, a capital account, and a financial account. Previously, transactions were presented in two groups—a current account and a capital account. The current account is redefined by removing a small part of the previous measure of unilateral transfers and including it in the new capital account. The previous capital account becomes the new financial account.

The changes are intended to provide a more focused picture of different types of international transactions. Reclassification of capital transfers from the current account to the new capital account is designed to separate transactions that mainly represent changes in ownership of existing assets, which affect nations' balance sheets, from current transfers, which affect nations' income and product in the current period. For example,

Table 1.—Revisions to the Current-Account Estimates

[Millions of dollars; quarterly data are seasonally adjusted]

	Exports of goods and services and income receipts			Imports of goods and services and income payments			Unilateral current transfers, net			Balance on current account		
	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision
1982	361,436	366,926	5,490	–355,804	–355,964	–160	–17,075	–17,075	....	–11,443	–6,113	5,330
1983	351,306	356,156	4,850	–377,573	–377,577	–4	–17,718	–17,718	....	–43,985	–39,138	4,847
1984	395,850	400,052	4,202	–474,203	–474,144	59	–20,598	–20,598	....	–98,951	–94,690	4,261
1985	382,749	387,806	5,057	–484,037	–484,106	–69	–22,700	–22,700	....	–123,987	–119,000	4,987
1986	400,881	406,060	5,179	–529,355	–530,478	–1,123	–24,679	–24,818	–139	–153,154	–149,236	3,918
1987	449,312	456,227	6,915	–593,416	–594,825	–1,409	–23,909	–24,047	–138	–168,013	–162,645	5,368
1988	560,664	567,260	6,596	–662,876	–664,167	–1,291	–25,988	–26,139	–151	–128,201	–123,046	5,155
1989	643,012	649,902	6,890	–720,189	–721,686	–1,497	–26,963	–27,116	–153	–104,139	–98,900	5,239
1990	700,552	708,135	7,583	–757,507	–759,646	–2,139	–34,669	–27,821	6,848	–91,624	–79,332	12,292
1991	722,653	729,513	6,860	–732,068	–735,048	–2,980	5,032	9,819	4,787	–4,383	4,284	8,667
1992	742,337	748,431	6,094	–758,481	–763,187	–4,706	–35,230	–35,873	–643	–51,374	–50,629	745
1993	769,919	776,404	6,485	–817,910	–823,167	–5,257	–38,142	–38,522	–380	–86,133	–85,286	847
1994	861,574	868,041	6,467	–946,008	–950,529	–4,521	–39,391	–39,192	199	–123,825	–121,680	2,145
1995	999,491	1,005,715	6,224	–1,080,107	–1,083,844	–3,737	–34,638	–35,437	–799	–115,254	–113,566	1,688
1996	1,063,971	1,074,425	10,454	–1,158,309	–1,161,533	–3,224	–40,577	–42,187	–1,610	–134,915	–129,295	5,620
1997	1,179,380	1,197,206	17,826	–1,294,904	–1,298,705	–3,801	–39,691	–41,966	–2,275	–155,215	–143,465	11,750
1998	1,174,055	1,192,231	18,176	–1,365,648	–1,368,718	–3,070	–41,855	–44,075	–2,220	–233,448	–220,562	12,886
1995:I	240,452	242,057	1,605	–262,749	–263,716	–967	–8,623	–8,868	–245	–30,920	–30,527	393
II	247,013	248,496	1,483	–272,451	–273,314	–863	–8,110	–8,397	–287	–33,548	–33,215	333
III	253,187	254,785	1,598	–273,127	–274,013	–886	–8,938	–8,836	102	–28,878	–28,064	814
IV	258,837	260,373	1,536	–271,784	–272,802	–1,018	–8,967	–9,336	–369	–21,914	–21,765	149
1996:I	260,386	262,090	1,704	–278,128	–277,914	214	–10,473	–10,920	–447	–28,215	–26,744	1,471
II	263,135	265,687	2,552	–287,364	–287,958	–594	–8,777	–9,185	–408	–33,006	–31,456	1,550
III	262,430	266,217	3,787	–293,777	–295,037	–1,260	–9,043	–9,507	–464	–40,390	–38,327	2,063
IV	278,017	280,425	2,408	–299,036	–300,625	–1,589	–12,284	–12,574	–290	–33,303	–32,774	529
1997:I	283,765	287,363	3,598	–311,881	–312,914	–1,033	–8,874	–9,347	–473	–36,990	–34,898	2,092
II	295,287	300,113	4,826	–321,342	–322,090	–748	–9,035	–9,494	–459	–35,090	–31,471	3,619
III	300,481	305,865	5,384	–329,130	–331,384	–2,254	–9,445	–10,096	–651	–38,094	–35,615	2,479
IV	299,843	303,869	4,026	–332,549	–332,317	232	–12,337	–13,030	–693	–45,043	–41,478	3,565
1998:I	298,740	302,289	3,549	–336,330	–335,380	950	–9,428	–9,927	–499	–47,018	–43,018	4,000
II	292,165	298,463	6,298	–339,746	–340,977	–1,231	–9,390	–9,886	–496	–56,971	–52,400	4,571
III	285,837	291,493	5,656	–341,499	–344,182	–2,683	–10,032	–10,787	–755	–65,694	–63,476	2,218
IV	297,312	299,985	2,673	–348,076	–348,180	–104	–13,001	–13,474	–473	–63,765	–61,669	2,096

reclassification of such items partly reflects the need to remove distortions in current-account balances that can be caused by debt forgiveness. In the 1980's, a number of countries, including the United States, forgave large amounts of the debt accumulated by a number of developing countries. For some of these countries, the debt forgiveness caused movements that obscured underlying trends in their current-account balances.

Table 2.—Revisions to Estimates of Goods, Services, and Income

[Millions of dollars; quarterly data seasonally adjusted]

	Goods exports			Services exports			Income receipts		
	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision
1986	223,344	223,344	....	86,350	85,442	–908	91,186	97,274	6,088
1987	250,208	250,208	....	98,593	97,591	–1,002	100,511	108,428	7,917
1988	320,230	320,230	....	111,068	110,030	–1,038	129,366	137,000	7,634
1989	362,120	362,120	....	127,233	126,216	–1,017	153,659	161,566	7,907
1990	389,307	389,307	....	147,922	146,751	–1,171	163,324	172,078	8,754
1991	416,913	416,913	....	164,333	163,043	–1,290	141,408	149,558	8,150
1992	440,352	440,352	....	176,982	175,557	–1,425	125,003	132,523	7,520
1993	456,832	456,832	....	186,385	184,951	–1,434	126,702	134,621	7,919
1994	502,398	502,398	....	201,434	199,675	–1,759	157,742	165,968	8,226
1995	575,845	575,845	....	219,802	217,637	–2,165	203,844	212,233	8,389
1996	611,983	612,057	74	238,792	237,749	–1,043	213,196	224,619	11,423
1997	679,325	679,715	390	258,268	258,828	560	241,787	258,663	16,876
1998	671,055	670,246	–809	260,385	263,661	3,276	242,615	258,324	15,709
1995:I	139,016	139,016	....	52,334	51,805	–529	49,102	51,236	2,134
II	142,103	142,103	....	53,385	52,767	–618	51,525	53,626	2,101
III	145,909	145,909	....	56,506	56,035	–471	50,772	52,841	2,069
IV	148,817	148,817	....	57,575	57,027	–548	52,445	54,529	2,084
1996:I	150,855	150,438	–417	57,534	56,928	–606	51,997	54,724	2,727
II	152,130	152,612	482	59,204	58,842	–362	51,801	54,233	2,432
III	151,253	151,991	738	58,119	58,104	–15	53,058	56,122	3,064
IV	157,745	157,016	–729	63,932	63,871	–61	56,340	59,538	3,198
1997:I	163,499	162,979	–520	62,685	62,781	96	57,581	61,603	4,022
II	169,240	169,895	655	64,776	64,788	12	61,271	65,430	4,159
III	172,302	173,447	1,145	65,628	65,838	210	62,551	66,580	4,029
IV	174,284	173,394	–890	65,175	65,425	250	60,384	65,050	4,666
1998:I	171,190	170,665	–525	65,004	65,166	162	62,546	66,458	3,912
II	164,543	165,198	655	65,697	66,691	994	61,925	66,574	4,649
III	163,414	164,259	845	63,943	65,025	1,082	58,480	62,209	3,729
IV	171,908	170,124	–1,784	65,741	66,780	1,039	59,663	63,081	3,418

	Goods imports			Services imports			Income payments		
	Previously published	Revised	Revision	Previously published	Revised	Revision	Previously published	Revised	Revision
1986	–368,425	–368,425	....	–81,835	–80,147	1,688	–79,095	–81,907	–2,812
1987	–409,765	–409,765	....	–92,349	–90,787	1,562	–91,302	–94,273	–2,971
1988	–447,189	–447,189	....	–99,965	–98,526	1,439	–115,722	–118,452	–2,730
1989	–477,365	–477,365	....	–104,185	–102,479	1,706	–138,639	–141,842	–3,203
1990	–498,337	–498,337	....	–120,021	–117,659	2,362	–139,149	–143,649	–4,500
1991	–490,981	–490,981	....	–121,196	–118,459	2,737	–119,891	–125,608	–5,717
1992	–536,458	–536,458	....	–119,561	–116,476	3,085	–102,462	–110,253	–7,791
1993	–589,441	–589,441	....	–125,715	–122,281	3,434	–102,754	–111,445	–8,691
1994	–668,590	–668,590	....	–136,155	–131,878	4,277	–141,263	–150,061	–8,798
1995	–749,574	–749,574	....	–145,964	–141,447	4,517	–184,569	–192,823	–8,254
1996	–803,320	–803,327	–7	–156,029	–150,797	5,232	–198,960	–207,409	–8,449
1997	–877,279	–876,366	913	–170,520	–166,907	3,613	–247,105	–255,432	–8,327
1998	–919,040	–917,178	1,862	–181,514	–181,011	503	–265,094	–270,529	–5,435
1995:I	–183,093	–183,093	....	–35,586	–34,533	1,053	–44,070	–46,090	–2,020
II	–190,539	–190,539	....	–36,388	–35,236	1,152	–45,524	–47,539	–2,015
III	–188,077	–188,077	....	–36,838	–35,665	1,173	–48,212	–50,271	–2,059
IV	–187,865	–187,865	....	–37,156	–36,015	1,141	–46,763	–48,922	–2,159
1996:I	–193,467	–193,038	429	–38,023	–36,673	1,350	–46,638	–48,203	–1,565
II	–200,965	–200,763	202	–38,573	–37,171	1,402	–47,826	–50,024	–2,198
III	–202,806	–203,196	–390	–39,644	–38,367	1,277	–51,327	–53,474	–2,147
IV	–206,082	–206,330	–248	–39,786	–38,587	1,199	–53,168	–55,708	–2,540
1997:I	–213,222	–212,187	1,035	–41,092	–40,185	907	–57,567	–60,542	–2,975
II	–218,336	–217,773	563	–42,195	–41,099	1,096	–60,811	–63,218	–2,407
III	–221,598	–222,362	–764	–43,437	–42,646	791	–64,095	–66,376	–2,281
IV	–224,123	–224,044	79	–43,795	–42,976	819	–64,631	–65,297	–666
1998:I	–227,223	–225,541	1,682	–44,343	–43,628	715	–64,764	–66,211	–1,447
II	–229,321	–228,698	623	–45,154	–45,152	2	–65,271	–67,127	–1,856
III	–228,313	–229,228	–915	–45,541	–45,780	–239	–67,645	–69,174	–1,529
IV	–234,183	–233,711	472	–46,476	–46,455	21	–67,417	–68,014	–597

The accounts for both current and capital transfers are designed as the accounts where offsetting entries are made to the exchanges of real or financial assets that are recorded in the current or financial accounts. Entries for transfers in the current and financial accounts reflect transactions for which there is no "quid pro quo"—such as the export of agricultural commodities under aid programs, the remittances of funds by immigrants, and debt forgiveness—and thus have no offsetting entries except those made in the current and capital transfers accounts. In contrast, entries for transactions other than transfers have offsetting entries in the current and financial accounts. For example, exports of goods give rise to payments from, or claims on, foreign residents, and imports of goods give rise to payments by U.S. residents, or liabilities to, foreign residents.

Another change intended to provide a more focused picture of different types of international transactions is the reclassification, within the current account, of compensation of employees from the services account to the income account. Reclassifying the compensation of employees places all income together, whether it be a return to labor or capital, while at the same time providing a more accurate picture of trade in services.

Capital transfers.—The newly defined capital account consists of *capital transfers* and the *acquisition and disposal of nonproduced nonfinancial assets*. The major types of *capital transfers* are debt forgiveness and migrants' transfers (goods and financial assets accompanying migrants as they leave or enter the country); capital transfers also include the transfer of title to fixed assets, the transfer of funds linked to the sale or acquisition of fixed assets, gift and inheritance taxes, death duties, uninsured damage to fixed assets, and legacies. The *acquisition and disposal of nonproduced nonfinancial assets* includes sales and purchases of nonproduced assets, such as the rights to natural resources, and sales and purchases of intangible assets, such as patents, copyrights, trademarks, franchises, and leases.

Generally, capital transfers result in a change in the stock of assets of an economy, while current transfers affect the level of disposable income and influence the consumption of goods and services.

Although conceptually important, capital-account transactions are believed to be generally small for the United States; however, they are important to other countries, and they also may occasionally be significant for the United States, especially in the case of debt forgiveness and the transfer of major U.S. Government assets. Furthermore, extensive source data from which to prepare reliable estimates are not available. Therefore, the new capital account includes, for *capital transfers*, only estimates of U.S. Government debt forgiveness, which are shown as an outflow, and limited estimates of immigrants' transfers, which are shown as an inflow. Both of these items were previously included in the current account. Estimates of other types of capital transfers have not been developed, because of the lack of source data. Capital transactions in *nonproduced nonfinancial assets* are believed to be small. The accounts include only small amounts for purchases and sales of rights to natural resources and for purchases and sales of franchises. No details for the new capital account are shown, because the estimates are small and incomplete.

Some capital transactions, such as the transfer of funds linked to the sale or acquisition of fixed assets, remain in the current account

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because they cannot be disentangled from other current-account transactions. Others remain in the current account because they are conceptually difficult to classify as either current or capital transactions. However, large transactions will be judged on a case-by-case basis and classified as capital transactions if they clearly fit the definition of capital transactions.

Other changes in presentation.—Several other modifications are made to the presentation of the accounts. In table 1 of the standard presentation of the U.S. international transactions accounts, lines 1 and 18 have been relabeled, but their content has not changed. In addition, subtotals for exports of goods and services and for imports of goods and services (lines 2 and 19) have been added, in order to correspond with the balance on goods and services (line 73) in the memoranda items and for ease of use of the tables.

Unilateral transfers are now split between current transfers and capital transfers to accommodate the division of the accounts into a current account, a capital account, and a financial account.

The income account now contains two components: Investment income receipts and payments on assets and liabilities, and compensation of employees.

The terminology for lines 40 and 55 in table 1 of the standard presentation is clarified to indicate the ownership of assets, as well as the location of the resident entities.

The initial allocation of special drawing rights is removed from the transactions accounts and included more appropriately in the investment position accounts.

In tables 8 and 9, the activities of U.S. securities brokers and dealers are now separately identified, permitting more accurate measurement of financial flows of U.S.-owned and foreign-owned banks.

In table 1 of the standard presentation, the sequence of lines 66 and 67 has been reversed from the previous presentation to permit the juxtaposition of transactions in securities.

Redefinition of services and income

Compensation of employees, which was previously included indistinguishably in services, is now reclassified to the income account. Consequently, the income account now contains two components—*investment income* receipts and payments on assets and liabilities, and *compensation of employees*, which includes wages, salaries, and other benefits, in cash or in kind, earned by or received from individuals in countries other than those in which they are residents. This reclassification removes a reconciliation item between the U.S. international transactions accounts and the U.S. national income and product accounts, and it removes one of the few remaining differences between the U.S. presentation and international guidelines.

Compensation receipts.—Three components are reclassified to compensation receipts: Compensation receipts of U.S. residents employed temporarily abroad, compensation receipts of U.S. residents employed by international organizations in the United States (such as the World Bank, the International Monetary Fund, and the United Nations), and compensation receipts of U.S. residents employed by embassies and consulates of foreign governments in the United States.

Compensation receipts of U.S. residents employed temporarily abroad are based on estimates provided by statistical offices in the United Kingdom, Germany, and Canada. For 1998, these receipts totaled $0.2 billion.

Compensation receipts of U.S. residents employed by international organizations are estimated by multiplying the number of U.S. residents employed by these organizations by an estimate of their average compensation. The number of U.S. employees was provided by the international organizations. For 1998, the value of these transactions was $1.5 billion. Receipts are gross of U.S. and foreign income taxes withheld. Previously, this item was implicitly covered as part of an aggregate estimate of all expenditures by these organizations in the United States.

Compensation receipts of U.S. residents employed by embassies and consulates of foreign governments in the United States are estimated as a share of earnings of all workers employed in the United States by foreign governments (mainly residents of their home country). The estimate was based on information provided by several embassies on compensation paid to U.S. residents and on information provided by the Department of State on the number of diplomatic and nondiplomatic personnel employed by all embassies and consulates in the United States. For 1998, the value of these transactions was $0.2 billion. Receipts are gross of U.S. and foreign income taxes withheld. Previously, this item was implicitly covered as part of an aggregate estimate of all expenditures by these organizations in the United States.

Compensation payments.—Four components are reclassified to compensation payments: Compensation paid to Canadian and Mexican workers who commute to work in the United States, compensation paid to foreign students studying at colleges and universities in the United States, compensation paid to foreign professionals temporarily residing in the United States, and compensation paid to temporary agricultural workers. The amount reclassified was $4.6 billion in 1998. Payments are gross of U.S. and foreign taxes withheld. To this amount is added a new component—compensation paid to foreign temporary nonagricultural workers, which is discussed in a separate section. Its value in 1998 was $2.5 billion. These five components make up total compensation payments.

Historical revisions.—In essence, the reclassification of compensation results in a redefinition of the services account and the income account. Consequently, services receipts and payments, income receipts and payments, and the balance on services and the balance on income are restated for 1986–98; source data to make this reclassification for earlier years are not available.

Current-cost adjustment

The current-cost adjustment to direct investment income and capital has been revised to reflect improved estimates of economic depreciation and improved estimates of charges taken by direct investment affiliates for depreciation, depletion, and expensed exploration and development expenditures (table 3).[2] The difference between economic depreciation, which is computed using consistent service lives and prices of the current period, and depreciation reported by direct investment affiliates using financial accounting principles is one part of the current-cost adjustment. Additions to reported earnings for charges taken by direct investment affiliates for depletion and for expensed exploration and development expenditures are additional parts of the current-cost adjustment.

The revised estimates of economic depreciation reflect an improved method for calculating economic depreciation that is consistent with the method used in the national income and product accounts, an improved treatment of transfers of used equipment and structures by direct investment affiliates, improved separate estimates of equipment and structures investment by affiliates, shortened service lives for equipment and structures stocks in some foreign countries, revised prices for equipment and structures investment

2. For a discussion of the current-cost adjustment, see Howard Murad, "U.S. International Transactions," SURVEY 72 (June 1992): 72–73. For a description of the process in which economic depreciation is computed, see the description of the current-cost method in "Technical Notes" in J. Steven Landefeld and Ann M. Lawson, "Valuation of the U.S. Net International Investment Position," SURVEY 71 (May 1991): 47–49.

Table 3.—Sources of Revisions to the Current-Cost Adjustment

[Millions of dollars]

(Credits +; debits –)	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
U.S. direct investment abroad:																	
Current-cost adjustment (table 5, line 8 and table 5, line 22 with sign reversed):																	
Revised	3,421	3,053	3,501	5,733	4,564	5,124	4,216	6,122	6,537	5,537	6,086	7,165	7,446	7,407	8,267	10,439	11,185
Changes due to improved estimates of depreciation, depletion, and expensed exploration and development expenditures	–3	–1,000	–1,109	–972	–1,416	–1,190	–408	1	–7	–29	31	55	1	–2,393	–4,556	–2,503	–1,094
Changes due to improved estimates of economic depreciation	5,493	5,850	5,311	6,029	6,596	8,113	7,047	6,891	7,576	6,893	6,062	6,412	5,482	5,220	6,584	5,635	3,814
As a result of revised price and investment data	–586	–231	–67	–41	–85	126	–156	–143	–180	–228	–180	–362	–783	–299	1,458	1,222	n.a.
As a result of shortened service lives	–1,696	–1,559	–1,462	–1,401	–1,477	–1,511	–1,593	–1,674	–1,900	–2,074	–2,307	–2,386	–2,736	–3,179	–3,826	–4,132	n.a.
As a result of improved separate estimates of equipment and structures investment	–290	–326	–361	–330	–304	–312	–349	–345	–361	–396	–495	–591	–824	–958	–863	–811	n.a.
As a result of improved treatment of transfers of used equipment and structures	3,205	3,011	2,192	2,654	2,728	3,649	2,700	2,892	3,854	3,775	3,839	4,974	4,998	4,778	5,001	4,516	n.a.
As a result of improved method	4,860	4,955	5,009	5,147	5,734	6,161	6,445	6,161	6,163	5,816	5,205	4,777	4,827	4,878	4,814	4,840	n.a.
Previously published	–2,069	–1,797	–701	676	–616	–1,799	–2,423	–770	–1,032	–1,327	–7	698	1,963	4,580	6,239	7,307	8,465
Foreign direct investment in the United States:																	
Current-cost adjustment (table 5, line 49 and table 5, line 63 with sign reversed):																	
Revised	1,186	1,057	878	411	389	729	410	357	–529	–895	–1,753	–1,889	–2,343	–872	–4,522	–3,776	–4,415
Changes due to improved estimates of depreciation, depletion, and expensed exploration and development expenditures	3	–1	0	2	–2	0	–2	2	1	0	–1	0	0	0	–2,406	–2,145	–3,351
Changes due to improved estimates of economic depreciation	–163	–2	59	–71	–131	–633	–881	–919	–1,037	–1,691	–3,038	–3,559	–2,846	–1,991	–946	1,070	2,287
As a result of revised price and investment data	–264	–103	–51	0	145	394	599	521	665	697	162	–282	417	1,401	1,259	1,565	n.a.
As a result of improved separate estimates of equipment and structures investment	107	214	256	206	213	256	156	76	–20	–82	–44	–30	196	429	324	352	n.a.
As a result of improved treatment of transfers of used equipment and structures	1,187	1,054	1,211	1,393	1,337	519	246	319	–233	–1,224	–1,572	–787	–605	–314	1,845	3,276	n.a.
As a result of improved method	–1,193	–1,167	–1,357	–1,670	–1,826	–1,802	–1,882	–1,835	–1,449	–1,082	–1,584	–2,460	–2,854	–3,507	–4,374	–4,123	n.a.
Previously published	1,346	1,060	819	480	522	1,362	1,293	1,274	507	796	1,286	1,670	503	1,119	–1,170	–2,701	–3,351

NOTE.—Reading from previously published estimates to revised estimates, changes attributable to a source of revision are computed after the introduction of preceding sources of revision. For example, changes attributable to the improved treatment of transfers of used equipment and structures are computed after the introduction of the improved method.

in the United States and in foreign countries, and revised investment data for direct investment affiliates.[3] The improved estimates of charges taken by direct investment affiliates for depreciation, depletion, and expensed exploration and development expenditures reflect revised data reported by affiliates and improved interpolation procedures for years in which data are not reported.

Improved method for calculating economic depreciation.—The improved method for calculating economic depreciation was developed using empirical evidence on prices of used equipment and structures in resale markets that shows that depreciation for most types of assets approximates a geometric pattern. Previously, economic depreciation estimates were derived using straight-line depreciation and assumed patterns of retirements. For equipment, the new depreciation rates are faster than the old ones in the early years of an asset's life and slower in the later years. For structures, the new rates are slower throughout an asset's life. As a result, the revisions from the improved method are relatively small for equipment and relatively large for structures.

Improved treatment of transfers of used equipment and structures.—Estimates of economic depreciation are computed using a perpetual-inventory method that calculates estimates of the current-cost value of the net stock of equipment and structures on direct investment affiliates' balance sheets as follows. The historical-cost value of the gross stock of equipment and structures is computed using past and current values of equipment and structures investment by direct investment affiliates. If the historical-cost value of the gross stock of equipment and structures using this method differs from the historical-cost value of the gross stock of equipment and structures reported by affiliates for a particular year, the difference is treated as a transfer of *used* equipment and structures into or out of direct investment affiliates for that year, and the historical-cost value using the method is recomputed. Previously, any difference for a particular year was treated as an addition to or subtraction from investment in *new* equipment and structures for that year, and the historical-cost value using the method was recomputed. The previous treatment caused used equipment and structures that were transferred *into* direct investment affiliates to have remaining service lives and exposures to equipment and structures price changes that were too long. The previous treatment for used equipment and structures that were transferred *out of* direct investment affiliates caused equipment and structures that remained in affiliates to have remaining service lives and exposures to equipment and structures price changes that were too short.

Improved separate estimates of equipment and structures investment.—The revised estimates of economic depreciation reflect improved separate estimates of equipment and structures investment by direct investment affiliates. Separate estimates of this investment are needed to implement the perpetual-inventory method, but direct investment affiliates report only their combined investment in equipment and structures to BEA. Improved separate estimates are derived by applying relationships between equipment and structures spending in the U.S. economy that *vary over time* to combined investment reported by affiliates. Previously, separate estimates were derived by applying relationships between equipment and structures spending that were *fixed* at one point in time. The previous method was inaccurate because the composition of investment between equipment and structures spending changes over time. Inaccuracies in the disaggregation of investment can lead to inaccuracies in the estimates of economic depreciation and gross and net stocks generated by the perpetual-inventory method, because equipment and structures investment have different depreciation rates and price indexes.

Shortening of equipment and structures service lives.—The revised estimates of economic depreciation for U.S. direct investment abroad reflect a shortening of equipment and structures service lives for some foreign countries and regions in the perpetual-inventory method. This change was made because a comparison of annual historical-cost depreciation using the method with that reported by foreign affiliates of U.S. parents revealed that annual historical-cost depreciation using the method was lower than that reported by foreign affiliates, and net stock using the method was higher than net stock reported by foreign affiliates, in all years for which reported data exist. One possible reason for these discrepancies is that the foreign service lives used in the method were too long relative to the service lives used by foreign affiliates to compute depreciation for their financial accounts. Because empirical

3. For a description of the method used to compute economic depreciation, also known as the consumption of fixed capital, in the national income and product accounts, see Arnold J. Katz and Shelby Herman, "Improved Estimates of Fixed Reproducible Tangible Wealth, 1929–95," SURVEY 77 (May 1997): 69–74.

data on equipment and structures service lives for smaller industrial countries and for nonindustrial countries are severely limited, the service lives for these countries used in the method are largely judgmental estimates. In light of the discrepancies noted above, some of the more judgmental estimates of foreign service lives were shortened. This action closed most of the gap between annual historical-cost depreciation using the method and that reported by foreign affiliates.

Revised price and investment data.—The revised estimates of economic depreciation also reflect revised prices for equipment and structures investment in the United States and in foreign countries and revised investment data reported by direct investment affiliates. The revised prices for equipment and structures investment in the United States partly reflect revisions to the distribution of asset types by industry in BEA's estimates of U.S. fixed reproducible tangible wealth.[4]

Historical revisions.—Revisions to the current-cost adjustment are made for 1982–98. For U.S. direct investment aborad, the adjustment for 1998 is revised up from $8.5 billion to $11.2 billion, thereby raising income receipts and the offsetting outflows in the capital accounts. For foreign direct investment in the United States, the adjustment is revised up from $3.4 billion to $4.4 billion, thereby raising income payments and the offsetting inflows in the capital accounts.

Other private income receipts

The Department of the Treasury and the Federal Reserve System's Board of Governors recently provided to BEA preliminary results of their 1997 benchmark survey of U.S. portfolio investment in foreign long-term securities. This benchmark survey was a followup of a similar survey as of March 1994 and was conducted as part of coordinated portfolio surveys by 29 countries under the auspices of the International Monetary Fund.

The survey collected data on the aggregate market value and composition of foreign long-term securities owned by U.S. residents as of December 31, 1997. Long-term securities include bonds with original maturities of more than 1 year, all equities, and warrants and rights to purchase bonds and equities.

Both custodians and investors were surveyed to ensure comprehensiveness. Custodians located in the United States who managed the safe-keeping of $20 million or more in foreign long-term securities for themselves or on behalf of other U.S. residents were covered; most foreign securities are held by U.S. custodians or sub-custodians. Investors located in the United States who owned foreign long-term securities of $20 million were also surveyed.

Summary-level data from investors were compared with detailed data collected from custodians, both to check on the completeness of coverage and to eliminate duplication of coverage. In all, 2,200 custodians and investors participated in the survey. Survey data were collected on an individual security basis by international security identification number or a national numbering identification code. The final survey data will be aggregated by industry, by country, by type of security, by type of instrument, and by currency.

Preliminary results of the survey show larger U.S. holdings than previously estimated. The total value of foreign bond and stock holdings as of December 31, 1997, was $1,739.4 billion, or $293.1 billion higher than BEA's estimate of $1,446.3 billion. BEA's estimates of yearend positions for 1994–97 are revised to incorporate the survey results. The 20-percent understatement in the estimated position is a strong reason for more frequent benchmark surveys, because serious erosion of the quality of the estimates can occur rather quickly.

Annual positions since the 1994 benchmark survey are estimated by measuring subsequent changes in U.S. holdings of foreign securities and changes in their valuation. Given the dynamics of securities markets from March 1994 to December 1997, both factors probably contributed to the understatement of the position.

During the period, net purchases and gross trading of foreign stocks by U.S. residents increased at unprecedented rates, bolstered by the substantial foreign diversification of U.S. institutional investors' portfolios. In addition, U.S. investors' direct access to foreign markets and to foreign money managers was considerably enhanced by advances in automated trading systems and telecommunications and by market deregulation overseas. This direct overseas access compounded the problems of accurate measurement and coverage, particularly for a statistical collection system that is based primarily on the collection of data from traditional financial intermediaries.

Valuation changes were also difficult to measure. Since 1994, stock price appreciation has

4. Katz and Herman, "Improved Estimates," 71.

been especially large in stock markets around the world, and the substantial price gains could only be estimated from national market averages, which were limited to national weights based on the geographic holdings that were reported in the 1994 benchmark survey. The foreign currency depreciation in foreign securities in U.S. portfolios was insignificant, and most of it was the result of the decline in Asian currencies in 1997. However, exchange markets were volatile, and the foreign currency composition of asset holdings is difficult to assess.

Foreign bonds.—The benchmark survey estimate of U.S. holdings of foreign bonds is $538.4 billion at yearend 1997, compared with BEA's previous estimate of $445.0 billion.

BEA uses separate estimation procedures for dollar-denominated and foreign currency-denominated bonds. This division reflects the conventions used by BEA for estimating both positions and income. However, the preliminary results of the survey do not yet provide this division by currency, so an evaluation of estimation procedures cannot be attempted until the survey's final results on geography, currency, maturity structure, and type of instrument are available. However, the geographic distribution of holdings is similar in both the preliminary survey results and in BEA's estimates, except for a few large discrepancies in major market countries where bonds of all countries can be traded. The survey revealed significantly higher holdings of British, German, Italian, Canadian, Latin American and International financial institution bonds than were estimated by BEA. Conversely, BEA overestimated the holdings of French, Swiss, Dutch, Spanish, and Asian emerging market bonds. This geographic disparity is largely attributable to the difficulty in tracking globally issued bonds by transactor rather than by debtor, particularly in major market countries where bonds of all countries can be traded.

The increase in reported bond holdings in the survey has resulted in a re-estimation of associated interest receipts. Receipts are estimated by applying market yields to revised portfolio holdings. As a result of the improved estimates, interest income receipts on bonds are revised up $5.5 billion, to $33.9 billion, for 1997.

Foreign stocks.—The benchmark survey estimate of U.S. holdings of foreign stocks is $1,201.0 billion at yearend 1997, compared with BEA's previous estimate of $1,001.3 billion. As with foreign bonds, the primary reasons for underestimation are incomplete coverage of transactions and inexact valuation, largely as a result of the dramatic growth in worldwide equity values since March 1994 and the slump in stock prices and exchange rates of several emerging market countries late in 1997. The survey showed significantly larger holdings of French, German, Italian, Dutch, Swiss, Latin American, Japanese, and Asian emerging-market stocks than were estimated by BEA. Conversely, BEA's estimates of British and Canadian stocks were overestimated. In the British case, the London market serves as an exchange for stocks of nearly all countries, and transactions in foreign stocks on the London exchange are not necessarily all in British stocks.

The increase in reported stock holdings in the survey has resulted in a re-estimation of the associated dividend receipts, which are estimated by applying market rates to portfolio holdings. As a result of the improved estimates, dividend income receipts are revised up $2.7 billion, to $28.0 billion, for 1997.

Historical revisions.—In order to avoid a major break in series, the position estimates for bonds and stocks, and for the related interest and dividend flows, were carried backward from yearend 1997 to March 1994, the date of the previous benchmark. The adjustment is based on the cumulative volume of trading over the period.

Medical services receipts

Estimates of receipts for medical services provided to foreign residents at U.S. hospitals are revised for 1995–98, using a revised methodology and newly available source data.

The original methodology and estimates covering 1985 were based on information obtained from hospital administrators at major medical centers, university hospitals, and hospitals in major foreign visitor destinations. New York and Boston hospitals were tabulated separately using data from a published report. In addition, a judgmental estimate was made for hospital patients not covered above. Estimates of admissions were multiplied by an estimated average hospital charge and by an estimate for outside physicians' fees that ranged from 30 to 40 percent of the average hospital charges. Outpatient treatment was considered negligible, and expenditures for ambulatory treatment and drugs provided outside a hospital were not covered. The estimate for 1985 was extrapolated forward with the price indexes for hospital and physicians' services in the U.S. consumer price index.

Inpatient estimates.—Estimates based on a revised methodology were prepared by obtaining information on hospital inpatients (patients who spent at least one night at the hospital) from State regulatory agencies, hospital associations, and hospitals with international medical centers. Information for the 16 States that contained the great majority of foreign patients was obtained from regulatory agencies in 9 States, from hospitals in 5 States, and from hospital associations in 2 States. The regulatory agencies and hospital associations developed their information from special codes in their accounting systems that identified most foreigners. Inpatient charges—which covered all hospital staff physicians' fees, tests, drugs, and room and board—were available for nine States, and the weighted average of these charges was used for the States where charges were not available. An addition of 25 percent for outside physicians' fees was made based on data provided by individual hospitals.

An estimate of foreign inpatients in the remaining 34 States and the District of Columbia was also made. These inpatients are largely those admitted through emergency rooms. Ratios of foreigners admitted through emergency rooms, for the several States who supplied this information from hospital admission records, to total foreign visitors by State, available from the Immigration and Naturalization Service (INS), were calculated. An average of these ratios was applied to total INS data on foreign visitors to each of the 34 States in order to estimate the total number of foreigners admitted to hospitals through emergency rooms in these 34 States. It was assumed that the number of foreigners who came specifically to those States to receive medical services was negligible. The weighted average of hospital charges estimated above for nine States and adjusted for outside physicians' fees was applied to the foreign inpatients admitted through emergency rooms to obtain total inpatient charges for this type of treatment.

Outpatient estimates.—Outpatient treatment has increased dramatically since 1985. Foreign patients receive a range of outpatient services, including outpatient surgery, physical rehabilitation and therapy, dermatology and AIDS treatments, and consultations. Individual hospitals provided approximate data on the number of outpatients and on the associated charges per outpatient. Ratios of outpatients to inpatients and the outpatient charges were applied to the individual State inpatient data to calculate the total outpatient charges.

Total receipts.—Total medical receipts from foreign patients were derived by summing the inpatient charges from the 16 primary States, the inpatient charges from the other 34 States and the District of Columbia, and the outpatient charges. Like the original methodology, this methodology does not cover expenditures for ambulatory treatment and drugs provided outside a hospital. Estimates for 1998 forward are extrapolated using the consumer price index for hospitals and related services and a judgmental factor to account for changes in the number of foreign patients. The mix of inpatient and outpatient treatments is held constant.

Annual revisions to medical receipts in 1995–98 were small—$16 million in 1995, $132 million in 1996, $224 million in 1997, and $318 million in 1998—indicating that the original methodology was adequate. The total number of foreign patients is estimated at about 35,000 in 1985. The total number of foreign patients grew to about 135,000 in 1997.

Overseas travel payments

Estimates of U.S. residents' expenditures while traveling overseas are revised to incorporate the results of a one-time survey by D.K. Shifflet covering 1998. The results of this survey, which was completed by U.S. residents after they returned home from their trip, were compared with the results of the International Trade Administration's ongoing in-flight survey that BEA uses to measure U.S. travelers' expenditures, which is completed by travelers on their flights as they depart the United States.

BEA used the one-time survey to determine the relationship between a U.S. traveler's expected expenditures and that traveler's post-trip reported expenditures by comparing expected per-person per-day expenditures with post-trip expenditures for three major regions: Europe; Asia and Pacific; and Latin America and Other Western Hemisphere (excluding Mexico). The results of this comparison indicate that U.S. travelers' expected expenditures in Latin America understated post-trip reported expenditures by 8 percent, expected expenditures in the Asia and Pacific region understated post-trip reported expenditures by 5 percent, and expected expenditures in Europe neither understated nor overstated post-trip reported expenditures.

BEA has adjusted its estimates from the ongoing survey to correct for these understatements in 1998. These adjustments raise travel payments by $1.7 billion. Limited information indicates that the differences between expected and post-trip expenditures to Latin America and to the Asia and Pacific region narrow before 1998. Therefore, BEA has adjusted its 1997 estimates of travel payments using one-half the value of the adjustments in 1998. BEA has not adjusted its estimates for the years before 1997.

It is self-evident that expected expenditures may not accurately represent actual expenditures abroad. However, post-trip expenditures are also a particularly difficult item to report accurately, especially when the survey is conducted as much as 3 months after the completion of the trip. Expenditures abroad involve numerous payments using various payment methods, such as credit cards, U.S. currency, foreign currency, travelers checks, and prepayments. Most travelers probably do not maintain sufficiently detailed records and may lack the time required to conduct a careful accounting. Moreover, travelers may not readily know the converted dollar value of credit card transactions made in foreign currencies until they receive their bills.

Therefore, the results of this one-time survey should not be treated as conclusive. In addition to the difficulties cited above, the sample size of the one-time survey was small; the relation of the one-time sample to the ongoing sample used by BEA is unknown; and the relationship between expected and actual expenditures may vary over time. BEA will periodically reassess the relationship between expected and actual expenditures.

U.S. Government grants

The estimates of U.S. Government grants are revised up as a result of more complete inclusion of freight charges for the shipment of commodities, largely to developing countries, for 1989–98. Congressional appropriations for foreign assistance include funds for shipment, as well as funds for the commodities donated, but statistical reporting systems failed to accurately capture the freight charges. The improvement raises estimates of U.S. Government grants by more than $0.5 billion annually for 1992–95; thereafter, the revisions are small, totaling $0.1 billion in 1998.

Compensation of temporary nonagricultural workers

Compensation of foreign residents employed temporarily in the United States is revised for 1986–98 to include the earnings of temporary undocumented nonagricultural workers (that is, workers who are illegally in the United States with no work authorization), whose primary residence is usually Mexico. Until now, no estimates of this compensation have been included in the accounts.

Authorities on immigration agree that large numbers of undocumented workers are employed temporarily in the United States. Estimates of these workers based on apprehensions data from the INS are very approximate and do not provide a reliable basis for earnings estimates. However, data for 1990–95 indicate a moderately stable relationship between the number of undocumented nonagricultural workers and the number of undocumented agricultural workers.[5] This relationship forms the basis for the new compensation estimates.

The estimate of total compensation of temporary undocumented nonagricultural workers is calculated as the number of such workers multiplied by the annual hours worked and their average hourly wage. For all years, the number of workers is calculated by multiplying the number of undocumented agricultural workers by the ratio of nonagricultural to agricultural workers indicated by the surveys. Based on other survey data, annual employment per year is estimated at approximately 1,000 hours. The average wage is estimated based on evidence that undocumented workers generally earn above the minimum wage, but below the prevailing wage rate of legal workers in any given occupation. For 1996 , an average wage rate based on a published study of migrant labor in San Diego County is used. For other years, this wage rate is extrapolated by an average of wage rates published by the Bureau of Labor Statistics for occupations often filled by undocumented workers.

For 1998, compensation was $2.5 billion; for 1986, it was $1.0 billion. Temporary undocumented nonagricultural workers totaled about 400,000 in 1998, double the estimated 200,000 in 1986.

Immigrants' transfers

Immigrants' transfers are a key component of the new capital account. New estimates of the amount of wealth that immigrants bring with them when they enter the United States have been developed for 1982–98. The estimates are based on the number of individuals immigrating to the

5. See Mexico-United States Binational Commission, "Characteristics of Mexican-Born Migrants," in *Migration Between Mexico and the United States: A Report on the Binational Study on Immigration* (online, <www.utexas.edu/lbj/uscir/binational.html>, 1997). See also Douglas S. Massey, *Mexican Migration Project* (University of Pennsylvania, 1996).

United States each year, the per capita gross domestic product (GDP) of their home country, and wealth-to-income ratios.

Immigrants entering the United States include both legal and undocumented foreign-born individuals who expect to reside in the United States for more than 1 year. Legal immigration totals by country of birth and year of entry are from the INS, and estimates of undocumented foreign-born individuals are based on INS published work. BEA estimates these totals for 1996–98. Annual immigration flows are estimated for over 200 countries.

Annual per capita GDP, converted into U.S. dollars, is used as a proxy estimate of income for immigrants from each country for each year of entry. GDP and population estimates are from the United Nations and the International Monetary Fund.

The wealth-to-income relationships were derived from periodic current population reports from the Bureau of the Census, based on a longitudinal study on wealth and asset ownership of households in the United States for 1983, 1988, 1991, and 1993. The Census Bureau sample for these reports is thought to more closely resemble the characteristics of the newly arriving immigrant population than the sample in the Federal Reserve Board's survey of consumer finance. However, the Federal Reserve Board's survey would have yielded similar results. For each quintile of the population, the Census Bureau study provided estimates of median household income and wealth. The quintile estimates of median income and wealth for the population with an average age under 35 years were applied to the immigrant population, whose average age is also under 35.

In order to arrive at estimates of immigrant transfers, the number of immigrants from each country for each year is multiplied by the associated per capita GDP of each country converted into U.S. dollars, with the resulting product for each country further multiplied by the wealth-to-income ratio derived from U.S. relationships.

Several assumptions and adjustments are made. First, because the INS data indicate that the average age of immigrants is under 35, it is assumed that the wealth-to-income ratio from the same under-35 average age group in the United States is the most appropriate ratio to apply. Second, the wealth-to-income ratio based on Census Bureau data is halved to adjust the U.S. household statistics of the census surveys to the nature of the immigrant population. INS data show that about 50 percent of immigrants are heads of households and about 50 percent are individuals joining family members already in the United States. The downward adjustment of the ratio captures the larger wealth of heads of households but recognizes that individuals joining families are likely to have less wealth than heads of households. Third, the wealth-to-income ratio for immigrants from Mexico and Central America is lowered further, based on the assumption that many are from lower income strata and consequently have fewer assets upon arrival in the United States.

"Residual" seasonality

BEA and the Bureau of the Census seasonally adjust estimates of goods exports and goods imports at the five-digit end-use commodity category level, which is the most detailed level of end-use classification available. Aggregate goods series—total exports, total imports, and all major end-use categories—are derived as the sum of detailed seasonally adjusted series. Comparisons of the directly adjusted series with the corresponding series that are derived as the sum of individually seasonally adjusted series show differences that are sometimes called "residual" seasonality.

With the introduction of seasonal factors newly developed this year, "residual" seasonality of exports is reduced by more than 50 percent from what it would be if old seasonal factors were used. The new seasonal factors also lead to a total export series that exhibits a lower average quarterly change and a lower average absolute quarterly change. The new total export series, as compared with the old, is smoother and shows smaller exports in the fourth quarter and larger exports in the third quarter in recent years. Aircraft exports continue to be seasonally adjusted. Application of new seasonal factors to total imports resulted in little change in the "residual" seasonality of imports.

The process that BEA and the Bureau of the Census use to develop seasonally adjusted estimates is complex and detailed. Over 300 series are tested for seasonality each year. Tests are conducted using the X–12 ARIMA program, which provides the diagnostic measures used in making both seasonal adjustment and trading-day adjustment decisions. Currently, based on diagnostics developed for each individual series, more than 96 percent of the value of total exports and 97 percent of the value of total imports receive at least one type of adjustment. About 125 of 150 export series and 130 of 150 import series receive at least one adjustment.

Revised estimates of goods exports and goods imports for 1996–98 are published both in BEA's international transactions accounts and in the joint Census Bureau-BEA press release on monthly goods and services. The revisions to the quarterly estimates are mostly due to the newly introduced seasonal factors.

Table 4 follows.

Table 4.—Major Sources of Revisions, 1982–1998

[Millions of dollars]

(Credits +; debits –) [1]	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
	International transactions																
Current account																	
Other private services receipts (line 10):																	
Revised	....	....	....	....	26,779	28,193	30,222	35,858	39,170	46,531	48,597	52,541	60,121	63,502	72,412	85,566	92,116
Changes due to reclassification of employee compensation	....	....	....	....	–908	–993	–995	–1,017	–1,172	–1,290	–1,425	–1,434	–1,543	–1,761	–1,756	–1,802	–1,857
Revisions due to updated source data	....	....	....	....	....	....	–36	....	....	....	....	....	–216	–292	1,095	2,903	3,244
Previously published	....	....	....	....	27,687	29,186	31,253	36,875	40,341	47,821	50,022	53,975	61,880	65,555	73,073	84,465	90,729
Direct investment receipts (line 14):																	
Revised	29,412	31,800	35,464	35,604	37,148	46,532	58,732	62,260	66,309	59,062	58,005	67,708	77,874	95,991	103,314	115,795	102,846
Changes due to improved estimates of current-cost adjustment	5,490	4,850	4,202	5,057	5,180	6,923	6,639	6,892	7,569	6,864	6,093	6,467	5,483	2,827	2,028	3,132	2,720
Revisions due to updated source data	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,484	3,256	–321
Previously published	23,922	26,950	31,262	30,547	31,968	39,608	52,092	55,368	58,740	52,198	51,912	61,241	72,391	93,164	99,802	109,407	100,447
Other private income receipts (line 15):																	
Revised	....	....	....	....	....	....	....	....	....	....	....	....	82,423	109,768	114,958	137,507	150,001
Changes to dividends and bond interest income due to 1997 outward portfolio benchmark	....	....	....	....	....	....	....	....	....	....	....	....	1,201	3,370	5,625	8,297	10,063
Revisions due to updated source data	....	....	....	....	....	....	....	....	....	....	....	....	–8	431	600	365	1,338
Previously published	....	....	....	....	....	....	....	....	....	....	....	....	81,230	105,967	108,733	128,845	138,600
Compensation of employees: receipts (line 17):																	
Revised	....	....	....	....	908	994	995	1,017	1,172	1,290	1,425	1,434	1,543	1,761	1,756	1,802	1,857
Changes due to reclassification of employee compensation	....	....	....	....	908	993	995	1,017	1,172	1,290	1,425	1,434	1,543	1,761	1,756	1,802	1,857
Revisions due to updated source data	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
Previously published	....	....	....	....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Travel payments (line 23):																	
Revised	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	–52,051	–56,105
Changes due to one-time survey for 1998	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	–850	–1,700
Revisions due to updated source data	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	19	–677
Previously published	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	–51,220	–53,728
Other private services payments (line 27):																	
Revised	....	....	....	....	–13,146	–16,485	–17,667	–18,930	–22,229	–25,590	–22,296	–26,261	–30,386	–35,249	–37,975	–43,909	–47,670
Changes due to medical services	....	....	....	....	....	....	....	....	....	....	....	....	....	–16	–132	–244	–318
Changes due to reclassification of employee compensation	....	....	....	....	1,678	1,561	1,436	1,697	2,353	2,732	3,077	3,310	3,710	3,980	4,023	4,327	4,586
Revisions due to updated source data	....	....	....	....	10	1	3	9	8	6	8	9	492	610	1,272	429	532
Previously published	....	....	....	....	–14,834	–18,047	–19,106	–20,636	–24,590	–28,328	–25,381	–29,580	–34,588	–39,823	–43,138	–48,421	–52,470
Direct investment payments (line 31):																	
Revised	–2,103	–4,209	–8,664	–7,282	–7,192	–8,058	–12,576	–7,424	–3,907	1,742	–3,341	–9,133	–23,467	–32,186	–35,568	–46,575	–43,441
Changes due to improved estimates of current-cost adjustment	–160	–3	59	–69	–133	–633	–883	–917	–1,036	–1,691	–3,039	–3,559	–2,846	–1,991	–3,352	–1,075	–1,064
Revisions due to updated source data	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,425	174	3,419
Previously published	–1,943	–4,206	–8,723	–7,213	–7,058	–7,425	–11,693	–6,507	–2,871	3,433	–302	–5,574	–20,621	–30,195	–33,641	–45,674	–45,796
Compensation of employees: payments (line 34):																	
Revised	....	....	....	....	–2,678	–2,338	–1,847	–2,286	–3,464	–4,026	–4,752	–5,132	–5,952	–6,263	–6,300	–6,756	–7,106
Changes due to reclassification of employee compensation	....	....	....	....	–1,678	–1,561	–1,436	–1,697	–2,353	–2,732	–3,077	–3,310	–3,710	–3,980	–4,023	–4,327	–4,586
Changes due to new estimates of employee compensation	....	....	....	....	–1,000	–777	–411	–589	–1,111	–1,295	–1,675	–1,822	–2,241	–2,282	–2,264	–2,422	–2,525
Revisions due to updated source data	....	....	....	....	....	....	....	....	....	....	....	....	....	....	–13	–7	5
Previously published	....	....	....	....	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
U.S. Government grants (line 36):																	
Revised	....	....	....	....	....	....	....	–10,860	–10,359	29,193	–16,320	–17,036	–14,978	–11,190	–15,337	–12,386	–13,057
Changes due to reclassification of debt forgiveness	....	....	....	....	....	....	....	207	7,220	5,130	57	667	1,085	434	0	183	22
Changes due to freight grants	....	....	....	....	....	....	....	–138	–136	–345	–552	–865	–546	–475	–316	–321	–150
Revisions due to updated source data	....	....	....	....	....	....	....	–18	–10	248	1	–17	–9	21	2	–158	–437
Previously published	....	....	....	....	....	....	....	–10,911	–17,433	24,160	–15,826	–16,821	–15,508	–11,170	–15,023	–12,090	–12,492
Private remittances and other transfers (line 38):																	
Revised	....	....	....	....	–10,564	–11,330	–12,893	–13,481	–14,238	–15,599	–15,510	–17,383	–19,658	–20,796	–22,384	–25,341	–26,668
Changes due to reclassification of immigrants' transfers	....	....	....	....	–137	–152	–161	–171	–190	–167	–130	–130	–130	–140	–147	–155	–154
Revisions due to updated source data	....	....	....	....	–3	14	10	–2	5	–33	6	–13	–190	–621	–1,125	–1,778	–1,455
Previously published	....	....	....	....	–10,424	–11,192	–12,742	–13,308	–14,053	–15,399	–15,386	–17,240	–19,338	–20,035	–21,112	–23,408	–25,059
Capital and financial account																	
Capital account																	
Capital account transactions, net (line 39):																	
Introduction of capital account estimates into the international accounts	199	209	235	315	301	365	493	336	–6,579	–4,479	612	–88	–469	372	672	292	617
Financial account																	
U.S direct investment abroad (line 51):																	
Revised	–4,499	–12,578	–16,546	–19,121	–24,205	–35,278	–22,815	–43,726	–37,519	–38,233	–48,733	–84,412	–80,697	–99,481	–92,694	–109,955	–132,829
Changes due to improved estimates of current-cost adjustment	–5,490	–4,850	–4,202	–5,057	–5,180	–6,923	–6,639	–6,892	–7,569	–6,864	–6,093	–6,467	–5,483	–2,827	–2,028	–3,132	–2,720
Revisions due to updated source data	....	....	....	....	....	....	....	....	....	....	....	....	....	....	–9,594	15,020	1,824
Previously published	991	–7,728	–12,344	–14,065	–19,025	–28,355	–16,175	–36,834	–29,950	–31,369	–42,640	–77,945	–75,214	–96,654	–81,072	–121,843	–131,933
Foreign direct investment in the United States (line 64):																	
Revised	12,624	10,461	24,689	20,079	35,756	58,852	58,161	68,653	48,951	23,695	20,975	52,552	47,438	59,644	88,977	109,264	193,375
Changes due to improved estimates of current-cost adjustment	160	3	–59	69	133	633	883	917	1,036	1,691	3,039	3,559	2,846	1,991	3,352	1,075	1,064
Revisions due to updated source data	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8,003	14,740	–3,918
Previously published	12,464	10,457	24,748	20,010	35,623	58,219	57,278	67,736	47,915	22,004	17,936	48,993	44,592	57,653	77,622	93,449	196,229

Table 4.—Major Sources of Revisions, 1982–1998—Continued

[Millions of dollars]

(Credits +; debits –) [1]	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
	International investment position (at yearend)																
U.S. direct investment abroad (lines 17 and 18):																	
Revised:																	
At current cost	368,453	346,095	337,363	358,454	390,137	459,980	492,309	529,882	590,010	613,692	633,074	690,655	748,505	843,253	940,243	1,004,228	1,123,441
At market value	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,526,243	1,784,494	2,140,528
Changes due to improved methods:																	
At current cost	–18,549	–30,212	–30,476	–36,306	–41,338	–45,116	–34,515	–30,527	–30,021	–30,615	–26,352	–24,101	–3,643	–6,398	–2,028	–3,132	([2])
At market value	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	([2])
Revisions due to updated source data:																	
At current cost	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5,317	–16,512	([2])
At market value	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9,159	–9,186	([2])
Previously published:																	
At current cost	387,002	376,307	367,839	394,760	431,475	505,096	526,824	560,409	620,031	644,307	659,426	714,756	752,148	849,651	936,954	1,023,872	([2])
At market value	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,517,084	1,793,680	([2])
Foreign securities (line 19):																	
Revised	....	....	....	....	....	....	....	....	....	....	....	....	948,668	1,169,636	1,467,985	1,739,400	1,968,956
Changes due to 1997 outward portfolio benchmark	....	....	....	....	....	....	....	....	....	....	....	....	58,962	115,284	187,826	293,099	([2])
Revisions due to updated source data	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	([2])
Previously published	....	....	....	....	....	....	....	....	....	....	....	....	889,706	1,054,352	1,280,159	1,446,301	([2])
Foreign direct investment in the United States (lines 35 and 36):																	
Revised:																	
At current cost	174,506	181,226	208,356	229,543	264,432	311,478	375,419	437,941	471,556	493,745	497,112	546,394	564,745	619,377	674,330	764,045	878,717
At market value	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,229,118	1,642,365	2,194,102
Changes due to improved methods:																	
At current cost	–2,364	–3,168	–2,845	–1,783	–1,401	–1,973	251	2,024	4,244	1,803	–3,430	–4,468	3,593	5,119	3,352	1,075	([2])
At market value	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	([2])
Revisions due to updated source data:																	
At current cost	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4,016	11,125	([2])
At market value	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5,446	21,825	([2])
Previously published:																	
At current cost	176,870	184,394	211,201	231,326	265,833	313,451	375,168	435,917	467,312	491,942	500,542	550,862	561,152	614,258	666,962	751,845	([2])
At market value	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1,223,672	1,620,540	([2])

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. Estimates were not published previously.