

translation adjustments are more appropriately classified as valuation adjustments to the direct investment position than as income and capital flows in the international accounts.

- Additional work has been completed on the services estimates introduced last June. Refinements were made to travel and passenger fare receipts and payments and to education services receipts and payments. Revisions to noninterest income earned by banks and to direct defense expenditures abroad were extended to earlier years.

- Information from the U.S. Treasury Department's benchmark survey of foreign portfolio investment in the United States for 1984 has been incorporated. The information resulted in increases to previous estimates of U.S. Government income payments and of stock dividends paid to foreigners.

- The definition of principal end-use categories for merchandise exports has been changed to include reexports. Reexports—that is, exports of foreign merchandise—are now assigned to detailed end-use categories in the same manner as exports of domestic merchandise.

Table 1 presents annual estimates of U.S. international transactions for 1960–89 and quarterly estimates (both unadjusted and adjusted for seasonal variation) for 1978–89. Table 2

presents annual merchandise trade estimates for 1978–89 and quarterly estimates for 1988–89. Tables 3–10 present account and area detail for annual estimates for 1987–89 and quarterly estimates for 1988–89. Table 3 on selected international service transactions has been expanded to include additional detail on royalties and fees and on insurance transactions. Tables F and G present updated estimates for the detailed presentation of other private services transactions and for royalties and license fee transactions with unaffiliated foreigners, respectively.

Seasonal adjustment factors—for the current-account items that show seasonal patterns, for repayments on U.S. Government credits and other long-term assets, and for U.S. direct investment abroad—were recalculated by extending through 1989 the period used to derive the factors. For merchandise exports, seasonal factors were recalculated for 1978–89 to account for the assignment of reexports—that is, exports of foreign merchandise—to detailed end-use commodity categories in the same manner as exports of domestic merchandise.

Redefinition of services

The term “services” has been redefined to exclude investment income, and the presentation in tables 1 and

Technical Notes

As is customary each June, estimates of U.S. international transactions are revised to incorporate new source data, improved methodologies, and changes in definitions. Several major improvements are introduced this year.

- Services have been redefined to exclude investment income, and services and investment income have been given positions of equal importance in tables 1 and 10. Corresponding changes have been made to the presentation of partial balances in tables 1 and 10.

- Transfers of goods and services under U.S. military grant programs, net (previously shown in line 15) have been combined with transfers under U.S. military agency sales contracts in new line 4, and U.S. grants of goods and services, net (previously shown in line 30) have been combined with U.S. Government grants in new line 30.

- Capital gains and losses associated with currency translation adjustments have been removed from U.S. direct investment income and from U.S. direct investment capital flows. These

Table F.—Other Private Services, Unaffiliated

[Millions of dollars]

	Receipts				Payments			
	1986	1987	1988	1989	1986	1987	1988	1989
Total	19,129	20,805	22,160	25,046	9,986	11,935	12,536	12,061
Education	3,495	3,821	4,142	4,551	433	452	543	601
Financial services	3,301	3,731	3,831	5,011	1,769	2,077	1,656	1,992
Insurance	1,970	2,295	1,669	1,297	2,201	3,241	2,655	733
Primary insurance, net.....	1,525	1,596	1,500	1,449	477	616	561	559
Premiums.....	2,700	2,823	3,157	3,365	954	1,208	1,112	1,075
Losses.....	1,175	1,227	1,657	1,916	477	592	551	516
Reinsurance, net.....	445	699	169	-152	1,724	2,625	2,094	174
Premiums.....	1,714	2,009	1,862	1,722	6,263	7,330	7,875	8,629
Losses.....	1,269	1,310	1,694	1,874	4,538	4,705	5,781	8,455
Telecommunications	1,827	2,111	2,203	2,724	3,253	3,736	4,577	5,422
Business, professional, and technical services	4,428	4,280	5,536	6,132	1,252	1,319	1,869	1,979
Accounting, auditing, and bookkeeping.....	21	27	37	35	29	37	31	22
Advertising.....	94	109	154	156	77	128	176	232
Computer and data processing.....	985	649	1,255	1,121	32	74	107	58
Data base and other information services.....	124	133	196	219	23	25	39	31
Engineering, architectural, construction, and mining, net ¹	857	972	1,074	1,170	379	266	465	415
Installation, maintenance, and repair of equipment.....	1,033	1,087	1,289	1,736	466	496	618	757
Legal services.....	97	147	271	337	40	56	98	82
Management, consulting, and public relations.....	306	327	362	337	60	67	73	151
Medical services.....	490	516	541	588				
Research and development, commercial testing, and laboratory services.....	282	177	236	255	76	114	182	137
Other.....	139	136	121	178	70	57	80	94
Other	4,108	4,567	4,779	5,331	1,078	1,110	1,236	1,334
Wages of temporary workers.....	105	126	140	142	834	889	971	1,030
Film rentals.....	656	740	784	1,082	73	39	40	50
Expenditures of foreign governments and international organizations ..	2,999	3,333	3,464	3,713				
Other.....	348	368	391	394	171	182	225	254

1. Engineering, architectural, construction, and mining services are published net of merchandise exports, which are included in the merchandise trade account, and net of outlays abroad for wages, services, materials, and other expenses.

10 has been changed. Beginning with this presentation, services are defined to include only services such as travel, other transportation, and business, professional, and technical services. Investment income is no longer considered as part of services and is given a position of importance equal to services in tables 1 and 10. This redefinition aligns the terms more closely with general usage, and is consistent with work that is underway to enhance the harmonization of classification systems of foreign sector accounts contained in the International Monetary Fund's *Balance of Payments Manual* and the United Nation's *System of National Accounts*.

The redefinition of services necessitates corresponding changes in the partial balances that appear as memoranda items at the end of the tables 1 and 10. The four basic building blocks of the balance on current account are now merchandise, services, investment income, and unilateral transfers. Thus, the partial balances are as follows: Balance on merchandise trade; balance on services (redefined); balance on investment income; and unilateral transfers. The components are combined into the balance on goods, services, and income and the balance on current account. The balance on goods, services, and income is equivalent to the previously defined balance on goods and services. Both are equivalent to net exports of goods and services in the national income and product accounts (after adjustments for a few conceptual differences between the two sets of accounts). The revised partial balances are presented on an annual basis from 1960 to the present and on a quarterly basis from 1978 to the present in table 1.

Memoranda items previously presented in lines 71 and 72 have been dropped. These items related to calculation of the official settlements balance, which BEA has not published for some time. The balance on goods, services, and remittances has also been dropped.

Reclassification of U.S. military grants

In another change to tables 1 and 10, transfers of goods and services under U.S. military grant programs, net (previously shown in line 15) have been combined with transfers under U.S. military agency sales contracts in new line 4, and U.S. military grants of goods and services, net (previously shown in line 30) have been combined

Table G.—Royalties and License Fees, Unaffiliated

	[Millions of dollars]		
	1987	1988	1989
Receipts.....	2,171	2,522	2,639
Industrial processes.....	1,592	1,871	1,902
Books, records, and tapes.....	125	142	150
Trademarks.....	282	329	349
Broadcasting and recording of live events.....	57	46	47
Franchises.....	113	134	181
Other.....	2		10
Payments.....	520	1,086	871
Industrial processes.....	436	449	597
Books, records, and tapes.....	35	52	104
Trademarks.....	34	72	77
Broadcasting and recording of live events.....	10	451	53
Franchises.....	4	(^a)	2
Other.....	1	(^a)	38

^a Data suppressed to avoid disclosure.

with U.S. Government grants in the new line 30. The changes combine various U.S. Government military exports, whether by sale or by gift, in new line 4, and combine all U.S. Government grants in new line 30. The change affects the balance on services (redefined) and the balance on goods, services, and income, but the balance on current account is unaffected. The amounts shifted to new lines 4 and 30 averaged \$354 million annually in 1976-85 and \$67 million annually in 1985-89. This change in classification has been taken back to 1960.

Removal of currency translation adjustments from direct investment

Capital gains and losses associated with currency translation adjustments—that is, gains and losses that arise because of changes from the end of one accounting period to the next in exchange rates applied in translating affiliates' assets and liabilities from foreign currencies into dollars—have been removed from U.S. direct investment abroad income receipts and from the reinvested earnings component of U.S. direct investment abroad capital, where the adjustments were entered with the opposite sign from that in the current account.

In principle, currency translation adjustments should be removed from both U.S. direct investment abroad and foreign direct investment in the United States. However, for now, because of data limitations discussed below, the adjustments were removed only from U.S. direct investment abroad.

U.S. companies must report data in dollars on the direct investment surveys conducted by BEA. Companies are instructed to follow generally accepted

accounting principles which, for translation of affiliate accounts into dollars, are contained in Financial Accounting Standards Board Statement No. 52 (FASB-52). Until now, translation adjustments that resulted from applying FASB-52 were summed with other capital gains and losses and included in direct investment income and direct investment capital.

Translation adjustments arise when U.S. parent companies translate foreign affiliates' assets and liabilities into dollars. They are not reflected in foreign affiliates' accounts, stated in foreign currencies, and are not available for distribution. However, translation adjustments are a component of the change in the value of direct investment, measured in dollars, from the perspective of the U.S. parent. Thus, BEA's removal of these gains and losses from direct investment income and capital recognizes that they are more appropriately classified as valuation adjustments to the U.S. direct investment position abroad rather than as income and capital flows in the international accounts.

Capital gains and losses other than currency translation adjustments continue to be included in direct investment income and capital. Such gains and losses are included in either affiliates' net income or taken directly to retained earnings, are reflected in affiliates' accounts measured in foreign currencies, and are generally available for distribution as dividends.

Implementation of the change.—The absence of separate data on translation adjustments affected implementation of the revised treatment of translation adjustments. Only data on capital gains and losses included in affiliates' net income, and, separately, gains and losses taken directly to equity, were available. The latter included, but did not separately identify, translation adjustments.

For U.S. direct investment abroad, data were revised back through 1982, the year that many U.S. companies began using FASB-52 to translate affiliate accounts. Based on knowledge of U.S. accounting practices, discussions with reporting companies, and inspection of the data, BEA was confident that, in the historical data, translation adjustments accounted for by far the largest portion of total capital gains and losses taken directly to equity. Thus, all capital gains and losses taken to equity were assumed to be translation adjustments and were removed

from direct investment income and capital flows. The impact on published estimates is shown in table H.

Beginning in the second quarter of 1990, BEA's quarterly report forms for U.S. direct investment abroad will identify translation adjustments separately from other capital gains and losses taken directly to equity. From then on, only translation adjustments, not all capital gains and losses taken to equity, will be removed from direct investment income and capital flows.

For foreign direct investment in the United States, no revisions are being made now. Translation adjustments do arise on the books of U.S. affiliates that have foreign affiliates, themselves. However, evidence from BEA's recently completed 1987 benchmark survey of foreign direct investment in the United States suggests that the amounts are quite small.

For 1982-86, BEA was unable to isolate these small amounts from other reported capital gains and losses taken to equity. For 1987 forward, data on capital gains and losses from the benchmark survey will be reviewed over the next year. If, in the course of that review, translation adjustments can be isolated, they will be removed from foreign direct investment income and capital flows, and revised estimates will be presented in the June 1991 SURVEY.

Beginning in the first quarter of 1991, BEA's quarterly report forms for foreign direct investment in the United States will identify translation adjustments separately from other capital gains and losses taken directly to equity. From then on, translation adjustments will be removed from foreign direct investment in the United States income and capital flows in a manner parallel to that for U.S. direct investment abroad.

Revised estimates of services

Several of the services estimates that were introduced last June have been refined or extended back to earlier years.

Travel and passenger fares.—Refinements have been made to the overseas travel and passenger fare estimates for 1984:II-1988:III that were introduced last June. New source data have been incorporated for 1988:IV-1989:III. Estimates for 1989:IV-1990:I are extrapolations. A methodological change was made to travel payments for all quarters to boost the number of travelers in geographical areas or

countries that were underrepresented in the survey upon which the estimates are based. The average annual revisions were as follows: Travel receipts, -\$198 million; passenger fare receipts, -\$11 million; travel payments, \$734 million; and passenger fare payments, \$69 million. Limitations of these estimates remain much the same as were discussed in the June 1989 SURVEY.

Education.—Refinements have been made to estimates introduced last June for education services for 1981-89 to include a more accurate count of the number of students for both exports and imports. Updated parameters and source data were incorporated for 1988-89. The average annual revision for exports was an increase of \$20 million and for imports was a decrease of \$5 million.

Noninterest income.—Noninterest income earned by banks, which was reclassified from portfolio income re-

ceipts to other private service receipts for 1986-89 last June, has now been reclassified for 1978-1985; 1978 is the first year for which noninterest income is available. The average annual revision was \$1,445 million.

Direct defense expenditures abroad.—Direct defense expenditures abroad have been reestimated for 1984-86 to correct for an underestimate of military purchases of petroleum from sources abroad. The correction has been carried forward through 1989. The average annual revision was \$442 million.

Information from U.S. Treasury benchmark survey

Limited information from the U.S. Treasury Department's benchmark survey of foreign portfolio investment in the United States for 1984 is now available.

Table H.—Effect of Removal of Translation Adjustments From U.S. Direct Investment Abroad Accounts

(Millions of dollars, not seasonally adjusted)

(Credits +; debits -)	Old basis (including translation adjustments)				New basis (excluding translation adjustments)				Addendum: Translation adjustments [gains (+), losses (-)] ²
	Direct investment income	Capital gains (+)/ losses (-)	Reinvested earnings ¹	Direct investment capital	Direct investment income	Capital gains (+)/ losses (-)	Reinvested earnings ¹	Direct investment capital	
1982.....	21,380	-3,447	1,359	2,369	24,717	-111	4,695	-967	-3,337
I.....	5,817	-1,014	2,767	-1,862	6,803	-28	3,754	-2,849	-986
II.....	5,354	-903	42	1,598	6,229	-28	917	723	-875
III.....	4,554	-536	546	1,656	5,062	-28	1,054	1,148	-508
IV.....	5,655	-994	-1,996	977	6,622	-27	-1,029	11	-967
1983.....	20,499	-6,314	7,139	-373	26,822	9	13,462	-6,695	-6,323
I.....	4,275	-1,632	2,066	1,742	6,329	422	4,120	-313	-2,054
II.....	4,971	-1,189	2,159	-61	6,053	-108	3,241	-1,142	-1,082
III.....	5,242	-1,232	2,690	-2,600	6,602	128	4,050	-3,960	-1,360
IV.....	6,011	-2,260	225	546	7,838	-434	2,051	-1,280	-1,826
1984.....	21,217	-8,828	8,447	-2,821	29,984	-62	17,214	-11,587	-8,766
I.....	7,551	120	5,367	-1,677	7,697	266	5,512	-1,823	-146
II.....	4,759	-2,930	2,488	1,002	7,930	-309	5,109	-1,619	-2,621
III.....	3,350	-3,411	1,274	1,220	6,962	201	4,886	-2,392	-3,612
IV.....	5,557	-2,608	-682	-3,365	7,945	-219	1,706	-5,753	-2,388
1985.....	33,202	5,344	19,009	-18,068	28,295	437	14,102	-13,162	4,907
I.....	4,201	-2,534	776	-127	6,701	-34	3,276	-2,627	-2,500
II.....	8,269	983	6,518	-4,388	7,218	-68	5,467	-3,337	1,051
III.....	9,638	3,956	6,869	-7,317	5,977	295	3,208	-3,656	3,660
IV.....	11,094	2,939	4,846	-6,236	8,399	244	2,151	-3,541	2,695
1986.....	38,533	8,606	17,654	-26,311	30,900	973	10,021	-18,679	7,633
I.....	10,711	2,803	6,448	-11,852	8,794	886	4,531	-9,935	1,917
II.....	9,866	1,938	7,117	-9,165	7,933	6	5,184	-7,233	1,932
III.....	8,498	2,056	3,849	-6,352	6,557	114	1,907	-4,411	1,942
IV.....	9,458	1,809	240	1,058	7,616	-33	-1,601	2,900	1,842
1987.....	55,465	16,942	34,592	-45,922	40,588	2,065	19,714	-31,045	14,877
I.....	13,399	4,957	9,093	-11,439	8,609	167	4,304	-6,650	4,790
II.....	11,050	1,260	7,125	-8,601	10,621	831	6,696	-8,173	429
III.....	10,149	1,052	5,951	-8,745	9,570	473	5,373	-8,167	579
IV.....	20,867	9,673	12,422	-17,136	11,787	593	3,342	-8,056	9,080
1988.....	48,918	-734	11,713	-15,317	49,819	167	12,614	-16,218	-901
I.....	12,391	694	3,768	-6,813	12,361	663	3,737	-6,782	31
II.....	10,416	-2,731	2,639	-1,198	13,760	613	5,984	-4,542	-3,344
III.....	9,018	-2,422	4,456	-4,349	11,810	370	7,248	-7,142	-2,793
IV.....	17,093	3,726	850	-2,957	11,888	-1,479	-4,355	2,249	5,205
1989.....	52,151	453	20,950	-30,256	53,617	1,919	22,416	-31,722	-1,466
I.....	9,447	-3,312	3,652	-3,510	12,940	181	7,144	-7,003	-3,493
II.....	9,145	-4,722	3,445	-5,387	13,885	18	8,184	-10,126	-4,740
III.....	14,968	3,450	10,096	-13,040	12,521	1,004	7,649	-10,594	2,446
IV.....	18,591	5,036	3,758	-8,319	14,271	716	-562	-3,999	4,320

1. Reinvested earnings is a component of both direct investment income and direct investment capital. It is shown here as a component of income; as a component of capital, values are the same but signs are opposite.

2. Translation adjustments, in the data as previously published, were included in reinvested earnings, a component of both direct investment income and direct investment capital. They are shown here as a component of income; as a component of capital, values are the same but signs are opposite.

U.S. Government income payments.—Based on that survey, foreign holdings of U.S. Treasury marketable bonds were revised up \$12.6 billion in 1984, and holdings of U.S. agency issues were revised up \$2.1 billion in 1984. Estimates of holdings for 1985–89 were also revised up by the same amount. Related U.S. Government income payments were revised up \$1.4 billion in 1984. The average annual upward revision to income payments in 1985–89 was \$1.6 billion. The estimates for income payments have been extrapolated back to 1980 in proportion to trading in bonds in each year.

Dividend payments.—Details from the Treasury survey also suggested an underestimate of dividend payments on U.S. stocks. Therefore, estimates of dividend payments to foreigners were revised up \$736 million in 1984. The annual upward revision in dividend payments rose to \$2.7 billion in 1989. The estimates have been extrapolated back to 1980 in proportion to trading in U.S. stocks in each year.

Previous estimates were based on a direct measure of dividend payments

obtained from the 1978 benchmark survey and brought forward by yields multiplied by changes in trading in U.S. stocks. Because no direct measure of income is available from the 1984 survey or from the 1989 survey (in progress), a change in methodology was introduced to limit underestimates in future years and to reflect current conditions more accurately. For 1984 and later years, the dividend yield on the Standard and Poor's 500 stock index is applied to positions outstanding developed from the Treasury survey by BEA to derive dividend payments to foreigners.

Improvements to merchandise trade

Canada.—Beginning in the first quarter of 1990, U.S.-compiled exports to Canada are replaced with the counterpart Canadian import statistics, and Canadian-compiled exports to the United States are replaced with the counterpart U.S. import statistics. This exchange of statistics between the Census Bureau and Statistics Canada eliminates the need for many of the

U.S. balance of payments adjustments for timing, coverage, and valuation previously made to the Census-basis data.

For 1988 and 1989, balance of payments adjustments of \$300 million and \$535 million, respectively, were made to Census-basis data for the understatement of imports of crude petroleum from Canada.

Reexports.—A change has been made to the definition of principal end-use export categories. Reexports—that is, exports of foreign merchandise—which were previously shown separately in table 2, have now been assigned to detailed end-use categories in the same manner as exports of domestic merchandise. In 1989, reexports totaled \$14.3 billion. The growth of reexports in recent years largely reflects expansion of manufacturing activities within foreign trade zones, particularly the manufacture of capital goods and consumer goods. Revised end-use commodity export series have been prepared for 1978–89; seasonal adjustment factors have been reestimated.