

Bureau of Economic Analysis

Survey of Current Business

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Special in this issue

8. U.S. Travel and Tourism Satellite Accounts for 1996 and 1997

The U.S. travel and tourism satellite accounts (TTSA's) have been updated to present estimates for 1996 and 1997. Like the 1992 TTSA's, the 1996 and 1997 TTSA's extend the input-output accounts to present a more comprehensive picture of the impact of travel and tourism activities on the U.S. economy. According to the TTSA's, final domestic demand for travel and tourism grew at an average annual rate of 6.9 percent from 1992 to 1997, while GDP increased at an average annual rate of 5.6 percent.

70. U.S. International Transactions, Revised Estimates for 1982-99

This year's annual revision of the international transactions accounts incorporates improvements to the investment income and portfolio capital accounts. The estimates of investment income are revised to incorporate the final results of the U.S. Treasury Department's Benchmark Survey of U.S. Portfolio Investment Abroad as of December 31, 1997. Net U.S. purchases of foreign securities are revised to reflect improvements in the accounting for large-scale foreign acquisitions of U.S. companies and to reflect other improvements in the coverage of U.S. transactions in foreign securities. The revised estimate of the U.S. current-account deficit for 1999 is -\$331.5 billion, compared with the previously published estimate of -\$338.9 billion.

124. Comprehensive Revision of Local Area Personal Income: Revised Estimates for 1969-97 and New Estimates for 1998

On June 15, 2000, BEA released estimates of local area personal income for 1969-98 that incorporated the results of the most recent comprehensive revisions of State personal income and of the NIPA's as well as improved methods for preparing the estimates and newly available data from regular sources. In general, the local area estimates were revised up, primarily reflecting the NIPA definitional change that reclassified government employee retirement plans. This release represents a speedup of about a year in the availability of local area estimates of personal income that are consistent with the recently revised State personal income estimates and NIPA estimates.

Regular features

1. Business Situation

Real GDP increased 5.5 percent in the first quarter of 2000 after increasing 7.3 percent in the fourth quarter of 1999; the price index for gross domestic purchases increased 3.5 percent after increasing 2.3 percent. Corporate profits increased \$46.2 billion (5.0 percent at a quarterly rate) in the first quarter.

26. U.S. Multinational Companies: Operations in 1998

Growth slowed in three key measures--gross product, employment, and capital expenditures--of the operations of U.S. multinational companies in 1998 after strong growth in 1997. The gross product of U.S. parent companies increased 2.2 percent in 1998 after increasing 6.3 percent in 1997, and the gross product of the majority-owned affiliates of U.S. companies declined 1.9 percent after increasing 4.5 percent.

46. The International Investment Position of the United States at Yearend 1999

The net international investment position of the United States changed little in 1999: At yearend, it was -\$1,082 billion on a current-cost basis and -\$1,474 billion on a market-value basis. Large net financial inflows were offset by greater price appreciation in U.S.-owned assets abroad than in foreign-owned assets in the United States.

57. Direct Investment Positions for 1999: Country and Industry Detail

The U.S. direct investment position abroad valued at historical cost increased 12 percent in 1999, and the foreign direct investment position in the United States valued at historical cost increased 24 percent. The strong growth in both positions reflected the global boom in merger and acquisition activity, favorable economic conditions in the United States, Europe, and Canada, and improved economic conditions in the Asia and Pacific area.

79. U.S. International Transactions, First Quarter 2000

The U.S. current-account deficit increased \$6.1 billion, to \$102.3 billion, in the first quarter of 2000; the increase was more than accounted for by a large increase in the deficit on goods. In the financial account, net recorded inflows increased \$2.0 billion, to \$71.7 billion; financial inflows increased more than financial outflows.

Reports and statistical presentations

D-1. BEA Current and Historical Data

Looking Ahead

Annual Revision of the National Income and Product Accounts. An article presenting the revised estimates for 1997-2000:1 and discussing the major sources of the revisions will be published in the August Survey. Selected revised estimates will be available on July 28 as part of the release of the "advance" GDP estimates for the second quarter of 2000.

BUSINESS SITUATION

Ralph W. Morris prepared the first section of this article, and Daniel Larkins prepared the section on corporate profits.

REAL gross domestic product (GDP) increased 5.5 percent in the first quarter of 2000, according to the "final" estimates of the national income and product accounts (NIPAs), after increasing 7.3 percent in the fourth quarter of 1999 (table 1 and chart 1).¹ The general picture of the economy that is indicated by the final estimates is little changed from that shown by the "preliminary" estimates.

1. Quarterly estimates in the NIPAs are expressed at seasonally adjusted annual rates. Quarter-to-quarter dollar changes are the differences between the published estimates. Quarter-to-quarter percent changes are annualized and are calculated from unrounded data unless otherwise specified.

Real estimates are calculated using a chain-type Fisher formula with annual weights for all years except 1999 and quarterly weights for all quarters; real estimates are expressed both as index numbers (1996=100) and as chained (1996) dollars. Price indexes (1996=100) are also calculated using a chain-type Fisher formula.

Table 1.—Real Gross Domestic Product, Real Gross Domestic Purchases, and Real Final Sales to Domestic Purchasers

[Seasonally adjusted at annual rates]

	Billions of chained (1996) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter							
	2000	1999			2000	1999			2000
	I	II	III	IV	I	II	III	IV	I
Gross domestic product	9,158.2	40.7	121.5	157.4	121.0	1.9	5.7	7.3	5.5
Less: Exports of goods and services	1,094.6	10.0	28.3	25.6	16.4	4.0	11.5	10.1	6.2
Plus: Imports of goods and services	1,462.1	44.5	47.6	29.3	39.8	14.4	14.9	8.7	11.7
Equals: Gross domestic purchases	9,500.6	70.7	138.3	160.8	142.0	3.2	6.2	7.2	6.2
Less: Change in private inventories	28.0	-36.1	24.0	28.7	-38.7				
Nonfarm	34.0	-30.0	28.1	31.1	-38.3				
Farm	-6.5	-6.5	-4.7	-2.9	.2				
Equals: Final sales to domestic purchasers	9,462.6	102.8	114.1	132.9	176.6	4.7	5.1	5.9	7.8
Personal consumption expenditures	6,217.8	73.2	71.2	87.2	114.9	5.1	4.9	5.9	7.7
Durable goods	894.1	17.3	15.1	25.5	47.4	9.1	7.7	13.0	24.3
Nondurable goods	1,837.9	14.2	15.6	32.7	25.9	3.3	3.6	7.6	5.8
Services	3,501.2	42.5	41.1	31.3	46.5	5.2	5.0	3.7	5.5
Gross private domestic fixed investment	1,688.7	25.1	26.3	10.5	70.9	6.6	6.8	2.6	18.7
Nonresidential fixed investment	1,311.3	20.2	31.4	8.9	68.1	7.0	10.9	2.9	23.7
Structures	257.5	-3.4	-2.4	-3	11.7	-5.3	-3.8	-5	20.6
Equipment and software	1,063.6	25.2	35.7	9.8	57.2	11.2	15.7	4.0	24.7
Residential investment	381.6	5.1	-3.7	1.7	4.8	5.5	-3.8	1.8	5.2
Government consumption expenditures and gross investment	1,563.8	4.9	17.0	34.3	-5.8	1.3	4.5	9.3	-1.5
Federal	535.7	2.9	5.4	18.8	-22.6	2.1	4.1	14.7	-15.2
National defense	340.2	-2.2	9.1	14.1	-22.2	-2.6	11.2	17.2	-22.3
Nondefense	195.3	5.0	-3.6	4.8	-6	10.9	-7.1	10.3	-1.2
State and local	1,027.6	2.2	11.5	15.6	16.5	.9	4.8	6.4	6.7
Addendum: Final sales of domestic product	9,120.1	72.5	97.5	129.6	155.5	3.4	4.5	6.0	7.1

NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates usually are not additive. Chained (1996) dollar levels and residuals, which measure the extent of nonadditivity in each table, are shown in NIPA tables 1.2, 1.4, and 1.6. Percent changes are calculated from unrounded data. Percent changes in major aggregates are shown in NIPA table S.1. (See "Selected NIPA Tables," which begin on page D-2 in this issue.)

Real GDP growth decelerated in the first quarter but remained strong. The deceleration primarily reflected downturns in private inventory investment and in defense spending that were partly offset by accelerations in private nonresidential fixed investment and in consumer spending.

The largest contributors to the first-quarter increase in real GDP were consumer spending and private fixed investment (table 2). The increase was moderated by an increase in imports of goods and services (which are subtracted in the calculation of GDP) and by decreases in private inventory investment and in defense spending.

The final estimate of the change in real GDP is 0.1 percentage point more than the 5.4-percent increase indicated by the preliminary estimate reported in the June "Business Situation" (table 3). For 1978–99, the average revision (without regard to sign) from the preliminary estimate to the final estimate was 0.3 percentage point. The upward re-

Table 2.—Contributions to Percent Change in Real Gross Domestic Product

[Seasonally adjusted at annual rates]

	1999			2000
	II	III	IV	I
Percent change at annual rate:				
Gross domestic product	1.9	5.7	7.3	5.5
Percentage points at annual rates:				
Personal consumption expenditures	3.36	3.33	4.07	5.18
Durable goods .....	.71	.62	1.03	1.84
Nondurable goods .....	.64	.73	1.51	1.17
Services	2.00	1.98	1.53	2.17
Gross private domestic investment	-3.6	2.26	1.72	1.44
Fixed investment	1.10	1.16	.48	2.98
Nonresidential .....	.86	1.33	.39	2.75
Structures	-.16	-.11	-.01	.56
Equipment and software	1.02	1.44	.40	2.19
Residential .....	.24	-.17	.09	.23
Change in private inventories	-1.46	1.09	1.24	-1.54
Net exports of goods and services	-1.35	-.73	-.12	-.91
Exports .....	.42	1.19	1.08	.68
Goods .....	.32	1.19	.83	.46
Services .....	.10	0	.24	.22
Imports	-1.77	-1.92	-1.20	-1.59
Goods	-1.59	-1.84	-1.12	-1.30
Services	-.19	-.08	-.08	-.29
Government consumption expenditures and gross investment .....	.23	.81	1.61	-.24
Federal .....	.13	.26	.87	-1.01
National defense	-.10	.42	.65	-.98
Nondefense .....	.23	-.16	.22	-.03
State and local .....	.10	.55	.75	.77

NOTE.—More detailed contributions to percent change in real gross domestic product are shown in NIPA table 8.2. Contributions to percent change in major components of real gross domestic product are shown in tables 8.3 through 8.6.

vision to real GDP primarily reflected upward revisions to consumer spending for durable goods and to exports and a downward revision to imports. These revisions were partly offset by downward revisions to business investment in equipment and software and to private inventory investment. For consumer spending, the upward revision mainly reflected the incorporation of revised sales data from the annual retail trade survey from the Census Bureau.² For exports and imports, the revision reflected the incorporation (on

a "best-change" basis) of data on international trade in goods and services from the annual revision of BEA's international transactions accounts (ITA's).³ The data resulted in a downward revision to imports and an upward revision to exports. The downward revision to equipment and software was more than accounted for by transportation equipment, primarily aircraft, reflecting the incorporation of revised Census Bureau data. In private inventory investment, the revision was widespread, reflecting the incorporation of revised Census Bureau data.

Real gross domestic purchases increased 6.2 percent, 0.2 percentage point less than the preliminary estimate; in the fourth quarter, this measure increased 7.2 percent.⁴ Real final sales of domestic product increased 7.1 percent, 0.2 percentage point more than the preliminary estimate; in the fourth quarter, this measure increased 6.0 percent.⁵

The price index for gross domestic purchases increased 3.5 percent, 0.3 percentage point more

Table 3.—Revisions to Change in Real Gross Domestic Product and Prices, First Quarter 2000

[Seasonally adjusted at annual rates]

	Percent change from preceding quarter		Final estimate minus preliminary estimate	
	Preliminary estimate	Final estimate	Change in real GDP	
			Percentage points	Billions of chained (1996) dollars
Gross domestic product	5.4	5.5	0.1	1.5
<i>Less:</i> Exports of goods and services	5.5	6.2	.7	2.0
Goods	6.8	6.0	-.8	-1.6
Services	2.2	6.8	4.6	3.2
<i>Plus:</i> Imports of goods and services	12.7	11.7	-1.0	-3.4
Goods	13.5	11.3	-2.2	-6.2
Services	8.3	13.5	5.2	2.5
Equals: Gross domestic purchases	6.4	6.2	-.2	-3.4
<i>Less:</i> Change in private inventories				-2.5
Farm .....				.3
Nonfarm				-2.7
Equals: Final sales to domestic purchasers	7.9	7.8	-.1	-1.1
Personal consumption expenditures	7.5	7.7	.2	3.5
Durable goods	22.4	24.3	1.9	3.5
Nondurable goods	5.6	5.8	.2	1.2
Services	5.6	5.5	-.1	-6
Fixed investment	19.8	18.7	-1.1	-3.8
Nonresidential	25.2	23.7	-1.5	-3.9
Structures	20.7	20.6	-.1	-.1
Equipment and software	26.6	24.7	-1.9	-4.1
Residential	5.2	5.2	0	0
Government consumption expenditures and gross investment	-1.2	-1.5	-.3	-1.0
Federal	-15.1	-15.2	-.1	-.1
National defense	-22.3	-22.3	0	0
Nondefense	-9	-1.2	-.3	-.1
State and local	7.0	6.7	-.3	-.9
Addenda:				
Final sales of domestic product	6.9	7.1	.2	3.8
Gross domestic purchases price index	3.2	3.5	.3	.....
GDP price index	2.7	3.0	.3	.....

NOTE.—The final estimates for the first quarter of 2000 incorporate the following revised or additional major source data that were not available when the preliminary estimates were prepared.

Personal consumption expenditures: Revised retail sales for October 1999 through March 2000 that include the incorporation (on a "best-change" basis) of data reflecting the results of the 1998 Annual Retail Trade Survey. Nonresidential fixed investment: Revised construction put-in-place for February and March, revised manufacturers' shipments of machinery and equipment for March, and revised petroleum drilling footage for the quarter. Residential fixed investment: Revised construction put-in-place for February and March and revised sales of new homes for January through March.

Change in private inventories: Revised manufacturing and trade inventories for March.

Exports and imports of goods and services: Revised data on exports and imports of goods and services for October 1999 through March 2000 that include the incorporation (on a "best-change" basis) of revised seasonal factors reflecting the results of the annual revision of BEA's international transactions accounts.

Government consumption expenditures and gross investment: Revised State and local construction put-in-place for February and March.

Wages and salaries: Revised employment, average hourly earnings, and average weekly hours for October 1999 through March 2000 that include the incorporation (on a "best-change" basis) of revised seasonal factors reflecting the results of the annual revision of BLS's establishment survey.

GDP prices: Revised export and import prices for January through March, revised unit-value index for petroleum imports for March, and revised prices of single-family homes under construction for the quarter.

2. The revised sales data were incorporated on a "best-change" basis. The final estimates of consumer spending in the first quarter incorporate the quarterly change implied by the revised estimates of retail sales. The revised estimates of retail sales will be incorporated in the annual revision of the NIPAs that is scheduled for release at end of July.

3. These data were also incorporated on a "best-change" basis. The final estimates of exports and imports in the first quarter incorporate the quarterly change implied by the revised ITA estimates. The quarterly levels of the revised ITA estimates will be incorporated in the upcoming annual NIPA revision. For further information, see "U.S. International Transactions Accounts, Revised Estimates for 1982-1999" in this issue.

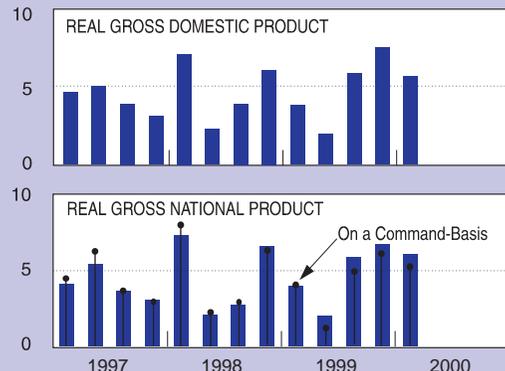
4. Gross domestic purchases—a measure of purchases by U.S. residents regardless of where the purchased goods and services were produced—is calculated as the sum of personal consumption expenditures, gross private domestic investment, and government consumption expenditures and gross investment.

5. Final sales of domestic product is calculated as GDP less change in private inventories.

CHART 1

Selected Product Measures: Change from Preceding Quarter

Percent



Note.—Percent change at annual rate from preceding quarter; based on seasonally adjusted estimates.

than the preliminary estimate; in the fourth quarter, the index increased 2.3 percent. The upward revision primarily reflected upward revisions to “other” personal consumption expenditures prices—specifically, revisions to the implicit prices of brokerage and investment counseling that resulted from the incorporation of newly available data from the Securities and Exchange Commission and revisions to the implicit price of imputed financial charges that resulted from the incorporation of newly available data from the Federal Deposit Insurance Corporation. The price index for GDP increased 3.0 percent, also 0.3 percentage point more than the preliminary estimate; in the fourth quarter, this measure increased 2.0 percent.

Real disposable personal income (DPI) increased 1.5 percent in the first quarter, 0.7 percentage point less than the preliminary estimate; in the fourth quarter, real DPI increased 4.7 percent. Current-dollar DPI increased 5.0 percent, 0.5 percentage point less than the preliminary estimate; in the fourth quarter, current-dollar DPI increased 7.3 percent. The downward revision to current-dollar DPI reflected an upward revision to personal tax and nontax payments that was due to the incorporation of newly available data on Federal income tax collections from the Monthly Treasury Statement and of updated projections of tax collections for the remainder of the calendar year on the basis of historical collection patterns. The upward revision to personal tax and nontax

payments was partly offset by an upward revision to personal interest income that was due to the incorporation of newly available data from the Federal Reserve Board flow-of-funds and the Federal Deposit Insurance Corporation. The downward revision to real DPI reflected the downward revision to current-dollar DPI and an upward revision to the implicit price deflator for personal consumption expenditures, which is used to deflate current-dollar DPI.

The personal saving rate—personal saving as a percentage of current-dollar DPI—was 0.3 percent, 0.3 percentage point less than the preliminary estimate; in the fourth quarter, the rate was 1.8 percent. The downward revision reflected the downward revision to current-dollar DPI and an upward revision to personal outlays (largely personal consumption expenditures). The first-quarter rate is the lowest since 1946, the first year for which quarterly estimates are available.

Gross national product (GNP).—In the first quarter, real GNP—goods and services produced by labor and property supplied by U.S. residents—increased 5.8 percent, 0.3 percentage point more than real GDP (table 4).⁶ Income receipts from the rest of the world increased more than income payments to the rest of the world; corporate profits accounted for most of the increase in receipts, and interest income accounted for most of the increase in payments.

6. GNP equals GDP plus income receipts from the rest of the world less income payments to the rest of the world.

Table 4.—Relation of Real Gross Domestic Product, Real Gross National Product, and Real Command-Basis Gross National Product

[Seasonally adjusted at annual rates]

	Billions of chained (1996) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter				1999			2000
	2000	1999			2000	1999			2000
	I	II	III	IV	I	II	III	IV	I
Gross domestic product	9,158.2	40.7	121.5	157.4	121.0	1.9	5.7	7.3	5.5
Plus: Income receipts from the rest of the world	324.4	10.6	9.9	11.7	16.2	16.3	14.5	16.7	22.7
Less: Income payments to the rest of the world	350.0	10.3	10.6	30.7	9.9	15.1	15.0	45.8	12.2
Equals: Gross national product	9,132.4	40.9	120.8	138.4	127.2	1.9	5.6	6.4	5.8
Less: Exports of goods and services and income receipts from the rest of the world	1,420.2	21.1	38.4	37.5	33.3	6.7	12.2	11.6	10.0
Plus: Command-basis exports of goods and services and income receipts from the rest of the world ¹	1,444.4	10.2	26.4	32.1	22.8	3.0	8.0	9.6	6.6
Equals: Command-basis gross national product	9,156.6	30.0	108.9	133.0	116.6	1.4	5.0	6.1	5.3
Addendum: Terms of trade ²	101.7	-9	-1.0	-5	-8	-3.4	-3.8	-1.9	-3.1

1. Exports of goods and services and income receipts deflated by the implicit price deflator for imports of goods and services and income payments.

2. Ratio of the implicit price deflator for exports of goods and services and income receipts

to the corresponding implicit price deflator for imports divided by 100.

NOTE. See note to table 1 for an explanation of chained (1996) dollar series. Levels of these series are shown in NIPA tables 1.10 and 1.11.

Real GNP on a command basis, which measures the purchasing power of goods and services produced by the U.S. economy, increased less than real GNP—5.3 percent, compared with 5.8 percent—reflecting a deterioration in the terms of trade.⁷ The terms of trade have deteriorated in each of the last four quarters.

The national saving rate—gross saving as a percentage of GNP—was 18.2 percent in the first quarter, down slightly from 18.3 percent in the fourth quarter; the rate remained higher than the average rate over the current expansion.

7. In the estimates of command-basis GNP, the current-dollar value of the sum of exports of goods and services and income receipts is deflated by the implicit price deflator (IPD) for the sum of imports of goods and services and income payments.

The terms of trade is a measure of the relationship between the prices that are received by U.S. producers for exports of goods and services and the prices that are paid by U.S. purchasers for imports of goods and services. It is measured by the following ratio, with the decimal point shifted two places to the right: In the numerator, the IPD for the sum of exports of goods and services and of income receipts; in the denominator, the IPD for the sum of imports of goods and services and of income payments.

Changes in the terms of trade reflect the interaction of several factors, including movements in exchange rates, changes in the composition of the traded goods and services, and changes in producers' profit margins. For example, if the U.S. dollar depreciates against a foreign currency, a foreign manufacturer may choose to absorb this cost by reducing the profit margin on the product it sells to the United States, or it may choose to raise the price of the product and risk a loss in market share.

Corporate Profits

According to revised estimates, profits from current production increased \$46.2 billion (or 5.0 percent at a quarterly rate) in the first quarter after increasing \$35.3 billion (4.0 percent) in the fourth (table 5).⁸ First-quarter profits were reduced about \$5.5 billion by tobacco company payments related to out-of-court settlements; in the fourth quarter, profits had been reduced about \$11.2 billion by these payments.

Profits of domestic nonfinancial corporations increased \$36.4 billion (5.9 percent). An increase in the unit profits of these corporations resulted from increased unit prices and slightly lower unit costs; the real product of domestic nonfinancial corporations increased 7.5 percent (annual rate). Profits of domestic financial corporations increased \$1.7 billion (0.8 percent). Profits from the rest of the world increased \$8.3 billion (8.5 percent), as receipts of earnings from foreign affili-

8. Profits from current production is estimated as the sum of profits before tax, the inventory valuation adjustment, and the capital consumption adjustment; it is shown in NIPA tables 1.9, 1.14, 1.16, and 6.16C (see "Selected NIPA Tables," which begins on page D-2 of this issue) as corporate profits with inventory valuation and capital consumption adjustments.

Percent changes in profits are shown at quarterly, not annual, rates.

Table 5.—Corporate Profits

[Seasonally adjusted]

	Billions of dollars (annual rate)					Percent change (quarterly rate)			
	Level	Change from preceding quarter				1999			2000
	2000	1999		2000	II	III	IV	I	
	I	II	III	IV					I
Profits from current production	965.6	-6.4	3.6	35.3	46.2	-7	.4	4.0	5.0
Domestic industries	859.8	-5.5	-1.1	45.9	37.9	-7	-1	5.9	4.6
Financial	203.2	-7.8	4.4	19.5	1.7	-4.2	2.5	10.7	.8
Nonfinancial	656.7	2.3	-5.5	26.3	36.4	4	-9	4.4	5.9
Rest of the world	105.8	-1.0	4.8	-10.6	8.3	-9	4.6	-9.8	8.5
Receipts (inflows)	187.0	7.1	5.4	4.5	13.0	4.5	3.3	2.7	7.5
Payments (outflows)	81.3	8.1	.6	15.1	4.8	15.2	1.0	24.6	6.3
IVA	-26.7	-26.9	-13.1	1.8	-1.8	.....	.....	.....	.....
CCAdj	55.7	2.7	-1.2	1.0	-2.3	.....	.....	.....	.....
Profits before tax	936.5	17.7	18.0	32.5	50.2	2.2	2.1	3.8	5.7
Profits tax liability	290.8	6.4	5.0	16.3	15.1	2.6	2.0	6.3	5.5
Profits after tax	645.8	11.3	12.9	16.3	35.2	2.0	2.2	2.7	5.8
Cash flow from current production	990.7	-6.7	12.3	20.9	40.8	-7	1.3	2.2	4.3
Domestic industry profits:									
Corporate profits of domestic industries with IVA	804.1	-8.2	.1	44.9	40.2	-1.1	0	6.2	5.3
Financial	228.4	-7.0	5.6	21.0	3.5	-3.4	2.8	10.3	1.5
Nonfinancial	575.8	-1.3	-5.5	23.9	36.8	-2	-1.1	4.6	6.8
Manufacturing	179.6	-3.2	-4.7	-2.8	19.3	-1.9	-2.8	-1.7	12.0
Transportation and public utilities	132.1	-4.0	9.4	10.7	4.1	-3.6	8.8	9.1	3.2
Wholesale trade	45.3	.9	-5.2	3.7	2.5	2.2	-11.9	9.5	6.0
Retail trade	82.5	-3	-7.7	4.9	9.9	-4	-10.2	7.2	13.6
Other	136.3	5.4	2.7	7.4	1.0	4.5	2.2	5.7	.8
	Dollars								
Unit price, costs, and profits of nonfinancial corporations:									
Unit price	1.018	0.003	0	0.002	0.004	.....	.....	.....	.....
Unit labor cost .....	.656	.003	0	-.002	-.001	.....	.....	.....	.....
Unit nonlabor cost .....	.236	0	.003	.001	0	.....	.....	.....	.....
Unit profits from current production .....	.126	-.001	-.003	.003	.005	.....	.....	.....	.....

NOTE.—Levels of these and other profits series are in NIPA tables 1.14, 1.16, 6.16C, and 7.15.
IVA inventory valuation adjustment
CCAdj Capital consumption adjustment

ates of U.S. corporations increased more than payments by U.S. affiliates of foreign corporations.⁹

The revised estimate of profits from current production is \$11.7 billion higher than the preliminary estimate. Profits from the rest of the world were revised up \$6.9 billion, mainly reflecting a downward revision to payments by U.S. affiliates of foreign corporations. Profits of domestic nonfinancial corporations were revised up \$3.8 billion, and profits of domestic financial corporations were revised up \$1.1 billion.

Cash flow from current production, a profits-related measure of internally generated funds available for investment, increased \$40.8 billion after increasing \$20.9 billion.¹⁰ The ratio of cash flow to nonresidential fixed investment, an indicator of the share of the current level of investment that could be financed by internally generated funds, decreased from 79.8 percent to 78.8 percent. During 1991-99, the ratio fluctuated between 78.6 percent and 94.0 percent; it averaged 85.1 percent.

Domestic industry profits and related measures.—Domestic industry profits increased \$40.2

billion after increasing \$44.9 billion.¹¹ Profits of domestic nonfinancial corporations increased \$36.8 billion after increasing \$23.9 billion. The step-up was accounted for by an upturn in manufacturing profits and a step-up in retail trade profits; in contrast, profits of the transportation and public utilities group, of wholesale trade, and of “other” nonfinancial corporations increased less than in the fourth quarter. Profits of domestic financial corporations increased \$3.5 billion after increasing \$21.0 billion; the large fourth-quarter increase had reflected a rebound from the effects of Hurricane Floyd in the third quarter.

Profits before tax (PBT) increased \$50.2 billion after increasing \$32.5 billion. The first-quarter increase in PBT was slightly larger than the increase in profits from current production because of decreases in the inventory valuation adjustment and the capital consumption adjustment.¹² 

11. Domestic industry profits are estimated as the sum of corporate profits before tax and the inventory valuation adjustment; they are shown in NIPA table 6.16C (on page D-17 of this issue). Estimates of the capital consumption adjustment do not exist at a detailed industry level; they are available only for total financial and total nonfinancial industries.

12. As prices change, companies that value inventory withdrawals at original acquisition (historical) costs may realize inventory profits or losses. Inventory profits—a capital-gains-like element in profits—result from an increase in inventory prices, and inventory losses—a capital-loss-like element in profits—result from a decrease in inventory prices. In the NIPAs, inventory profits or losses are removed from business incomes by the inventory valuation adjustment (IVA); a negative IVA removes inventory profits, and a positive IVA removes inventory losses.

The capital consumption adjustment converts depreciation valued at historical cost and based on service lives and depreciation patterns specified in the tax code to depreciation valued at replacement cost and based on empirical evidence on the prices of used equipment and structures in resale markets. For more information on depreciation in the NIPAs, see Shelby W. Herman, “Fixed Assets and Consumer Durable Goods: Estimates for 1925-98,” SURVEY OF CURRENT BUSINESS 80 (April 2000): 17-30.

9. Profits from the rest of the world is calculated as (1) receipts by U.S. residents of earnings from their foreign affiliates plus dividends received by U.S. residents from unaffiliated foreign corporations minus (2) payments by U.S. affiliates of earnings to their foreign parents plus dividends paid by U.S. corporations to unaffiliated foreign residents. These estimates include capital consumption adjustments (but not inventory valuation adjustments) and are derived from BEA's international transactions accounts.

10. Cash flow from current production is undistributed profits with inventory valuation and capital consumption adjustments plus the consumption of fixed capital.

U.S. Travel and Tourism Satellite Accounts for 1996 and 1997

By David I. Kass and Sumiye Okubo

THIS article presents estimates of the travel and tourism satellite accounts (TTSA's) for 1996 and 1997, which update the 1992 TTSA's.¹ The 1996 and 1997 TTSA's show that travel and tourism continue to be significant and growing activities in the U.S. economy. They identify the industries that benefit directly and indirectly from travel and tourism.

The TTSA's are particularly useful because tourism is not generally treated as a separate industry, so comprehensive data on tourism do not exist in most nations' economic statistics. These data are instead scattered among other industries—such as transportation services, restaurants, and sporting goods. Thus, statistics on tourism and on its economic impact tend to be an assembly of anecdotal and partial information on the numbers of travelers, recreational activities, and other physical measures of travel and tourism. The estimates of spending on travel and tourism that are available from trade associations, State agencies, and consultants often use different definitions and vary in terms of quality and timeliness.

The TTSA framework links tourism expenditures to the industries that produce tourism goods and services in the United States, and it is directly related to the U.S. national economic accounts. The TTSA's define travel and tourism as the economic activity generated inside the United States by "visitors" of all types—for business and pleasure, by residents and nonresidents alike—and outside the United States by U.S. residents.²

The TTSA's are based on the input-output (I-O) accounts, which trace the full range of commodities that are produced by each industry in the U. S. economy and are used by final consumers and which include the industry distribution of value

added. The TTSA's, as an extension of the I-O tables, focus on the travel and tourism commodities; they expand the detail provided for these commodities, and they simplify the rest of the commodity flows into an aggregate "other" category (see table 12.1). In the TTSA's, the travel and tourism commodities are identified, the total available supplies of these commodities are estimated, the share of each travel and tourism commodity and of "other" commodities that are purchased by "visitors" is calculated, and the sum of the shares is traced through the accounts to estimate travel and tourism demand. The TTSA's also provide estimates of travel and tourism value added that consist of the total value added of only the travel and tourism industries.

The 1996 TTSA's are based on the 1992 TTSA's and the 1996 annual I-O accounts, which is the latest year currently available. The 1997 TTSA's are derived by extending the 1996 estimates in order to provide more recent information.

As in the 1992 TTSA's, three alternative methodologies are used to prepare the estimates of shares of commodities purchased by visitors and nonvisitors. The results are presented as a range, rather than as a single estimate (tables 10–14). One important reason for providing a range is that the information available to allocate commodities between visitors and nonvisitors is generally based on relatively small sample surveys and indirect methods. The discussion focuses on the mid-range, method 2, estimates (tables 2–6).

From 1992 to 1997, the output and the employment of the travel and tourism industries grew more rapidly than those of the overall economy. Highlights include the following:

- Final domestic demand (in nominal terms) for travel and tourism grew at an average annual rate of 6.9 percent from 1992 to 1997, and its share of gross domestic product (GDP) increased from 3.3 percent to 3.5 percent.³

1. For an overview of the 1992 TTSA's, see Sumiye Okubo and Mark A. Planting, "U.S. Travel and Tourism Satellite Accounts for 1992," *SURVEY OF CURRENT BUSINESS* 78 (July 1998): 8–22.

The TTSA's were developed by the Bureau of Economic Analysis with the support of the Tourism Industries Office of the International Trade Administration, U.S. Department of Commerce.

2. The term "visitor" is used because it is more descriptive of the travel activities included in the TTSA's than the term "tourist," which connotes a person who travels for leisure only.

3. "Tourism final demand" now excludes business tourism demand; as a result, the shares of GDP that are presented in this article are lower than the shares that were estimated in the earlier TTSA article (see Okubo and Planting, "U.S. Travel and Tourism Satellite Accounts for 1992," 8; table 1).

- Leisure travel expenditures by U.S. households accounted for the largest share of tourism expenditures in the United States in 1997—43 percent, up from 41 percent in 1992.
- International visitors to the United States account for about a third of the U.S. trade surplus in services. The trade surplus for tourism rose from \$21.5 billion in 1992 to \$24.5 billion in 1997.
- Value added (in nominal terms) of all travel and tourism industries grew at an average annual rate of 7.5 percent from 1992 to 1997—faster than the annual GDP growth rate of 5.6 percent and faster than the growth rates for the manufacturing (5.3 percent), communications (5.6 percent), and services (6.6 percent) industries.¹ Among the tourism industries, automotive rental and leasing grew the fastest at 13.8 percent.
- The tourism industries with the highest value added in 1997 were hotels and lodging (\$54.6 billion), passenger air (\$46.1 billion), eating and drinking places (\$26.7 billion), and gifts, souvenirs, and other spending (\$14.1 billion). The relative size of tourism industries has not changed since 1992.
- Employment in travel and tourism industries rose steadily from 3.9 million in 1992 to 4.5 million in 1997; the annual rate of increase of 2.7 percent exceeded the 2.0-percent growth in total U.S. employment. Travel and tourism industries employed twice the number of workers in agriculture, eight times that in mining, and three times that in communications.
- The TTSA's show the ripple effects of tourism expenditures on other industries. In 1996, for every dollar of tourism expenditures, \$1.68 of industry output was generated—that is, U.S. travel and tourism expenditures of \$435 billion generated an additional \$295 billion of industry output for a total of \$729 billion of gross output (direct plus indirect).

The first section of this article summarizes the TTSA estimates for 1996 and 1997. The second section provides an overview of the methodologies that were used to estimate the TTSA's for 1996 and 1997.

Estimates of Travel and Tourism for 1996 and 1997

The 1996 and 1997 TTSA's provide a basis for mea-

1. See Sherlene K. S.Lum, Brian C. Moyer, and Robert E. Yuskavage, "Improved Estimates of Gross Product by Industry for 1947-98," SURVEY 80 (June 2000): Table 1, 41.

suring changes in travel and tourism activities since 1992. They show changes in visitor spending by type of visitor and commodity, the growth of travel and tourism industries and employment in these industries, and the ripple effects of this spending on other U.S. industries.

Tourism demand

In 1992-97, domestic tourism's final demand—to total tourism demand, less travel by U.S. residents abroad, less business tourism demand—increased at an average annual rate of 6.9 percent, while GDP increased at an average annual rate of 5.6 percent.² Tourism final demand purchases in the United States increased from \$208.9 billion, or 3.3 percent of GDP, in 1992 to \$291.5 billion, or 3.5 percent of GDP, in 1997 (table 1).

By category, the relative ranking of expenditures in 1997 was unchanged from that in 1992 (chart 1). The largest expenditures were in passenger air travel, followed by hotels and lodging, meals and beverages, and gifts, souvenirs, and other spending (PCE for nondurable commodities other than gasoline and oil) (table 2).

In 1992-97, the tourism expenditure categories with the fastest growth rates were other vehicle rental (18.3 percent annual growth rate) and recre-

2. These expenditures were deducted from total tourism demand so that domestic tourism final demand would be comparable with GDP. (Business expenditures are treated as intermediate expenditures in the NIPAs.) Including business tourism demand results in total domestic tourism demand of \$295 billion in 1992, \$385 billion in 1996, and \$408 billion in 1997 (see chart 1).

Tourism final demand includes all tourism expenditures for tourism commodities as well as nontourism commodities. It differs from tourism industry value added, which includes only the value added that is generated by tourism industries and excludes value added from nontourism industries (for example, industries that produce personal consumption expenditures nondurable commodities).

These results are similar to the corresponding 5-year average annual growth rates in tourism expenditures derived from the surveys by D.K. Shifflet and Associates (6.9 percent) and by the Travel Industry Association of America (5.9 percent).

Table 1.—Key Indicators of Tourism Activity in 1992, 1996, and 1997

	Tourism final demand (billions of dollars)	Tourism industry value added (billions of dollars)	Compensation (billions of dollars)	Employment (thousands)	Percent			
					Share of GDP		Share of	
					Tourism final demand	Tourism industry value added	Compensation	Employment
1992.								
Method 1	199.3	120.5	81.3	3,749	3.2	1.9	2.2	3.2
Method 2	208.9	124.5	84.5	3,933	3.3	2.0	2.3	3.3
Method 3	244.3	135.7	91.5	4,353	3.9	2.2	2.5	3.7
1996.								
Method 1	262.3	160.2	98.5	4,255	3.4	2.1	2.2	3.4
Method 2	275.2	166.0	102.0	4,440	3.5	2.1	2.3	3.5
Method 3	324.5	186.3	114.7	5,206	4.2	2.4	2.6	4.1
1997.								
Method 1	277.8	172.3	102.9	4,302	3.3	2.1	2.2	3.3
Method 2	291.5	178.7	106.6	4,491	3.5	2.2	2.3	3.5
Method 3	342.9	200.6	119.9	5,263	4.1	2.4	2.6	4.0

Note.—See the section "Estimating Methods" for a discussion of the three methods.



ation and entertainment (15.7 percent). Other vehicle rental accounted for only 0.1 percent of total tourism demand in 1997, and recreation and entertainment accounted for 7 percent.

The TTSA's show the share of spending by different types of visitors. Resident households in the United States spent more (43 percent of total tour-

ism expenditures in the United States⁶ in 1997, up from 41 percent in 1992) than the business sector (29 percent in 1992 and 1997) and the government sector (5 percent in 1997, down from 6 percent in 1992). Nonresident or international visitors accounted for 24 percent of tourism expenditures in the United States in 1992 and 1997.

International visitors to the United States have played an important role in international trade. The U.S. trade surplus for tourism was \$21.5 billion in 1992, \$26.9 billion in 1996, and \$24.5 billion in 1997—which accounted for almost a third of the total U.S. trade surplus in services.⁷ International visitors to the United States generated \$96.2 billion of tourism demand in 1997, up 6.1 percent at an average annual rate from \$71.6 billion in 1992. Expenditures by U.S. residents overseas were \$40.0 billion in 1992 and \$53.5 billion in 1997; they accounted for 12 percent of total tourism expenditures in 1997.

Table 2.—Tourism Demand by Commodity in 1992, 1996, and 1997

[Millions of dollars in purchasers' prices]

Commodity	Tourism demand			Average annual growth rate	
	1992	1996	1997	1992–96	1992–97
Hotels and lodging places	56,577	70,229	74,103	5.6	5.5
Eating and drinking places	48,685	58,256	61,022	4.6	4.6
Passenger rail	1,226	1,217	1,296	-0.2	1.1
Passenger bus and other local transportation	3,934	4,603	4,841	4.0	4.2
Taxicabs	3,002	4,043	4,298	7.7	7.4
Domestic passenger air fares	48,466	60,529	64,856	5.7	6.0
International air fares	32,159	40,760	45,156	6.1	7.0
Passenger water	4,150	4,490	4,384	2.0	1.1
Auto and truck rental	12,132	20,553	21,092	14.1	11.7
Other vehicle rental	209	452	485	21.3	18.3
Arrangement of passenger transportation	2,919	3,761	3,766	6.5	5.2
Recreation and entertainment	15,500	29,434	32,202	17.4	15.7
Participant sports	3,678	5,103	5,311	8.5	7.6
Movie, theater, ballet, and musical events	4,673	5,987	6,511	6.4	6.9
Sports events	1,385	1,738	1,763	5.8	4.9
Travel by U.S. residents abroad	39,964	49,452	53,451	5.5	6.0
Gasoline and oil	11,864	14,217	14,371	4.6	3.9
Personal consumption expenditure nondurable commodities other than gasoline and oil	37,362	50,722	52,745	7.9	7.1
Parking, automotive repair, and highway tolls	7,008	9,066	9,514	6.6	6.3
Total	334,893	434,613	461,166	6.7	6.6

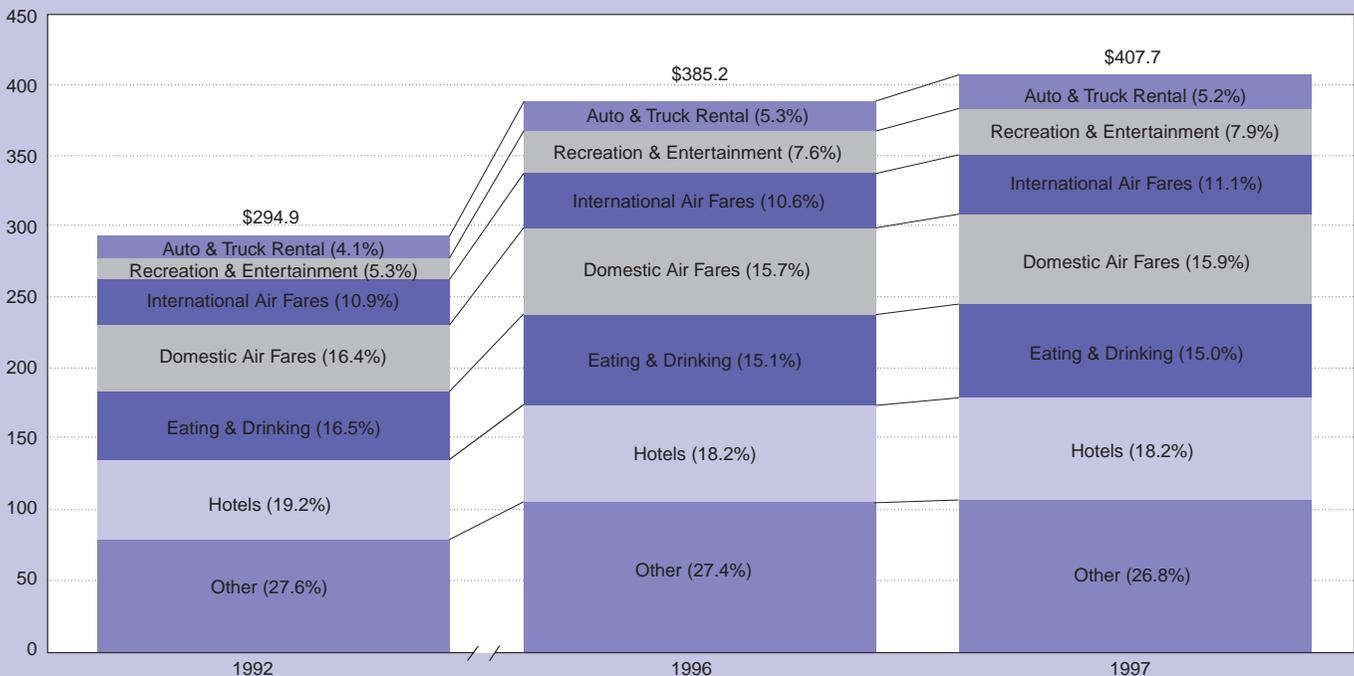
Note.—The estimates shown in this table are those that were derived using method 2; see the section "Estimating Methods" in the text.

6. Total tourism demand less travel expenditures by U.S. residents abroad.
 7. The tourism trade surplus is calculated by subtracting imports (travel by U.S. residents abroad plus international air fares plus "passenger water") from exports (nonresident tourism demand) (see tables 11 and 12). These estimates of the tourism trade surplus differ from those calculated from the U.S. international transactions accounts (ITA's) tables (see Douglas B. Weinberg, "U.S. International Transactions, First Quarter 1999," SURVEY 79 (July 1999): 75–119). In the I-O accounts and the NIPAs, U.S. territories and Puerto Rico are included in the rest of the world; in the ITA's, they are treated as part of the United States.

CHART 1

Tourism Demand¹

Billion \$ (Percent of total)



1. Method 2
 U.S. Department of Commerce, Bureau of Economic Analysis

Tourism value added

In 1992–97, the total value added of the travel and tourism industries rose at an annual rate of 7.5 percent, compared with a 5.6-percent increase in GDP (table 3). Furthermore, the tourism industries grew more rapidly than manufacturing (5.3 percent), communications (5.6 percent), and services (6.6 percent).⁸ Tourism industry value added was \$178.7 billion, or 2.2 percent of GDP, in 1997, up from \$124.5 billion, or 2.0 percent of GDP, in 1992 (table 1).

This relatively faster pace of growth may have resulted because expenditures for travel and tourism tend to be income elastic—that is, they tend to grow faster than the overall economy during periods of expansion. Several economic studies have concluded that various components of tourism expenditures are income elastic—such as spending on airline travel, hotels (number of nights away from home), restaurant meals away from home, auto repairs, parking, and tolls, and gasoline.⁹

The two fastest growing travel and tourism industries were the automotive rental and leasing industry and the miscellaneous amusement and recreation services industry. Value added for auto-

motive rental and leasing grew at an annual rate of 13.8 percent; in 1997, its value added was \$11.2 billion, or 6 percent of tourism GDP. Miscellaneous amusement and recreation services grew 12.3 percent; its value added was \$7.6 billion, or 4 percent of tourism GDP.

Tourism employment

Employment in the travel and tourism industries increased 14 percent—from 3.9 million in 1992 to 4.5 million in 1997. Its average annual growth rate of 2.7 percent exceeded the 2.0-percent growth in total employment in the United States (table 4).¹⁰ Employment growth in the travel and tourism industries also exceeded that in manufacturing (0.6 percent) and communications (2.3 percent), but it lagged that in services (4.0 percent). Employment in the travel and tourism industries accounted for 3.5 percent of total employment in 1997, up from 3.3 percent in 1992 (table 1).

In 1997, the largest tourism industry employers were hotels and lodging places, with 1.5 million employees, and eating and drinking places, with 1.3 million employees. These two industries were also the largest tourism employers in 1992 (table 4). In 1992–97, the tourism industry with the fastest employment growth rate was miscellaneous

8. See table 3 and Lum, Moyer, and Yuskavage, "Improved Estimates of Gross Product by Industry for 1947–98," 41, table 1.

9. For example, see Rodney E. Falvey and Norman Gemmill, "Are Services Income-Elastic? Some New Evidence," *The Review of Income and Wealth* 42 (September 1996): 257–269; and Thomas C. Jensen, "Income and Price Elasticities by Nationality for Tourists in Denmark," *Tourism Economics* 4(2) (June 1998): 101–130. See also Paul A. Samuelson and William D. Nordhaus, *Economics*, 15th edition (New York: McGraw-Hill, 1995): 79–82.

10. The estimates of tourism employment do not include self employment because this information is only available at the two-digit Standard Industrial Classification level. Total tourism employment is, therefore, higher than the levels shown in the TTSA's (table 4, table 14).

Table 3.—Tourism Value Added by Industry in 1992, 1996, and 1997

[Millions of dollars]

Industry	Tourism industry value added			Average annual growth rate	
	1992	1996	1997	1992–96	1992–97
Hotels and lodging places	42,008	51,275	54,625	5.1	5.4
Eating and drinking places	18,918	24,382	26,660	6.5	7.1
Railroads and related services	757	694	720	-2.2	-1.0
Local and suburban transit and interurban highway passenger transportation, except taxicabs	1,401	1,803	2,128	6.5	8.7
Taxicabs	1,707	2,482	2,715	9.8	9.7
Air transportation	30,451	42,121	46,099	8.4	8.6
Water transportation	1,385	1,567	1,972	3.1	7.3
Automotive rental and leasing, without drivers	5,871	11,291	11,186	17.8	13.8
Arrangement of passenger transportation	1,854	2,186	2,106	4.2	2.6
Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing including track operation; marinas; libraries and museums, art galleries, and botanical and zoological gardens	4,281	6,950	7,647	12.9	12.3
Membership sports and recreation clubs	2,203	2,797	2,781	6.2	4.8
Motion picture theaters; dance studios, schools, and halls; theatrical producers (except motion pictures), bands, orchestras, and entertainers	2,033	2,213	2,725	2.1	6.0
Professional sports clubs and promoters	559	711	703	6.2	4.7
Gasoline service stations	1,632	2,287	2,473	8.8	8.7
Retail excluding eating and drinking places and gasoline services stations	9,466	13,271	14,119	8.8	8.3
Total tourism industries	124,528	166,029	178,659	7.5	7.5

Note.—The estimates shown in this table are those that were derived using method 2; see the section "Estimating Methods" in the text.

Table 4.—Tourism Employment by Industry in 1992, 1996, and 1997

[Thousands of employees]

Industry	Tourism employment			Average annual growth rate	
	1992	1996	1997	1992–96	1992–97
Hotels and lodging places	1,347	1,452	1,474	1.9	1.8
Eating and drinking places	1,158	1,317	1,327	3.3	2.8
Railroads and related services	9	7	7	-5.4	-3.7
Local and suburban transit and interurban highway passenger transportation, except taxicabs	103	106	109	0.6	1.2
Taxicabs	15	15	15	0.0	0.1
Air transportation	506	575	565	3.3	2.3
Water transportation	14	14	17	-0.7	3.0
Automotive rental and leasing, without drivers	97	125	126	6.4	5.3
Arrangement of passenger transportation	43	48	46	3.2	1.8
Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing including track operation; marinas; libraries and museums, art galleries, and botanical and zoological gardens	120	184	196	11.1	10.3
Membership sports and recreation clubs	95	103	105	2.1	2.0
Motion picture theaters; dance studios, schools, and halls; theatrical producers (except motion pictures), bands, orchestras, and entertainers	56	61	63	2.1	2.1
Professional sports clubs and promoters	6	6	6	0.7	0.4
Gasoline service stations	47	50	50	1.6	1.3
Retail excluding eating and drinking places and gasoline services stations	318	378	384	4.5	3.9
Total tourism industries	3,933	4,440	4,491	3.1	2.7
Total industries	117,998	127,009	130,085	1.9	2.0
Tourism share (percent)	3.3	3.5	3.5		

Note.—The estimates shown in this table are those that were derived using method 2; see the section "Estimating Methods" in the text.

amusement and recreation services (10.3 percent).

Tourism employee compensation

The average compensation of employees in the tourism industries in 1997 (\$23,475) remained below that of all employees in the United States (\$35,944). Compensation of tourism employees ranged from \$93,765 for professional sports clubs and promoters to \$13,395 for eating and drinking places (table 5). In 1992–97, tourism compensation increased at an average annual rate of 4.7 percent, while total compensation increased 5.1 percent. Compensation of tourism employees accounted for 2.3 percent of total compensation of employees in 1997, the same as in 1992 (table 5).

Employees' share of income, as measured by the ratio of compensation to value added, in tourism industries tends to be larger than in other industries. In 1992, the ratio was 68 percent, while the ratio of total compensation to GDP was 58 percent. By 1997, the difference between these ratios had narrowed considerably: The tourism compensation ratio was 60 percent, and the national ratio was 56 percent. The decline in the tourism compensation ratio reflected the fact that tourism

compensation grew more slowly than tourism value added.

Indirect effects of tourism expenditures

Because the TTSA's are tied to the I-O accounts, the ripple effects of tourism expenditures on other industries can also be estimated. The total (direct) U.S. travel and tourism expenditures in 1996 of \$435 billion generated an additional (indirect) \$295 billion, or total industry output of \$729 billion—that is, every \$1.00 of tourism expenditures generated an additional \$0.68 of industry output (table 6).¹¹ The ripple effects of these expenditures differ for each tourism commodity.¹² For example, in 1996, every \$1.00 spent on restaurants and food services generated an additional \$1.05 in the agriculture, food-processing, distribution, and other industries. Similarly, every \$1.00 spent on hotels generated an additional \$0.76 of industry output, every \$1.00 spent on air travel generated an additional \$0.84 of industry output, and every \$1.00 spent on amusements generated an additional \$0.79 of industry output.

The multipliers for 1996 are very similar to those derived from the 1992 TTSA's and the 1992 benchmark input-output accounts. For example, every \$1.00 of tourism expenditures in 1992 generated an additional \$0.69 of industry output.

Table 5.—Compensation of Tourism Employees by Industry in 1992, 1996, and 1997

[Millions of dollars]

Industry	Tourism employment			Average annual growth rate	
	1992	1996	1997	1992–96	1992–97
Hotels and lodging places	26,453	32,240	33,847	5.1	5.1
Eating and drinking places	13,795	16,856	17,778	5.1	5.2
Railroads and related services	534	461	491	-3.6	-1.7
Local and suburban transit and interurban highway passenger transportation, except taxicabs	3,378	4,063	4,261	4.7	4.8
Taxicabs	494	578	576	4.0	3.1
Air transportation	24,060	27,179	27,736	3.1	2.9
Water transportation	673	715	877	1.5	5.5
Automotive rental and leasing, without drivers	2,041	2,762	2,909	7.9	7.3
Arrangement of passenger transportation	1,122	1,466	1,495	6.9	5.9
Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing including track operation; marinas; libraries and museums, art galleries, and botanical and zoological gardens	2,085	3,058	3,356	10.1	10.0
Membership sports and recreation clubs	1,711	2,024	2,110	4.3	4.3
Motion picture theaters; dance studios, schools, and halls; theatrical producers (except motion pictures), bands, orchestras, and entertainers	1,208	1,796	1,909	10.4	9.6
Professional sports clubs and promoters	446	526	529	4.2	3.5
Gasoline service stations	750	847	869	3.1	3.0
Retail excluding eating and drinking places and gasoline service stations	5,762	7,444	7,828	6.6	6.3
Total tourism industries	84,511	102,015	106,571	4.8	4.7
Total industries	3,645,042	4,395,585	4,675,738	4.8	5.1
Tourism share (percent)	2.3	2.3	2.3		

Note.—The estimates shown in this table are those that were derived using method 2; see the section "Estimating Methods" in the text.

Estimating Methods

The TTSA's are presented as a set of five tables that show the industry sources of supply of tourism commodities, the demand for tourism commodi-

11. The multipliers for 1997 were not estimated, because input-output accounts for 1997 are not yet available.

12. For multipliers for each travel and tourism commodity, see Table 5.—Industry-by-Commodity Total Requirements, 1996, SURVEY 80 (January 2000): 84–86.

Table 6.—Direct and Indirect Required Industry Output From Tourism Demand in 1996

[Millions of dollars]

Major industry group	Tourism demand by input-output commodity ¹	Indirect industry output by industry ²	Direct and indirect required industry output by industry
Agriculture	1,430	16,434	17,864
Minerals	13	20,230	20,243
Construction	29	10,552	10,581
Manufacturing	34,742	102,129	136,871
Transportation, utilities, and communication	121,771	50,037	171,808
Trade	29,186	20,118	49,304
Finance	3,139	48,542	51,681
Services	194,746	65,702	260,448
Other	49,557	-39,159	10,398
Total	434,612	294,586	729,198

1. The estimates shown in this table are those that were derived using method 2; see the section "Estimating Methods" in the text.

2. See "Table 5.—Industry-by-Commodity Total Requirements, 1996," SURVEY OF CURRENT BUSINESS 80 (January 2000): 84–86.

ties, tourism GDP, and tourism employment and compensation of tourism employees (see tables 10–14). The following section briefly explains the methods used to develop these estimates.

The production account of tourism industries

Estimates of industry output for 1996 and 1997 are presented in table 10, which shows the production of tourism commodities by industries. The 1996 estimates are from the 1996 annual I-O accounts. Because annual I-O tables for 1997 are not yet

available, the 1997 estimates were extrapolated from 1996 levels using methods similar to those that are used to estimate output levels for the annual I-O accounts. For more information, see table 7.

Supply and consumption of tourism commodities

Estimates for supply and consumption of tourism and all other commodities are presented in table 11. The 1996 estimates are from the 1996 annual I-O accounts. The 1997 estimates for the supply

Table 7.—Methods of Estimating the Output of TTSA Industries

TTSA industry	Standard Industrial Classification	Sources for extrapolation
Hotels and lodging places	70	Service Annual Survey
Eating and drinking places	58	Annual Retail Trade Survey
Railroads and related services	401	Total operating revenue for Class I railroads from trade source, and AMTRAK.
Local and suburban transit and inter-urban highway passenger transportation, except taxicabs	411, 413, 414	Transit Fact Book (directly generated funds)
Taxicabs	412	Taxicab PCE
Air transportation	451, 452	Operating revenues of air carriers from Air Carrier Financial Statistics
Water transportation	441, 442, 443, 444, 448, 4492, 4499	Freight and passenger revenue data from trade source
Automotive rental and leasing, without drivers	751	Service Annual Survey
Arrangement of passenger transportation	472	Service Annual Survey
Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing, including track operation; marinas; libraries, museums, art galleries, and botanical and zoological gardens	4493, 7948, 7992, 7993, 7996, 7999, 823, 84	Service Annual Survey
Membership sports and recreation clubs	7997	Service Annual Survey
Motion picture theaters; dance studios, schools, and halls; theatrical producers (except motion pictures), bands, orchestras, and entertainers	783, 791, 792	Service Annual Survey
Professional sports clubs and promoters	7941	Service Annual Survey
Gasoline service stations	5541	Annual Retail Trade Survey
Retail, excluding eating and drinking places and gasoline service stations	52-59 (excluding 58 and 5541)	Annual Retail Trade Survey
Industries producing nondurable PCE goods	20, 21, 22, 23, 26, 27, 28, 29, 30, 31	Annual Survey of Manufactures
Automobile parking, automotive repair shops and services, and toll highways	7521, 7530, 7549	Service Annual Survey

PCE Personal consumption expenditures
 TTSA Travel and tourism satellite accounts

components are from the NIPAs or are extrapolations of the 1996 I-O accounts. Estimates of the consumption components excluding intermediate consumption are from the NIPAs; intermediate consumption is the residual of supply less all other consumption.¹³ For TTSA commodity definitions and details for estimating personal consumption expenditures for the TTSA commodities, see [table 8](#).

Tourism demand by type of commodity and type of visitor

The tourism commodities purchased by consumers were separated into two types. "Pure-tourism" commodities are commodities for which all or most of the expenditures are by visitors, such as hotels and lodging places. "Mixed-use" commodities are commodities for which the expenditures are by both visitors and nonvisitors, such as restaurant meals.

For mixed-use commodities, data from the Bureau of Labor Statistics (BLS) Consumer Expenditure Survey (CEX) were used to allocate the shares of consumer spending between visitors and nonvisitors. The 1992 CEX data were extrapolated by appropriate PCE components to estimate mixed-use expenditures for 1996 and 1997.

Because of data limitations, the three methods that were used to provide a range of estimates for mixed-use commodities in the 1992 TTSA's were

13. Supply is defined as the total amount of the commodity available to be purchased by business, households, and government and for export. It is the sum of domestic production, imports, government sales, inventory changes, wholesale and retail margins, and transportation costs.

The consumption side of this table shows the intermediate (business) and final purchases (personal consumption expenditures, investment, exports, and government expenditures excluding sales) of these commodities in purchasers' prices.

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also used to estimate those commodities in the 1996 and 1997 TTSA's.¹⁴

- Under "Method 1," the CEX estimates for tourism expenditures were assumed to be accurately reported. Thus, tourism expenditures were estimated under this method as the CEX estimates minus estimated overseas expenditures by U.S. residents.
- Under "Method 2," the CEX estimates for tourism expenditures were assumed to be as accurate as the estimates of nontourism expenditures for the same commodities; thus, PCE was used as the control total for total spending for each commodity. Tourism expenditures were estimated as the ratio of CEX expenditures (adjusted for overseas spending) on tourism commodities to total CEX expenditures, multiplied by PCE less nonresident expenditures. The ratios of CEX were applied to the corresponding PCE values for 1996 and 1997.
- Under "Method 3," the CEX estimates for travel and tourism activities were assumed to be more understated than the estimates of other consumer expenditures; thus, the travel estimates were first adjusted using data from the Travel Industry Association (TIA) and from D.K. Shifflet and Associates and information on the ratio of CEX to PCE for comparable expenditure categories. The 1992 adjustment factor for the CEX of 1.5 was then used for the 1996 and 1997 estimates.¹⁵ Tourism expenditures were estimated as the ratio of adjusted CEX expenditures on out-of-town trips (less overseas expenditures) divided by the total CEX expenditures (less overseas expenditures), multiplied by PCE less nonresident expenditures.

The method 3 estimates for eating and drinking places were further adjusted using estimates from TIA and from D.K. Shifflet and Associates. This adjustment consisted of using a weighted average of the TIA estimate, the Shifflet estimate, and the method 3 estimate for resident households.

The CEX does not provide an estimate of "shopping"—PCE for nondurable commodities

14. For a further discussion of the limitations of using the CEX to estimate the TTSA's, see Okubo and Planting, "U.S. Travel and Tourism Satellite Accounts for 1992," 18–19.

15. This factor was calculated for 1992 by (1) computing the average ratio of the CEX estimate to the PCE estimate for all corresponding expenditure categories; (2) identifying the matched expenditure categories with a CEX-to-PCE ratio that was less than the average ratio; (3) computing the average CEX-to-PCE ratio for the expenditure categories identified in step (2); and (4) dividing the average CEX-to-PCE ratio from (1) by the average CEX-to-PCE ratio from (3).

Table 8.—TTSA Commodity Definitions and Methods of Estimating Personal Consumption Expenditures

TTSA commodity	Commodity definition	Personal consumption expenditures
Hotels and other lodging places	Lodging receipts from hotels, motels, guestrooms, and rooming and boarding houses serving the general public; other receipts of hotels and motels, sporting and recreational camps, and recreational vehicle parks and campsites Excludes meals served by hotels or motels	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for other housing
Eating and drinking places	Food and beverage receipts and tips Excludes catering services and school lunch sales by State and local governments	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for meals and beverages
Passenger rail	Receipts from rail passengers—including fares, tips, and dining-car receipts	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for passenger rail
Passenger bus and other local transportation	Receipts from bus passengers—including intercity, charter, local bus, and subway—and limousine services	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for passenger bus and other local transportation
Taxi	Taxi fares, including tips	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for taxicab
Domestic passenger air fares	Receipts from domestic air passengers including airfares, meal and beverage receipts, movie receipts, and other receipts	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for domestic air passenger fares
International air fares	Receipts from international air passengers	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for foreign air passenger fares
Passenger water	Receipts from passengers	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for passenger water transportation
Auto and truck rental	Receipts from rental of automobiles	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for auto and truck rental
Other vehicles	Receipts from rental of recreation vehicles and utility trailers	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for trailer and recreational vehicle rental
Arrangement of passenger transportation	Commissions for the arrangement of passenger transportation and tour receipts	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for arrangement of passenger transportation
Recreation and entertainment	Miscellaneous entertainment receipts—including amusement parks, fairs, museums, gambling, and other recreation and amusements	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for recreation and entertainment
Participant sports	Participant sports, such as golf and tennis	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for participant sports
Movie, theater, ballet, and musical events	Receipts for admissions to movies, theater, and music programs	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for movie, theater, ballet, and musical events
Sports events	Admissions to sports events	1996—level from annual I-O 1997—extrapolated from 1996 by PCE for sports events
Travel by U.S. residents abroad	Travel expenditures by U.S. residents abroad	1996—level from annual I-O accounts 1997—PCE travel by U.S. residents abroad
Gasoline and oil	Sales of gasoline, diesel fuel, lubricating oils, and grease	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for gasoline and oil
PCE nondurable commodities	Sales of all commodities that are sold primarily to PCE nondurables	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for nondurables excluding gasoline
Selected services	Parking, tolls, and automotive repair services	1996—level from annual I-O accounts 1997—extrapolated from 1996 by PCE for parking and automotive repair

other than gasoline and oil by resident households. PCE for nondurable commodities by visitors was estimated using an average of the ratios of visitor shopping (from the Shifflet survey and the In-Flight Survey) to the sum of expenditures for hotels, meals, and recreation.¹⁶ This average ratio was applied to the three sets of estimates of the sum of resident household purchases of the following TTSA commodities: Hotels and lodging places; eating and drinking places; arrangement of passenger transportation (tours); recreation and entertainment; participant sports; movie, theater, ballet, and musical events; and sports events.

The methods and sources used to prepare the estimates of visitor expenditures presented in table 12 are shown in table 9. For each of the TTSA commodities, the methods and sources for resident, nonresident, business, and government demand are shown.

16. The 1992 In-Flight Survey ratios were applied to 1996 and 1997 because of the large unexplained variation in these ratios between 1996 and 1997.

Estimating tourism employment and compensation of employees

The TTSA estimates of tourism employment and compensation were developed from BLS estimates of average monthly employment by industry at the four-digit Standard Industrial Classification (SIC) level and from BEA estimates at the two-digit SIC level. Employment and compensation were estimated at the four-digit SIC level by applying employment and compensation weights from the BLS estimates to the BEA estimates.¹⁷ Employment and compensation by SIC industry were assigned to the TTSA industries. Tourism employment and compensation of tourism employees were estimated by multiplying employment and industry compensation, respectively, by the tourism-industry ratio for each of the three methods.

17. BEA adjusts the BLS data for industries that are not covered or that are partially covered, such as railroads, agriculture, and membership organizations. Other adjustments include additions for employees of nonprofit institutions and for misreporting on employment tax returns. (See *State Personal Income, 1969-98* [CD-ROM] (Washington, DC: Bureau of Economic Analysis, 2000.)

Tables 9 through 14 follow. 

Table 9.—Methods of Estimating Demand for TTSA Commodities

TTSA commodity	Methods and sources for visitor expenditures
Hotels and other lodging places	Resident—All PCE less nonresident expenditures. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight of lodging expenditures from the In-Flight Survey. Business—All intermediate expenditures. Government—All government expenditures.
Eating and drinking places	Resident—PCE less nonresident expenditures times CEX weight of expenditures on trips. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight of meals expenditures from the In-Flight Survey. Business—Intermediate expenditures times BEA derived weight from American Express Survey of Business Travel Management. Government—Government expenditures times business ratio of meals to lodging expenditures.
Passenger rail	Resident—All PCE less nonresident expenditures. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism. Business—All intermediate expenditures. Government—All government expenditures.
Passenger bus and other local transportation	Resident—All intercity bus PCE less nonresident expenditures. Local transportation is PCE less nonresident expenditures times CEX weight of expenditures on trips. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism. Business—All intercity bus intermediate expenditures. Local transportation is intermediate expenditures times resident ratio of tourism expenditures to total expenditures. Government—All intercity bus government expenditures. Local transportation is government expenditures times resident ratio of tourism expenditures to total expenditures.
Taxi	Resident—PCE less nonresident expenditures times CEX weight of expenditures on trips. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism. Business—Intermediate expenditures times resident ratio of tourism expenditures to total expenditures. Government—Government expenditures times resident ratio of tourism expenditures to total expenditures.
Domestic passenger air fares	Resident—All PCE less nonresident expenditures. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism. Business—All intermediate expenditures. Government—All government expenditures.
International air fares	Resident—All PCE less nonresident expenditures. Nonresident—All exports of international air fares. Business—All intermediate expenditures. Government—All government expenditures excluding military airlift command expenditures.
Passenger water	Resident—All PCE except ferries less nonresident expenditures. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey plus exports of water passenger fares.
Auto and truck rental	Resident—CEX for auto and truck rental on trips. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism. Business—All intermediate expenditures. Government—All government expenditures.
Other vehicles	Resident—CEX for rental of campers and other vehicles on trips. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism.
Arrangement of passenger transportation	Resident—All PCE for tours. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism. Government—All government expenditures.
Recreation and entertainment	Resident—PCE gambling times estimated tourism ratio less nonresident expenditures. All other recreation was the CEX adjusted to PCE levels (non-profit institutions tourism estimates are admissions paid rather than expenses). Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism. Business—BEA estimates based on business, travel, and entertainment estimates reported in the 1992 Census of Services.
Participant sports	Resident—PCE less nonresident expenditures times CEX weight of expenditures on trips. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism.
Movie, theater, ballet, and musical events	Resident—PCE less nonresident expenditures times CEX weight of expenditures on trips. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism.
Sports events	Resident—PCE less nonresident expenditures times CEX weight of expenditures on trips. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism.
Travel by U.S. residents abroad	Resident—International transactions accounts and estimated PCE share. Business—International transactions accounts and estimated business share.
PCE nondurable commodities	Resident—Estimated as 25 percent of resident tourism demand for lodging, eating and drinking, recreation, and tours. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey.
Selected services	Resident—Tolls and parking PCE less nonresident expenditures times CEX weight of expenditures on trips. Automotive repair estimated by applying the ratio of PCE automotive repair to PCE gasoline times resident tourism gasoline. Nonresident—Total expenditures in the United States by nonresidents times BEA estimate of weight from the In-Flight Survey and resident tourism. Business—Tolls and parking estimated as intermediate expenditures times the ratio of resident tourism tolls and parking to PCE tolls and parking. No estimates are made for automotive service. Government—Tolls and parking estimated as government expenditures times the ratio of resident tourism tolls and parking to PCE tolls and parking. No estimates are made for automotive service.

Note: (1) The 1992 CEX weights were applied to 1996 and 1997.

(2) The 1992 CEX levels were extrapolated by PCE.

(3) The 1992 In-Flight Survey weights were applied to 1996 and 1997.

CEX Consumer expenditure survey
PCE Personal consumption expenditures

Table 10.1.—Production Account of Tourism Industries and All Other Industries, 1996
[Millions of dollars]

Commodity	Industry ¹																	Domestic production (producers' prices) ⁵	
	Hotels and lodging places	Eating and drinking places	Railroads and related services ²	Local and suburban transit and interurban high-way passenger transportation, except taxicabs ²	Taxicabs	Air transportation	Water transportation ²	Automotive rental and leasing, without drivers	Arrangement of passenger transportation	Industries producing recreation and entertainment commodities ³	Membership sports and recreation clubs	Industries producing movies, theaters, ballet, and musical events ⁴	Professional sports clubs and promoters	Gasoline services stations	Retail excluding eating and drinking places and gasoline services stations	Industries producing nondurable personal consumption expenditure commodities other than gasoline and oil	Automobile parking, automotive repair shops and services, and toll highways ²		All other industries
Hotels and lodging places	69,317										329							83	69,729
Eating and drinking places	20,765	262,923								1,824	4,488	20		2,661	16,382			11,781	320,842
Passenger rail			1,217																1,217
Passenger bus and other local transportation				16,038															16,038
Taxicabs					8,898														8,898
Domestic passenger air fares						60,509												19	60,528
International air fares						26,124													26,124
Passenger water							4,245												4,245
Auto and truck rental								24,606						38	950		79	81	25,754
Other vehicle rental								931						5	46				982
Arrangement of passenger transportation									16,966										16,966
Recreation and entertainment	13,048									44,047	14				415	805		1,342	59,670
Participant sports										2,981	11,232								14,214
Movie, theater, ballet, and musical events												27,042						95	27,137
Sports events													4,375					1,359	5,733
Petroleum retail margins		15								56				35,836			133	275	36,315
Other retail margins	662	690						120		1,468	254	117	60		628,568		1,061	17,559	650,559
Travel by U.S. residents abroad																			
Gasoline and oil																120,530		8,424	128,954
Personal consumption expenditures nondurable commodities other than gasoline and oil															10,938	977,047		10,220	998,205
Parking, automotive repair, and highway tolls														3,612	52,811		87,127	5,074	148,624
Wholesale trade margins and transportation costs			34,970	7		17,469	2,756									19,535		803,536	878,273
All other commodities	1,018	17,693	2,224	4,111	6,767	21,428	8,988	113	4,992		3,139	7,919	1,261	17,443	432,126	1,934	9,759,292	10,290,449	
Industry output	104,810	281,321	38,411	20,156	8,898	110,869	28,430	34,644	17,079	55,368	16,317	30,318	12,354	43,413	727,554	1,550,042	90,335	10,619,140	13,789,458
Intermediate inputs	41,459	137,644	16,517	12,260	3,436	56,881	17,497	15,151	7,150	20,791	7,512	18,997	4,847	12,128	243,013	967,159	44,554		
Compensation of employees	39,833	99,330	14,548	17,790	2,638	34,836	4,987	4,768	6,658	15,214	6,373	9,190	5,552	11,586	271,796		25,858		
Other value added	23,518	44,346	7,346	-9,894	2,824	19,152	5,946	14,726	3,271	19,362	2,432	2,132	1,955	19,699	212,745		19,922		

1. Industries are defined on an SIC basis.

2. Includes government enterprises.

3. Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing including track operation; marinas; libraries and museums, art galleries, and botanical and zoological gardens.

4. Motion picture theaters; dance studios, schools and halls; theatrical producers (except motion pictures), bands, orchestras, and entertainers.

5. The industry output for domestic production is in purchasers' prices because it includes margins and transportation costs.

Table 10.2.—Production Account of Tourism Industries and All Other Industries, 1997
[Millions of dollars]

Commodity	Industry ¹																	Domestic production (producers' prices) ⁵	
	Hotels and lodging places	Eating and drinking places	Railroads and related services ²	Local and suburban transit and interurban high-way passenger transportation, except taxicabs ²	Taxicabs	Air transportation	Water transportation ²	Automotive rental and leasing, without drivers	Arrangement of passenger transportation	Industries producing recreation and entertainment commodities ³	Membership sports and recreation clubs	Industries producing movies, theaters, ballet, and musical events ⁴	Professional sports clubs and promoters	Gasoline services stations	Retail excluding eating and drinking places and gasoline services stations	Industries producing nondurable personal consumption commodities other than gasoline and oil	Automobile parking, automotive repair shops and services, and toll highways ²		All other industries
Hotels and lodging places	73,154										348							84	73,586
Eating and drinking places	21,323	280,245								1,999	4,743	21		2,771	16,763			12,275	340,141
Passenger rail			1,296																1,296
Passenger bus and other local transportation				16,877															16,877
Taxicabs					9,443														9,443
Domestic passenger air fares						64,835												21	64,856
International air fares						27,476													27,476
Passenger water							4,631												4,631
Auto and truck rental								25,188						40	1,049		82	86	26,445
Other vehicle rental								997						5	52				1,054
Arrangement of passenger transportation									16,970										16,970
Recreation and entertainment	13,402									48,779	15				449			1,410	64,944
Participant sports										3,286	11,534								14,820
Movie, theater, ballet, and musical events												29,415						92	29,508
Sports events													4,548					1,142	5,690
Petroleum retail margins		16									57			38,642				141	274
Other retail margins	679	717								1,563	268	124	68	665,878				1,113	688,905
Travel by U.S. residents abroad																			
Gasoline and oil																115,386		8,649	124,036
Personal consumption expenditures nondurable commodities other than gasoline and oil															11,236	1,022,407		8,506	1,042,149
Parking, automotive repair, and highway tolls														3,762	56,879		90,234	5,112	155,988
Wholesale trade margins and transportation costs			35,770	6		21,369	2,306									20,768		862,659	942,878
All other commodities	2,189	17,952	1,935	4,265		8,114	19,899	9,215	1,255	4,661		5,287	8,996	1,477	21,918	449,430	7,733	n.a.	n.a.
Industry output	110,746	298,930	39,001	21,149	9,443	121,794	26,836	35,529	18,225	60,345	16,908	34,847	13,613	46,698	774,223	1,608,881	99,303	n.a.	n.a.
Intermediate inputs	42,805	140,417	17,318	11,853	3,478	60,887	14,931	16,187	8,035	22,854	8,102	20,091	5,752	12,819	257,919	1,010,904	46,932		
Compensation of employees	42,097	105,704	14,767	18,617	2,626	36,645	5,294	5,029	7,236	16,455	6,683	10,339	5,907	11,911	286,254		27,571		
Other value added	25,844	52,809	6,916	-9,320	3,339	24,261	6,611	14,312	2,955	21,036	2,123	4,416	1,954	21,968	230,050		24,799		

1. Industries are defined on an SIC basis.

2. Includes government enterprises.

3. Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing including track operation; marinas; libraries and museums, art galleries, and botanical and zoological gardens.

4. Motion picture theaters; dance studios, schools and halls; theatrical producers (except motion pictures), bands, orchestras, and entertainers.

5. The industry output for domestic production is in purchasers' prices because it includes margins and transportation costs.

Table 11.1.—Supply and Consumption of Tourism and All Other Commodities, 1996
[Millions of dollars]

Commodity	Supply							Consumption					
	Domestic production (producers' prices)	Imports	Government sales	Change in private inventories	Wholesale trade margins and transportation costs	Retail margins	Total supply ¹	Intermediate	Personal consumption expenditures	Gross private fixed investment	Exports of goods and services	Government expenditures excluding sales ²	Total consumption
Hotels and lodging places	69,729		500				70,229	33,459	29,913			6,857	70,229
Eating and drinking places	320,842						320,842	33,353	281,479		390	5,620	320,842
Passenger rail	1,217						1,217	304	820			93	1,217
Passenger bus and other local transportation	16,038						16,038	3,060	12,891			87	16,038
Taxicabs	8,898						8,898	4,872	3,530			496	8,898
Domestic passenger air fares	60,528						60,528	28,236	26,227			6,065	60,528
International air fares	26,124	14,847					40,971	4,019	16,327		20,039	587	40,971
Passenger water	4,245	453					4,698		4,505		333		4,698
Auto and truck rental	25,754						25,754	18,520	5,674			1,560	25,754
Other vehicle rental	982						982	687	295				982
Arrangement of passenger transportation	16,966						16,966	11,857	3,622		1,348	139	16,966
Recreation and entertainment	59,670		5,158				64,828	1,546	62,102			1,180	64,828
Participant sports	14,214						14,214	1,689	12,525				14,214
Movie, theater, ballet, and musical events	27,137	200					27,337	10,246	16,668		150	273	27,337
Sports events	5,733	140					6,499	1,498	4,156		392	453	6,499
Petroleum retail margins	36,315		625										
Other retail margins	650,559												
Travel by U.S. residents abroad		49,452					49,452	12,821	36,631				49,452
Gasoline and oil	128,954	7,280		1,313	73,303	36,315	244,540	91,546	137,171		2,976	12,847	244,540
Personal consumption expenditures nondurable commodities other than gasoline and oil	998,205	177,294	1,055	4,679	244,755	367,900	1,784,530	481,474	1,149,402	3,457	102,204	47,993	1,784,530
Parking, automotive repair, and highway tolls	148,624		252				148,877	47,825	97,689		12	3,351	148,877
Wholesale trade margins and transportation costs	878,273												
All other commodities	10,290,449	654,062	184,276	24,002	560,215	282,659	11,947,659	5,189,412	3,335,872	1,209,239	686,926	1,526,209	11,947,659
Total	13,789,458	903,728	191,867	29,994	878,273	686,874	14,855,059	5,976,424	5,237,500	1,212,696	814,769	1,613,810	14,855,059

1. Total supply in purchasers' prices is equal to domestic production in producers' prices plus imports, government sales, wholesale trade margins and transportation costs, and retail margins less change in private inventories. Wholesale and retail margins and transportation costs are not shown explicitly in this column, because they are included in the purchasers' values for the gasoline and oil, personal consumption expenditure nondurable commodities other than gasoline and oil, and all other commodities.

2. Includes consumption and investment expenditures and excludes government sales. Government sales are included as part of supply.

Table 11.2.—Supply and Consumption of Tourism and All Other Commodities, 1997
[Millions of dollars]

Commodity	Supply							Consumption					
	Domestic production (producers' prices)	Imports	Government sales	Change in private inventories	Wholesale trade margins and transportation costs	Retail margins	Total supply ¹	Intermediate	Personal consumption expenditures	Gross private fixed investment	Exports of goods and services	Government expenditures excluding sales ²	Total consumption
Hotels and lodging places	73,586		516				74,103	35,443	31,563			7,096	74,103
Eating and drinking places	340,141						340,141	35,518	298,410		396	5,817	340,141
Passenger rail	1,296						1,296	326	873			96	1,296
Passenger bus and other local transportation	16,877						16,877	3,222	13,566			90	16,877
Taxicabs	9,443						9,443	5,183	3,746			514	9,443
Domestic passenger air fares	64,856						64,856	29,482	29,096			6,277	64,856
International air fares	27,476	17,891					45,367	5,086	19,102		20,572	607	45,367
Passenger water	4,631	358					4,989		4,587		398		4,989
Auto and truck rental	26,445						26,445	19,004	5,826			1,614	26,445
Other vehicle rental	1,054						1,054	737	316				1,054
Arrangement of passenger transportation	16,970						16,970	11,838	3,623		1,366	143	16,970
Recreation and entertainment	64,944		5,331				70,275	2,430	66,624			1,221	70,275
Participant sports	14,820						14,820	1,761	13,059				14,820
Movie, theater, ballet, and musical events	29,508	273					29,780	11,168	18,158		172	283	29,780
Sports events	5,690	248					6,584	1,532	4,210		374	468	6,584
Petroleum retail margins	39,130		646										
Other retail margins	688,905												
Travel by U.S. residents abroad		53,451					53,451	13,858	39,593				53,451
Gasoline and oil	124,036	7,968		1,511	76,078	38,915	248,509	92,845	139,398		2,971	13,296	248,509
Personal consumption expenditures nondurable commodities other than gasoline and oil	1,042,149	190,130	1,091	3,491	246,088	368,118	1,851,067	490,392	1,197,063	3,736	110,204	49,672	1,851,067
Parking, automotive repair, and highway tolls	155,988		261				156,249	50,242	102,526		12	3,468	156,249
Wholesale trade margins and transportation costs	942,878												
All other commodities	n.a.	690,351	n.a.	63,323	n.a.	n.a.	n.a.	n.a.	3,533,059	1,311,664	735,906	n.a.	n.a.
Total	n.a.	960,669	n.a.	68,325	n.a.	n.a.	n.a.	n.a.	5,524,400	1,315,400	872,369	n.a.	n.a.

1. Total supply in purchasers' prices is equal to domestic production in producers' prices plus imports, government sales, wholesale trade margins and transportation costs, and retail margins less change in private inventories. Wholesale and retail margins and transportation costs are not shown explicitly in this column, because they are included in the purchasers' values for the gasoline and oil, personal consumption expenditure nondurable commodities other than gasoline and oil, and all other commodities.

2. Includes consumption and investment expenditures and excludes government sales. Government sales are included as part of supply.

Note.—Several columns do not have a control total (currently there are no annual input-output data for 1997). In these columns, the column totals and the estimates of "All other commodities" and "Total" are shown as n.a. (not available).

Table 12.1.—Tourism Demand by Type of Visitor, 1996

[Millions of dollars in purchasers' prices]

Commodity	Total demand	Tourism demand								
		Total tourism demand			Business			Government expenditures excluding sales		
		Method 1	Method 2	Method 3	Method 1	Method 2	Method 3	Method 1	Method 2	Method 3
Hotels and lodging places	70,229	70,229	70,229	70,229	33,459	33,459	33,459	6,857	6,857	6,857
Eating and drinking places	320,842	54,310	58,256	79,005	20,511	20,511	20,511	4,203	4,203	4,203
Passenger rail	1,217	1,217	1,217	1,217	304	304	304	93	93	93
Passenger bus and other local transportation	16,038	3,912	4,603	5,781	683	818	1,046	53	54	58
Taxicabs	8,898	1,995	4,043	6,225	1,001	2,130	3,332	91	195	304
Domestic passenger air fares	60,528	60,529	60,529	60,529	28,236	28,236	28,236	6,065	6,065	6,065
International air fares	40,971	40,760	40,760	40,760	4,019	4,019	4,019	376	376	376
Passenger water	4,698	4,490	4,490	4,490	.....	.....	.....	.....	.....	.....
Auto and truck rental	25,754	20,553	20,553	21,476	14,583	14,583	14,583	1,376	1,376	1,376
Other vehicle rental	982	272	452	452	.....	.....	.....	.....	.....	.....
Arrangement of passenger transportation	16,966	3,761	3,761	3,761	.....	.....	.....	139	139	139
Recreation and entertainment	64,828	27,650	29,434	32,548	.....	.....	.....	.....	.....	.....
Participant sports	14,214	4,969	5,103	6,630	1,588	1,588	1,588	.....	.....	.....
Movie, theater, ballet, and musical events	27,337	5,085	5,987	8,233	1,025	1,025	1,025	.....	.....	.....
Sports events	6,499	1,853	1,738	2,266	475	475	475	.....	.....	.....
Travel by U.S. residents abroad	49,452	49,452	49,452	49,452	12,821	12,821	12,821	.....	.....	.....
Gasoline and oil	244,540	13,450	14,217	20,851	2,418	2,585	4,017	222	238	368
Personal consumption expenditure nondurable commodities other than gasoline and oil	1,784,530	47,817	50,722	58,997	.....	.....	.....	.....	.....	.....
Parking, automotive repair, and highway tolls	148,877	7,859	9,066	14,039	140	254	390	83	138	216
All other commodities	11,947,659	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	14,855,059	420,164	434,613	486,942	121,263	122,808	125,806	19,557	19,733	20,054

Commodity	Tourism demand				Nontourism demand			Tourism commodity ratio ¹		
	Resident households			Nonresidents	Method 1	Method 2	Method 3	Method 1	Method 2	Method 3
	Method 1	Method 2	Method 3							
Hotels and lodging places	14,254	14,254	14,254	15,659	.....	.....	.....	1.00	1.00	1.00
Eating and drinking places	16,897	20,843	41,592	12,699	266,532	262,586	241,837	0.17	0.18	0.25
Passenger rail	639	639	639	181	.....	.....	.....	1.00	1.00	1.00
Passenger bus and other local transportation	2,506	3,061	4,007	670	12,126	11,435	10,257	0.24	0.29	0.36
Taxicabs	723	1,538	2,409	180	6,903	4,855	2,673	0.22	0.45	0.70
Domestic passenger air fares	20,456	20,456	20,456	5,771	.....	.....	.....	1.00	1.00	1.00
International air fares	16,327	16,327	16,327	20,039	211	211	211	0.99	0.99	0.99
Passenger water	3,395	3,395	3,395	1,095	208	208	208	0.96	0.96	0.96
Auto and truck rental	3,766	3,766	4,689	829	5,201	5,201	4,278	0.80	0.80	0.83
Other vehicle rental	218	398	398	54	710	530	530	0.28	0.46	0.46
Arrangement of passenger transportation	2,652	2,652	2,652	970	13,205	13,205	13,205	0.22	0.22	0.22
Recreation and entertainment	19,854	21,638	24,752	7,796	37,178	35,394	32,280	0.43	0.45	0.50
Participant sports	2,612	2,746	4,273	769	9,245	9,111	7,584	0.35	0.36	0.47
Movie, theater, ballet, and musical events	3,137	4,039	6,285	923	22,252	21,350	19,104	0.19	0.22	0.30
Sports events	1,065	950	1,478	313	4,646	4,761	4,233	0.29	0.27	0.35
Travel by U.S. residents abroad	36,631	36,631	36,631	.....	.....	.....	.....	1.00	1.00	1.00
Gasoline and oil	8,718	9,302	14,374	2,092	231,090	230,323	223,689	0.06	0.06	0.09
Personal consumption expenditure nondurable commodities other than gasoline and oil	26,430	29,335	37,610	21,387	1,736,713	1,733,808	1,725,533	0.03	0.03	0.03
Parking, automotive repair, and highway tolls	7,458	8,496	13,255	178	141,018	139,811	134,838	0.05	0.06	0.09
All other commodities .....	.....	.....	.....	.....	11,947,659	11,947,659	11,947,659	.....	.....	.....
Total	187,738	200,466	249,476	91,605	14,434,897	14,420,448	14,368,119	.....	.....	.....

1. The tourism commodity ratio is total tourism demand divided by total demand.

Table 12.2.—Tourism Demand by Type of Visitor, 1997
 [Millions of dollars in purchaser's prices]

Commodity	Total demand	Tourism demand								
		Total tourism demand			Business			Government expenditures excluding sales		
		Method 1	Method 2	Method 3	Method 1	Method 2	Method 3	Method 1	Method 2	Method 3
Hotels and lodging places	74,103	74,103	74,103	74,103	35,443	35,443	35,443	7,096	7,096	7,096
Eating and drinking places	340,141	56,886	61,022	82,640	21,689	21,689	21,689	4,342	4,342	4,342
Passenger rail	1,296	1,296	1,296	1,296	326	326	326	96	96	96
Passenger bus and other local transportation	16,877	4,108	4,841	6,082	719	861	1,102	54	56	60
Taxicabs	9,443	2,122	4,298	6,611	1,065	2,266	3,545	94	202	315
Domestic passenger air fares	64,856	64,856	64,856	64,856	29,482	29,482	29,482	6,277	6,277	6,277
International air fares	45,367	45,156	45,156	45,156	5,086	5,086	5,086	396	396	396
Passenger water	4,989	4,384	4,384	4,384	.....	.....	.....	.....	.....	.....
Auto and truck rental	26,445	21,092	21,092	22,054	14,964	14,964	14,964	1,424	1,424	1,424
Other vehicle rental	1,054	293	485	485	.....	.....	.....	.....	.....	.....
Arrangement of passenger transportation	16,970	3,766	3,766	3,766	.....	.....	.....	143	143	143
Recreation and entertainment	70,275	30,240	32,202	35,582	.....	.....	.....	.....	.....	.....
Participant sports	14,820	5,170	5,311	6,905	1,655	1,655	1,655	.....	.....	.....
Movie, theater, ballet, and musical events	29,780	5,529	6,511	8,960	1,118	1,118	1,118	.....	.....	.....
Sports events	6,584	1,878	1,763	2,299	486	486	486	.....	.....	.....
Travel by U.S. residents abroad	53,451	53,451	53,451	53,451	13,858	13,858	13,858	.....	.....	.....
Gasoline and oil	248,509	13,588	14,371	21,116	2,452	2,622	4,074	230	246	381
Personal consumption expenditure nondurable commodities other than gasoline and oil	1,851,067	49,727	52,745	61,242	.....	.....	.....	.....	.....	.....
Parking, automotive repair, and highway tolls	156,249	8,247	9,514	14,731	147	267	410	86	143	223
All other commodities	n.a.	.....	.....	.....	.....	.....	.....	.....	.....	.....
Total	n.a.	445,891	461,166	515,718	128,489	130,122	133,237	20,240	20,423	20,755

Commodity	Tourism demand				Nontourism demand			Tourism commodity ratio ¹		
	Resident households			Nonresidents	Method 1	Method 2	Method 3	Method 1	Method 2	Method 3
	Method 1	Method 2	Method 3							
Hotels and lodging places	15,107	15,107	15,107	16,456	.....	.....	.....	1.00	1.00	1.00
Eating and drinking places	17,509	21,645	43,263	13,346	283,255	279,119	257,501	0.17	0.18	0.24
Passenger rail	662	662	662	211	.....	.....	.....	1.00	1.00	1.00
Passenger bus and other local transportation	2,644	3,233	4,229	691	12,769	12,036	10,795	0.24	0.29	0.36
Taxicabs	775	1,642	2,563	188	7,321	5,145	2,832	0.22	0.46	0.70
Domestic passenger air fares	22,796	22,796	22,796	6,300	.....	.....	.....	1.00	1.00	1.00
International air fares	19,102	19,102	19,102	20,572	211	211	211	1.00	1.00	1.00
Passenger water	3,315	3,315	3,315	1,069	605	605	605	0.96	0.96	0.96
Auto and truck rental	3,867	3,867	4,829	837	5,353	5,353	4,391	0.80	0.80	0.83
Other vehicle rental	236	428	428	57	761	569	569	0.28	0.46	0.46
Arrangement of passenger transportation	2,653	2,653	2,653	970	13,204	13,204	13,204	0.22	0.22	0.22
Recreation and entertainment	21,672	23,634	27,014	8,568	40,035	38,073	34,693	0.43	0.46	0.51
Participant sports	2,710	2,851	4,445	805	9,650	9,509	7,915	0.35	0.36	0.47
Movie, theater, ballet, and musical events	3,401	4,383	6,832	1,010	24,251	23,269	20,820	0.19	0.22	0.30
Sports events	1,073	958	1,494	319	4,706	4,821	4,285	0.29	0.27	0.35
Travel by U.S. residents abroad	39,593	39,593	39,593	.....	.....	.....	.....	1.00	1.00	1.00
Gasoline and oil	8,814	9,411	14,569	2,092	234,921	234,138	227,393	0.05	0.06	0.08
Personal consumption expenditure nondurable commodities other than gasoline and oil	27,251	30,269	38,766	22,476	1,801,340	1,798,322	1,789,825	0.03	0.03	0.03
Parking, automotive repair, and highway tolls	7,827	8,917	13,911	187	148,002	146,735	141,518	0.05	0.06	0.09
All other commodities .....	.....	.....	.....	.....	n.a.	n.a.	n.a.	.....	.....	.....
Total	201,007	214,466	265,571	96,154	n.a.	n.a.	n.a.	.....	.....	.....

1. The tourism commodity ratio is total tourism demand divided by total demand.
 Note.—Several columns do not have a control total (currently there are no annual input-output data for 1997).
 In these columns, the column totals and the estimates of "All other commodities" and "Total" are shown as n.a.
 (not available).

Table 13.1.—Tourism GDP of Tourism Industries and Other Industries, 1996
[Millions of dollars]

Industry	Industry output	Inter-mediate consumption	Value added	Tourism industry ratio ¹			Tourism output ²			Tourism industry intermediate consumption			Tourism industry value added		
				Method 1	Method 2	Method 3	Method 1	Method 2	Method 3	Method 1	Method 2	Method 3	Method 1	Method 2	Method 3
Hotels and lodging places	104,810	41,459	63,351	0.81	0.81	0.82	84,576	84,831	86,174	33,455	33,556	34,087	51,121	51,275	52,087
Eating and drinking places	281,321	137,644	143,677	0.16	0.17	0.23	44,506	47,740	64,743	21,776	23,358	31,677	22,730	24,382	33,066
Railroads and related services	38,411	16,517	21,894	0.03	0.03	0.03	1,217	1,217	1,217	523	523	523	694	694	694
Local and suburban transit and interurban highway passenger transportation, except taxicabs	20,156	12,260	7,896	0.19	0.23	0.29	3,912	4,603	5,781	2,380	2,800	3,516	1,532	1,803	2,265
Taxicabs	8,898	3,436	5,462	0.22	0.45	0.70	1,995	4,043	6,225	770	1,561	2,404	1,225	2,482	3,821
Air transportation	110,869	56,881	53,988	0.78	0.78	0.78	86,499	86,499	86,499	44,378	44,378	44,378	42,121	42,121	42,121
Water transportation	28,430	17,497	10,933	0.14	0.14	0.14	4,075	4,075	4,075	2,508	2,508	2,508	1,567	1,567	1,567
Automotive rental and leasing, without drivers	34,644	15,151	19,494	0.57	0.58	0.60	19,895	20,066	20,947	8,700	8,775	9,161	11,195	11,291	11,787
Arrangement of passenger transportation	17,079	7,150	9,929	0.22	0.22	0.22	3,761	3,761	3,761	1,574	1,574	1,574	2,186	2,186	2,186
Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing including track operation; marinas; libraries and museums, art galleries, and botanical and zoological gardens	55,368	20,791	34,576	0.18	0.20	0.26	10,195	11,130	14,218	3,828	4,179	5,339	6,367	6,950	8,879
Membership sports and recreation clubs	16,317	7,512	8,805	0.31	0.32	0.41	5,022	5,183	6,681	2,312	2,386	3,076	2,710	2,797	3,605
Motion picture theaters; dance studios, schools, and halls; theatrical producers (except motion pictures), bands, orchestras and entertainers ...	30,318	18,997	11,321	0.17	0.20	0.27	5,033	5,926	8,149	3,154	3,713	5,106	1,880	2,213	3,043
Professional sports clubs and promoters	12,354	4,847	7,507	0.10	0.09	0.12	1,247	1,170	1,525	489	459	598	758	711	927
Gasoline service stations	43,413	12,128	31,284	0.07	0.07	0.11	2,967	3,173	4,686	829	887	1,309	2,138	2,287	3,377
Retail excluding eating and drinking places and gasoline services stations	727,554	243,013	484,541	0.02	0.03	0.03	18,002	19,927	25,369	6,013	6,656	8,474	11,989	13,271	16,895
Total tourism industries	1,529,940	615,283	914,657				292,902	303,343	340,051	132,691	137,314	153,731	160,212	166,029	186,319

1. The industry tourism ratio is equal to tourism output divided by industry output.
 2. The industry tourism output is derived from table 10 and table 12. The tourism commodity ratio, table 12, is multiplied by the tourism commodities produced by industries, table 10, and summed by industry. For example, the air industry produces \$60,509 million domestic passenger air fares of which 100 percent is tourism, and it also produces \$26,124 million international air fares of which 99 percent is tourism; the total tourism output of the industry is \$86,499 million.

Table 13.2.—Tourism GDP of Tourism Industries and Other Industries, 1997
[Millions of dollars]

Industry	Industry output	Inter-mediate consumption	Value added	Tourism industry ratio ¹			Tourism output ²			Tourism industry intermediate consumption			Tourism industry value added		
				Method 1	Method 2	Method 3	Method 1	Method 2	Method 3	Method 1	Method 2	Method 3	Method 1	Method 2	Method 3
Hotels and lodging places	110,746	42,805	67,941	0.80	0.80	0.82	88,782	89,041	90,397	34,316	34,416	34,940	54,466	54,625	55,457
Eating and drinking places	298,930	140,417	158,513	0.16	0.17	0.23	46,869	50,277	68,088	22,016	23,616	31,983	24,853	26,660	36,105
Railroads and related services	39,001	17,318	21,683	0.03	0.03	0.03	1,296	1,296	1,296	575	575	575	720	720	720
Local and suburban transit and interurban highway passenger transportation, except taxicabs	21,149	11,853	9,296	0.19	0.23	0.29	4,108	4,841	6,082	2,302	2,713	3,409	1,806	2,128	2,673
Taxicabs	9,443	3,478	5,965	0.22	0.46	0.70	2,122	4,298	6,611	782	1,583	2,435	1,340	2,715	4,176
Air transportation	121,794	60,887	60,907	0.76	0.76	0.76	92,183	92,183	92,183	46,084	46,084	46,084	46,099	46,099	46,099
Water transportation	26,836	14,931	11,905	0.17	0.17	0.17	4,446	4,446	4,446	2,474	2,474	2,474	1,972	1,972	1,972
Automotive rental and leasing, without drivers	35,529	16,187	19,342	0.57	0.58	0.60	20,367	20,548	21,465	9,279	9,362	9,779	11,087	11,186	11,685
Arrangement of passenger transportation	18,225	8,035	10,191	0.21	0.21	0.21	3,766	3,766	3,766	1,660	1,660	1,660	2,106	2,106	2,106
Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing including track operation; marinas; libraries and museums, art galleries, and botanical and zoological gardens	60,345	22,854	37,491	0.19	0.20	0.26	11,273	12,308	15,723	4,269	4,661	5,955	7,004	7,647	9,768
Membership sports and recreation clubs	16,908	8,102	8,806	0.31	0.32	0.41	5,171	5,339	6,882	2,478	2,559	3,298	2,693	2,781	3,584
Motion picture theaters; dance studios, schools, and halls; theatrical producers (except motion pictures), bands, orchestras and entertainers ...	34,847	20,091	14,756	0.16	0.18	0.25	5,465	6,435	8,855	3,151	3,710	5,106	2,314	2,725	3,750
Professional sports clubs and promoters	13,613	5,752	7,861	0.10	0.09	0.12	1,297	1,218	1,588	548	515	671	749	703	917
Gasoline service stations	46,698	12,819	33,879	0.07	0.07	0.11	3,189	3,408	5,025	875	936	1,379	2,313	2,473	3,646
Retail excluding eating and drinking places and gasoline services stations	774,223	257,919	516,304	0.02	0.03	0.03	19,135	21,172	26,911	6,374	7,053	8,965	12,760	14,119	17,946
Total tourism industries	1,628,287	643,448	984,839				309,469	320,576	359,318	137,184	141,917	158,713	172,284	178,659	200,605

1. The industry tourism ratio is equal to tourism output divided by industry output.
 2. The industry tourism output is derived from table 10 and table 12. The tourism commodity ratio, table 12, is multiplied by the tourism commodities produced by industries, table 10, and summed by industry. For example, the air industry produces \$64,835 million domestic passenger air fares of which 100 percent is tourism, it also produces \$27,476 million international air fares of which 99.5 percent is tourism; the total tourism output of the industry is \$92,183 million.

Table 14.1.—Tourism Employment and Compensation of Employees, 1996

Industry	Total employment (thousands of employees)	Tourism industry ratio			Tourism employment (thousands of employees)			Compensation (millions of dollars)	Tourism compensation (millions of dollars)			Average compensation per tourism employee (dollars) ¹
		Method 1	Method 2	Method 3	Method 1	Method 2	Method 3		Method 1	Method 2	Method 3	
Hotels and lodging places	1,794	0.81	0.81	0.82	1,448	1,452	1,475	39,833	32,143	32,240	32,750	22,203
Eating and drinking places	7,761	0.16	0.17	0.23	1,228	1,317	1,786	99,330	15,714	16,856	22,860	12,799
Railroads and related services	223	0.03	0.03	0.03	7	7	7	14,548	461	461	461	65,236
Local and suburban transit and interurban highway passenger transportation, except taxicabs ²	463	0.19	0.23	0.29	90	106	133	17,790	3,453	4,063	5,103	38,424
Taxicabs	32	0.22	0.45	0.70	7	15	22	1,271	285	578	889	39,728
Air transportation ³	737	0.78	0.78	0.78	575	575	575	34,836	27,179	27,179	27,179	47,268
Water transportation	98	0.14	0.14	0.14	14	14	14	4,987	715	715	715	50,888
Automotive rental and leasing, without drivers	215	0.57	0.58	0.60	123	125	130	4,768	2,738	2,762	2,883	22,177
Arrangement of passenger transportation	219	0.22	0.22	0.22	48	48	48	6,658	1,466	1,466	1,466	30,401
Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing including track operation; marinas; libraries and museums, art galleries, and botanical and zoological gardens	913	0.18	0.20	0.26	168	184	234	15,214	2,801	3,058	3,907	16,664
Membership sports and recreation clubs	325	0.31	0.32	0.41	100	103	133	6,373	1,961	2,024	2,609	19,610
Motion picture theaters; dance studios, schools, and halls; theatrical producers (except motion pictures), bands, orchestras, and entertainers	314	0.17	0.20	0.27	52	61	84	9,190	1,526	1,796	2,470	29,266
Professional sports clubs and promoters	60	0.10	0.09	0.12	6	6	7	5,552	561	526	686	92,541
Gasoline service stations	687	0.07	0.07	0.11	47	50	74	11,586	792	847	1,251	16,864
Retail excluding eating and drinking places and gasoline service stations	13,808	0.02	0.03	0.03	342	378	481	271,796	6,725	7,444	9,477	19,684
Total tourism industries					4,255	4,440	5,206		98,520	102,015	114,706	22,721
Total industries					127,009	127,009	127,009		4,395,585	4,395,585	4,395,585	34,608
Tourism share (percent)					3.4	3.5	4.1		2.2	2.3	2.6	

1. Average compensation per tourism employee was calculated as the arithmetic mean of the average compensation per tourism employee for methods 1, 2, and 3.
 2. Employment for this category includes 197,000 State and local government "transit" employees. (Source: Public Employment Payrolls Survey, 1996, Bureau of the Census)
 3. Air transportation employment and compensation adjusted to remove United Parcel Service employees. Sources: Bureau of Labor Statistics, U. S. Department of Labor, Employment and Wage Annual Averages, 1996; Bureau of the Census, U. S. Department of Commerce, Public Employment Payrolls Survey, 1996.

Table 14.2.— Tourism Employment and Compensation of Employees, 1997

Industry	Total employment (thousands of employees)	Tourism industry ratio			Tourism employment (thousands of employees)			Compensation (millions of dollars)	Tourism compensation (millions of dollars)			Average compensation per tourism employee (dollars) ¹
		Method 1	Method 2	Method 3	Method 1	Method 2	Method 3		Method 1	Method 2	Method 3	
Hotels and lodging places	1,833	0.80	0.80	0.82	1,469	1,474	1,496	42,097	33,748	33,847	34,362	22,966
Eating and drinking places	7,891	0.16	0.17	0.23	1,237	1,327	1,797	105,704	16,573	17,778	24,076	13,395
Railroads and related services	220	0.03	0.03	0.03	7	7	7	14,767	491	491	491	67,123
Local and suburban transit and interurban highway passenger transportation, except taxicabs ²	477	0.19	0.23	0.29	93	109	137	18,617	3,616	4,261	5,354	39,028
Taxicabs	32	0.22	0.46	0.70	7	15	22	1,265	284	576	886	39,545
Air transportation ³	747	0.76	0.76	0.76	565	565	565	36,645	27,736	27,736	27,736	49,056
Water transportation	101	0.17	0.17	0.17	17	17	17	5,294	877	877	877	52,418
Automotive rental and leasing, without drivers	218	0.57	0.58	0.60	125	126	132	5,029	2,883	2,909	3,038	23,070
Arrangement of passenger transportation	225	0.21	0.21	0.21	46	46	46	7,236	1,495	1,495	1,495	32,158
Miscellaneous amusement and recreation services (except membership sports and recreation clubs); racing including track operation; marinas; libraries and museums, art galleries, and botanical and zoological gardens	962	0.19	0.20	0.26	180	196	251	16,455	3,074	3,356	4,288	17,105
Membership sports and recreation clubs	332	0.31	0.32	0.41	102	105	135	6,683	2,044	2,110	2,720	20,128
Motion picture theaters; dance studios, schools, and halls; theatrical producers (except motion pictures), bands, orchestras, and entertainers	339	0.16	0.18	0.25	53	63	86	10,339	1,621	1,909	2,627	30,499
Professional sports clubs and promoters	63	0.10	0.09	0.12	6	6	7	5,907	563	529	689	93,765
Gasoline service stations	690	0.07	0.07	0.11	47	50	74	11,911	813	869	1,282	17,263
Retail excluding eating and drinking places and gasoline service stations	14,055	0.02	0.03	0.03	347	384	489	286,254	7,075	7,828	9,950	20,367
Total tourism industries					4,302	4,491	5,263		102,894	106,571	119,871	23,475
Total industries					130,085	130,085	130,085		4,675,738	4,675,738	4,675,738	35,944
Tourism share (percent)					3.3	3.5	4.0		2.2	2.3	2.6	

1. Average compensation per tourism employee was calculated as the arithmetic mean of the average compensation per tourism employee for methods 1, 2, and 3.
 2. Employment for this category includes 199,000 State and local government "transit" employees. (Source: Public Employment Payrolls Survey, 1997, Bureau of the Census)
 3. Air Transportation employment and compensation adjusted to remove United Parcel Service employees. Sources: Bureau of Labor Statistics, U. S. Department of Labor, Employment and Wage Annual Averages, 1997; Bureau of the Census, U. S. Department of Commerce, Public Employment Payrolls Survey, 1997.

U.S. Multinational Companies Operations in 1998

By Raymond J. Mataloni, Jr.

GROWTH in the combined domestic and foreign operations of nonbank U.S. multinational companies (MNC's) slowed in 1998, according to preliminary estimates from the annual survey of U.S. direct investment abroad conducted by the Bureau of Economic Analysis (BEA).¹ Current-dollar estimates of the worldwide gross product of U.S. MNC's—U.S. parents and their majority-owned foreign affiliates (MOFA's)—increased 1.2 percent in 1998, compared with a 5.8-percent increase in 1997 (table 1).² Two other key measures

of MNC operations also grew more slowly in 1998 than in 1997. MNC employment increased 2.3 percent after increasing 6.0 percent, and capital expenditures increased 5.4 percent after increasing 16.9 percent.

The slower growth in MNC operations in 1998 was most pronounced in the petroleum industry. In that industry, MNC gross product decreased 23 percent, as steep declines in the prices of petro-

1. This article presents highlights from the 1997 and 1998 annual surveys. More detailed estimates will be available later this year (see the box "Data Availability" on page 36).

2. An MNC comprises a U.S. parent company and its foreign affiliates. The examination of the foreign operations of U.S. MNC's primarily uses the data for MOFA's rather than for all foreign affiliates, because parents and MOFA's are usually under U.S. managerial control (whereas other foreign affiliates are usually under the control of foreign owners) and because the necessary data items for this analysis are collected only for MOFA's.

**Table 1.—Gross Product, Employment, and Capital Expenditures
of Nonbank U.S. MNC's, U.S. Parents, and Foreign Affiliates, 1982–98**

	MNC's worldwide			Affiliates				MNC's worldwide			Affiliates		
	Parents and all affiliates	Parents and MOFA's	Parents	Total	MOFA's	Other		Parents and all affiliates	Parents and MOFA's	Parents	Total	MOFA's	Other
Gross product													
Millions of dollars:													
1982	n.a.	1,019,734	796,017	n.a.	223,717	n.a.	1993	24,222	22,760	17,537	6,685	5,223	1,461
1983	n.a.	n.a.	n.a.	n.a.	216,683	n.a.	1994	25,670	24,273	18,565	7,105	5,707	1,398
1984	n.a.	n.a.	n.a.	n.a.	220,331	n.a.	1995	25,921	24,500	18,576	7,345	5,924	1,421
1985	n.a.	n.a.	n.a.	n.a.	220,074	n.a.	1996	26,334	24,867	18,790	7,544	6,077	1,467
1986	n.a.	n.a.	n.a.	n.a.	231,644	n.a.	1997 ^r	27,851	26,358	19,878	7,973	6,480	1,493
1987	n.a.	n.a.	n.a.	n.a.	269,734	n.a.	1998 ^p	28,456	26,968	20,068	8,388	6,900	1,488
1988	n.a.	n.a.	n.a.	n.a.	297,556	n.a.	Percent change at annual rates:						
1989	n.a.	1,364,878	1,044,884	n.a.	319,994	n.a.	1982–97	0.6	0.7	0.4	1.2	1.7	-0.5
1990	n.a.	n.a.	n.a.	n.a.	356,033	n.a.	1989–97	1.2	1.2	0.7	2.3	3.0	-0.1
1991	n.a.	n.a.	n.a.	n.a.	355,963	n.a.	1996–97	5.8	6.0	5.8	5.7	6.6	1.8
1992	n.a.	n.a.	n.a.	n.a.	361,524	n.a.	1997–98	2.2	2.3	1.0	5.2	6.5	-0.3
1993	n.a.	n.a.	n.a.	n.a.	359,179	n.a.	Capital expenditures						
1994	n.a.	1,717,488	1,313,792	n.a.	403,696	n.a.	Millions of dollars:						
1995	n.a.	1,831,046	1,365,470	n.a.	465,576	n.a.	1982	248,262	233,078	188,266	59,996	44,812	15,184
1996	n.a.	1,978,948	1,480,638	n.a.	498,310	n.a.	1983	n.a.	197,534	160,656	n.a.	36,878	n.a.
1997 ^r	n.a.	2,094,318	1,573,451	n.a.	520,867	n.a.	1984	n.a.	203,791	168,692	n.a.	35,099	n.a.
1998 ^p	n.a.	2,119,380	1,608,645	n.a.	510,735	n.a.	1985	n.a.	221,509	185,027	n.a.	36,482	n.a.
Percent change at annual rates:							1986	n.a.	203,809	169,131	n.a.	34,678	n.a.
1982–97	n.a.	4.9	4.6	n.a.	5.8	n.a.	1987	n.a.	199,171	162,139	n.a.	37,032	n.a.
1989–97	n.a.	5.5	5.3	n.a.	6.3	n.a.	1988	n.a.	223,814	177,203	n.a.	46,611	n.a.
1996–97	n.a.	5.8	6.3	n.a.	4.5	n.a.	1989	276,790	260,488	201,808	74,982	58,680	16,302
1997–98	n.a.	1.2	2.2	n.a.	-1.9	n.a.	1990	n.a.	274,614	213,079	n.a.	61,535	n.a.
Number of employees							1991	n.a.	269,221	206,290	n.a.	62,931	n.a.
Thousands:							1992	n.a.	272,049	208,834	n.a.	63,215	n.a.
1982	25,345	23,727	18,705	6,640	5,022	1,618	1993	n.a.	271,661	207,437	n.a.	64,224	n.a.
1983	24,783	23,253	18,400	6,383	4,854	1,530	1994	328,240	303,364	231,917	96,323	71,447	24,876
1984	24,548	22,973	18,131	6,418	4,842	1,576	1995	n.a.	323,616	248,017	n.a.	75,599	n.a.
1985	24,532	22,923	18,113	6,419	4,810	1,609	1996	n.a.	340,510	260,048	n.a.	80,462	n.a.
1986	24,082	22,543	17,832	6,250	4,711	1,539	1997 ^r	n.a.	398,037	309,247	n.a.	88,790	n.a.
1987	24,255	22,650	17,986	6,270	4,664	1,605	1998 ^p	n.a.	419,620	323,181	n.a.	96,439	n.a.
1988	24,141	22,498	17,738	6,404	4,761	1,643	Percent change at annual rates:						
1989	25,388	23,879	18,765	6,622	5,114	1,508	1982–97	n.a.	3.6	3.4	n.a.	4.7	n.a.
1990	25,264	23,786	18,430	6,834	5,356	1,478	1989–97	n.a.	5.4	5.5	n.a.	5.3	n.a.
1991	24,837	23,345	17,959	6,878	5,387	1,492	1996–97	n.a.	16.9	18.9	n.a.	10.4	n.a.
1992	24,190	22,812	17,530	6,660	5,282	1,378	1997–98	n.a.	5.4	4.5	n.a.	8.6	n.a.

^p Preliminary.
^r Revised.
n.a. Not available.

MNC Multinational company
MOFA Majority-owned foreign affiliate

leum products outweighed increases in worldwide production and consumption of crude oil and petroleum products.³

The growth patterns of the domestic (U.S.-parent) and foreign (foreign-affiliate) operations of U.S. MNC's differed partly because of differences in local economic conditions. The gross product of U.S. parents increased 2.2 percent. Excluding the gross product of parents in the petroleum industry, parent gross product increased 4.6 percent, reflecting continued robust economic growth in the United States (current-dollar gross domestic prod-

uct (GDP) in the United States grew 6.2 percent in 1997 and 5.5 percent in 1998).

The gross product of MOFA's decreased 1.9 percent—the first decrease since 1993; the decrease reflected the fall in petroleum prices, a rise in the exchange value of the U.S. dollar (which lowers the dollar-denominated measures for affiliates whose books are kept in host-country currencies), and weak or negative economic growth in much of Asia and Latin America. In terms of affiliate gross product, the growth rate of real GDP in the top 5 Asian host countries averaged a negative 0.9 percent in 1998. In the top 5 Latin American host countries, real GDP increased, but the average growth rate, at 1.7 percent, was less than half that in the United States.

3. Crude oil prices fell 34 percent in 1998 on the basis of 12-month averages of the refiners' acquisition cost of domestic and imported crude oil from the Energy Information Administration of the U.S. Department of Energy. In contrast, worldwide production of crude oil increased only 2 percent.

Key Terms

The following key terms are used to describe U.S. multinational companies (MNC's) and their operations. For a comprehensive discussion of the terms and the concepts used, see Raymond J. Mataloni, Jr., "A Guide to BEA Statistics on U.S. Multinational Companies," *SURVEY OF CURRENT BUSINESS* 75 (March 1995): 38–55.

U.S. MNC's

U.S. multinational company (MNC). The U.S. parent and its foreign affiliates. (In most of this article, an MNC is defined as the U.S. parent and its *majority-owned* foreign affiliates.)

U.S. parent. A person, resident in the United States, who owns or controls 10 percent or more of the voting securities, or the equivalent, of a foreign business enterprise. "Person" is broadly defined to include any individual, branch, partnership, associated group, association, estate, trust, corporation, or other organization (whether organized or not under the laws of any State), or any government entity. If incorporated, the U.S. parent is the fully consolidated U.S. enterprise consisting of (1) the U.S. corporation whose voting securities are not owned more than 50 percent by another U.S. corporation and (2) proceeding down each ownership chain from that U.S. corporation, any U.S. corporation whose voting securities are more than 50 percent owned by the U.S. corporation above it. A U.S. parent comprises the domestic operations of a U.S. MNC, covering operations in the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, and all other U.S. areas.

U.S. direct investment abroad (USDIA). The ownership or control, directly or indirectly, by one U.S. person of 10 percent or more of the voting securities of an incorporated foreign business enterprise or the equivalent interest in an unincorporated business enterprise.

Foreign affiliate. A foreign business enterprise in which there is U.S. direct investment, that is, in which a U.S. person owns or controls (directly or indirectly) 10 percent or more of the voting securities or the equivalent. Foreign affiliates comprise the foreign operations of a U.S. MNC over which the parent is presumed to have a degree of managerial influence.

Majority-owned foreign affiliate (MOFA). A foreign affil-

iate in which the combined ownership of all U.S. parents exceeds 50 percent. MOFA's comprise the foreign operations of U.S. MNC's that are controlled by the U.S. parent or parents. In 1998, MOFA's accounted for 82 percent of the employment of all foreign affiliates of U.S. MNC's, up from 77 percent in 1989 (table 1).

Operations of U.S. MNC's

Gross product. The contribution to the gross domestic product of the country of operations, which is the goods and services produced by labor and property located in that country. Gross product, often referred to as "value added," can be measured as gross output (sales or receipts and other operating income plus inventory change) minus intermediate inputs (purchased goods and services). Alternatively, it can be measured as the sum of the costs incurred (except for intermediate inputs) and the profits earned in production. The gross product estimates presented here were prepared by summing cost and profit data collected in the annual and benchmark surveys of USDIA. For the derivation of the current-dollar estimates of gross product, see Raymond J. Mataloni, Jr., and Lee Goldberg, "Gross Product of U.S. Multinational Companies, 1977–91," *SURVEY* 74 (February 1994): 57.

Capital expenditures. Expenditures made to acquire, add to, or improve property, plant, and equipment (PP&E). PP&E includes land, timber, mineral and like-rights owned, structures, machinery, equipment, special tools, and other depreciable property; construction in progress; and tangible and intangible exploration and development costs. Changes in PP&E due to changes in entity—such as mergers, acquisitions, and divestitures—or to changes in accounting principles are excluded. Capital expenditures are measured on a gross basis; sales and other dispositions of fixed assets are not netted against them.

Employment. The number of full-time and part-time employees on the payroll at yearend. If the employment of a parent or an affiliate was unusually high or low because of temporary factors (for example, a strike) or large seasonal variations, the number that reflected normal operations or an average for the year was requested.

Additional highlights of U.S.-MNC operations in 1998 follow:

- Worldwide production and the productive resources of U.S. MNC's remained concentrated in the United States: U.S. parents accounted for about three-fourths, and MOFA's for about one-fourth, of their combined gross product, capital expenditures, and employment. These shares have been relatively stable since 1989.⁴
- The real gross product of both parents and MOFA's increased modestly. For U.S. parents, the growth in current-dollar gross product exceeded U.S. price inflation. For MOFA's in manufacturing, real gross product increased 3.0 percent, and evidence suggests that the real gross product in other industries also increased.
- U.S. exports of goods that involve U.S. parents or their foreign affiliates decreased for the first time since 1982, the first year of this annual series. The decrease in MNC-associated exports partly reflected reduced shipments to Canadian affiliates in the transportation equipment man-

ufacturing industry and reduced shipments to Asian affiliates.

- MNC-associated U.S. imports of goods increased substantially. The increase mainly reflected shipments to U.S. parents from affiliates in the drug manufacturing industry and in the computer and office equipment manufacturing industry.
- Newly acquired or established MOFA's continued to be concentrated in countries with large and prosperous markets rather than in countries with low labor costs. Although low-wage countries have been attracting a rising share of the new investments, MOFA's in high-wage countries still accounted for 84 percent of the gross product of all new MOFA's.

The first part of this article analyzes the worldwide operations of U.S. MNC's, the second part analyzes their domestic operations, and the third part analyzes their foreign operations.

Revisions to the 1997 estimates.—The estimates of U.S.-MNC operations for 1997 were revised to incorporate the final results of the 1997 Annual Survey of U.S. Direct Investment Abroad.⁵ The

4. In addition to examining changes from 1997, changes from 1989 are sometimes used to provide historical perspective; the year 1989 is a benchmark survey year for U.S. direct investment abroad, and until 1994, the estimates of gross product for U.S. parents (the basis for much of the analysis in this article) were available only for benchmark survey years.

5. The preliminary 1997 estimates were published in Raymond J. Mataloni, Jr., "U.S. Multinational Companies: Operations in 1997," *SURVEY OF CURRENT BUSINESS* 79 (July 1999): 8-35.

Data on U.S. Direct Investment Abroad

BEA collects two broad sets of data on U.S. direct investment abroad (USDIA): (1) Financial and operating data of U.S. parent companies and their foreign affiliates, and (2) international transactions and direct investment position data.¹ This article presents the first set of data; the international transactions and direct investment position data appear in the following articles in this issue of the *SURVEY OF CURRENT BUSINESS*: Russell B. Scholl, "The International Investment Position of the United States at Yearend 1999"; Douglas B. Weinberg, "U.S. International Transactions, First Quarter 2000"; and Sylvia E. Bargas, "Direct Investment Positions for 1999: Country and Industry Detail."

The data on USDIA in this article are classified by International Surveys Industry (ISI) groups that were adapted from the *Standard Industrial Classification (SIC) Manual, 1987*—the classification system used until recently as the standard for industry classification in Federal economic statistics. The SIC system has been superseded by the 1997 North American Industry Classification System (NAICS). BEA has developed new ISI codes that are based on NAICS; these codes will be used for the data collected in the 1999 benchmark survey of USDIA.

Financial and operating data.—The data on the overall operations of U.S. parent companies and their foreign affil-

iates are collected in BEA's annual and benchmark surveys of USDIA. The data include balance sheets and income statements, employment and compensation of employees, research and development expenditures, sources of finance, trade in goods, and sales of goods and services. In addition, the gross product of U.S. parent companies and their majority-owned foreign affiliates is estimated from the data reported in these surveys.

Except in benchmark survey years, these data cover only nonbank U.S. multinational companies (MNC's); U.S. MNC's in banking (1987 Standard Industrial Classifications 6011, 602, 606, 6712, and 608) are exempt from reporting. All the financial and operating data are on a fiscal-year basis. The data cover the entire operations of U.S. parent companies and their foreign affiliates, irrespective of the percentage of U.S.-parent ownership.

International transactions and direct investment position data.—These data, covering bank and nonbank U.S. MNC's, are collected in quarterly surveys of USDIA. The data cover the cross-border transactions and positions between U.S. parents and their foreign affiliates, so they focus on the parent's share, or interest, in the affiliate rather than on the affiliate's size or scale of operations. The major items that are included in the U.S. international transactions accounts are direct investment capital flows, direct investment income, royalties and license fees, and other services transactions between U.S. parents and their foreign affiliates.

1. For a comprehensive discussion of these two sets of data, see Raymond J. Mataloni, Jr., "A Guide to BEA Statistics on U.S. Multinational Companies," *SURVEY* 75 (March 1995): 38-55. This guide is available on BEA's Web site; go to <www.bea.dog.gov> and click on "International, Articles."

year-to-year percent changes for two other key measures were revised less than 1 percentage point from the changes shown in the preliminary estimates: The increase in gross product was revised up 0.2 percentage point to 5.8 percent, and the increase in employment was revised down 0.1 percentage point to 6.0 percent. In contrast, the increase in capital expenditures was revised up 3.2 percentage points to 16.9 percent.

Worldwide Operations of U.S. MNC's

This section examines worldwide U.S.-MNC operations and compares the domestic and foreign aspects of these operations.

Changes in gross product

Current-dollar gross product of U.S. MNC's grew 1.2 percent in 1998, to \$2,119 billion; the U.S.-parent component of U.S.-MNC gross product increased 2.2 percent, and the MOFA component decreased 1.9 percent. Available evidence suggests that after accounting for price and exchange-rate changes, the real gross product of both parents and MOFA's increased modestly. For U.S. parents, the 2.2-percent increase in current-dollar gross product exceeded the 0.6-percent rate of U.S. price inflation (as measured by the GDP implicit price deflator for all private U.S. businesses). For MOFA's, the 1.9-percent decrease in current-dollar gross product and a 3.2-percent average inflation rate in host countries suggests an inflation-adjusted decrease of about 5 percent; however, because the exchange value of the U.S. dollar increased more than 5 percent, it is likely that the real gross product of MOFA's actually increased at a modest rate.⁶ A more formal calculation of the changes in real gross product of MOFA's in manufacturing also suggests a modest increase (see the section "Real gross product of MOFA's in manufacturing").

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U.S.-MNC-associated trade in goods

In 1998, U.S.-MNC-associated trade—U.S. trade involving U.S. parents or their foreign affiliates—accounted for 64 percent of total U.S. exports of goods and for 39 percent of total U.S. imports of goods (table 2 and chart 1).⁷ These large shares re-

6. In 1998, the weighted average (in terms of MOFA gross product) U.S.-dollar price of the currencies of 7 euro-area countries and of 16 other major host countries fell 8.0 percent. (Collectively, these countries accounted for 86 percent of total MOFA gross product in 1998.) This decrease lowered the dollar value of MOFA gross product by a similar amount when the data reported to BEA in dollars were translated from foreign currencies, as is believed to generally be the case.

The average rate of price inflation in these host countries was derived as a weighted average (in terms of MOFA gross product), using, in most cases, the GDP implicit price deflators for the countries.

Table 2.—U.S. Trade in Goods Associated with Nonbank U.S. MNC's, 1989, 1997, and 1998

[Millions of dollars, unless otherwise noted]

Line		1989	1997	1998
1	MNC-associated U.S. exports, total	236,371	441,272	438,292
2	Intra-MNC trade	89,539	186,526	185,372
3	Shipped by U.S. parents to their MOFA's	86,050	185,065	184,378
4	Shipped by U.S. parents to their other foreign affiliates	3,489	1,461	994
5	MNC trade with others	146,832	254,746	252,920
6	Shipped by U.S. parents to foreigners other than their own affiliates	133,813	220,730	221,139
7	Of which:			
8	Shipped by U.S. parents to their foreign parent groups	10,413	23,054	22,517
9	Shipped to foreign affiliates by U.S. persons other than their own parents	13,019	34,016	31,781
10	To MOFA's	11,437	27,689	26,256
10	To other foreign affiliates	1,582	6,327	5,525
11	MNC-associated U.S. imports, total	201,182	350,822	355,976
12	Intra-MNC trade	77,307	147,452	158,146
13	Shipped by MOFA's to their U.S. parents	71,283	143,841	154,763
14	Shipped by other foreign affiliates to their U.S. parents	6,024	3,611	3,383
15	MNC trade with others	123,875	203,370	197,830
16	Shipped to U.S. parents by foreigners other than their own affiliates	103,788	174,149	168,366
17	Of which:			
18	Shipped to U.S. parents by their foreign parent groups	32,398	67,336	65,663
19	Shipped by foreign affiliates to U.S. persons other than their own parents	20,087	29,221	29,464
20	By MOFA's	13,015	23,216	23,387
20	By other foreign affiliates	7,072	6,005	6,077
	Addenda:			
21	All U.S. exports of goods	363,836	689,182	682,138
22	U.S.-MNC-associated U.S. exports as a percentage of total (line 1/ line 21) * 100	65	64	64
23	Intra-U.S.-MNC exports as a percentage of total (line 2/ line 21) * 100	25	27	27
24	All U.S. imports of goods	473,647	869,704	911,896
25	U.S.-MNC-associated U.S. imports as a percentage of total (line 11/ line 24) * 100	42	40	39
26	Intra-U.S.-MNC imports as a percentage of total (line 12/ line 24) * 100	16	17	17
27	U.S. exports of goods by U.S. parent companies that are also U.S. affiliates of foreign companies	n.a.	59,537	75,276
28	U.S. imports of goods by U.S. parent companies that are also U.S. affiliates of foreign companies	n.a.	92,539	112,905

MNC Multinational company
MOFA Majority-owned foreign affiliate
n.a. Not available.

NOTE: The MNC-associated trade contains some duplication. See footnote 7 to the text.

flect the significant presence of U.S. MNC's in the U.S. economy and the global orientation of U.S. parents.⁸

U.S.-MNC-associated exports decreased \$3 billion, to \$438 billion, the first decrease since this annual data series began in 1982. Both intra-MNC exports and MNC exports to others decreased. The decrease in intra-MNC exports was concentrated in exports to Canada and Asia. The decrease in exports to Canada was mainly in transportation equipment manufacturing and reflected a temporary decrease in auto production by Canadian affiliates that was related to a labor strike. The decrease in exports to Asia was widespread by country and reflected a decrease in total U.S. ex-

ports to the region; affiliates that produced or distributed durable goods accounted for most of the decrease.

U.S.-MNC-associated imports of goods increased \$5 billion, to \$356 billion. The increase was more than accounted for by a \$10 billion increase in intra-MNC imports. The increase in intra-MNC imports was concentrated in imports from affiliates in Ireland, Eastern Europe, and Thailand. The increase in imports from Ireland was mainly in drug manufacturing. The increases from Eastern Europe and Thailand were mainly in computer and office equipment manufacturing.

U.S. Parents' Operations

This section examines the changes in U.S.-parent gross product by industry and the U.S.-parent share of private U.S. GDP in 1989 and 1998.⁹

Changes in gross product

The gross product of all U.S. parents increased 2.2 percent in 1998, to \$1,609 billion, compared with an average annual increase of 5.3 percent in 1989-97 (table 3).

In 1998, U.S.-parent gross product increased most rapidly in transportation equipment manufacturing (9.9 percent), in "other" industries (8.3 percent), in wholesale trade (8.2 percent), and in

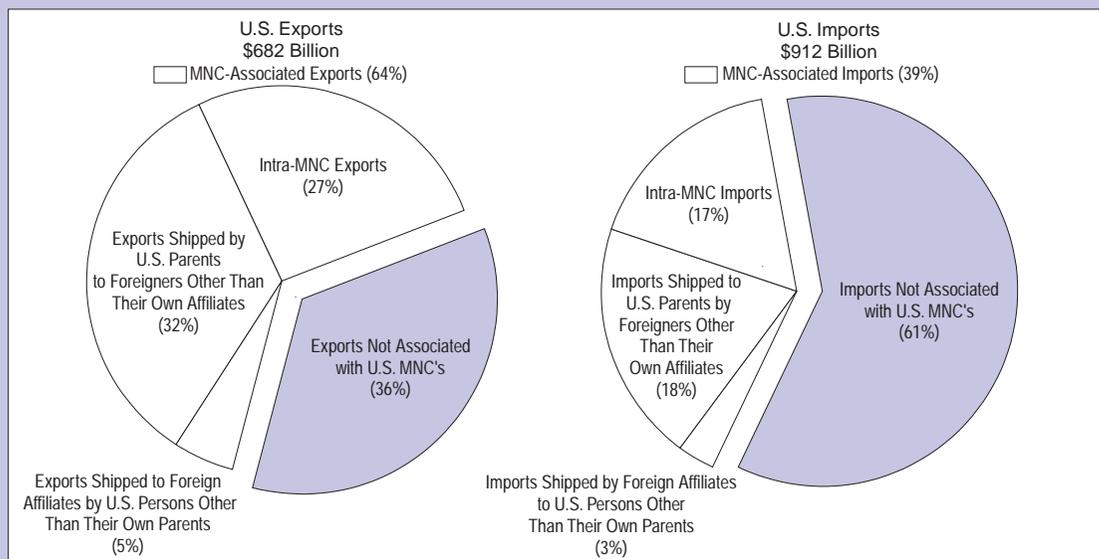
7. MNC-associated trade consists of intra-MNC trade (trade between U.S.-parent companies and their own foreign affiliates) and MNC trade with "others" (trade between U.S.-parent companies and foreigners other than their own affiliates and trade between foreign affiliates and U.S. residents other than their own parents). The MNC-associated shares of total U.S. trade are overstated to the extent that the trade with others includes trade between U.S.-parent companies and foreign affiliates of other U.S.-parent companies. Such trade cannot be separately identified, but in most cases, it would be reported twice on the annual survey—once for the U.S. parent that exports or imports the goods and once for the foreign affiliate that is involved. However, the effect of this duplication on the shares of total trade accounted for by MNC-associated trade is relatively small; even if all MNC trade with others were accounted for by duplicated transactions, the MNC-associated shares of total U.S. trade would differ from those given in the text and in table 2 by only a few percentage points.

8. MNC-associated trade accounts for an even larger share of U.S. trade in goods if trade involving U.S. businesses owned by foreign MNC's is included. In 1997—the latest year for which data are available—U.S. affiliates of foreign MNC's accounted for 20 percent of U.S. exports of goods and for 30 percent of U.S. imports of goods. However, as noted in footnote 9, these U.S.-affiliate shares overlap the U.S.-MNC shares because some U.S. parents are also U.S. affiliates of foreign companies. In 1998, trade of these U.S. parents accounted for 17 percent of MNC-associated exports and for 31 percent of MNC-associated imports. (See the addenda to table 2.)

9. A U.S. parent may be under the control of a foreign-parent company; in 1998, U.S. parents that were ultimately controlled by foreign parents accounted for 9 percent of the gross product of all U.S. parents.

CHART 1

U.S. Trade in Goods Associated with U.S. Multinational Companies in 1998



MNC Multinational company
 Note.—The MNC-associated trade contains some duplication. See footnote 7 to the text.
 U.S. Department of Commerce, Bureau of Economic Analysis

services (8.0 percent).¹⁰ U.S.-parent gross product decreased substantially in the petroleum industry (24.5 percent) and in electronics and industrial machinery manufacturing (6.1 percent).

The increase in transportation equipment manufacturing and the decrease in electronics manufacturing primarily reflected the reclassification of some U.S.-parent companies from electronics to transportation equipment.¹¹ The increases in "other" industries (mainly communication) and in wholesale trade primarily reflected the entry of U.S. companies that acquired or established their first foreign affiliate in 1998. The increase in the services industry was mainly in computer and data processing services and reflected strong demand; the increase also reflected the entry of new parent companies.

The substantial decrease in the petroleum industry was concentrated among parents involved in integrated petroleum refining and extraction; it reflected weak demand and the fall in petroleum prices. The decrease in industrial machinery man-

ufacturing partly reflected the industry reclassification of U.S.-parent companies.

U.S.-parent shares of private GDP

U.S. parents accounted for 24 percent of the gross product of all private U.S. businesses in 1998, down slightly from 25 percent in 1989 and in 1997 (table 4).¹² The decrease was more than accounted for by U.S. parents in manufacturing.¹³ In that industry, the U.S.-parent share fell to 58 percent in 1998 from 60 percent in 1997 and from 62 percent in 1989. The 1997-98 decrease mainly reflects the concentration of U.S.-parent companies in petroleum manufacturing—the major manufacturing industry in which current-dollar U.S. GDP had the largest percentage decrease (down 5 percent) in

12. Generally, at the all-industries level, the estimates of U.S.-parent gross product are conceptually consistent with the estimates of gross product for all U.S. businesses in the national income and product accounts. However, for individual industries, inconsistencies may result from differences in the basis for the industrial distribution of the estimates. The industrial distributions of gross product for all U.S. businesses are based on data collected from establishments, which are classified by the principal product or service produced at each establishment, whereas the industrial distributions of U.S.-parent gross product are based on data collected from enterprises (companies), which are classified by the principal product or service produced by all of their establishments combined. Because large companies usually have establishments that are classified in several different industries, the distributions of data by industry of establishment can differ significantly from those by industry of enterprise. In this article, U.S.-parent gross product as a share of the gross product for all private U.S. businesses is computed only at the highly aggregated level shown in table 4.

13. In table 4, unlike in other tables in this article, manufacturing includes some petroleum-related industries in order to be consistent with all-U.S. data on gross product originating by industry (see the note to table 4).

Table 3.—Gross Product of Nonbank U.S. Parents by Major Industry for 1989, 1997, and 1998

	Millions of dollars				Percent change at annual rates	
	1989	1997	1998	Change, 1997-98	1989-97	1997-98
All industries	1,044,884	1,573,451	1,608,645	35,194	5.3	2.2
Petroleum	93,128	125,800	95,015	-30,785	3.8	-24.5
Manufacturing	586,568	770,508	788,728	18,220	3.5	2.4
Food and kindred products	60,310	74,652	77,328	2,676	2.7	3.6
Chemicals and allied products	97,119	126,879	128,339	1,460	3.4	1.2
Primary and fabricated metals	37,556	41,950	43,693	1,743	1.4	4.2
Industrial machinery and equipment	70,887	93,786	89,822	-3,964	3.6	-4.2
Electronic and other electric equipment	56,139	97,774	91,818	-5,956	7.2	-6.1
Transportation equipment	121,141	165,702	182,179	16,477	4.0	9.9
Other manufacturing	143,417	169,766	175,549	5,783	2.1	3.4
Wholesale trade	22,587	50,384	54,519	4,135	10.5	8.2
Finance (except depository institutions), insurance, and real estate ...	50,535	83,867	82,725	-1,142	6.5	-1.4
Services	57,090	128,859	139,111	10,252	10.7	8.0
Other industries	234,975	414,033	448,547	34,514	7.3	8.3

Table 4.—Gross Product of Nonbank U.S. Parents and Gross Product of All Nonbank U.S. Private Businesses by Major Industry for 1989, 1997, and 1998

	Millions of dollars						Percent		
	1989		1997		1998		U.S.-parent share of gross product of all private U.S. businesses		
	Gross product of U.S. parents	Gross product of all private U.S. businesses ¹	Gross product of U.S. parents	Gross product of all private U.S. businesses ¹	Gross product of U.S. parents	Gross product of all private U.S. businesses ¹	1989	1997	1998
All industries	1,044,884	4,101,607	1,573,451	6,302,747	1,608,645	6,671,592	25	25	24
Manufacturing	671,911	1,080,915	879,365	1,458,986	866,861	1,498,129	62	60	58
Services	57,524	962,528	132,619	1,672,366	143,581	1,818,929	6	8	8
All other industries	315,449	2,058,164	561,467	3,171,395	598,203	3,354,534	15	18	18

1. For improved comparability with U.S.-parent gross product, gross product of all private U.S. businesses was adjusted to remove categories not applicable to nonbank U.S. parents—such as gross product of depository institutions. In addition, housing product of owner-occupied farm housing (part of farm product) and nonfarm housing product (part of real estate product) were removed because U.S. parents are not involved in these activities. Business transfer payments were also removed because few U.S. parents are in industries that receive most of the business transfer payments in the United States.

Note.—In this table, petroleum is not shown as a separate major industry. Instead, in order to be consistent with the all-U.S. data on gross product originating by industry, U.S.-parent gross product in the various petroleum subindustries is distributed among the other major industries.

Thus, manufacturing includes petroleum and coal products manufacturing; "all other industries" includes petroleum wholesale trade, gasoline service stations, petroleum tanker operations, pipelines, and storage; and services includes oil and gas field services. A significant portion of U.S.-parent gross product in petroleum and coal products is accounted for by integrated petroleum companies that have, in addition to their manufacturing activities, significant petroleum extraction activities; because the extraction activities cannot be identified separately in the U.S.-parent data, and to improve comparability between the estimates for U.S. parents and those for all U.S. businesses, they are included in manufacturing. For consistency, gross product estimates for the "oil and gas extraction without refining" industry are also included in manufacturing rather than in "all other industries," which includes mining.

1998. The decrease since 1989 reflects both the concentration of U.S. parents in slower growing industries, such as petroleum manufacturing, and the reclassification of some U.S. parents from manufacturing to other industries.

However, the U.S.-parent share in manufacturing was still higher (58 percent) than that in the services industry (8 percent) or in all other industries (18 percent) in 1998. The high share in manufacturing partly reflects the firm-specific intangible assets (such as patents or brand images) that allow these firms to earn profits that are sufficient to overcome the additional costs of producing in foreign markets. The low share in the services industry partly reflects the impediments to investing in some host countries; for example, U.S. direct investment in health care services, one of the largest service industries in the United States, is constrained or precluded in countries where the government plays a prominent role in the delivery of health care. In addition, some service industries that are characterized by small-scale production (such as dry cleaners and hair stylists) may lack the financial resources and the firm-specific advantages that often provide the basis for direct investment in other industries.

Operations of Majority-Owned Foreign Affiliates

This section examines selected aspects of the operations of majority-owned foreign affiliates (MOFA's) of U.S. MNC's: The 1997-98 change in gross product, the country and industry distribu-

tions of newly acquired or established MOFA's, the MOFA shares of host country GDP, and the 1997-98 changes in the real gross product of MOFA's in manufacturing.

Changes in gross product

The gross product of MOFA's decreased 1.9 percent in 1998, to \$510.7 billion, compared with an average annual increase of 7.2 percent in 1989-97 (table 5). The gross product of MOFA's in Europe increased, but this increase was more than offset by decreases in all the other geographic areas. The decreases mainly reflected the aforementioned changes in host-country economic conditions, in the exchange value of the U.S. dollar, and in petroleum prices.

In percentage terms, the gross product of MOFA's in Africa decreased the most, 21 percent, but the gross product of MOFA's in Asia and Pacific decreased 13 percent and that of MOFA's in the Middle East, 12 percent. The decreases in Africa and the Middle East were concentrated in the petroleum-extraction industry and reflected the drop in crude oil prices. In Asia and Pacific, the decreases were widespread by country and by industry and reflected either economic recession or weak economic growth in most host countries.

In Europe, MOFA gross product increased 2.0 percent; the increases were largest in Ireland, the United Kingdom, Switzerland, and the Netherlands. In Ireland, the increase was mainly in the drug industry and partly reflected the introduction of new pharmaceutical products by existing affiliates; the increase also reflected the acquisition or

Table 5.—Gross Product of Nonbank Majority-Owned Foreign Affiliates, by Major Area and Industry of Affiliate, 1989, 1997, and 1998

	Millions of dollars			Change, 1997-98	Percent change at annual rates	
	1989	1997	1998		1989-97	1997-98
All areas, all industries	319,994	520,867	510,735	-10,132	7.2	-1.9
By major area						
Canada	52,114	56,454	54,739	-1,715	1.2	-3.0
Europe	179,758	297,441	303,505	6,064	7.5	2.0
Latin America and Other Western Hemisphere	29,601	61,702	61,336	-366	11.1	-0.6
Africa	5,299	8,530	6,752	-1,778	7.0	-20.8
Middle East	4,891	4,294	3,764	-530	-1.8	-12.3
Asia and Pacific	46,875	90,924	79,129	-11,795	9.9	-13.0
International ¹	1,457	1,522	1,510	-12	0.6	-0.8
By major industry						
Petroleum	77,195	111,838	89,484	-22,354	5.4	-20.0
Manufacturing	172,008	254,623	251,442	-3,181	5.8	-1.2
Food and kindred products	13,643	25,640	26,570	930	9.4	3.6
Chemicals and allied products	32,059	52,695	55,040	2,345	7.4	4.5
Primary and fabricated metals	7,623	10,619	10,729	110	4.9	1.0
Industrial machinery and equipment	30,430	36,088	34,758	-1,330	2.5	-3.7
Electronic and other electric equipment	12,646	25,714	22,774	-2,940	10.7	-11.9
Transportation equipment	33,764	44,558	41,618	-2,940	4.0	-6.6
Other manufacturing	41,843	59,308	59,952	644	5.1	1.1
Wholesale trade	37,947	55,909	59,109	3,200	5.7	5.7
Finance (except depository institutions), insurance and real estate	3,439	22,534	22,912	378	30.8	1.7
Services	14,612	47,050	52,509	5,459	18.2	11.6
Other industries	14,793	28,913	35,279	6,366	10.1	22.0

1. Consists of affiliates that have operations spanning more than one country and that are engaged in petroleum shipping, other water transportation, or offshore oil and gas drilling.

establishment of new affiliates. In the United Kingdom, the increases were widespread by industry and partly reflected increased economic growth in goods-producing industries (as measured by host-country industrial production) and the acquisition or establishment of new affiliates in various industries. In Switzerland and the Netherlands, the increases were concentrated in wholesale trade and reflected increased sales to customers throughout Europe.

By industry, the decreases in MOFA gross product were largest in the petroleum industry and in electronics manufacturing. The decrease in the petroleum industry mainly reflected falling petroleum prices and depressed demand for petroleum products (especially in Asia), and the decrease in electronics manufacturing primarily reflected weak economic conditions and financial-market instability in Asia and Latin America. These decreases were partly offset by increases in "other" industries (mainly communication and retail trade) and services.

Newly acquired or established MOFA's.—Despite the weakness in ongoing MOFA operations, U.S. parents continued to acquire or establish new

MOFA's at a rapid pace. In 1998, the gross product of newly acquired or established MOFA's was \$7.3 billion, down from \$7.8 billion in 1997, but up significantly from \$5.0 billion in 1996 and \$4.8 billion in 1995 (tables 6 and 7). The rapid increases in new investments partly reflected opportunities created by the deregulation and privatization of some industries in host countries and the availability of funds for investment as a result of rising equity markets and strong economic growth in the United States.

In 1998, new MOFA's continued to be acquired or established primarily in high-wage countries.¹⁴ These MOFA's accounted for 84 percent of the gross product of all new MOFA's. This tendency suggests that U.S. direct investment abroad is more attracted by access to large and prosperous markets than by access to low-wage labor. Among the high-wage countries, the United Kingdom accounted for the largest share (44 percent) of the

14. The distinction between "high-wage" countries and "low-wage" countries is based on the estimates of average hourly wages of production workers of MOFA's in manufacturing; the estimates were derived from data collected in the 1994 benchmark survey of U.S. direct investment abroad, and the analysis is restricted to host countries in which employment by manufacturing MOFA's totaled at least 10,000 employees in 1994.

Table 6.—Newly Acquired or Established Nonbank MOFA's by Major Area and Industry of Affiliate, 1998

	Number of newly acquired or established affiliates			Millions of dollars			Thousands of employees
	Total	Acquired	Established	Total assets	Sales	Gross product	
All areas, all industries	477	276	201	144,364	28,849	7,258	199.7
By major area							
Canada	38	23	15	8,839	2,285	573	9.3
Europe	263	165	98	92,148	17,860	5,245	103.1
of which:							
France	27	18	9	4,498	1,065	327	7.3
Germany	36	26	10	5,114	2,395	599	21.4
Netherlands	36	15	21	15,288	927	-16	3.6
United Kingdom	84	56	28	50,990	9,321	3,196	52.0
Latin America and Other Western Hemisphere	78	44	34	20,752	4,731	890	62.3
of which:							
Brazil	22	15	7	13,283	4,072	1,129	52.4
Mexico	14	8	6	1,649	276	25	6.7
Africa	7	1	6	215	206	26	1.0
Middle East	6	1	5	381	33	8	0.4
Asia and Pacific	85	42	43	22,028	3,734	517	23.6
of which:							
Australia	17	9	8	2,572	447	88	4.1
Japan	19	14	5	13,069	803	205	7.4
International ¹	0	0	0	0	0	0	0.0
Addenda ² :							
High-wage country sample	309	193	116	111,722	20,791	6,102	119.9
Low-wage country sample	109	51	58	23,018	7,193	1,206	72.4
Non-sample countries	59	32	27	9,624	865	-50	7.4
By major industry							
Petroleum	21	15	6	8,607	722	-54	2.0
Manufacturing	175	125	50	23,388	11,255	3,134	91.4
Food and kindred products	7	5	2	4,097	1,183	552	18.4
Chemicals and allied products	30	19	11	2,770	1,452	331	6.4
Primary and fabricated metals	21	17	4	3,834	1,807	765	7.3
Industrial machinery and equipment	22	13	9	3,033	1,578	273	12.9
Electronic and other electric equipment	27	22	5	1,687	1,482	343	8.8
Transportation equipment	18	15	3	1,570	1,610	457	10.5
Other manufacturing	50	34	16	6,398	2,143	413	27.1
Wholesale trade	34	24	10	1,801	3,768	429	6.7
Finance (except depository institutions), insurance, and real estate	149	48	101	68,499	2,083	722	7.4
Services	54	39	15	11,694	2,578	761	45.4
Other industries	44	25	19	30,375	8,444	2,266	46.9

MOFA Majority-owned foreign affiliate

1. See footnote 1 to table 5.

2. The distinction between "high-wage" countries and "low-wage" countries is based on estimates of average hourly wages of production workers of MOFA's in manufacturing; the estimates were derived from data collected in the 1994 benchmark survey of U.S. direct investment abroad. To ensure the significance of the data underlying this distinction, the analysis is restricted to host countries in which employment by manufacturing MOFA's totaled at least 10,000 employees in

1994.

NOTE.—The data in this table cover only newly acquired or established MOFA's. They exclude data for businesses that were acquired or established during the year and were consolidated into existing foreign affiliates. They also exclude data for MOFA's that were exempt from reporting on the 1998 Annual Survey of U.S. Direct Investment Abroad, namely, those whose assets, sales, and net income were all below \$20 million in absolute value.

gross product of all new MOFA's. The United Kingdom is a favored location for MOFA operations partly because of its language and its cultural similarities with the United States, its relatively low level of market regulation (compared with most other countries in the region), and its duty-free access to customers in other member countries of the European Union.

New investments have been concentrated in high-wage countries, but low-wage countries have been attracting a rising proportion of these investments. Their share of the gross product of all new MOFA's grew from 4 percent in 1995 to 17 percent in 1998. Among these countries, Brazil accounted for the largest share (16 percent) of the gross product of all new MOFA's in 1998; although its economy was in recession, Brazil remained a favored location for MOFA operations, partly because its economy is by far the largest in Latin America.

Manufacturing continued to be the largest industry for new investments. In 1998, it accounted

Table 7.—Gross Product of Newly Acquired or Established Nonbank MOFA's by Major Area and Industry of Affiliate, 1995–98

	1995	1996	1997	1998
All areas, all industries	4,781	4,979	7,822	7,258
By major area				
Canada	630	372	391	573
Europe	3,856	3,371	6,053	5,245
<i>of which:</i>				
France	488	378	483	327
Germany	266	771	1,145	599
Netherlands	233	217	308	-16
United Kingdom	550	927	2,995	3,196
Latin America and Other Western Hemisphere	157	275	474	890
<i>of which:</i>				
Brazil	121	188	182	1,129
Mexico	18	45	-13	25
Africa	-105	161	202	26
Middle East	0	5	19	8
Asia and Pacific	240	675	685	517
<i>of which:</i>				
Australia	89	226	144	88
Japan	10	271	12	205
International ¹	3	121	0	0
Addenda ²:				
High-wage country sample	4,534	3,842	6,490	6,102
Low-wage country sample	168	379	950	1,206
Non-sample countries	79	758	382	-50
By major industry				
Petroleum	114	596	332	-54
Manufacturing	3,141	2,563	4,060	3,134
Food and kindred products	26	149	188	552
Chemicals and allied products	1,803	931	573	331
Primary and fabricated metals	67	158	286	765
Industrial machinery and equipment	380	359	763	273
Electronic and other electric equipment	151	55	157	343
Transportation equipment	344	141	1,289	457
Other manufacturing	370	770	805	413
Wholesale trade	201	478	738	429
Finance (except depository institutions), insurance, and real estate	38	73	284	722
Services	339	879	899	761
Other industries	948	390	1,509	2,266

MOFA Majority-owned foreign affiliate

1. See footnote 1 to table 5.

2. The distinction between "high-wage" countries and "low-wage" countries is based on estimates of average hourly wages of production workers of MOFA's in manufacturing; the estimates were derived from data collected in the 1994 benchmark survey of U.S. direct investment abroad. To ensure the significance of the data underlying this distinction, the analysis is restricted to host countries in which employment by manufacturing MOFA's totalled at least 10,000 employees in 1994.

NOTE.—The data in this table cover only newly acquired or established MOFA's. They exclude data for businesses that were acquired or established during the year and were consolidated into existing foreign affiliates. They also exclude data for MOFA's that were exempt from reporting on the 1998 Annual Survey of U.S. Direct Investment Abroad, namely, those whose assets, sales, and net income were all below \$20 million in absolute value.

for 43 percent of the gross product of all new MOFA's.

MOFA share of host-country GDP

In 1998, the share of host-country gross domestic product (GDP) accounted for by the gross product of MOFA's ranged from 16.1 percent in Ireland to 0.1 percent in India (table 8). The wide range in the MOFA shares reflected differences in the attractiveness, and in the openness to foreign direct investment, of host economies.

Since 1989, the MOFA share in Ireland has been the largest and the fastest growing (up 3.7 percentage points) of the selected host countries shown in table 8. About two-thirds of the increase was accounted for by affiliates in manufacturing (particularly drug manufacturing). A variety of factors attracted manufacturing affiliates, including lan-

Table 8.—Gross Product of MOFA's as a Percentage of GDP of Selected Host Countries, 1989, 1997, and 1998

	1989	1997	1998
Ireland	12.4	14.8	16.1
Singapore	8.0	9.7	9.2
Canada	9.5	8.9	9.1
United Kingdom	6.2	6.8	6.5
Honduras	5.6	6.4	6.2
New Zealand	2.3	4.5	5.5
Belgium	5.6	5.3	5.5
Netherlands	5.8	5.3	5.3
Australia	4.9	4.7	4.6
Hong Kong	5.0	4.1	4.5
Malaysia	4.6	5.0	4.2
Indonesia	4.2	2.5	4.2
Switzerland	2.9	3.1	3.7
Norway	4.6	4.1	3.5
Chile	2.7	4.0	3.4
Mexico	2.4	2.9	3.4
Philippines	2.4	2.6	3.2
Brazil	(¹)	2.9	2.8
Germany ²	3.0	2.7	2.6
Venezuela	1.7	3.2	2.6
France	2.3	2.6	2.5
Thailand	2.5	2.3	2.4
Argentina	(¹)	2.3	2.4
Sweden	1.2	2.1	2.3
Costa Rica	4.0	5.7	2.3
Portugal	2.2	2.6	2.2
Italy	1.9	1.9	1.9
Spain	1.9	1.8	1.9
Finland .....	.9	1.8	1.8
Guatemala	1.9	1.6	1.7
Denmark	1.2	1.5	1.5
Peru	(¹)	2.1	1.5
Ecuador	2.8	1.1	1.4
South Africa .....	.8	1.0	1.2
Israel .....	.8	1.0	1.2
Turkey .....	.4	1.1	1.1
Greece	1.2	1.1	.8
Egypt	1.1	1.2	.8
Japan .....	.5	.6	.6
Korea, Republic of .....	.3	.5	.5
China	(*)	.4	.3
India .....	.1	.2	.1

* Less than 0.05 percent.

1. A share could not be calculated for this country for 1989, because the dollar-denominated estimate of host-country GDP was incompatible with the dollar-denominated estimate of MOFA gross product. Because the economy of the host country was experiencing hyperinflation in 1989, most MOFA's operating there translated their financial statements from host-country currency to dollars daily, in accordance with U.S. generally accepted accounting principles. These daily translations, which are used to derive the dollar-denominated estimate of MOFA gross product, are not comparable to the annual average exchange rate that is used to derive the dollar-denominated estimate of host-country GDP.

2. On October 3, 1990, the former German Democratic Republic became the Federal Republic of Germany (FRG). Accordingly, the 1989 data shown in this table pertain to the FRG before unification and the post-1990 data pertain to the FRG after unification.

NOTE.—The countries are sorted in descending order of their 1998 values. Where two countries have the same 1998 value in the table, they were sorted using unrounded values. Host-country GDP data for all countries except Hong Kong are from the International Monetary Fund, International Financial Statistics, April 2000 Edition (Washington, DC: International Monetary Fund, 2000). Data for Hong Kong are from the Web site for the Census and Statistics Department of the Hong Kong Special Administrative Region.

GDP Gross domestic product

MOFA Majority-owned foreign affiliate

guage and cultural similarities with the United States, an educated workforce, wages and corporate income taxes that are relatively low for the region, and duty-free access to other markets in the European Union.

Real gross product of MOFA's in manufacturing

Estimates of real gross product of MOFA's are prepared because changes in the current-dollar measures of MOFA operations can be strongly influenced by changes in prices and exchange rates.¹⁵ These estimates of real gross product provide more meaningful comparisons across countries because they are based on purchasing-power-parity exchange rates rather than on market exchange rates, and they provide more meaningful comparisons across time because they are in chained (1993) dollars.¹⁶

15. For a summary of the methodology used to derive the real gross product estimates and for the estimates of real gross product for 1982-93, see Raymond J. Mataloni, Jr., "Real Gross Product of U.S. Companies' Majority-Owned Foreign Affiliates in Manufacturing," SURVEY 77 (April 1997): 8-17.

The real gross product of MOFA's in manufacturing grew slower in 1998 (1.4 percent) than in 1997 (7.3 percent) and in 1989-95 percent) (table 9).¹⁷ The slower growth was more than accounted for by Asian and Latin American affiliates and reflected unfavorable economic conditions, including the Asian financial crisis and the economic recession in Brazil.

In contrast, in the 19 member countries of the Organisation for Economic Co-Operation and Development (OECD) shown in table 9, the real gross product of manufacturing MOFA's grew faster in 1998 (3.6 percent) than in 1989-97 (1.6 percent).¹⁸ The rapid growth mirrored the growth in total

16. The 1993 (reference year) estimates of real gross product are based on purchasing-power-parity (PPP) exchange rates for 1993, the latest year for which PPP exchange rates were available on a timely basis and in enough detail to compute the real gross product estimates. In early 2000, the Organisation for Economic Co-Operation and Development released detailed PPP exchange rates for 1996, and these 1996 rates will be incorporated next year into the real gross product estimates for MOFA's.

17. Real gross product grew 1.4 percent in 1998, while the current-dollar gross product decreased 1.2 percent. The decrease in the current-dollar gross product reflected the dampening effect of the appreciation of the U.S. dollar.

Table 9.—Current-Dollar and Real Gross Product of Majority-Owned Foreign Affiliates in Manufacturing, by Country, 1989 and 1994-98

	Billions of current dollars							Percent change, at annual rates		
	1989	1994	1995	1996	1997	1998	Change, 1997-98	1989-97	1997-98	
All countries	172.0	205.2	238.9	250.4	254.6	251.4	-3.2	5.0	-1.2	
19 OECD countries	141.4	159.3	185.0	189.8	185.9	185.5	-4	3.5	-2	
Australia	6.9	5.8	5.9	6.8	7.4	6.7	-6	.9	-8.4	
Austria .....	.7	1.3	1.2	1.5	1.4	1.6	.2	9.3	13.9
Belgium	5.0	6.8	8.3	7.5	7.2	7.4	.2	4.8	2.4	
Canada	28.9	25.3	26.9	25.9	27.9	27.5	-4	-4	-1.5	
Denmark .....	.4	.6	.7	.7	.7	.8	.1	9.2	13.9
Finland .....	.1	.3	.4	.7	.9	1.0	.1	37.1	12.2
France	11.8	16.5	18.9	20.7	20.0	19.3	-7	6.8	-3.6	
Germany ¹	25.8	36.7	41.0	40.4	39.4	38.7	-7	5.4	-1.7	
Greece .....	.2	.3	.4	.4	.4	.4	(*)	9.1	(*)
Ireland	3.5	4.8	6.9	7.0	9.2	9.5	.3	12.8	3.2	
Italy	7.8	8.3	8.6	9.1	9.4	8.5	-9	2.5	-9.4	
Japan	7.7	10.9	12.6	13.3	8.6	7.5	-1.0	1.4	-11.9	
Luxembourg .....	.5	.7	.8	.6	.6	.6	(*)	2.3	(*)
Netherlands	7.8	7.2	9.0	8.8	9.4	9.6	.2	2.4	1.9	
New Zealand .....	.3	.4	.4	1.5	1.9	1.7	-2	25.8	-8.0
Norway .....	.1	.4	.3	.5	.4	.4	(*)	17.7	(*)
Spain	5.7	5.5	6.4	6.1	6.7	7.4	.8	1.9	11.6	
Sweden	1.0	.8	2.7	2.4	2.2	2.2	(*)	9.9	(*)	
United Kingdom	27.4	26.7	33.6	35.7	32.3	34.6	2.2	2.1	6.9	
All other countries	30.6	45.9	53.9	60.5	68.7	65.9	-2.8	10.6	-4.1	
	Billions of chained (1993) dollars									
All countries	160.1	171.4	185.7	197.1	211.4	214.4	3.0	3.5	1.4	
19 OECD countries	126.1	125.8	131.9	136.9	143.0	148.2	5.2	1.6	3.6	
Australia	6.5	5.2	5.1	5.5	6.2	6.7	.5	-6	7.4	
Austria .....	.6	.9	.7	1.0	1.0	1.2	.1	7.6	14.7
Belgium	4.7	5.3	5.4	5.2	5.7	6.0	.3	2.4	4.6	
Canada	27.4	25.0	25.3	23.9	25.7	26.7	1.0	-8	3.8	
Denmark .....	.3	.3	.4	.4	.4	.5	.1	5.7	14.4
Finland	(*)	.2	.3	.5	.6	.8	.1	38.3	18.3	
France	9.5	11.6	11.6	13.4	14.5	14.3	-3	5.5	-1.9	
Germany ¹	23.3	26.2	25.3	26.0	29.0	29.2	.1	2.8	.5	
Greece .....	.3	.3	.3	.4	.4	.4	(*)	4.0	(*)
Ireland	3.4	4.2	5.6	5.7	8.0	8.7	.7	11.1	9.0	
Italy	6.7	7.2	7.0	6.9	7.7	7.1	-6	1.9	-7.8	
Japan	5.0	5.4	5.7	7.1	5.0	4.8	-2	(*)	-3.5	
Luxembourg .....	.4	.5	.5	.5	.5	.5	(*)	1.6	(*)
Netherlands	6.5	5.5	5.9	6.0	7.1	7.5	.4	1.1	5.2	
New Zealand .....	.3	.4	.4	1.3	1.7	1.9	.2	23.4	12.7
Norway .....	.1	.2	.2	.3	.3	.3	(*)	15.7	(*)
Spain	5.0	4.7	4.8	4.6	5.7	6.5	.8	1.8	14.5	
Sweden .....	.7	.6	1.7	1.4	1.4	1.5	.1	8.8	4.2
United Kingdom	25.8	22.4	25.8	27.3	23.4	24.7	1.3	-1.2	5.8	
All other countries	33.9	45.6	53.9	60.0	69.1	66.6	-2.5	9.3	-3.6	
Residual	-3	-5	-3	(*)	-2.1	-1.4				

* Less than \$50 million or 0.5 percent.
1. See footnote 2 to table 8.

NOTE.—Chained (1993) dollar series were derived by extrapolating the base-year (1993) PPP-exchange-rate-based current-dollar value of the corresponding series by a Fisher quantity index. Because the formula for the Fisher quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not addi-

tive. The residual line is the difference between the total line and the sum of the most detailed lines.

For a summary of the methodology used to derive the chained-dollar estimates, and for the 1982-88 and 1990-93 estimates, see "Real Gross Product of U.S. Companies' Majority-Owned Foreign Affiliates in Manufacturing," SURVEY OF CURRENT BUSINESS 77 (April 1997): 8-17.

OECD Organisation for Economic Co-Operation and Development

host-country output; in 1998, industrial production in these countries grew 3.5 percent, compared with 1.7 percent in 1989–97 (chart 2).¹⁹

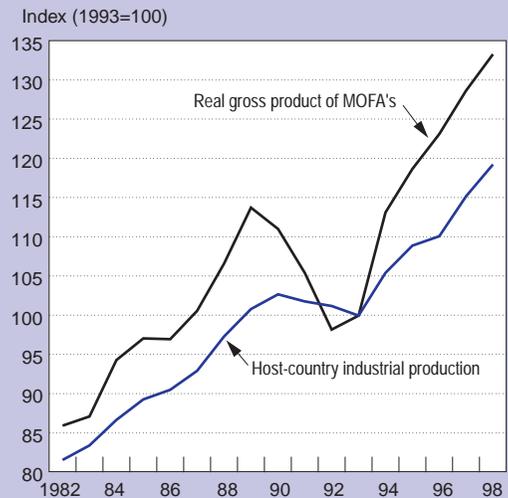
The real gross product of MOFA's in manufacturing increased \$3.0 billion in 1998. This increase was concentrated in the United Kingdom (up \$1.3 billion), Canada (up \$1.0 billion), Spain (up \$0.8 billion), and Ireland (up \$0.7 billion). The increase in the United Kingdom was widespread by industry and reflected increases both in total manufacturing output in the United Kingdom and in the acquisition and establishment of new affiliates. The increases in Canada and Ireland were concentrated in the chemicals industry and mainly reflected the introduction of new pharmaceutical products. The increase in Spain was concentrated in the primary and fabricated metals industry and mainly reflected the acquisition and establishment of new affiliates.

18. The estimates of the real gross product of MOFA's in manufacturing in individual countries are restricted to these OECD member countries because of source data limitations.

19. The changes in the estimates of the real gross product of manufacturing MOFA's tend to be more volatile than the changes in host-country industrial production, mainly because the changes in the real gross product of MOFA's are much more sensitive to the entry and exit of firms and because manufacturing MOFA's tend to be more heavily concentrated in cyclical industries (such as durable-goods manufacturing). These changes were especially volatile in 1989–94, primarily reflecting the economic recession and recovery in Europe.

CHART 2

Real Gross Product of MOFA's in Manufacturing and Industrial Production in 19 OECD Countries, 1982–98



MOFA Majority-owned foreign affiliate
OECD Organisation for Economic Co-Operation and Development

NOTE.—The 19 OECD countries covered in this chart are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Japan, Luxembourg, the Netherlands, New Zealand, Norway, Spain, Sweden, and the United Kingdom.

The composite index of industrial production was derived by weighting each country's index by the country's share in the cumulative dollar value of real gross product of MOFA's in manufacturing in 1982–98.

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

Data Availability

This article presents a summary of the preliminary estimates of the worldwide operations of U.S. multinational companies (MNC's) from the 1998 Annual Survey of U.S. Direct Investment Abroad and the final estimates from the 1997 Annual Survey of U.S. Direct Investment Abroad. More detailed estimates, including the gross product estimates, will be available later this year on BEA's Web site, on diskettes, and in publications; the availability of these estimates will be announced on the inside back cover of the SURVEY OF CURRENT BUSINESS.

The results of the 1994 benchmark survey are available on BEA's Web site, on diskette, and in *U.S. Direct Investment Abroad: 1994 Benchmark Survey, Final Results*.

Detailed estimates of U.S.-MNC operations for 1983–93

and for 1995–96 and preliminary estimates for 1997 are also available on BEA's Web site at <www.bea.doc.gov>; click on Catalog of Products, and look under "International Accounts Products," "U.S. Direct Investment Abroad."

For information on the diskettes, see the Catalog of Products, or for a copy of the catalog, call 1–800–704–0415 (outside the United States, call 202–606–9666).

For information on publications, see the Product Guide of the International Investment Division on the Web site, or write to the International Investment Division, BE–50, Bureau of Economic Analysis, Washington, DC 20230. Among the recent publications is a collection of BEA studies on international direct investment; see the inside back cover of the SURVEY.

Tables 10 through 14 follow.

The International Investment Position of the United States at Yearend 1999

By Russell B. Scholl

Harlan W. King directed the preparation of the estimates; Christopher A. Gohrband and Dena A. Holland made significant contributions, and Douglas B. Weinberg prepared the direct investment accounts at current cost.

THE NET international investment position of the United States—U.S.-owned assets abroad less foreign-owned assets in the United States—at yearend 1999 was a negative \$1,082.5 billion with direct investment valued at the current cost of tangible assets, and it was a negative \$1,473.7 billion with direct investment valued at the stock market value of owners' equity (table A, chart 1).¹ On either basis, the net foreign ownership of assets in the United States remains a small share of the total financial wealth of all U.S. households and non-profit organizations—roughly 3 to 4 percent at yearend 1999.²

The net position on both bases changed little from 1998 to 1999; large net financial inflows were offset by large, positive net price appreciation (that resulted from greater price appreciation in U.S.-

owned assets abroad than in foreign-owned assets in the United States) (table B). Both financial inflows and outflows were strong, and U.S. direct investment abroad, foreign direct investment in the United States, and net foreign purchases of U.S. securities other than U.S. Treasury securities were all

1. The *current-cost* method values the U.S. and foreign parents' share of their affiliates' investment in plant and equipment using the current cost of capital equipment, in land using general price indexes, and in inventories using estimates of their replacement cost. The *market-value* method values the owners' equity position of the direct investment using indexes of stock market prices. For additional information about the different measures of direct investment, see J. Landefeld and A. Lawson, "Valuation of the U.S. Net International Investment Position," SURVEY OF CURRENT BUSINESS, May, 1991.

2. The wealth data are from the Board of Governors of the Federal Reserve System, *Flow of Funds Accounts of the United States*, (Washington, DC, March, 2000): 62.

Table A.—Summary Components of the U.S. Net Position at Yearend

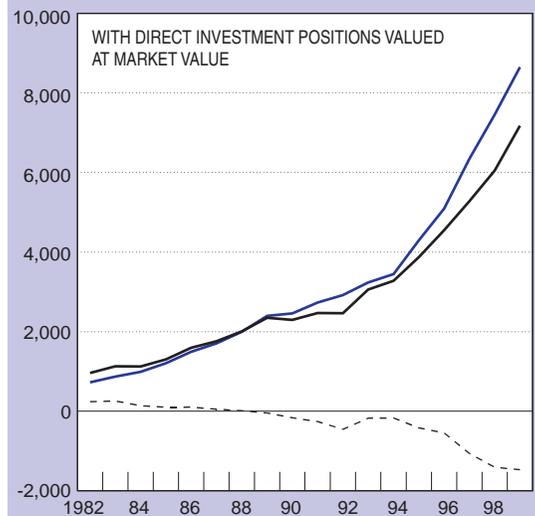
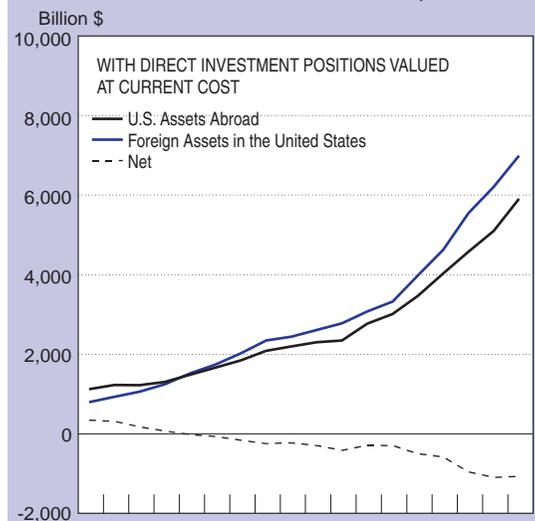
	[Billions of dollars]	
	1998	1999
Net position:		
At current cost	-1,111.8	-1,082.5
At market value	-1,407.7	-1,473.7
U.S. Government and foreign official assets	-604.9	-648.9
Direct investment:		
At current cost	278.5	206.0
At market value	17.5	-185.2
U.S. and foreign securities and U.S. currency	-917.5	-837.3
Bank- and nonbank-reported claims and liabilities	132.2	197.5

Table B.—Changes in the Net International Investment Position, 1999

	[Billions of dollars]	
	At current cost	At market value
Total change	29.3	-66.0
Financial flows	-323.4	-323.4
Valuation adjustments:		
Price changes	344.2	301.9
Exchange rate changes	-60.2	-57.4
Other valuation changes	68.7	12.8

CHART 1

Net International Investment Position of the United States at Yearend, 1982-99



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

at record levels. The strong, widespread recovery in overseas stock prices between yearend 1998 and yearend 1999 substantially increased the value of foreign stocks in U.S. portfolios and the value of U.S. owners' equity of U.S. direct investment abroad on a market-value basis. The rise in U.S. stock prices increased the value of foreign holdings of U.S. stocks and the value of foreign owners' equity in foreign direct investment in the United States on a market-value basis. Net exchange-rate depreciation, mostly on U.S.-held foreign stocks, primarily reflected depreciation of the euro against the dollar.

In 1999, U.S.-owned assets abroad increased strongly as a result of large financial outflows and substantial price appreciation of U.S.-held foreign stocks; the increases were partly offset by price depreciation of foreign bonds and exchange-rate depreciation of European stocks. Net U.S. purchases of foreign securities included several large-scale exchanges of stock with European firms and a large step-up in net purchases of Japanese stocks. Sizable stock price appreciation resulted from a worldwide recovery in stock prices. The gains in stock prices were partly offset by price depreciation of foreign bonds and by the euro's depreciation against the dollar. U.S. direct investment abroad on both bases increased, reflecting record outflows, including several large-scale acquisitions, and strong earnings growth of foreign affiliates. At market value, the increase included a large increase in owners' equity as a result of the sizable, widespread recovery in stock markets abroad. U.S. bank and nonbank claims on foreigners recovered; lending to Europe and the Caribbean increased, fueled by acquisition-related financing require-

ments abroad and by renewed lending to international bond funds overseas.

In 1999, foreign-owned assets in the United States increased substantially, reflecting record financial inflows and strong price appreciation of foreign-held U.S. stocks. Record foreign inflows for U.S. securities other than Treasury securities and for foreign direct investment in the United States were attracted partly by continued strong U.S. economic growth and by the U.S. dollar's strength against the euro. In addition, rising yield differentials favoring U.S. corporate bonds led to record net inflows into U.S. bonds, and sharply higher stock prices led to record net inflows into U.S. stocks and large price appreciation of stocks. Foreign direct investment in the United States on both bases was increased by record financial inflows—which included numerous large-scale acquisitions, mostly by European firms—and by strong earnings growth of U.S. affiliates. The market value of foreign direct investment was further increased by the rise in U.S. stock prices. U.S. liabilities reported by U.S. banks and nonbanking concerns increased in response to strong demand for credit in the United States and abroad. However, holdings of U.S. Treasury securities by private foreigners and international financial institutions decreased.

This article presents the major changes in U.S. assets abroad and in foreign assets in the United States, including direct investment valued at both current cost and at market value, in 1999. Tables 1, 2, and 3 present detailed estimates of the yearend positions.

Revisions.—The estimates of the U.S. international investment position have been revised back

Improvements in the Estimates

As is customary each July, the estimates of the U.S. international investment position incorporate new source data and methodological improvements that relate to the changes incorporated in the annual revision of the U.S. international transactions accounts (ITA's). This year, the following major changes are introduced.

The estimates of U.S. portfolio holdings of foreign securities have been revised for 1997 and 1998, reflecting the incorporation of the final results of the U.S. Treasury Department's Benchmark Survey of U.S. Portfolio Investment Abroad as of December 31, 1997, which covered U.S. ownership of outstanding foreign long-term securities. The preliminary results were introduced in last year's article on the 1998 position. (The availability of new position data and the data on reported yields on foreign securities also enabled BEA to develop improved estimates of the related dividend and interest income receipts, which have been incorporated as part of the annual revision of the ITA's).

The revised estimates of the position of U.S. holdings of foreign securities are based on revised estimates of financial flows for 1995–99. Revised net purchases result from a more complete accounting for large-scale foreign acquisitions of U.S. companies that were accomplished through exchanges of stock and from increases to account for other transactions that were not fully reflected in the previously published estimates. (These improvements also affected related dividend and interest income receipts in the ITA's.)

The estimates of the positions of U.S. direct investment abroad and foreign direct investment in the United States on the current-cost basis have been revised back to 1976 to incorporate improved estimates of the current-cost adjustment that now includes revised estimates of prices for equipment and structures. (These improvements also affected income and financial flows in the ITA's).

For additional information, see [“U.S. International Transactions, Revised Estimates for 1982–99”](#) in this issue.

to 1976. For yearend 1998, the net negative position was revised from \$1,239.2 billion to \$1,111.8 billion with direct investment at current cost and from \$1,537.5 billion to \$1,407.7 billion with direct investment at market value (table 3). A major revision was to U.S.-owned foreign securities, where additional financial flows were added to account for undercoverage of securities transactions. On the current-cost basis, revisions to the direct investment positions of both U.S. direct investment abroad and foreign direct investment in the United States reflected the incorporation of improved estimates of the current-cost adjustment. (For more information, see the box "Improvements in the Estimates.")

Changes in U.S. Assets Abroad

Bank claims

U.S. claims on foreigners reported by U.S. banks increased \$89.2 billion, to \$1,110.1 billion, in 1999 as a result of renewed lending to home offices by European-owned U.S. banking offices, renewed lending to overseas bond funds by U.S. brokers and dealers, and a strong increase in U.S. banks' domestic customers' assets abroad (table C).

Table C.—U.S. Claims Reported by U.S. Banks at Yearend
[Billions of dollars]

	1998	1999
Total bank-reported claims	1,020.8	1,110.1
Bank own claims, payable in dollars	735.0	793.4
On unaffiliated foreign banks	106.2	101.2
On own foreign offices	484.5	528.0
On other foreigners	144.3	164.2
Bank customer claims, payable in dollars	186.9	216.7
Total claims payable in foreign currencies	98.9	100.0

Table D.—U.S. Holdings of Foreign Stocks by Major Areas at Yearend
[Billions of dollars]

	1997	1998	1999
Total holdings	1,207.8	1,476.2	2,026.6
Western Europe	721.1	960.5	1,167.8
Of which: United Kingdom	217.5	295.6	374.8
Finland	14.8	45.6	160.2
France	85.0	130.4	183.2
Germany	65.0	104.4	117.6
Ireland	14.1	19.5	18.2
Italy	41.5	59.1	53.5
Netherlands	107.0	115.4	141.9
Spain	25.2	37.7	35.7
Sweden	38.8	43.7	74.8
Switzerland	61.9	73.6	64.3
Canada	70.8	62.0	100.7
Japan	136.4	145.9	273.7
Latin America	92.5	54.0	89.1
Of which: Argentina	12.9	8.9	11.3
Brazil	31.3	17.4	28.9
Mexico	35.0	27.8	30.2
Other Western Hemisphere	45.8	77.8	129.0
Of which: Bermuda	22.6	37.2	45.9
Netherlands Antilles	15.8	24.8	26.7
Other countries	141.2	176.0	266.3
Of which: Australia	31.1	34.3	39.2
Hong Kong	28.1	27.0	38.7
Singapore	10.2	10.3	16.3

U.S. banks' own claims on banks abroad payable in dollars increased \$38.5 billion, to \$629.2 billion. Interbank funding, mostly by European-owned banks in the United States, was concentrated largely in Europe, where demand was strong as a result of strong merger and acquisition activity associated with the evolution of the European Union and the recoveries in economic growth in many European countries. In contrast, interbank claims on Japan decreased, primarily in the first half of the year, as demand remained weak and Japanese banks shifted some of their dollar funding to the capital market as their capital positions improved. Large outstanding interbank claims on offices in the Caribbean changed only slightly; strong seasonal lending toward yearend nearly reversed a reduction in claims in the first half.

U.S. banks' own claims on nonbank foreigners payable in dollars increased \$19.9 billion, to \$164.2 billion. U.S. brokers and securities dealers resumed lending to investment funds in the Caribbean and the United Kingdom, largely through securities resale agreements in order to fund the surge in foreign demand for U.S. securities. Claims on other nonbank foreigners remained weak, partly because of net repayments by Latin America and partly because attractive financing conditions were available in global capital markets.

U.S. banks' domestic customers' claims payable in dollars increased \$29.8 billion, to \$216.7 billion, reflecting strengthened customer demand for foreign short-term paper, mostly in the last half of the year when short-term interest rates rose sharply.

U.S. bank-reported claims payable in foreign currencies increased slightly to \$100.0 billion, reflecting spikes in lending that were quickly repaid in the year.

Foreign securities

U.S. holdings of foreign securities increased \$530.5 billion, to \$2,583.4 billion, in 1999, reflecting net U.S. purchases of foreign stocks, which included large exchanges of stock related to numerous large-scale acquisitions of U.S. companies by foreign companies, and substantial price appreciation in most foreign stocks. The increase was partly offset by exchange-rate depreciation in European stocks and a decrease in foreign bond holdings.

U.S. holdings of foreign stocks increased \$550.5 billion, to \$2,026.6 billion (table D). The increase resulted from \$114.4 billion in net purchases, \$480.3 billion in price appreciation, and \$44.3 billion in exchange-rate depreciation. Most of the increase in financial flows was accounted for by

substantial step-ups in European acquisitions of U.S. companies through exchanges of stock and in net U.S. purchases of Japanese stocks. Large price appreciation reflected widespread, substantial recoveries in foreign stock prices from yearend 1998 to yearend 1999.

U.S. holdings of Western European stocks increased 21 percent, mostly as a result of acquisitions through exchanges of stock and of sizable price appreciation. European stock prices advanced 28 percent on average; however, the gain was cut in half after accounting for the euro's depreciation against the dollar between yearends.

U.S. holdings of Japanese stocks increased 88 percent, as a result of record net purchases, of a 46-percent increase from price appreciation, and of significant exchange-rate appreciation due to appreciation of the yen against the U.S. dollar. The demand for Japanese stocks was partly related to restructuring in some industries and to efforts toward fiscal and monetary policy reforms, both of which were tempered by an uneven economic recovery.

U.S. holdings of Canadian stocks increased 62 percent, mostly reflecting stock price appreciation of 43 percent and exchange-rate appreciation. Net U.S. purchases resumed in 1999, following net sales in 1998.

U.S. holdings of other foreign stocks also increased significantly. Holdings of Latin American stocks increased 65 percent, mostly reflecting a recovery in stock prices. Holdings of Asian stocks also increased dramatically, reflecting a strong recovery in stock prices. However, net purchases from these areas remained small.

U.S. holdings of foreign bonds decreased \$20.0 billion, to \$556.7 billion (table E). Net purchases slowed to a 5-year low of \$14.2 billion; the net purchases were more than offset by price depreciation of \$31.3 billion, as foreign bond yields turned up, and by exchange-rate depreciation of \$2.8 billion. A faster rise in U.S. bond yields than in overseas bond yields encouraged many foreign borrowers to use overseas bond markets, so foreign new issues in the United States, particularly by foreign corporations, slowed sharply. Only new issues from Latin America continued unchanged, and new issues from all other areas declined. New issues of bonds of many emerging-market countries continued to include an elevated credit-risk premium, but the premium fell slowly over the year.

Table E.—U.S. Holdings of Foreign Bonds by Major Areas at Yearend

[Billions of dollars]

	1997	1998	1999
Total holdings	543.4	576.7	556.7
Western Europe	197.9	205.9	205.8
Of which: United Kingdom	54.2	61.6	59.0
France	17.7	14.1	12.7
Germany	43.4	44.9	43.9
Italy	17.6	15.4	12.8
Netherlands	13.2	12.6	12.4
Sweden	13.1	13.3	12.2
Canada	105.9	110.8	97.9
Japan	30.1	29.8	24.5
Latin America	94.1	101.6	108.3
Of which: Argentina	26.7	28.2	26.2
Brazil	20.3	19.6	19.6
Mexico	28.8	31.7	33.8
Other Western Hemisphere	20.3	23.8	27.5
Of which: Cayman Islands	13.6	14.8	14.0
Other countries	78.3	87.8	78.0
Of which: Australia	15.9	30.6	27.5
Korea	10.8	14.0	12.5
International organizations	16.8	17.0	14.7

U.S. direct investment abroad and other private assets

U.S. direct investment abroad valued at current cost increased \$124.1 billion, to \$1,331.2 billion, in 1999; at market value, it increased \$442.0 billion, to \$2,615.5 billion (table F). Net financial outflows increased to a record \$150.9 billion, reflecting a few especially large acquisitions and a pickup in economic growth in many countries, particularly in Europe. Net equity capital outflows were \$52.1 billion, slightly below last year's record but still strong; outflows associated with strong acquisition activity abroad were partly offset by inflows from several large sales of U.S.-owned foreign affiliates. Reinvested earnings increased sharply to \$69.6 billion as a result of growth in total overseas earnings and of U.S. parent companies' reduced need to repatriate funds from overseas at a time when U.S. domestic earnings growth was strong. Intercompany debt outflows strengthened to \$29.2 billion. At current cost, the large financial outflows more than accounted for the increase in the position. At market value, price change accounted for most of the increase, reflecting the widespread recovery in most foreign stock markets, especially in Europe, Canada, and Latin America where U.S. invest-

Table F.—Changes in U.S. Direct Investment Abroad, 1999

[Billions of dollars]

	At current cost	At market value
Total change	124.1	442.0
Financial outflows	150.9	150.9
Equity capital	52.1	52.1
Intercompany debt	29.2	29.2
Reinvested earnings	69.6	69.6
Price changes	5.5	305.8
Exchange rate changes	-17.6	-9.6
Other valuation changes	-14.7	-5.1

ments are large.

U.S. claims on foreigners reported by nonbanking concerns increased \$78.3 billion, to \$643.7 billion, as U.S. nonbanking concerns significantly raised their deposits in banks in Western Europe and the Caribbean banking centers. The sharp rise in U.S. deposits abroad helped finance the heightened demand for bank credit among borrowers in industrial countries, including U.S. borrowers, in the second half of the year.

U.S. official reserve assets and other U.S. Government assets

U.S. official reserve assets decreased \$9.6 billion, to \$136.4 billion, in 1999, mostly reflecting decreases in the U.S. reserve position with the International Monetary Fund (IMF) and in U.S. foreign currency reserves. The U.S. reserve position at the IMF decreased as a result of large dollar repayments by member countries that exceeded members' drawings in dollars. The decrease in foreign currency reserves was attributable to the U.S. payment in euros of its quota increase with the IMF. In exchange for this payment, the U.S. reserve position at the IMF increased by an equal amount, resulting in no change in total U.S. official reserve assets. The negative exchange-rate adjustment to U.S. foreign currency holdings resulted mostly from depreciation of the special drawing rights and of the euro against the dollar.

U.S. Government assets other than reserve assets decreased \$2.5 billion, to \$84.2 billion. The decrease primarily reflected the transfer of the U.S. Government's assets in the Panama Canal Commission to the Republic of Panama.

Table G.—U.S. Liabilities Reported by U.S. Banks at Yearend
[Billions of dollars]

	1998	1999
Total liabilities	1,016.1	1,082.5
Bank own liabilities, payable in dollars	804.7	878.4
To unaffiliated foreign banks	113.2	126.2
To own foreign offices	562.9	603.2
To other foreigners	128.6	149.0
Bank custody liabilities	110.3	106.9
Total liabilities payable in foreign currencies	101.1	97.2

Table H.—Foreign Official and Private Holdings of U.S. Treasury Securities by Country at Yearend

		[Billions of dollars]		
Rank		1997	1998	1999
	Total holdings	1,252.0	1,318.8	1,238.8
1	Japan	288.6	292.6	320.9
2	United Kingdom	259.2	276.9	238.9
3	Germany	96.8	100.2	96.1
4	China	49.3	48.7	51.3
5	Hong Kong	36.0	46.0	45.8
6	France	13.7	30.6	30.8
7	Singapore	36.4	45.0	30.5
8	Taiwan	34.8	33.6	29.8
9	British West Indies	35.5	39.7	28.2
10	Belgium & Luxembourg	26.8	32.8	27.9

Changes in Foreign Assets in the United States

Bank liabilities

U.S. liabilities reported by U.S. banks increased \$66.3 billion, to \$1,082.5 billion, in 1999, in response to strengthened demand for bank credit domestically, to periodic surges in demand for credit abroad, and to widening short-term interest-rate differentials that favored dollar deposits (table G).

U. S. banks' own liabilities to own foreign offices payable in dollars increased \$40.3 billion, to \$603.2 billion, primarily to Western Europe and the Caribbean banking centers. U.S. banks, particularly U.S.-owned banks, relied heavily on inter-bank funding from abroad to meet periodic surges in lending to foreigners, including yearend credit needs, and to meet strong U.S. demand for bank credit in the last half of the year. This annual inflow was significantly less than in each of the past 2 years, when mostly foreign-owned banks in the United States relied heavily on overseas home office funding to expand their dollar lending to foreigners. These inflows were partly offset by a large repayment of outstanding liabilities to home offices in Japan by U.S. affiliates in the first half of the year.

U.S. banks' liabilities to unaffiliated foreign banks payable in dollars increased \$13.0 billion, to \$126.2 billion, and U.S. banks' liabilities to other private foreigners and international financial institutions increased \$20.4 billion, to \$149.0 billion. In both cases, these increases represented significant turnarounds from declines in 1998. Dollar deposits in the United States were encouraged by the faster rise in U.S. short-term yields than in foreign yields and by the dollar's strength against the euro.

U.S. banks' custody liabilities payable in dollars decreased \$3.4 billion, to \$106.9 billion, following 2 years of strong growth. U.S. banks' foreign currency liabilities decreased \$3.9 billion, to \$97.2 billion.

U.S. Treasury securities

Holdings of U.S. Treasury securities by foreign private investors and by international financial institutions decreased \$69.0 billion, to \$660.7 billion, in 1999; the decrease was attributable to \$20.5 billion in net sales and to \$48.6 billion in price depreciation resulting from sharply higher bond yields (table H, which combines foreign official holdings with these holdings). The popularity of U.S. Government bonds to foreign portfolio investors was

curtailed by their steep price decline, by the relative attractiveness of higher yielding U.S. agency and high grade corporate bonds, and by concerns over diminishing supplies of Treasury securities as the U.S. Government's budget surplus was used to reduce outstanding Treasury debt and to slow new Treasury issues.

Other U.S. securities

Foreign holdings of U.S. securities other than U.S. Treasury securities increased \$496.9 billion, to \$2,509.3 billion, in 1999. Record net purchases of U.S. securities and large stock price appreciation were partly offset by bond price depreciation. The record net purchases reflected strong growth in the U.S. economy, in U.S. corporate earnings, in U.S. stock prices, and in U.S. bond yields.

Foreign holdings of U.S. corporate and U.S. agency bonds increased \$161.6 billion, to \$1,063.7 billion (table I). Record net foreign purchases of \$232.8 billion substantially exceeded price depreciation of \$67.7 billion and exchange rate depreciation of \$3.5 billion. Foreign investors were attracted by the more rapid rise in U.S. corporate bond yields than in most foreign bond yields, by the strength of the dollar, and by sizable new issues of U.S. agency bonds as new issues of Treasury bonds fell.

Foreign holdings of U.S. corporate stocks increased \$335.3 billion, to \$1,445.6 billion (table J). Record net purchases of \$98.7 billion were augmented by \$236.6 billion in price appreciation. Global investment in stocks recovered in 1999 after the international financial problems of 1998. Net foreign purchases of U.S. stocks were encouraged by the renewed interest in stocks globally, continued strong U.S. economic expansion, strong U.S. corporate earnings growth, and a sharp rise in U.S. stock prices (the broad-based Standard and Poors' 500 index gained 20 percent in 1999 after a 27-percent gain in 1998, and the Nasdaq index, which was more responsive to the information technology stock boom, gained 86 percent after a 40-percent gain).

U.S. currency

U.S. currency held by foreigners increased \$22.4 billion, to \$250.7 billion, in 1999. U.S. currency shipments abroad accelerated in the fourth quarter, partly reflecting concerns over potential Y2K disruptions

Table I.—Foreign Private Holdings of U.S. Corporate and Agency Bonds by Major Areas at Yearend

[Billions of dollars]

	1997	1998	1999
Total holdings	715.2	902.2	1,063.7
Western Europe	452.6	588.0	672.7
Of which: United Kingdom	362.7	470.0	535.8
France	11.0	14.6	15.1
Germany	15.1	19.7	24.7
Italy	2.8	3.2	3.5
Netherlands	13.1	16.3	17.2
Canada	17.0	23.3	25.6
Japan	98.8	108.7	120.4
Latin America	14.0	19.9	26.2
Other Western Hemisphere	84.9	105.2	148.0
Other countries	47.9	57.1	70.8

Table J.—Foreign Private Holdings of U.S. Corporate Stocks by Major Areas at Yearend

[Billions of dollars]

	1997	1998	1999
Total holdings	863.5	1,110.3	1,445.6
Western Europe	503.2	686.3	925.8
Of which: United Kingdom	228.8	302.4	407.9
France	24.4	35.4	49.1
Germany	35.5	51.5	73.3
Italy	10.4	15.1	21.0
Netherlands	51.7	74.9	103.9
Canada	92.7	108.1	128.8
Japan	68.0	81.6	103.8
Latin America	17.1	21.5	27.7
Other Western Hemisphere	94.6	114.2	140.3
Other countries	87.9	98.6	119.2

Foreign direct investment in the United States and other liabilities

Foreign direct investment in the United States valued at current cost increased \$196.6 billion, to \$1,125.2 billion, in 1999; at market value, it increased \$609.7 billion, to \$2,800.7 billion (table K). Record net financial inflows of \$275.5 billion substantially exceeded the 1998 record. Net equity capital inflows increased sharply to a record \$212.1 billion as a result of numerous large-scale acquisitions during the year, especially by Western European firms. Reinvested earnings increased to \$23.2 billion partly as a result of strong earnings growth of U.S. affiliates. Net intercompany debt inflows increased to \$40.2 billion. At current cost, net fi-

Table K.—Changes in Foreign Direct Investment in the United States, 1999

[Billions of dollars]

	At current cost	At market value
Total change	196.6	609.7
Financial inflows	275.5	275.5
Equity capital	212.1	212.1
Intercompany debt	40.2	40.2
Reinvested earnings	23.2	23.2
Price changes	-1.8	344.4
Exchange rate changes	0	0
Other valuation changes	-80.7	-10.2

nancial inflows were partly offset by a large negative valuation adjustment, mainly to reconcile market values with the smaller book values for the exceptionally large acquisitions. At market value, net financial inflows were augmented by substantial price appreciation in foreign owners' equity that resulted from the rise in U.S. stock prices.

U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns increased \$35.9 billion, to \$473.8 billion. U.S. borrowing, particularly from financial institutions in Western Europe, picked up strongly in the first half of the year; the pickup reversed large net repayments in the last quarter of 1998.

Foreign official assets

Foreign official assets increased \$31.6 billion, to \$869.3 billion, in 1999, reflecting \$42.9 billion in financial inflows that were partly offset by \$11.2 billion in price depreciation. The increase in financial inflows included large intervention sales of foreign currencies for dollars in exchange markets by a few countries in Asia. Other countries replenished dollar reserves after the reductions during the global financial problems in 1998. Inflows in 1999 were concentrated in U.S. agency bonds and, to a lesser extent, in U.S. Treasury bonds and in U.S. bank deposits.

Tables 1, 2, and 3 follow. 

Table 1. International Investment Position of the United States at Yearend, 1998 and 1999

[Millions of dollars]

Line	Type of investment	Position, 1998 ^r	Changes in position in 1999 (decrease (-))					Position, 1999 ^r
			Attributable to:				Total (a+b+c+d)	
			Financial flows	Valuation adjustments				
				Price changes	Exchange rate changes ¹	Other changes ²		
		(a)	(b)	(c)	(d)			
1	Net international investment position of the United States:							
2	With direct investment positions at current cost (line 3 less line 24)	-1,111,813	-323,377	344,215	-60,235	68,702	29,305	-1,082,508
	With direct investment positions at market value (line 4 less line 25)	-1,407,670	-323,377	301,897	-57,364	12,829	-66,015	-1,473,685
	U.S.-owned assets abroad:							
3	With direct investment positions at current cost (lines 5+10+15)	5,079,056	430,187	455,115	-71,115	-4,215	809,972	5,889,028
4	With direct investment positions at market value (lines 5+10+16) ...	6,045,544	430,187	755,413	-63,035	5,264	1,127,829	7,173,373
5	U.S. official reserve assets	146,006	-8,747	642	-1,500	17	-9,588	136,418
6	Gold	75,291	.....	³ 642	.....	4 17	659	75,950
7	Special drawing rights	10,603	.....	-10	.....	.....	-267	10,336
8	Reserve position in the International Monetary Fund	24,111	-5,484	.....	-677	.....	-6,161	17,950
9	Foreign currencies	36,001	.....	-3,253	.....	.....	-3,819	32,182
10	U.S. Government assets, other than official reserve assets	86,768	-2,751	.....	7	202	-2,542	84,226
11	U.S. credits and other long-term assets ⁵	84,850	-3,384	.....	-11	202	-3,193	81,657
12	Repayable in dollars	84,528	-3,363	.....	.....	202	-3,161	81,367
13	Other ⁶	322	-21	.....	-11	.....	-32	290
14	U.S. foreign currency holdings and U.S. short-term assets	1,918	633	.....	18	.....	651	2,569
	U.S. private assets:							
15	With direct investment at current cost (lines 17+19+22+23)	4,846,282	441,685	454,473	-69,622	-4,434	822,102	5,668,384
16	With direct investment at market value (lines 18+19+22+23)	5,812,770	441,685	754,771	-61,542	5,045	1,139,959	6,952,729
	Direct investment abroad:							
17	At current cost	1,207,059	150,901	5,475	-17,646	-14,602	124,128	1,331,187
18	At market value	2,173,547	150,901	305,773	-9,566	-5,123	441,985	2,615,532
19	Foreign securities	2,052,929	128,594	448,998	-47,135	.....	530,457	2,583,386
20	Bonds	576,745	14,193	-31,341	-2,849	.....	-19,997	556,748
21	Corporate stocks	1,476,184	114,401	480,339	-44,286	.....	550,454	2,026,638
22	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	565,466	92,328	.....	-8,037	-6,010	78,281	643,747
23	U.S. claims reported by U.S. banks, not included elsewhere	1,020,828	69,862	.....	3,196	16,178	89,236	1,110,064
	Foreign-owned assets in the United States:							
24	With direct investment at current cost (lines 26+33)	6,190,869	753,564	110,900	-10,880	-72,917	780,667	6,971,536
25	With direct investment at market value (lines 26+34)	7,453,214	753,564	453,516	-5,671	-7,565	1,193,844	8,647,058
26	Foreign official assets in the United States	837,701	42,864	-11,231	.....	.....	31,633	869,334
27	U.S. Government securities	620,285	32,527	-23,905	.....	.....	8,622	628,907
28	U.S. Treasury securities	589,023	12,177	-22,975	.....	.....	-10,798	578,225
29	Other	31,262	20,350	-930	.....	.....	19,420	50,682
30	Other U.S. Government liabilities ⁷	18,000	-3,255	.....	.....	.....	-3,255	14,745
31	U.S. liabilities reported by U.S. banks, not included elsewhere	125,883	12,692	.....	.....	.....	12,692	138,575
32	Other foreign official assets	73,533	900	12,674	.....	.....	13,574	87,107
	Other foreign assets:							
33	With direct investment at current cost (lines 35+37+38+41+42+43) ...	5,353,168	710,700	122,131	-10,880	-72,917	749,034	6,102,202
34	With direct investment at market value (lines 36+37+38+41+42+43)	6,615,513	710,700	464,747	-5,671	-7,565	1,162,211	7,777,724
	Direct investment in the United States:							
35	At current cost	928,645	275,533	1,766	-5,209	-75,521	196,569	1,125,214
36	At market value	2,190,990	275,533	344,382	.....	-10,169	609,746	2,800,736
37	U.S. Treasury securities	729,738	-20,464	-48,552	.....	.....	-69,016	660,722
38	U.S. securities other than U.S. Treasury securities	2,012,431	331,523	168,917	-3,549	.....	496,891	2,509,322
39	Corporate and other bonds	902,155	232,814	-67,690	-3,549	.....	161,575	1,063,730
40	Corporate stocks	1,110,276	98,709	236,607	.....	.....	335,316	1,445,592
41	U.S. currency	228,250	22,407	.....	.....	.....	22,407	250,657
42	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	437,973	34,298	.....	-1,050	2,604	35,852	473,825
43	U.S. liabilities reported by U.S. banks, not included elsewhere	1,016,131	67,403	.....	-1,072	.....	66,331	1,082,462

^p Preliminary.

^r Revised.

1. Represents gains or losses on foreign-currency-denominated assets due to their revaluation at current exchange rates.

2. Includes changes in coverage, statistical discrepancies, and other adjustments to the value of assets.

3. Reflects changes in the value of the official gold stock due to fluctuations in the market price of gold.

4. Reflects changes in gold stock from U.S. Treasury sales of gold medallions and commemorative and bullion coins; also reflects replenishment through open market purchases. These de-

monetizations/monetizations are not included in international transactions financial flows.

5. Also includes paid-in capital subscriptions to international financial institutions and outstanding amounts of miscellaneous claims that have been settled through international agreements to be payable to the U.S. Government over periods in excess of 1 year. Excludes World War I debts that are not being serviced.

6. Includes indebtedness that the borrower may contractually, or at its option, repay with its currency, with a third country's currency, or by delivery of materials or transfer of services.

7. Primarily U.S. Government liabilities associated with military sales contracts and other transactions arranged with or through foreign official agencies.

Table 3.—Revisions to the International Investment Position of the United States at Yearend, 1998

[Millions of dollars]

Line	Type of investment	Previously published	Revised	Revision
	Net international investment position of the United States:			
1	With direct investment positions at current cost (line 3 less line 24)	-1,239,168	-1,111,813	127,355
2	With direct investment positions at market value (line 4 less line 25)	-1,537,466	-1,407,670	129,796
	U.S.-owned assets abroad:			
3	With direct investment at current cost (lines 5+10+15)	4,930,896	5,079,056	148,160
4	With direct investment at market value (lines 5+10+16)	5,947,983	6,045,544	97,561
5	U.S. official reserve assets	146,006	146,006	0
6	Gold	75,291	75,291	0
7	Special drawing rights	10,603	10,603	0
8	Reserve position in the International Monetary Fund	24,111	24,111	0
9	Foreign currencies	36,001	36,001	0
10	U.S. Government assets, other than official reserve assets	82,382	86,768	4,386
11	U.S. credits and other long-term assets	80,179	84,850	4,671
12	Repayable in dollars	79,874	84,528	4,654
13	Other	305	322	17
14	U.S. foreign currency holdings and U.S. short-term assets	2,203	1,918	-285
	U.S. private assets:			
15	With direct investment at current cost (lines 17+19+22+23)	4,702,508	4,846,282	143,774
16	With direct investment at market value (lines 18+19+22+23)	5,719,595	5,812,770	93,175
	Direct investment abroad:			
17	At current cost	1,123,441	1,207,059	83,618
18	At market value	2,140,528	2,173,547	33,019
19	Foreign securities	1,968,956	2,052,929	83,973
20	Bonds	561,826	576,745	14,919
21	Corporate stocks	1,407,130	1,476,184	69,054
22	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	596,222	565,466	-30,756
23	U.S. claims reported by U.S. banks, not included elsewhere	1,013,889	1,020,828	6,939
	Foreign-owned assets in the United States:			
24	With direct investment at current cost (lines 26+33)	6,170,064	6,190,869	20,805
25	With direct investment at market value (lines 26+34)	7,485,449	7,453,214	-32,235
26	Foreign official assets in the United States	836,053	837,701	1,648
27	U.S. Government securities	620,249	620,285	36
28	U.S. Treasury securities	588,987	589,023	36
29	Other	31,262	31,262	0
30	Other U.S. Government liabilities	18,346	18,000	-346
31	U.S. liabilities reported by U.S. banks, not included elsewhere	123,915	125,883	1,968
32	Other foreign official assets	73,543	73,533	-10
	Other foreign assets in the United States:			
33	With direct investment at current cost (lines 35+37+38+41+42+43)	5,334,011	5,353,168	19,157
34	With direct investment at market value (lines 36+37+38+41+42+43)	6,649,396	6,615,513	-33,883
	Direct investment in the United States:			
35	At current cost	878,717	928,645	49,928
36	At market value	2,194,102	2,190,990	-3,112
37	U.S. Treasury securities	727,344	729,738	2,394
38	U.S. securities other than U.S. Treasury securities	2,021,820	2,012,431	-9,389
39	Corporate and other bonds	900,749	902,155	1,406
40	Corporate stocks	1,121,071	1,110,276	-10,795
41	U.S. currency	228,250	228,250	0
42	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	460,787	437,973	-22,814
43	U.S. liabilities reported by U.S. banks, not included elsewhere	1,017,093	1,016,131	-962

Direct Investment Positions for 1999

Country and Industry Detail

By Sylvia E. Bargas

IN 1999, the historical-cost position of foreign direct investment in the United States (FDIUS) grew 24 percent, while that of U.S. direct investment abroad (USDIA) grew 12 percent. The difference between the two growth rates was the largest since 1988.

This article presents the country and industry detail underlying the two positions. The estimates are prepared on a historical-cost basis, which is not adjusted for inflation. Because most investments reflect price levels of earlier periods, the estimates on this valuation basis understate the current values of the positions. Current-cost and market-value estimates of the positions are also prepared, but only at an aggregate level. The revised estimates of the positions for 1998 and preliminary estimates for 1999 are shown on all three valuation bases in table 1.¹

The strong growth in both positions reflected a global boom in merger and acquisition activity, favorable economic conditions in the United States, Europe, and Canada, and improved economic conditions in the Asia and Pacific area. The favor-

able conditions enhanced the profit potential of direct investments and boosted the earnings of affiliates and their parents. Strong earnings by affiliates and high rates of reinvestment led to high levels of reinvested earnings. Strong earnings by parents provided a source of funds for new investments and reduced the parents' need to draw funds from their affiliates.

The much larger increase in the position of FDIUS than in that of USDIA primarily reflected the strength of the U.S. economy. Propelled by technological innovation and strong gains in productivity, the U.S. economy has been growing rapidly in recent years, enhancing the attractiveness of potential investments in the United States. Change has been especially dramatic in the communications industry, which accounted for much of the growth in the FDIUS position in 1999. Acquisition activity for FDIUS was heavily tilted towards the communications and related industries and included some unusually large transactions. Acquisitions of communications-related firms played a less prominent role in the increase in the USDIA position. In addition, some large foreign affiliates were sold off in 1999, which dampened the growth of the USDIA position.

The composition of capital flows underlying the changes in the two positions differed. As in most previous years, the largest component of capital outflows for USDIA was reinvested earnings, which tend to be used mainly to finance the ongoing operations of foreign affiliates. The largest component of capital inflows for FDIUS continued to be equity capital, which consists of funds used to acquire and establish new U.S. affiliates and of capital contributions to existing U.S. affiliates. To some extent, this difference in composition reflects the greater average maturity of foreign affiliates relative to U.S. affiliates and the relatively greater role of acquisitions in recent growth in FDIUS. Many foreign affiliates of U.S. companies were acquired or established decades ago and can now be sustained largely through the retention of

1. The current-cost and market-value estimates are discussed in "The International Investment Position of the United States in 1999" in this issue.

Table 1.—Alternative Direct Investment Position Estimates, 1998 and 1999
[Millions of dollars]

Valuation method	Position at yearend 1998 ^r	Changes in 1999 (decrease (-))			Position at yearend 1999 ^p
		Total	Capital flows	Valuation adjustments	
U.S. direct investment abroad:					
Historical cost	1,014,012	118,610	138,510	-19,901	1,132,622
Current cost	1,207,059	124,128	150,901	-26,773	1,331,187
Market value	2,173,547	441,985	150,901	291,084	2,615,532
Foreign direct investment in the United States:					
Historical cost	793,748	192,920	271,169	-78,249	986,668
Current cost	928,645	196,569	275,533	-78,964	1,125,214
Market value	2,190,990	609,746	275,533	334,213	2,800,736

^p Preliminary.

^r Revised.

Key Terms

The key terms used in this article are described in this box. For a more detailed discussion of these terms and the methodologies used to prepare the estimates, see *Foreign Direct Investment in the United States: 1992 Benchmark Survey, Final Results* (Washington, DC: U.S. Government Printing Office, 1995) and *U.S. Direct Investment Abroad: 1994 Benchmark Survey, Final Results* (Washington, DC: U.S. Government Printing Office, 1998). The methodologies are also available at BEA's Web site at <www.bea.doc.gov>.

Direct investment. Investment in which a resident of one country obtains a lasting interest in, and a degree of influence over the management of, a business enterprise in another country. In the United States, the criterion used to distinguish direct investment from other types of investment is ownership of at least 10 percent of the voting securities of an incorporated business enterprise or the equivalent interest in an unincorporated business enterprise.

U.S. direct investment abroad (USDIA). The ownership or control, directly or indirectly, by one U.S. resident of 10 percent or more of the voting securities of an incorporated foreign business enterprise or the equivalent interest in an unincorporated foreign business enterprise.

Foreign direct investment in the United States (FDIUS). The ownership or control, directly or indirectly, by one foreign resident of 10 percent or more of the voting securities of an incorporated U.S. business enterprise or the equivalent interest in an unincorporated U.S. business enterprise.

Foreign affiliate. A foreign business enterprise in which a single U.S. investor (that is, a U.S. parent) owns at least 10 percent of the voting securities, or the equivalent.

U.S. affiliate. A U.S. business enterprise in which a single foreign investor (that is, a foreign parent) owns at least 10 percent of the voting securities, or the equivalent.

Ultimate beneficial owner (UBO). That person (in the broad legal sense, including a company), proceeding up the affiliate's ownership chain beginning with the foreign parent, that is not owned more than 50 percent by another person. The UBO ultimately owns or controls the affiliate and derives the benefits associated with ownership or control. Unlike the foreign parent, the UBO of a U.S. affiliate may be located in the United States.

Foreign parent group. Consists of (1) the foreign parent, (2) any foreign person, proceeding up the foreign parent's ownership chain, that owns more than 50 percent of the person below it, up to and including the UBO, and (3) any foreign person, proceeding down the ownership chain(s) of each of these members, that is owned more than 50 percent by the person above it. (For FDIUS, the term "parent" in the definitions below refers to both the foreign parent and other members of the foreign parent group.)

Direct investment capital flows. Funds that parent companies provide to their affiliates net of funds that affiliates provide to their parents. For USDIA, capital flows also include the funds that U.S. direct investors pay to unaffiliated foreign parties when affiliates are acquired and the funds that U.S. investors receive from them when affiliates are sold. Similarly, FDIUS capital flows include the funds that foreign direct investors pay to unaffiliated U.S. residents when affiliates are acquired and the funds that foreign investors receive from them when affiliates are sold. FDIUS capital flows also include debt and equity transactions between U.S. affiliates and other members of their foreign parent groups.

Direct investment capital flows consist of **equity capital**, **inter-company debt**, and **reinvested earnings**. Equity capital flows are the net of equity capital increases and decreases. Equity capital

increases consist of payments made by parents to third parties for the purchase of capital stock when they acquire an existing business, as well as funds that parents provide to their affiliates that increase their ownership interest in the affiliates. Equity capital decreases are funds parents receive when they reduce their equity interest in existing affiliates. Intercompany debt flows result from changes in net outstanding loans and trade accounts between parents and their affiliates; they include loans by parents to affiliates and loans by affiliates to parents. Reinvested earnings are the parents' claim on the undistributed after-tax earnings of the affiliates.

Direct investment position. The value of direct investors' equity in, and net outstanding loans to, their affiliates. The position may be viewed as the parents' contributions to the total assets of their affiliates or as the financing provided in the form of equity (including reinvested earnings) or debt by parents to their affiliates. Financing obtained from other sources, such as local or foreign third-party borrowing, is excluded.

BEA provides estimates of the positions for USDIA and for FDIUS that are valued on three bases—historical cost, current cost, and market value. At historical cost, the positions are valued according to the values carried on the books of affiliates; thus, most investments reflect price levels of earlier time periods. At current cost, the portion of the position representing parents' shares of their affiliates' tangible assets (property, plant, and equipment and inventories) is revalued from historical cost to replacement cost. At market value, the owners' equity portion of the position is revalued to current market value using indexes of stock prices.

Valuation adjustments to the historical-cost position. Adjustments to account for the differences between changes in the historical-cost position, which are measured at book value, and direct investment capital flows, which are measured at transaction value. (Unlike the positions on a current-cost and market-value basis, the historical-cost position is not adjusted to account for changes in the replacement cost of the tangible assets of affiliates or in the market value of parent companies' equity in affiliates.)

Valuation adjustments to the historical-cost position consist of **currency translation** and **"other"** adjustments. Currency-translation adjustments are made to account for changes in the exchange rates that are used to translate affiliates' foreign-currency-denominated assets and liabilities into U.S. dollars. The precise effects of currency fluctuations on these adjustments depend on the value and currency composition of affiliates' assets and liabilities. Depreciation of foreign currencies against the dollar usually results in negative translation adjustments because it tends to lower the dollar value of foreign-currency-denominated net assets. Similarly, appreciation of foreign currencies usually results in positive adjustments because it tends to raise the dollar value of foreign-currency-denominated net assets.

"Other" adjustments are made to account for differences between the proceeds from the sale or liquidation of affiliates and their book values, for differences between the purchase prices of affiliates and their book values, for writeoffs resulting from uncompensated expropriations of affiliates, for changes in industry of affiliate or country of foreign parent, and for capital gains and losses (other than currency translation adjustments). These capital gains and losses represent the revaluation of the assets of ongoing affiliates for reasons other than exchange-rate changes, such as the sale of assets (other than inventory) for an amount different from their book value.

their own earnings. In contrast, U.S. affiliates of foreign companies tend to be of more recent vintage and to rely more heavily on contributions of equity capital from their foreign parents to build their operations. The less prominent role of reinvested earnings in FDIUS also reflects relatively lower profitability for U.S. affiliates than for foreign affiliates.²

U.S. Direct Investment Abroad

The position of USDIA valued at historical cost—the book value of U.S. direct investors' equity in, and net outstanding loans to, their foreign affiliates—was \$1,132.6 billion at the end of 1999 (table 2 and chart 1). The largest positions remained those in the United Kingdom (\$213.1 billion, or 19 percent of the total), Canada (\$111.7 billion, or 10 percent), and the Netherlands (\$106.4 billion, or 9 percent) (table 3.2 and chart 2).

The USDIA position increased \$118.6 billion, or 12 percent, in 1999, less than the 16-percent increase in 1998 but in line with the 12-percent average increase in the preceding 3 years. The growth in the position reflected reinvested earnings and the global boom in mergers and acquisitions.

Acquisition activity by U.S. direct investors was below the unusually high level of 1998, but it remained strong. Rising equity markets and the continued expansion of the U.S. economy increased

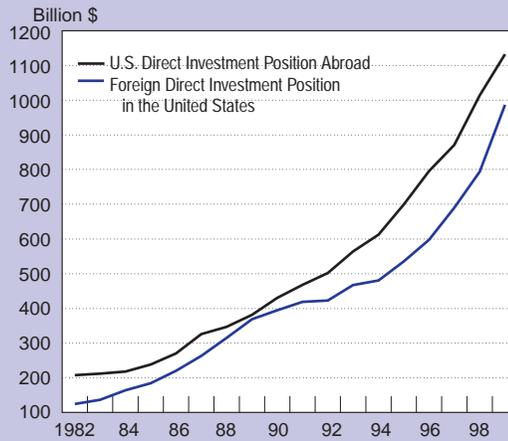
the wealth of U.S. investors, enhancing their ability to fund acquisitions. Additionally, the appreciation of the U.S. dollar against several European currencies made acquisitions in these countries less expensive for U.S. investors in dollar terms. Relatively favorable economic conditions in the United Kingdom and Canada (where a substantial portion of the acquisition activity took place) increased the attractiveness of direct investments in these countries.

Several large acquisitions in retail trade, in automobile and automobile parts manufacturing, and

2. For a discussion of the profitability of U.S. affiliates, see Raymond J. Mataloni, Jr., "An Examination of the Low Rates of Return of Foreign-Owned U.S. Companies," SURVEY OF CURRENT BUSINESS 80 (March 2000): 55-73.

CHART 1

Direct Investment Positions on a Historical-Cost Basis, 1982–99



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

Table 2.—U.S. Direct Investment Position Abroad and Foreign Direct Investment Position in the United States on a Historical-Cost Basis, 1982–99

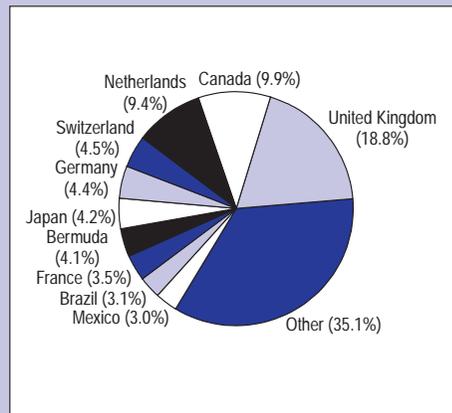
Yearend	Millions of dollars		Percent change from preceding year	
	U.S. direct investment position abroad	Foreign direct investment position in the United States	U.S. direct investment position abroad	Foreign direct investment position in the United States
1982	207,752	124,677		
1983	212,150	137,061	2.1	9.9
1984	218,093	164,583	2.8	20.1
1985	238,369	184,615	9.3	12.2
1986	270,472	220,414	13.5	19.4
1987	326,253	263,394	20.6	19.5
1988	347,179	314,754	6.4	19.5
1989	381,781	368,924	10.0	17.2
1990	430,521	394,911	12.8	7.0
1991	467,844	419,108	8.7	6.1
1992	502,063	423,131	7.3	1.0
1993	564,283	467,412	12.4	10.5
1994	612,893	480,667	(1)	(1)
1995	699,015	535,553	14.1	11.4
1996	795,195	598,021	13.8	11.7
1997	^p 871,316	^r 689,834	9.6	15.4
1998	^r 1,014,012	^r 793,748	16.4	15.1
1999	^p 1,132,622	^p 986,668	11.7	24.3

^p Preliminary.
^r Revised.

1. The USDIA and FDIUS positions reflect a discontinuity between 1993 and 1994 due to the reclassification from direct investment to other investment accounts of intercompany debt between parent companies and affiliates that are nondepository financial intermediaries.

CHART 2

U.S. Direct Investment Position Abroad, 1999: Host-Country Shares



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

in telecommunications resulted from industry-specific factors. Acquisitions in retail trade reflected a mature retail market in the United States and attractive opportunities to capture market share overseas through, for example, distribution efficiencies and price competition. The acquisitions in automobile manufacturing, some of which were made through holding companies in finance (except depository institutions), insurance, and real estate ("FIRE"), were part of a wave of consolidations in the global automobile industry.³ U.S. investors also made acquisitions in automobile parts (in transportation equipment manufacturing), where pressure from carmakers to cut prices has squeezed profit margins and led to consolidations. In telecommunications, rapidly changing industry dynamics—brought about by new technologies and deregulation—and a desire to achieve economies of scale led to acquisitions of foreign communications companies.

Among the foreign affiliates that were sold to foreign firms in 1999, the largest were in tobacco products and in communications.

The following table shows the change in position in 1999 by the type of capital flow and valuation adjustment:

[Billions of dollars]	
Total	118.6
Capital outflows	138.5
Reinvested earnings	57.3
Equity capital	52.1
Increases	80.7
Decreases	28.6
Intercompany debt	29.2
Valuation adjustments	-19.9
Currency translation	-12.5
Other	-7.4

Capital outflows for USDIA were \$138.5 billion in 1999. By account, the largest share of the outflows—41 percent—was accounted for by reinvested earnings. Net equity capital outflows accounted for 38 percent of outflows. Intercompany debt accounted for the remainder.

Reinvested earnings, at \$57.3 billion, were up 61 percent from 1998. The sharp rise resulted primarily from an increase in the share of earnings that were reinvested (rather than distributed to owners) from 40 percent to 56 percent. The increase in reinvested earnings also reflected a 13-percent rise in the overall earnings of foreign affiliates. More than half of the rise in affiliate earnings was accounted

for by affiliates in the Asia and Pacific area—particularly in Japan and Hong Kong; the rest was mostly accounted for by affiliates in Canada. The large increase by affiliates in the Asia and Pacific area reflected improved economic conditions after the financial crisis of 1997-98 and the substantial appreciation of several Asian currencies, particularly the Japanese yen, against the U.S. dollar, which raised the value of the affiliates' earnings in dollar terms. The increase by affiliates in Canada reflected economic growth both in Canada and in the United States—Canada's largest export market. Despite recent growth in the number of affiliates in Europe, the earnings of European affiliates were flat in 1999, partly as a result of the appreciation of the U.S. dollar against the currencies of several major European countries—particularly those participating in the European Monetary Union (EMU).

Equity capital outflows, at \$52.1 billion, were down 29 percent from the record level in 1998, reflecting fewer large acquisitions and some large selloffs. Acquisitions by U.S. parents and equity investments in existing foreign affiliates resulted in equity capital increases of \$80.7 billion. (The increases mostly reflected the acquisitions discussed earlier.) These increases were partly offset by decreases in equity capital (which are recorded as U.S. capital *inflows*) of \$28.6 billion, which resulted from selloffs of a number of foreign affiliates and—to a lesser extent—from the return of invested capital from existing foreign affiliates to their U.S. parents.

Acknowledgments

The data for the U.S. direct investment position abroad were drawn from BEA's quarterly survey of transactions between U.S. parent companies and their foreign affiliates. The survey was conducted under the supervision of Mark W. New, assisted by Howard S. Chenkin, Jennifer C. Chilzer, Laura A. Downey, Javier J. Hodge, Marie K. Laddomada, Sherry Lee, Leila C. Morrison, and Dwayne Torney. Computer programming for data estimation and tabulation was provided by Marie Colosimo.

The data for the foreign direct investment position in the United States were drawn from BEA's quarterly survey of transactions between U.S. affiliates of foreign companies and their foreign parents. The survey was conducted under the supervision of Gregory G. Fouch, assisted by Peter J. Fox, Michelle L. Granson, Tracy K. Leigh, Watthana Lim, Beverly E. Palmer, Christine L. Perrone, and Linden L. Webber. Computer programming for data estimation and tabulation was provided by Karen E. Poffel, assisted by Neeta B. Kapoor and Fritz H. Mayhew.

3. The acquisitions made by holding companies were financed by capital outflows from the U.S. parents to the holding companies.

Intercompany debt outflows increased 16 percent, primarily reflecting debt repayment by parents to their foreign affiliates. The largest outflows were to Japan, the United Kingdom, Switzerland, and Singapore.

The capital outflows were partly offset by a \$19.9 billion downward adjustment to the value of the position: nearly two-thirds of the adjustment was accounted for by negative currency-translation adjustments that resulted from the U.S. dollar's appreciation against several foreign currencies—particularly those of the EMU participants. In addition, acquisitions made for more than book value required downward adjustments to reconcile the purchase prices, which are reflected in capital outflows (and would otherwise determine the measured change in position), with the book values used in computing the historical-cost position. (See valuation adjustments in the box “Key Terms.”)

Changes by country

Major changes in the position by area and by country are shown in the following table:

[Billions of dollars]	
All countries	118.6
Europe	53.7
Of which:	
United Kingdom	20.4
Netherlands	12.8
Switzerland	11.1
Asia and Pacific	30.5
Of which:	
Japan	12.2
Singapore	6.4
Latin America and Other	
Western Hemisphere	22.7
Of which:	
Panama	7.4
Mexico	5.9
Bermuda	5.6
Canada	9.8

The position in Europe increased 10 percent and accounted for nearly half of the increase worldwide. Part of the increase for Europe was accounted for by holding companies. Holding companies are classified in FIRE, but their operating affiliates may be in other industries; additionally, the operating affiliates may be located in countries other than those of the holding companies.⁴ Thus, the increases accounted for by holding companies reflected strong earnings and reinvested earnings by existing operating affiliates in several industries and countries and capital outflows to the holding companies that were used to finance acquisitions of new operating affiliates.

Within Europe, the United Kingdom had the largest increase, followed by the Netherlands and Switzerland. Most of the increase in the United Kingdom was in the form of equity capital and reflected acquisitions. U.S. parent companies are attracted to the United Kingdom because of its large, prosperous market and because of the similarity of its business culture, legal framework, and language to that of the United States; in addition, the United Kingdom is often used as an entry point for investing elsewhere in Europe. The largest acquisitions were in retail trade (in “other industries”) and automobile parts (in transportation equipment manufacturing).

In the Netherlands, most of the increase in the position was accounted for by reinvested earnings, which were the highest of all countries. Reinvested earnings were concentrated among holding companies (in FIRE), reflecting the earnings of operating affiliates, many of them outside the Netherlands. The increase resulting from reinvested earnings was partly offset by a shift to equity capital inflows that resulted from selloffs.

The position in Switzerland increased 28 percent, reflecting reinvested earnings in FIRE and intercompany lending in wholesale trade.

The position in Asia and Pacific increased 20 percent. Japan and Singapore accounted for most of the increase. The position in Japan increased 34 percent, reflecting U.S. parent lending to affiliates in FIRE, acquisitions of affiliates in communications and wholesale trade, and positive currency translation adjustments. The position in Singapore also increased 34 percent, reflecting lending to affiliates in FIRE, repayment of debt to affiliates in industrial machinery, and the reinvested earnings of affiliates in electronic equipment.

The position in Latin America and Other Western Hemisphere increased 11 percent. Panama, Mexico, and Bermuda accounted for most of the increase. In Panama, the increase largely reflected capital gains (which are recorded as valuation adjustments) in FIRE. The increase in Bermuda—also concentrated in FIRE—reflected reinvested earnings and capital contributions to existing affil-

4. Transactions between U.S. parents and their foreign affiliates that enter the U.S. international transactions accounts and the related positions are classified according to the countries and industries of the affiliates with which the U.S. parents had direct transactions—in this case, those of the holding companies. However, when the direct transaction is with a holding company, the transaction may create indirect claims on, or liabilities to, affiliates in other countries and industries, or provide a channel for income to flow from the indirectly held affiliate to the parent. In contrast, the financial and operating data on foreign affiliates (for example, total assets, sales, and employment) are classified by the country of location and industry of operation of each affiliate. For the most recent financial and operating data for U.S. parents and their foreign affiliates, see “U.S. Multinational Companies: Operations in 1998” in this issue.

iates. In Mexico, the increase mostly reflected the reinvested earnings of affiliates in several industries.

The position in Canada increased 10 percent. The increase reflected acquisitions of telecommunications companies and petroleum firms and the reinvested earnings of affiliates in several industries.

Foreign Direct Investment in the United States

The position of FDIUS valued at historical cost—the book value of foreign direct investors' equity in, and net outstanding loans to, their U.S. affiliates—was \$986.7 billion at the end of 1999 (table 2 and chart 1). The largest positions remained those of the United Kingdom (\$183.1 billion, or 19 percent of the total), Japan (\$148.9 billion, or 15 percent), the Netherlands (\$130.7 billion, or 13 percent), and Germany (\$111.1 billion, or 11 percent) (table 4.2 and chart 3).

The FDIUS position increased \$192.9 billion, or 24 percent, in 1999, the fastest rate of increase since 1981 and well above the 15-percent rate in 1998. The growth in the position reflected the global boom in merger and acquisition activity, which also affected the growth in the USDIA position. However, the growth in the FDIUS position was particularly large because of several general and industry-specific factors. Propelled by technological innovation and strong gains in productivity, the U.S. economy continued to grow rapidly; real

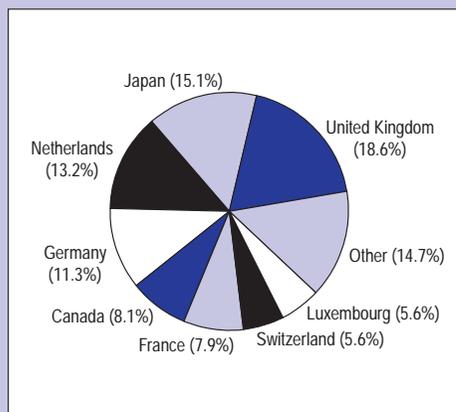
GDP increased more than 4 percent for the third consecutive year. The strong economy enhanced the attractiveness of potential investments in the United States, partly because it led to improved earnings of U.S. businesses. Favorable business conditions in most major investor countries increased the funds available to foreign investors to acquire new U.S. affiliates and to contribute additional capital to their existing U.S. affiliates. Capital flows from British parents were especially large and were mostly used for acquisitions.

Total acquisition activity for FDIUS reached a record level in 1999.⁵ Many acquisitions reflected industry-specific factors, the most important of which was the rapidly changing dynamics of the communications industry. The desire to gain access to advanced communications-related technologies and to the large and growing U.S. market for communications services led foreign communications firms to acquire U.S. firms that are involved in a range of communications-related activities, including telecommunications services (in “other industries”) and manufacturing of fiber optic, Internet, and other communications equipment (in machinery manufacturing).⁶

Foreign investors also acquired several U.S. depository institutions and insurance firms and several firms that provide products and services related to water purification. The acquisitions of depository institutions and insurance firms reflected the strong demand for financial services in the United States and the need to remain competitive in an industry that is becoming increasingly dominated by large institutions. The acquisitions of water purification-related companies (in “other

CHART 3

Foreign Direct Investment Position in the United States, 1999: Parent-Country Shares



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

5. See Ned G. Howenstine and Rosaria Troia, “Foreign Direct Investment in the United States: New Investment in 1999,” SURVEY 80 (June 2000): 55-63. According to the preliminary data from BEA’s survey of new foreign direct investments, total outlays to acquire or establish U.S. businesses, including those financed by capital inflows from foreign parents, were up 31 percent to \$282.9 billion in 1999 after tripling in 1998. These data cover only transactions involving U.S. businesses newly acquired or established by foreign direct investors and include financing other than that from the foreign parent, such as local borrowing by existing U.S. affiliates. In contrast, the changes in the FDIUS position reflect transactions of both new and existing U.S. affiliates with their foreign parents or other members of the foreign parent group and valuation adjustments, and exclude financing not provided by the foreign parent group.

Notwithstanding these differences, the two types of data are related. Any outlays to acquire or establish U.S. businesses that are funded by foreign parent groups are part of capital inflows for FDIUS, a component of the change in the position. Data from the new investments survey indicate that foreign parent groups funded \$226.9 billion, or 80 percent, of outlays to acquire or establish new U.S. affiliates in 1999, compared with \$159.8 billion, or 74 percent, in 1998.

6. These industry classifications are based on the 1987 Standard Industrial Classification (SIC). In the article on new foreign direct investments, the data on acquisitions and establishments by foreign investors in 1999 are presented using new classifications derived from the 1997 North American Industry Classification System (NAICS); under the NAICS-based classifications, many of the communications-related investments are included in the sector “Information.” (See Howenstine and Troia, “New Investment in 1999.”) In coming years, BEA will begin publishing the FDIUS and USDIA position and related capital-flow and income data on a NAICS basis.

industries”) were prompted by a recent increase in Federal water quality standards, which is expected to lead to large expenditures in infrastructure replacement by municipal water suppliers.

In 1999, as in 1998, several of the largest acquisitions were through exchanges of stock; the shareholders of the U.S. firms exchanged their stock for stock in the foreign firms. These self-financing transactions resulted in large, but almost entirely offsetting, financial flows in the U.S. international transactions accounts: The large inflows on direct investment that resulted from the foreign investors’ acquisition of stock of the U.S. companies were offset by the outflows on foreign securities that resulted from the U.S. stockholders receiving the stock of the foreign firms.⁷

The following table shows the change in the FDIUS position in 1999 by type of capital flow and valuation adjustment:

	[Billions of dollars]
Total	192.9
Capital outflows	271.2
Equity capital	212.1
Increases	235.3
Decreases	23.1
Intercompany debt	40.2
Reinvested earnings	18.8
Valuation adjustments	-78.2
Currency translation	-5.2
Other	-73.0

Capital inflows for FDIUS were a record \$271.2 billion in 1999 (the previous record was \$181.8 billion in 1998). Most—78 percent—of the inflows were net inflows of equity capital (\$212.1 billion). The rest were intercompany debt inflows (\$40.2 billion) and reinvested earnings (\$18.8 billion).

Equity capital inflows—the net of equity capital increases and equity capital decreases—reached a record \$212.1 billion, 40 percent higher than the previous record of \$151.7 billion in 1998. Equity capital increases—at \$235.3 billion—reflected the acquisitions of U.S. businesses by foreigners and additional equity contributions to existing U.S. affiliates. These increases were partly offset by equity capital decreases of \$23.1 billion, which reflected selloffs of affiliates by, and returns of capital to, foreign direct investors (transactions that are recorded as U.S. capital *outflows*).

Intercompany debt inflows were a record \$40.2 billion, up from \$30.7 billion. More than a third of

the inflows were from parents in Luxembourg and were used to finance acquisitions in manufacturing.

Reflecting a sizable dropoff in distributions and a 58-percent increase in earnings, reinvested earnings shifted \$19.5 billion to a record positive reinvested earnings of \$18.8 billion.⁸ The share of earnings that were reinvested was 53 percent. Earnings rose \$13.1 billion; almost all of the rise was accounted for by affiliates in “other manufacturing,” petroleum, and wholesale trade. The increases in “other manufacturing” and in petroleum partly reflected the earnings of U.S. companies that were acquired by foreign investors in late 1998 (and thus did not significantly affect affiliate earnings until 1999). In wholesale trade, the increase primarily reflected growth in the earnings of Japanese-owned affiliates. Losses—and thus negative reinvested earnings—occurred in “other industries” and finance.

The capital inflows were partly offset by a substantial downward adjustment—\$78.2 billion—to the value of the position; the adjustment was primarily related to acquisitions. As is usually the case, the acquired firms were purchased by foreign direct investors for more than their book values: In 1999, transaction values were boosted by high valuations in the communications-related sectors of the U.S. equity markets and by substantial premiums, in relation to preacquisition market prices, that foreign investors paid for many of the acquired firms. The downward adjustment reconciled the transaction values of the acquisitions, which are reflected in capital inflows (and would otherwise determine the measured change in position), with the smaller book values that are recorded in the historical-cost position.

Changes by country

Most—82 percent—of the \$192.9 billion increase in the FDIUS position in 1999 was accounted for by affiliates with parents in Europe. Within Europe, the largest dollar increase was in the position of parents in the United Kingdom, followed by the positions of parents in the Netherlands, Luxembourg, France, and Germany. After Europe, the largest increases were by parents in Latin America and Other Western Hemisphere, in Asia and Pacific, and in Canada. The increase in position by parents in Latin America and Other Western

7. The outflows were recorded as foreign securities transactions rather than as U.S. direct investment abroad because the exchanges of stock did not result in any single U.S. investor owning as much as 10 percent of the shares of the foreign firms.

8. Reinvested earnings were negative in 1998, because the affiliates’ distributions to their foreign parents exceeded their current earnings.

Hemisphere was concentrated in Bermuda and in U.K. Islands, Caribbean. The increase in position by parents in Asia and Pacific was more than accounted for by Japan. Major changes in the positions by area and by country are shown in the following table:

[Billions of dollars]	
All countries.....	192.9
Europe.....	157.2
Of which:	
United Kingdom.....	40.0
Netherlands.....	31.8
Luxembourg.....	28.2
France.....	19.6
Germany.....	16.7
Latin America and Other Western Hemisphere.....	16.7
Of which:	
Bermuda.....	9.3
U.K. Islands, Caribbean.....	4.9
Asia and Pacific.....	11.9
Of which:	
Japan.....	14.4
Canada.....	5.6

The position of parents in the United Kingdom increased 28 percent. A substantial portion of the increase was accounted for by one very large transaction—the acquisition of a wireless communications company by a British firm in the same industry; partly reflecting this acquisition, the United Kingdom's position in “other industries” more than doubled.⁹ Partly due to acquisitions of communications equipment firms, the United Kingdom's position in machinery manufacturing more than tripled. Substantial reinvested earnings of affiliates in petroleum, which partly reflected increased profits resulting from higher oil prices, also raised the position of the United Kingdom.

9. The International Investment and Trade in Services Survey Act prohibits BEA from disclosing information from its direct investment surveys in a manner that allows the data supplied by an individual respondent to be identified. The act also provides that with the written consent of the respondent, information supplied by the respondent may be disclosed.

The position of parents in the Netherlands increased 32 percent; the increase mostly reflected acquisitions of insurance companies and of depository institutions. The position of Luxembourg parents more than doubled, reflecting acquisitions in manufacturing by existing affiliates ultimately owned by investors in other countries.¹⁰ The acquisitions were financed through loans to the U.S. affiliates as well as through equity capital.

The position of French parents increased 34 percent, primarily reflecting acquisitions of companies that provide products or services related to water purification. The position of German parents increased 18 percent; the increase reflected acquisitions of depository institutions, communications firms, and air freight companies. Germany's position was also boosted by reinvested earnings in manufacturing.

The position of parents in Bermuda more than tripled, and that of parents in the U.K. Islands, Caribbean increased 54 percent. Both increases reflected acquisitions by firms ultimately owned by investors in other countries. These acquisitions included telecommunications and Internet services firms and property and casualty insurance companies.

The position of parents in Japan increased 11 percent. The increase primarily reflected lending to affiliates and valuation adjustments; Japanese investments in new U.S. affiliates remained well below their peak levels of the late 1980's. By industry, the largest increase was in wholesale trade.

The position of Canadian parents increased 8 percent. By industry, increases in “other manufacturing,” finance, and insurance were partly offset by decreases in food.

10. BEA also prepares data on the FDIUS position by country of ultimate beneficial owner; the data are included in the detailed tables on FDIUS that are usually published in the September SURVEY.

Tables 3 and 4 follow. 

U.S. International Transactions Revised Estimates for 1982–99

By Christopher L. Bach

AS IS customary each June, the estimates of U.S. international transactions have been revised to incorporate statistical and methodological 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 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.

- Net U.S. purchases of foreign securities are revised for 1995–99 as a result of a more complete accounting for large-scale foreign acquisitions of U.S. companies. Net U.S. purchases of foreign securities are also revised for 1995–99 to account for other transactions that are not completely captured by the statistical reporting system.
- “Other” private income receipts are revised for 1998–99 to incorporate the final results of the U.S. Treasury Department’s Benchmark Survey of U.S. Portfolio Investment Abroad as of December 31, 1997. Previously, only preliminary results were available. “Other” private income receipts are also revised to reflect the previously mentioned changes made to net U.S. purchases of foreign securities.
- “Other” private services receipts and payments are revised for 1997–99 to reflect revisions to financial services receipts and payments. “Other” private services receipts are also revised as follows: For 1986–99, to incorporate improved estimates of expenditures of international organizations in the United States; for 1996–99, to incorporate improved estimates of expenditures of foreign embassies in the United States; and for 1986–99, to incorporate newly developed estimates of expenditures of temporary nonagricultural workers in the United States.

- Direct investment income and capital flows are revised for 1982–99 to reflect revised estimates of the current-cost adjustment. Revised estimates of prices for equipment and structures are now incorporated into the current-cost adjustment.

The newly available benchmark data, improved methodologies, and improved coverage of the accounts are discussed in the remaining sections of this article. In addition to these major changes, revisions also result from the incorporation of regularly available data from BEA’s annual and quarterly surveys, from the U.S. Treasury Department’s and Federal Reserve System’s quarterly and monthly surveys, and supplemental data from other U.S. Government agencies and private sources. For 1999, as a result of all the changes, the current-account deficit is reduced \$7.4 billion, to \$331.5 billion (table 1). By account, \$1.3 billion is added to goods exports and \$0.2 billion is removed from goods imports, resulting in a deficit that is \$1.6 billion lower than previously estimated. For services, \$5.2 billion is removed from services exports and \$6.2 billion is removed from services imports, resulting in a surplus that is \$1.0 billion higher than previously estimated. For income, \$2.3 billion is added to income receipts and \$4.0 billion is removed from income payments, resulting in a deficit that is \$6.3 billion lower than previously estimated. For net current unilateral transfers, \$1.4 billion in outflows is added, resulting in an increase in net transfers of the same amount. Net financial account inflows were revised down \$54.8 billion, to \$323.4 billion. Details on revisions to individual series are shown in table 2 at the end of the article.

Foreign securities

Additional offsets to direct investment.—Estimates of U.S. transactions in foreign securities are adjusted to account more completely for large-scale acquisitions that have occurred over the past 5 years.

The treatment in the international accounts of foreign acquisitions of U.S. companies can involve entries in the direct investment, foreign securities (portfolio investment), and banking accounts, depending on the type of financing.

For acquisitions financed by an exchange of stock, the amount of the acquisition is entered as a financial inflow in the foreign direct investment in the United States account. This amount is probably captured completely and valued correctly in the direct investment statistical reporting system. However, net U.S. purchases of foreign securities in the Treasury International Capital (TIC) portfolio investment reporting system, which records the contra- or offsetting entry, often does not effectively capture the receipt by U.S. investors of stock in a foreign company in exchange for stock in a domestic company, because this exchange of securities does not normally go through the TIC reporting system. Consequently, when BEA can confirm that an exchange of stock has occurred and that net U.S. purchases of foreign securities are underreported, it has adjusted its estimates to assure more complete coverage of securities transactions. BEA makes these adjustments for some medium-size transactions and for large-size transactions. These additional securities offsets have been entered in the appropriate periods for 1995–99—a period in which foreign acquisitions were prevalent and in which their number and size

reached new levels: \$7.4 billion was added for 1995, \$10.8 billion for 1996, \$3.0 billion for 1997, \$10.5 billion for 1998, and \$8.9 billion for 1999.

For acquisitions financed either partly or entirely with cash, the cash portion of the acquisition is included in the U.S. bank-reported accounts, typically as a reduction in foreign-held dollar deposits, and it is believed to be completely captured and correctly valued.

Other adjustments for undercoverage.—Estimates of U.S. transactions in foreign securities are also adjusted to account for other sources of incompleteness. Coverage problems were partly confirmed by information from the U.S. Treasury Department's Benchmark Survey of U.S. Portfolio Investment Abroad at yearend 1997, which indicated a 20-percent discrepancy between BEA's position estimates, based on accumulations and revaluations of transactions in TIC reports, and the benchmark survey results. The discrepancy had arisen in the 3 years since the previous benchmark survey for yearend 1994.

When BEA adjusted its international investment position estimates last year using preliminary benchmark results, it attributed all of the discrepancy to valuation changes and none to the less than complete coverage of transactions, based on its experience in presenting the accounts up until that time. BEA is now changing that practice and attributing a large part of the discrepancy to

Table 1.—Revisions to the Current-Account Estimates

[Millions of dollars; quarters 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	366,926	366,983	57	-355,964	-355,975	-11	-17,139	-16,544	595	-6,177	-5,536	641
1983	356,156	356,106	-50	-377,577	-377,488	89	-17,778	-17,310	468	-39,198	-38,691	507
1984	400,052	399,913	-139	-474,144	-473,923	221	-20,661	-20,335	326	-94,753	-94,344	409
1985	387,806	387,612	-194	-484,106	-483,769	337	-22,762	-21,998	764	-119,062	-118,155	907
1986	406,060	407,098	1,038	-530,478	-530,142	336	-24,818	-24,132	686	-149,236	-147,177	2,059
1987	456,227	457,053	826	-594,825	-594,443	382	-24,047	-23,265	782	-162,645	-160,655	1,990
1988	567,260	567,862	602	-664,167	-663,741	426	-26,139	-25,274	865	-123,046	-121,153	1,893
1989	649,902	650,494	592	-721,686	-721,307	379	-27,116	-26,169	947	-98,900	-96,982	1,918
1990	708,135	708,881	746	-759,646	-759,189	457	-27,821	-26,654	1,167	-79,332	-76,961	2,371
1991	729,513	730,387	874	-735,048	-734,524	524	9,819	10,752	933	4,284	6,616	2,332
1992	748,431	749,324	893	-763,187	-762,035	1,152	-35,873	-35,013	860	-50,629	-47,724	2,905
1993	776,404	776,933	529	-823,167	-821,977	1,190	-38,522	-37,637	885	-85,286	-82,681	2,605
1994	868,041	868,867	826	-950,529	-949,212	1,317	-39,192	-38,260	932	-121,680	-118,605	3,075
1995	1,005,715	1,006,576	861	-1,083,844	-1,081,976	1,868	-35,437	-34,057	1,380	-113,566	-109,457	4,109
1996	1,074,425	1,075,874	1,449	-1,161,533	-1,159,111	2,422	-42,187	-40,081	2,106	-129,295	-123,318	5,977
1997	1,197,206	1,194,283	-2,923	-1,298,705	-1,294,029	4,676	-41,966	-40,794	1,172	-143,465	-140,540	2,925
1998	1,192,231	1,191,422	-809	-1,368,718	-1,364,531	4,187	-44,075	-44,029	46	-220,562	-217,138	3,424
1999	1,233,944	1,232,407	-1,537	-1,526,201	-1,515,861	10,420	-46,581	-48,025	-1,444	-338,918	-331,479	7,439
1996:I	262,090	262,540	450	-277,914	-277,301	613	-10,920	-10,519	401	-26,744	-25,280	1,464
II	265,687	266,135	448	-287,958	-287,269	689	-9,185	-8,744	441	-31,456	-29,878	1,578
III	266,217	266,709	492	-295,037	-294,421	616	-9,507	-8,940	567	-38,327	-36,652	1,675
IV	280,425	280,484	59	-300,625	-300,121	504	-12,574	-11,878	696	-32,774	-31,515	1,259
1997:I	287,363	286,666	-697	-312,914	-311,988	926	-9,347	-9,054	293	-34,898	-34,376	522
II	300,113	299,955	-158	-322,090	-320,660	1,430	-9,494	-9,280	214	-31,471	-29,985	1,486
III	305,865	305,537	-328	-331,384	-329,383	2,001	-10,096	-9,561	535	-35,615	-33,407	2,208
IV	303,869	302,129	-1,740	-332,317	-331,999	318	-13,030	-12,902	128	-41,878	-42,772	-1,294
1998:I	302,289	301,732	-557	-335,380	-334,328	1,052	-9,927	-9,794	133	-43,018	-42,390	628
II	298,463	298,857	394	-340,977	-340,233	744	-9,886	-10,099	-213	-52,400	-51,475	925
III	291,493	291,341	-152	-344,182	-341,993	2,190	-10,787	-10,658	129	-63,476	-61,309	2,167
IV	299,985	299,489	-496	-348,180	-347,980	200	-13,474	-13,474	0	-61,669	-61,965	-296
1999:I	295,503	293,717	-1,786	-354,099	-349,513	4,586	-10,306	-10,831	-525	-68,902	-66,627	2,275
II	300,939	300,994	55	-370,921	-368,439	2,482	-11,175	-11,537	-362	-81,157	-78,982	2,175
III	313,183	313,084	-99	-391,060	-391,337	-277	-11,208	-11,396	-188	-89,085	-89,649	-564
IV	324,317	324,612	295	-410,204	-406,575	3,629	-13,892	-14,260	-368	-99,779	-96,223	3,556

transactions. This change permits the international transactions accounts to more accurately reflect several major changes that were taking place in financial markets: Strong growth in direct transactions between U.S. and foreign residents that was not captured by a U.S. reporting system based primarily on recording transactions between financial intermediaries; a new emphasis on global investing by mutual and pension funds that may not have conducted transactions through financial intermediaries; and greatly improved electronic communications networks that permitted direct transactions with foreign institutions at lowered transactions costs. The adjustment for undercoverage of transactions is assumed to rise in each of the 3 years between the benchmark surveys. Net transactions in foreign stocks and in foreign bonds are each adjusted proportionately. The amount of adjustment for additional net U.S. purchases in foreign securities is \$15.0 billion for 1995, \$23.2 billion for 1996, and \$26.8 billion for 1997. Adjustments for subsequent years will be held constant at the 1997 level until the next outbound benchmark portfolio survey reveals the extent of undercoverage. The next benchmark survey is planned for yearend 2001.

BEA is working with the Federal Reserve System and the U.S. Treasury Department to improve the coverage of the quarterly TIC reports.

Related income receipts.—A result of the changes for offsets to direct investment and for other undercoverage is to boost related dividend and interest income receipts. Dividend receipts are raised \$0.8 billion for 1998 and \$2.4 billion for 1999, and interest income receipts are raised \$0.8 billion for 1998 and \$1.6 billion for 1999. No revisions are made for 1995–97, because the position estimates and related income estimates had already been adjusted by the preliminary benchmark survey results last year.

Other private income receipts

The final results of the U.S. Treasury Department's benchmark survey of U.S. holdings of foreign securities at yearend 1997 showed a slight increase in U.S. holdings from the preliminary results introduced into the accounts last year. In addition, the survey's dividend and interest data available this year showed lower average yields than had been used by BEA to estimate income.

Dividend rates on foreign stocks obtained from the benchmark survey at yearend 1997 were lower than those included in BEA's accounts. The differ-

ence is mostly attributable to the geographic composition of U.S. holdings. The benchmark data showed higher holdings in emerging market countries; many dividend rates in these countries were especially low and lower than those used in BEA's accounts. When BEA's market-based average dividend rate was adjusted downward on the basis of the new, lower Treasury benchmark dividend rate, the result was to lower dividend income receipts \$5.0 billion for 1998 and \$3.6 billion for 1999.

Interest yields on foreign bonds on average were close to those included in BEA's accounts at yearend 1997. A minor adjustment to average interest yields in BEA's accounts was necessary to account for a slightly lower proportion of dollar-denominated bonds and for a slightly higher proportion of foreign currency-denominated bonds. When BEA's market-based average interest yield was adjusted on the basis of the new Treasury benchmark interest yield, the result was to raise interest receipts \$1.0 billion for 1998 and to lower receipts \$1.5 billion for 1999.

Revisions are not made for 1995–97, because the position estimates and related income estimates had already been adjusted by the preliminary benchmark survey results last year.

Financial services

This year, BEA completed its quinquennial Benchmark Survey of Financial Services Transactions Between U.S. Financial Services Providers and Unaffiliated Foreign Persons for 1999. The benchmark survey is more comprehensive than BEA's annual surveys of financial services transactions and included a refinement in the categories of cross-border services reported by U.S. financial services providers. The current major categories are brokerage commissions, underwriting and private placement fees, financial management fees, credit-related fees, credit card services, financial advisory and custody services, securities lending fees, electronic funds transfer charges, and all other financial services.

The benchmark survey results led to significant changes for brokerage commissions and for underwriting and for private placement fees. The revisions to brokerage commissions were larger than revisions to underwriting fees, and for both, the revisions were larger for receipts than for payments. Both receipts and payments were revised down.

Based on the benchmark survey results, BEA is now assuming a more rapid decline than previ-

ously in the explicit fees and commissions charged on brokerage transactions and, to a smaller extent, on underwriting transactions. These declines are directly attributable to increased competition among financial institutions, mergers among large-scale financial services providers, improved telecommunications networks, greater ease in conducting transactions on foreign exchanges, and technological advances that have dramatically lowered unit transactions costs in recent years. Conversations with industry participants confirm the new survey results. In addition, an increasing portion of securities transactions may be occurring through affiliated companies, which would result in a lower level of financial services transactions with unaffiliated foreign persons. Therefore, the estimates of commissions and underwriting fees are reduced for 1997–99 to bring them in line with current developments in the financial services industry. Receipts were reduced \$1.3 billion for 1997, \$2.4 billion for 1998, and \$1.8 billion for 1999. Payments were reduced \$0.2 billion for 1997, \$0.2 billion for 1998, and \$0.3 billion for 1999.

Other services

Several changes are introduced for “other” private services receipts.

Foreign embassies and international organizations.—Improved estimates for noncompensation expenditures of foreign embassies and consulates and for international organizations in the United States are introduced. Previously, these estimates were included only implicitly as part of total receipts; now, the estimation techniques have been improved. As extraterritorial entities located in the United States, both foreign embassies and consulates and international organizations incur non-

compensation expenses in the U.S. economy.

For foreign embassies and consulates in Washington, DC, source data on noncompensation expenditures in the United States (such as expenditures for office supplies, contractual services, equipment, rent, utilities, and food) were used to calculate an average noncompensation expenditure per employee. This average expenditure was multiplied by the total number of personnel employed by all embassies and consulates in the United States, as supplied by the Department of State, to derive total noncompensation expenditures of foreign embassies and consulates. Revisions are for 1996–99. For international organizations, a similar approach was used, based on data for noncompensation expenditures and the number of personnel provided by the organizations themselves. Revisions are for 1986–99.

An additional aspect of the improved estimates is that they now include a measure of the spending of foreign employees of the foreign embassies and consulates and of foreign employees of international organizations in the United States. These expenditures are estimated as a share of foreign employees’ total earnings. Estimates are for 1986–99.

Expenditures of temporary nonagricultural workers.—In last year’s annual revision, a new measure of the earnings of temporary undocumented nonagricultural workers in the United States was introduced.¹ The estimate of total compensation was calculated as the number of such workers multiplied by annual hours worked and an average hourly wage, based on data obtained from several sources. This year, based on the same data sources,

1. See Christopher L. Bach, “U.S. International Transactions, Revised Estimates for 1982–98,” SURVEY OF CURRENT BUSINESS 79 (July 1999): 70–71.

Acknowledgments

The revised estimates were prepared under the general direction of Anthony DiLullo, with the assistance of Paul Farello and other staff of the Balance of Payments Division. Harlan King prepared the new estimates of foreign securities and related changes to “other” private income; Russell Scholl and Jane Newstedt, the new estimates of financial services; Michael Mann and Vicki Schepker, the new estimates of other services; Steve Baldwin, the new estimates of expenditures of temporary nonagricultural workers; Douglas Weinberg, the new estimates of the current-cost adjustment; D. Timothy Dobbs, William McCormick, and Douglas Weinberg, the new estimates for the revalued assets of the Panama Canal Commission; and Kwok Lee and the staff of the Goods Branch, the revised estimates of goods.

The revisions to the estimates of U.S. direct investment abroad were prepared under the supervision of Patricia Walker of the International Investment Division (IID), the revisions to the estimates of foreign direct investment in the United States were prepared under the supervision of Gregory Fouch of IID, and the revisions of several of the estimates of unaffiliated private services were prepared under the supervision of Christopher Emond of IID.

Special assistance was provided by William L. Griever of the Federal Reserve Board, who conducted the benchmark survey of U.S. portfolio investment abroad, and by Diane Oberg and the staff of the Bureau of the Census’ Foreign Trade Division, who conducted the study of “residual” seasonality of goods.

estimates of these workers' expenditures in the United States are introduced and entered as receipts in the "other" private services account. Estimates are for 1986–99. For 1999, receipts are raised \$1.6 billion.

Current-cost adjustment

The current-cost adjustment to direct investment income and capital has been revised to reflect revised estimates of economic depreciation and updated source data for historical-cost depreciation, depletion, and expensed exploration and development expenditures reported by direct investment affiliates. (The current-cost adjustment consists of (1) the difference between historical-cost 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, and (2) adjustments to reported earnings for charges taken by direct investment affiliates for depletion and for expensed exploration and development expenditures.)

The revised estimates of economic depreciation reflect revised prices for equipment and structures investment in the United States, based on estimates incorporated in the 1999 comprehensive revision of BEA's national income and product accounts (NIPA's), and revised prices for equipment and structures investment in foreign countries. U.S. prices are revised for all years, but the largest revisions are for recent years. Foreign prices are revised only for recent years.

Additional revisions to economic depreciation reflect revised investment data reported by direct investment affiliates and revised assumptions about the relationship between equipment and structures that are used to compute separate estimates of equipment and structures. For 1999, revisions to the current-cost adjustment for U.S. direct investment abroad raised income receipts \$1.0 billion, and revisions for the current-cost adjustment for foreign direct investment in the United States reduced income payments \$0.6 billion. Offsetting entries were made in the direct investment capital accounts.

This work extends the significant improvements to the current-cost adjustment estimates that were introduced last year. This year's revisions are for

1982, the first year for which current-cost adjustments are included in the accounts, through 1999.²

Taxes

Taxes received from nonresidents by the U.S. Government are revised for 1997–99 to incorporate updated source data from the Internal Revenue Service (IRS), and for 1982–99 to include an additional component that was introduced in the 1999 comprehensive revision of the NIPA's.

Previously, tax receipts from nonresidents were estimated on the basis of IRS-reported receipts from nonresident aliens only; these receipts were entered in the unilateral current transfers account as offsets to corresponding entries in the services and income accounts. Now, the methodology is adjusted to account for taxes received from nonresident U.S. citizens. This adjustment is made to maintain consistency with the NIPA's. For 1999, the revision raised U.S. tax receipts \$2.2 billion.

Panama Canal

The U.S. Government's assets in the Panama Canal Commission have been revalued to reflect prices of the current period. The revaluation affects the transaction value of the transfer of the U.S. assets to the Republic of Panama in the fourth quarter of 1999 in the U.S. international transaction accounts. The revaluation also affects the value of the assets in the U.S. international investment position from October 1, 1979, when the Panama Canal Commission was created, to December 31, 1999 (at noon), when the United States last owned the assets.

The net stock of fixed assets on the Panama Canal Commission's balance sheet is revalued from historical cost to current cost. The current-cost net stock is constructed using a perpetual inventory method. This method is consistent with the method that BEA uses to estimate the current-cost value of the net stock of fixed assets and consumer durable goods in its domestic wealth estimates and the current-cost direct investment positions in its international accounts.³ In the perpetual inventory method, each year's capital investment is first de-

2. See Bach, "Revised Estimates for 1982–98," 65–67.

3. For a discussion of the methods used to derive net stocks, see U.S. Department of Commerce, Bureau of Economic Analysis, *Fixed Reproducible Tangible Wealth of the United States, 1925–94* (Washington, DC: U.S. Government Printing Office, August 1999): M-1—M-36.

flated from historical cost to constant cost using capital goods investment price indexes. The constant-cost net capital stock for a given year is then calculated as the cumulative value of past investment less the cumulative value of past depreciation and discards. The constant-cost capital stock is then reflated to current cost using capital goods investment price indexes.

The data required to construct the current-cost value of the net stock of fixed assets on the Panama Canal Commission's balance sheet were assembled from various sources and, in cases in which sources were less than fully adequate, were derived using assumptions based on BEA's experience in its other capital stock work. Investment data were derived from accounting statements of the Panama Canal Company, the Panama Canal Commission, and the Budget of the United States. Service lives were based largely on rates of depreciation implied by accounting statements. A price index for capital investment in canals does not exist, so BEA chose a NIPA index that is used to deflate investment in certain heavy construction.

“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. Differences between directly adjusted aggregate series and corresponding series that are derived indirectly as the sum of individually seasonally adjusted series are sometimes called “residual” seasonality.

This year, building on the gains in reducing “residual” seasonality in recent years, BEA and the Bureau of the Census applied adjustments for trading-day variation at the five-digit level, which is the same level at which seasonal adjustments are applied. The change allows a consistent applica-

tion of trading-day and seasonal factors to the most detailed level of unadjusted data available. As a result, “residual” seasonality was reduced significantly for exports and changed little for imports.

It was possible to make this change this year because of the adoption last year of a regression methodology to calculate trading-day factors. The regression method is better able to distinguish irregular movements from trading-day variation than the old multiplicative method. Therefore, it is no longer necessary to apply trading-day factors at the three-digit level. The old procedure was also found to contribute to more, rather than less, “residual” variation (1) because it sometimes forced a combination of series that were unrelated by nature of product, (2) because it sometimes forced the combination of series that had offsetting trading-day patterns, and (3) because trading-day factors for large series were sometimes applied to many smaller series that when adjusted individually, showed no trading-day variation. Development and testing for trading-day variation at the five-digit level should remove the problems sometimes encountered by grouping series to a three-digit level.

The process that BEA and the Bureau of the Census use to develop seasonally adjusted estimates is complex and detailed. Nearly 300 series are tested for seasonality and trading-day variation 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, 95 percent of the value of total exports and 97 percent of the value of total imports receive at least one type of adjustment. About 115 of 144 export series and 127 of the 149 import series receive at least one type of adjustment. Revisions are made for 1997–99.

Table 2 follows. 

sions in recorded transactions—was a positive \$30.4 billion in the first quarter, virtually unchanged from \$30.5 billion in the fourth.

The following are highlights for the first quarter of 2000:

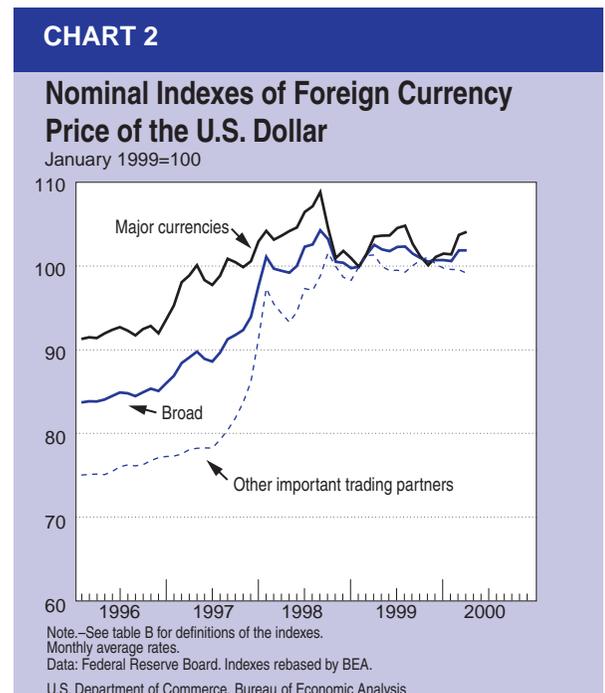
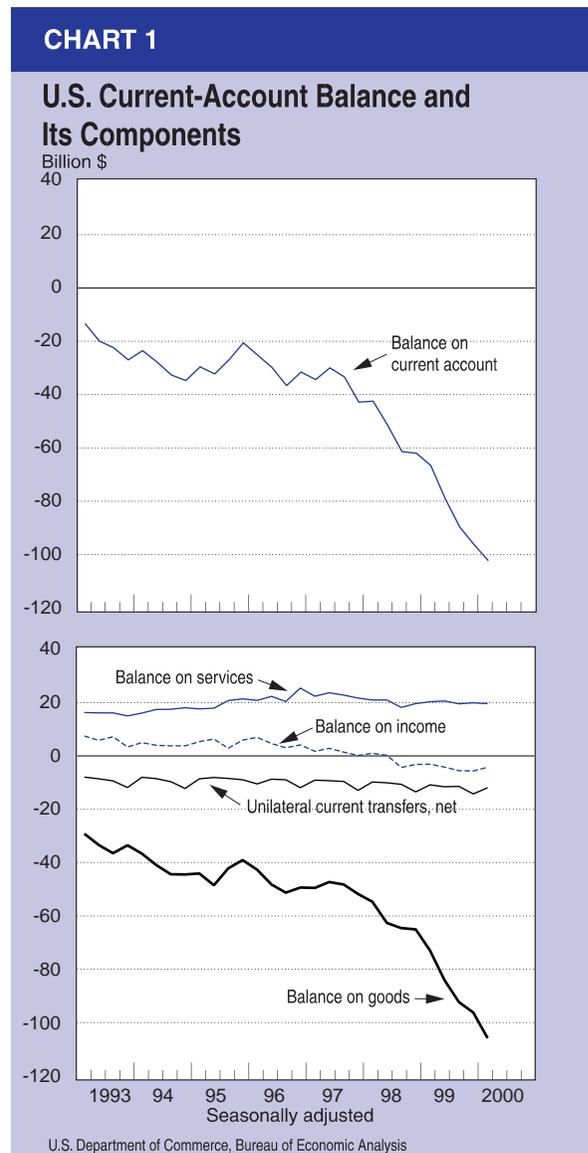
- Imports of goods were boosted by a surge in petroleum imports that largely reflected a rise in average petroleum prices.
- Imports of services increased strongly.
- Net foreign purchases of U.S. stocks surged to a record high, and net foreign purchases of U.S. corporate bonds also increased to a record.
- Net financial inflows for foreign direct investment in the United States slowed but remained strong.
- U.S. banks' claims on foreigners increased strongly, partly reflecting a rise in the demand for U.S. bank credit in Western Europe.

U.S. dollar in exchange markets

In the first quarter, the U.S. dollar appreciated 1 percent on a nominal, trade-weighted quarterly average basis against the group of 26 currencies of important U.S. trading partners (table B, chart 2). Within the broad group, the dollar appreciated 2 percent against the group of seven major currencies that trade widely in international markets, and it depreciated 1 percent against the group of remaining currencies.

The U.S. dollar appreciated 5 percent against the euro, increasing the dollar's total appreciation since the euro's inception at the beginning of 1999 to 18 percent on a quarterly average basis. In the first quarter, the dollar was boosted by indications that the U.S. economy was expanding strongly and by exceptionally strong Western European purchases of U.S. securities. The strength of the U.S. economy prompted U.S. monetary authorities to raise their target for the Federal funds rate by 50 basis points over the quarter to 6.0 percent, which brought the cumulative increase to 125 basis points since June 1999. Other U.S. short-term interest rates also increased, and U.S. long-term interest rates rose early in the quarter but fell sharply thereafter. In the euro area, economic growth continued to be much weaker than in the United States. The European Central Bank increased its interest rate on short-term refinancing operations by 50 basis points over the quarter to 3.5 percent.

The U.S. dollar appreciated 2 percent against the Japanese yen in the first quarter after depreci-



celerated (chart 3). The increases in the last four quarters were widespread by major commodity category.

In the first quarter, nonagricultural exports increased \$3.0 billion, or 2 percent, to \$170.6 billion; quantities and prices both increased 1 percent. The value of nonagricultural industrial supplies and materials, which increased sharply in the previous two quarters, continued to rise in the first quarter, partly as a result of increases in nonmonetary gold, iron and steel products, and paper and paper

stocks. Consumer goods increased strongly for the second consecutive quarter; the first-quarter increase, which was the largest since the fourth quarter of 1989, resulted from continued strong growth in durable goods and a sharp increase in nondurable goods. Automotive products were boosted by a strong increase in engines and other parts to Mexico. In contrast, capital goods changed little; a strong increase in capital goods other than civilian aircraft—largely resulting from surges in computers, peripherals, and parts and in telecommunications equipment—was offset by a sharp drop in complete civilian aircraft that resulted from a strike at a major aircraft manufacturer.

Agricultural exports increased \$0.6 billion, or 5 percent, to \$13.1 billion; quantities increased 6 percent, and prices decreased 1 percent. In value, most of the increase was accounted for by rebounds in soybeans and in raw cotton and by the fourth consecutive quarterly increase in meat products and poultry.

Imports.—Imports increased \$13.2 billion, or 5 percent, to \$289.6 billion in the first quarter. Quantities increased 3 percent, and prices increased 2 percent (table C). The value of petroleum imports surged, largely as a result of a rise in petroleum prices, and the value of nonpetroleum imports also increased.

Imports increased strongly for the fourth consecutive quarter, and average quarterly import growth accelerated. The increases in the last four quarters were partly attributable to rapidly rising petroleum prices, but they also reflected strong



Table C.—U.S. Trade in Goods, Current and Chained (1996) Dollars, and Percent Changes from Previous Period

[Balance of payments basis, millions of dollars, quarters seasonally adjusted]

	Current dollars							Chained (1996) dollars ¹						
	1998	1999	1999				2000	1998	1999	1999				2000
			I	II	III	IV				I ^P	I	II	III		IV	I^{P}
Exports	670,324	684,358	163,949	166,443	173,881	180,085	183,728	711,246	736,199	176,669	179,550	187,170	192,810	195,872
Agricultural products	53,105	49,619	11,711	12,236	13,178	12,494	13,126	62,641	63,212	14,566	15,647	16,960	16,039	16,959
Nonagricultural products	617,219	634,739	152,238	154,207	160,703	167,591	170,602	648,371	672,845	161,955	163,876	170,417	176,597	178,828
Imports	917,178	1,029,917	236,973	250,427	266,199	276,318	289,566	1,016,854	1,141,067	268,069	279,807	293,171	300,020	309,365
Petroleum and products	50,903	67,807	10,532	15,940	19,903	21,432	27,010	81,445	81,566	20,023	21,339	21,017	19,187	20,431
Nonpetroleum products	866,275	962,110	226,441	234,487	246,296	254,886	262,556	935,199	1,056,784	247,477	257,961	271,251	280,095	288,206
	Percent change from previous period (current dollars)							Percent change from previous period (chained (1996) dollars)						
	1998	1999	1999				2000	1998	1999	1999				2000
			I	II	III	IV				I ^P	I	II	III		IV	I^{P}
Exports	-1.4	2.1	-3.2	1.5	4.5	3.6	2.0	1.8	3.5	-2.7	1.6	4.2	3.0	1.6
Agricultural products	-9.1	-6.6	-11.4	4.5	7.7	-5.2	5.1	.1	.9	-9.7	7.4	8.4	-5.4	5.7
Nonagricultural products	-7	2.8	-2.4	1.3	4.2	4.3	1.8	2.0	3.8	-2.2	1.2	4.0	3.6	1.3
Imports	4.7	12.3	1.1	5.7	6.3	3.8	4.8	11.3	12.2	1.9	4.4	4.8	2.3	3.1
Petroleum and products	-29.1	33.2	-8.5	51.3	24.9	7.7	26.0	7.0	.1	.7	6.6	-1.5	-8.7	6.5
Nonpetroleum products	7.7	11.1	1.6	3.6	5.0	3.5	3.0	11.6	13.0	2.0	4.2	5.2	3.3	2.9

^P Preliminary.

1. Because chain indexes use weights of more than one period, the corresponding chained dollar estimates are usually not additive.

U.S. domestic demand, which boosted most types of nonpetroleum imports.

In the first quarter, nonpetroleum imports increased \$7.7 billion, or 3 percent, to \$262.6 billion; quantities increased 3 percent, and prices were unchanged. In value, capital goods were boosted by an acceleration in telecommunications equipment, which was the fastest growing component for the fifth consecutive quarter, and by continued strong increases in semiconductors, in electric generating machinery, electric apparatus, and parts, and in scientific, hospital, and medical equipment. Consumer goods were strengthened by a broad-based rise in durable goods. Nonpetroleum industrial supplies and materials, which increased sharply in the previous two quarters, continued to rise in the first quarter, partly as a result of increases in iron and steel products. Automotive products increased, largely reflecting increases in passenger cars, mostly from Mexico, and in parts and accessories other than engines.

Petroleum imports increased \$5.6 billion, or 26 percent, to \$27.0 billion. The increase was mostly attributable to a rise in prices, to an average of \$25.99 per barrel from \$22.11 per barrel. Average petroleum prices have increased 151 percent since the first quarter of 1999, reaching the highest level since the fourth quarter of 1990. In the first quarter of 2000, the average number of barrels imported daily increased to 11.36 million from 10.61 million in the fourth quarter of 1999.

Balances by area.—The deficit on goods with “Latin America and Other Western Hemisphere” increased \$4.3 billion, to \$11.0 billion, in the first quarter.³ The deficit with “Other countries in Asia and Africa” increased \$2.8 billion, to \$45.3 billion. The deficit with Canada increased \$2.7 billion, to \$12.8 billion. In contrast, the deficit with Japan decreased \$0.6 billion, to \$20.1 billion, and the deficit with Western Europe decreased \$0.5 billion, to \$15.8 billion.

Services.—The surplus on services decreased \$0.3 billion, to \$19.7 billion, in the first quarter. Receipts increased to \$71.3 billion from \$69.6 billion, and payments increased to \$51.6 billion from \$49.6 billion.

3. Seasonally adjusted estimates for exports for areas and countries are derived by applying seasonal factors for total U.S. agricultural and nonagricultural exports to the unadjusted agricultural and nonagricultural exports for areas and countries and then summing the seasonally adjusted estimates. Seasonally adjusted estimates for imports for areas and countries are derived by applying seasonal factors for total U.S. petroleum and nonpetroleum imports to the unadjusted petroleum and nonpetroleum imports for areas and countries and then summing the seasonally adjusted estimates. (The seasonal factors are derived from the seasonal adjustment of U.S. exports and U.S. imports by five-digit end-use commodity category.)

Travel receipts increased to \$19.8 billion from \$19.5 billion. The increase was largely attributable to an increase in receipts from overseas visitors to the United States. Travel payments increased to \$15.8 billion from \$15.3 billion. The increase was largely attributable to increases in payments by U.S. travelers to countries overseas and to Mexico.

Passenger fare receipts were unchanged at \$5.0 billion, and passenger fare payments increased to \$5.8 billion from \$5.6 billion.

“Other” transportation receipts increased slightly to \$7.2 billion from \$7.1 billion as a result of an increase in freight receipts. “Other” transportation payments increased to \$9.5 billion from \$9.2 billion. The increase was attributable to an increase in freight payments, largely reflecting a rise in air freight payments, and to an increase in port expenditure payments.

Receipts for “other” private services increased to \$26.4 billion from \$25.1 billion. The increase was mostly accounted for by rises in U.S. affiliates’ service receipts and in unaffiliated financial services receipts. Payments for “other” private services increased to \$12.6 billion from \$11.9 billion, mostly as a result of rises in U.S. parents’ service payments, in U.S. affiliates’ service payments, and in unaffiliated financial service payments.

Income

The deficit on income decreased to \$4.2 billion in the first quarter from \$5.7 billion in the fourth. Income receipts increased to \$79.7 billion from \$75.0 billion, and income payments increased to \$83.9 billion from \$80.6 billion.

Investment income.—Receipts of investment income on U.S.-owned assets abroad increased to \$79.2 billion from \$74.4 billion, and payments of investment income on foreign-owned assets in the United States increased to \$82.0 billion from \$78.7 billion.

Receipts of income on U.S. direct investment abroad increased to \$33.9 billion from \$31.7 billion. Earnings of foreign affiliates in most geographic areas and in most industries increased. Nearly half of the increase was accounted for by finance and banking affiliates in the United Kingdom; affiliates in those industries in Japan and in Singapore also had large increases. Interest receipts changed little.

Payments of income on foreign direct investment in the United States increased to \$16.2 billion from \$15.4 billion. Earnings of petroleum and “other” affiliates increased, and earnings of manu-

facturing affiliates decreased. By area, earnings of Netherlands-owned, French-owned, and British-owned affiliates increased the most, and earnings of Japanese-owned affiliates decreased.

“Other” private income receipts increased to \$44.2 billion from \$42.0 billion. Receipts were boosted in the last three quarters by rising average yields and by rising average holdings. In the first quarter, receipts on foreign securities increased, largely as a result of a rise in average holdings. Receipts on bank and nonbank claims increased, mostly as a result of a rise in average yields.

“Other” private income payments increased to \$39.7 billion from \$38.1 billion. Payments were boosted in the last three quarters by rising average yields and by rising average holdings. In the first quarter, payments on U.S. securities increased, largely as a result of a rise in average holdings. Payments on bank liabilities increased, mostly as a result of a rise in average yields.

U.S. Government income receipts increased to \$1.1 billion from \$0.7 billion. U.S. Government income payments increased to \$26.1 billion from \$25.2 billion, as a result of increases in average holdings and in average yields.

Compensation of employees.—Receipts for compensation of employees were unchanged at \$0.6 billion, and payments for compensation of employees edged up to \$2.0 billion from \$1.9 billion.

Unilateral current transfers

Unilateral current transfers were net outflows of \$11.9 billion in the first quarter, down from net outflows of \$14.3 billion in the fourth. The decrease was more than accounted for by a decline in U.S. Government grants, which were boosted in the fourth quarter by grants to Israel.

Capital Account

Capital account transactions shifted to net inflows of \$0.2 billion in the first quarter from net outflows of \$4.0 billion in the fourth. The usually large net outflows in the fourth quarter were attributable to the transfer of the U.S. Government’s assets in the Panama Canal Commission to the Republic of Panama. The value of the transfer of the assets was revised from a historical-cost basis to a current-cost basis. (For more information, see “U.S. International Transactions, Revised Estimates for 1982–99” in this issue.)

Financial Account

Net recorded financial inflows—the difference between changes in U.S.-owned assets abroad and

changes in foreign-owned assets in the United States—were \$71.7 billion in the first quarter, up from \$69.7 billion (revised) in the fourth. Financial outflows for U.S.-owned assets abroad increased less than financial inflows for foreign-owned assets in the United States.

Securities transactions were exceptionally strong net financial inflows in the first quarter and have been strong net inflows in most quarters of recent years (chart 4). Net inflows have been partly attributable to the greater attractiveness of the returns on U.S. securities in comparison with those on foreign securities; this difference largely stemmed from the more robust economic expansion in the United States than in most foreign countries.

Direct investment transactions were net financial inflows for the fourth consecutive quarter. Outflows for U.S. direct investment abroad were strong, but inflows for foreign direct investment in the United States were even stronger.

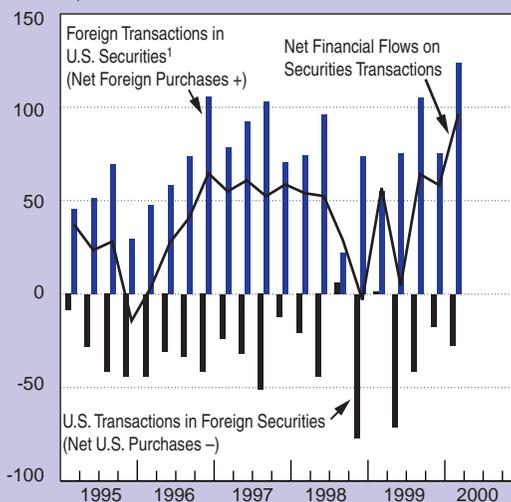
U.S.-owned assets abroad

Net U.S.-owned assets abroad increased \$143.3 billion in the first quarter, following an increase of \$114.9 billion in the fourth. Net U.S. purchases of foreign securities strengthened, and net outflows for U.S. direct investment abroad rose by a small amount. Claims on foreigners reported by U.S. banks increased about the same in the first quarter as in the fourth.

CHART 4

Securities Transactions

Billion \$



1. Includes net foreign private transactions in U.S. Treasury securities.
Note.—Estimates exclude transactions of foreign official agencies.

U.S. official reserve assets.—Net U.S. official reserve assets increased \$0.6 billion in the first quarter, in contrast to a decrease of \$1.6 billion in the fourth (table D). The first-quarter increase was partly accounted for by an increase in the U.S. reserve position in the International Monetary Fund (IMF) that was associated with net foreign borrowings of U.S. dollars from the IMF. U.S. holdings of special drawing rights and of foreign currencies also increased.

Claims reported by banks.—U.S. claims on foreigners reported by U.S. banks increased \$45.1 billion in the first quarter, following an increase of \$45.3 billion in the fourth. Claims have increased strongly in three of the last four quarters, partly reflecting increased demand for U.S. bank credit in Western Europe to finance business consolidations and a pickup in economic growth.

In the first quarter, banks' own claims payable in dollars increased \$18.5 billion, following an increase of \$34.3 billion. The first-quarter increase was more than accounted for by lending by foreign-owned banks in the United States to banks abroad. Lending to banks in Western Europe was particularly strong, partly in response to demand for U.S. bank credit to finance a strong increase in Western European purchases of U.S. corporate stocks and bonds. U.S.-owned banks' claims on banks abroad decreased sharply, mostly as a result of repayments from banks in the Caribbean.

Banks' domestic customers' claims payable in dollars increased \$37.4 billion, following an increase of \$10.6 billion. The exceptionally large first-quarter increase was attributable to a sharp rise in deposits abroad and to the second consecutive strong quarterly increase in foreign commercial paper outstanding in the United States.

Banks' own claims payable in foreign currencies decreased \$10.8 billion, in contrast to an increase

of \$0.4 billion. The decrease was largely accounted for by repayments from banks in the Caribbean and in the United Kingdom.

Foreign securities.—Net U.S. purchases of foreign securities increased to \$27.5 billion in the first quarter from \$17.2 billion in the fourth. U.S. transactions in foreign bonds shifted to net U.S. purchases of \$12.0 billion from net U.S. sales of \$0.7 billion, and net U.S. purchases of foreign stocks decreased to \$15.6 billion from \$17.8 billion.

Net U.S. purchases of foreign bonds were boosted by rises in new foreign issues in the United States and in net U.S. purchases of outstanding foreign bonds. New foreign issues in the United States rebounded from a low level in the fourth quarter, partly as a result of an easing of concerns about possible Y2K problems in financial markets and a decrease in U.S. long-term interest rates in the last half of the first quarter. First-quarter new foreign issues included increased placements by borrowers from Latin America, mostly from Mexico, and by borrowers from Japan. The increase in net U.S. purchases of outstanding foreign bonds was more than accounted for by a step-up in net purchases from the United Kingdom, partly reflecting a favorable change in the yields available on European long-term bonds relative to the yields available on U.S. long-term bonds.

Net U.S. purchases of foreign stocks slowed, as a sharp drop in net purchases from Japan was only partly offset by increased net purchases and by shifts to net purchases from several other countries and regions. The drop in net U.S. purchases from Japan, following four quarters of strong net purchases, was partly attributable to indications that the Japanese economy contracted for the second consecutive quarter.

Direct investment.—Net financial outflows for

Table D.—Selected Transactions with Official Agencies

[Millions of dollars]

	1998	1999	1998				1999				2000 I ^p	Change: 1999 IV– 2000 I
			I	II	III	IV	I	II	III	IV		
Changes in foreign official assets in the United States, net (decrease –) (table 1, line 56)	-20,127	42,864	10,967	-10,235	-46,651	25,792	4,274	-1,096	12,191	27,495	20,442	-7,053
Industrial countries ¹	-6,611	31,119	-42	-9,743	-6,158	9,332	3,342	1,314	13,988	12,475	10,397	-2,078
Members of OPEC ²	-11,531	1,331	-1,191	-629	-11,669	1,958	2,155	1,632	-783	-1,673	5,951	7,624
Other countries	-1,985	10,414	12,200	137	-28,824	14,502	-1,223	-4,042	-1,014	16,693	4,094	-12,599
Changes in U.S. official reserve assets, net (increase –) (table 1, line 41)	-6,783	8,747	-444	-1,945	-2,025	-2,369	4,068	1,159	1,951	1,569	-554	-2,123
Activity under U.S. official reciprocal currency arrangements with foreign monetary authorities: ³												
Foreign drawings, or repayments (–), net												
Drawings												
Repayments												

^p Preliminary.

1. Western Europe, Canada, Japan, Australia, New Zealand, and South Africa.

2. Based on data for Ecuador, Venezuela, Indonesia, and other Asian and African oil-exporting countries. Excludes

Ecuador beginning January 1993 and Gabon beginning January 1995.

3. Consists of transactions of the Federal Reserve System and the U.S. Treasury Department's Exchange Stabilization Fund.

U.S. direct investment abroad were \$34.8 billion in the first quarter, up from \$33.3 billion in the fourth. The pickup was more than accounted for by a rise in net equity capital outflows that resulted from a greater slowdown in divestitures of existing foreign affiliates than in acquisitions of new foreign affiliates. Acquisitions included U.S. purchases of several technology companies in Western Europe. Reinvested earnings increased as a result of a rise in earnings. In contrast, net intercompany debt outflows decreased.

Foreign-owned assets in the United States

Net foreign-owned assets in the United States increased \$215.0 billion in the first quarter, following an increase of \$184.6 billion in the fourth. Net foreign purchases of U.S. securities other than U.S. Treasury securities surged, and net foreign sales of U.S. Treasury securities slowed. U.S. liabilities reported by U.S. banks decreased in the first quarter after increasing in the fourth, U.S. currency transactions shifted to net foreign shipments to the United States from net U.S. shipments to foreign countries, and net inflows for foreign direct investment in the United States slowed.

Foreign official assets.—Net foreign official assets in the United States increased \$20.4 billion in the first quarter, following an increase of \$27.5 billion in the fourth (table D). The first-quarter increase was largely accounted for by an increase in assets of industrial countries, partly reflecting intervention sales of foreign currencies for U.S. dollars by a few countries in Asia. Assets of OPEC countries and of “other” countries also increased.

Liabilities reported by banks.—U.S. liabilities to foreigners reported by U.S. banks, excluding U.S. Treasury securities, decreased \$6.7 billion in the first quarter, in contrast to an increase of \$19.6 billion in the fourth. The downturn was more than accounted for by a sharp slowdown in U.S. banks’ dollar borrowing from their own offices abroad, partly reflecting a greater abundance of funds available from U.S. domestic sources.

Banks’ own liabilities payable in dollars increased \$15.7 billion in the first quarter, following an increase of \$26.7 billion in the fourth. Interbank liabilities decreased by a small amount. A decrease in U.S.-owned banks’ liabilities to banks abroad, mostly as a result of repayments to banks in the Caribbean, was largely offset by an increase in foreign-owned banks’ liabilities to banks abroad that largely resulted from a rise in borrowings from banks in Western Europe. Liabilities to nonbank

private foreigners increased sharply, partly as a result of an increase in borrowing from the United Kingdom and from international investment funds in the Caribbean.

Banks’ custody liabilities payable in dollars decreased \$12.0 billion, in contrast to an increase of \$6.4 billion. The first-quarter decrease was largely accounted for by a decrease in custody liabilities to Western Europe.

Banks’ own liabilities payable in foreign currencies decreased \$10.4 billion, following a decrease of \$13.5 billion. The first-quarter decrease was almost entirely accounted for by repayments to Western Europe.

U.S. Treasury securities.—Net foreign sales of U.S. Treasury securities decreased to \$9.3 billion in the first quarter from \$17.2 billion in the fourth. Yields on long-term U.S. Treasury securities rose early in the first quarter but then fell sharply over the remainder of the quarter. By quarter’s end, yields on long- and intermediate-term securities had fallen below yields on short-term securities. The slowdown in net foreign sales was largely accounted for by a decrease in net sales by international investment funds in the Caribbean. Transactions by Western Europe shifted to net sales from net purchases as a result of substantial net sales in the later part of the quarter when long-term yields were falling. Foreigners have been net sellers of U.S. Treasury securities in four of the last five quarters, shifting some funds into higher yielding U.S. corporate debt securities and U.S. stocks.

Other U.S. securities.—Net foreign purchases of U.S. securities other than U.S. Treasury securities surged to a record \$133.0 billion in the first quarter from \$92.3 billion in the fourth. Net foreign purchases of both U.S. stocks and U.S. bonds have been very strong in recent quarters.

In the first quarter, net foreign purchases of U.S. stocks soared to a record \$61.3 billion from the previous record of \$34.4 billion in the fourth quarter, and gross foreign trading rose sharply for the second consecutive quarter. The increase in net foreign purchases was fostered by indications that the U.S. economy and U.S. corporate profits continued to grow robustly. U.S. stock prices became more volatile in the first quarter, and prices of technology companies often moved in opposite directions from prices of nontechnology companies. After unprecedented increases in the fourth quarter, stock prices of many technology companies again rose sharply in February and early March but

slumped toward the end of the quarter. Net purchases of U.S. stocks by Western European investors were particularly strong, partly reflecting the attractiveness of continued robust U.S. economic growth relative to the weaker growth in some Western European countries. In contrast, transactions by Japanese investors shifted to net sales from net purchases, partly reflecting Japanese investors' desire to reduce foreign holdings at the end of the Japanese fiscal year.

Net foreign purchases of U.S. corporate and other bonds increased to a record \$71.7 billion from \$57.9 billion. New issues sold abroad by U.S. corporations stepped up, partly in response to the easing of concerns surrounding the Y2K date change. Net foreign purchases of U.S. federally sponsored agency bonds increased to a record level; U.S. agencies sharply increased their debt issuance in international markets as part of their continued effort to expand the frequency and size of their issues in all markets. Net foreign purchases of other outstanding U.S. bonds decreased but remained very strong.

U.S. currency flows.—U.S. currency transactions shifted to net foreign shipments to the United States of \$6.8 billion in the first quarter from large net U.S. shipments to foreign countries of \$12.2 billion in the fourth. In the first quarter, currency returns by foreigners, partly associated with past stockpiling as a precaution against possible disruptions from Y2K problems, exceeded U.S. shipments abroad.

Direct investment.—Net financial inflows for foreign direct investment in the United States were \$42.3 billion in the first quarter, down from \$49.4 billion in the fourth. The slowdown was more than

accounted for by a decline in net equity capital inflows that resulted from the absence of very large acquisitions of U.S. companies by foreign companies. However, net equity capital inflows remained strong as a result of several large acquisitions and of equity contributions to existing U.S. affiliates. Reinvested earnings decreased as a result of a decline in the share of earnings that was reinvested. Net intercompany debt inflows increased.

Data Availability

The current and historical estimates that are presented in tables 1–10a of the U.S. international transactions accounts are available as compressed files on our Web site at <www.bea.doc.gov>; click on Catalog of Products, and look under “International Accounts Products,” “Balance of Payments.”

The estimates are also available on the following diskettes:

U.S. International Transactions. The most recently released annual and quarterly estimates are available as a 1-year subscription (four installments)—product number IDS–0001, price \$80.00. The subscription also includes the diskette of the historical series estimates (see below).

U.S. International Transactions, First Quarter 2000. Annual estimates for 1997–99 and quarterly estimates for 1998:I–2000:I on a single diskette—product number IDN–0260, price \$20.00.

U.S. International Transactions, Historical Series. All the available historical annual and quarterly estimates on a single diskette—product number IDN–0261, price \$20.00.

To order, call the BEA Order Desk at 1–800–704–0415 (outside the United States, call 202–606–9666).

Tables 1 through 10a follow. 

Comprehensive Revision of Local Area Personal Income

Revised Estimates for 1969–97
New Estimates for 1998

By Jeffrey L. Newman, Kathy A. Albetski, Robert L. Brown, and Adrienne T. Pilot

ON JUNE 15, 2000, the Bureau of Economic Analysis released the results of a comprehensive, or benchmark, revision of personal income for local areas. In general, the estimates for local areas for 1969–97 were revised up, primarily reflecting the incorporation of major definitional and statistical improvements that were introduced as part of the recent comprehensive revision of State personal income and the comprehensive revision of the national income and product accounts (NIPA's).¹ The upward revisions were mainly accounted for by the incorporation of the NIPA definitional change that reclassified government employee retirement plans. Although this change raises personal income for all years, it does not affect the national estimates of gross domestic

product, gross domestic income, or national income.

The incorporation of the results of comprehensive revisions of State personal income and of the NIPA's represents a significant acceleration in the availability of local area estimates that are consistent with State personal income and the NIPA's; these estimates are available about a year sooner than previous comprehensive revisions. (See the box "Release Schedule for the Revised State and Local Area Estimates.")

A comprehensive revision of estimates of personal income for local areas, which is made every 4 or 5 years, also incorporates newly available benchmark source data, improved methods for preparing the estimates, and newly available local area data that consist of quarterly data, annual data, and data that are available less frequently—for example, data from the most recent quinquennial census of agriculture.²

The highlights are the following:

- For 1998, the growth rates of the 10 metropolitan areas with the fastest personal income growth were at least 3.4 percentage points higher than the 5.9-percent growth rate of the Nation; the growth rates of the 10 areas with the slowest growth were at least 3.2 percentage points lower than the growth rate of the Nation.
- For 1998, personal income grew the fastest, at 15.1 percent, in Austin-San Marcos, TX, and it grew the slowest, at 0.4 percent, in Florence, AL.
- For 1998, San Francisco, CA, at \$45,199, had the highest per capita personal income, 166

1. See Robert L. Brown et al., "Comprehensive Revision of State Personal Income: Revised Estimates for 1969–98 and Preliminary Estimates for 1999," *SURVEY OF CURRENT BUSINESS* 80 (June 2000): 64–129; Eugene P. Seskin, "Improved Estimates of the National Income and Product Accounts for 1959–98: Results of the Comprehensive Revision," *SURVEY 79* (December 1999): 15–43; Brent R. Moulton and Eugene P. Seskin, "A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts: Statistical Changes," *SURVEY 79* (October 1999): 6–17; Brent R. Moulton and David F. Sullivan, "A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts: New and Redesigned Tables," *SURVEY 79* (September 1999): 15–28; and Brent R. Moulton, Robert P. Parker, and Eugene P. Seskin, "A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts: Definitional and Classificational Changes," *SURVEY 79* (August 1999): 7–20.

Release Schedule for the Revised State and Local Area Estimates

The comprehensive revision of the State and local area estimates of personal income and the incorporation of the national and State comprehensive revisions into gross state product will be completed with the following releases in the fall of 2000.

- The results of the comprehensive revision of State personal income for 1929–68
- The revised annual State estimates for 1997–99
- The revised estimates of gross state product for 1977–98

2. For a detailed description of the sources and methods used to prepare the estimates, see the methodology under "Documents" on the CD-ROM *Regional Economic Information System, 1969–98*, or go to BEA's Web site at <www.bea.doc.gov>, select "Methodologies," select "regional programs," and then select "Comprehensive Revision of Local Area Personal Income, 1969–95."

percent of the per capita personal income for the Nation. McAllen-Edinburg-Mission, TX, at \$12,759, had the lowest per capita personal income, 47 percent of the national average.

- For 1991–97, the comprehensive revision had little effect on growth rates. The rankings of the fastest and the slowest growing metropolitan areas changed little. Las Vegas, NV-AZ, at 10.6 percent, still has the fastest growth rate, and Binghamton, NY, at 2.2 percent, still has the slowest growth rate.
- For 1997, personal income for more than 90 percent of all metropolitan areas was revised up, mainly reflecting the reclassification of government employee retirement plans.

This article presents the preliminary estimates of local area personal income and per capita personal income for 1998, and it describes the sources of the revisions to the estimates for 1969–97 and the effects of the revisions on the estimates for metropolitan areas. The local areas consist of counties, metropolitan areas, and BEA economic areas (see the box “Definitions of Local Areas”). The estimates for 1996–98 are presented in tables 1–3 at the end of this article; for the availability of

additional estimates, see the box “Data Availability.”

Personal income and per capita personal income for metropolitan areas for 1998

Austin-San Marcos, TX, and Seattle-Bellevue-Everett, WA, had the fastest rates of growth in personal income in 1998. Personal income grew 15.1 percent in Austin-San Marcos and 10.4 percent in Seattle-Bellevue-Everett, substantially faster than the 5.9-percent growth of the Nation. The rapid growth of personal income reflected large increases in net earnings: For Austin-San Marcos, it reflected large increases in earnings in industrial machinery and equipment manufacturing and in wholesale trade; for Seattle-Bellevue-Everett, it reflected large increases in earnings in business services.

Fastest and slowest growing areas.—In 1998, the growth rates of the 10 metropolitan areas with the fastest personal income growth were at least 3.4 percentage points higher than the 5.9-percent growth rate of the Nation (table A). In eight of the fastest growing areas, their population grew faster than that of the Nation. In 4 of the 10 areas, the population was more than 1 million in 1998, whereas less than 20 percent of all the metropolitan areas have populations of more than a million.

The growth rates of the 10 slowest growing metropolitan areas in 1998 were at least 3.2 percentage points lower than the growth rate of the Nation. All of these areas had populations less than 1 million, and in nine of these areas, population grew slower than that of the Nation.

Highest and lowest per capita personal income.—In 8 of the 10 metropolitan areas with the highest per capita personal income in 1998, both personal income and population were large (table B). In 1998, San Francisco, CA, at \$45,199, had the highest per capita personal income.

In 1998, per capita personal income for 9 of the 10 metropolitan areas with the lowest per capita personal income increased less than the national increase. In six of the areas, the population was less than 200,000. In all these areas, the growth in population was more than, or was equal to, the national increase of 0.9 percent. McAllen-Edinburg-Mission, TX, at \$12,759, had the lowest per capita personal income.

Sources of the Revisions

The comprehensive revision of the estimates of local area personal income incorporated the definitional and classificational changes and the

Definitions of Local Areas

Local areas consist of metropolitan areas, BEA economic areas, and counties.

The metropolitan areas are defined in terms of counties and county equivalents by the Office of Management and Budget (OMB) for Federal statistical purposes (see table 1).¹ These areas now include Auburn-Opelika, AL, and Corvallis, OR, which were recognized as metropolitan statistical areas by OMB in June 1999.

The BEA economic areas each consist of one or more economic nodes—usually metropolitan areas—and the surrounding counties that are economically related to the node (see table 2).² These economic areas encompass all counties and county equivalents in the Nation.

The counties include county equivalents, such as the independent cities in Virginia that have at least 100,000 people; the estimates for the smaller independent cities in Virginia are combined with the estimates for the adjacent counties to create combination areas (see table 3).

1. For the New England region, OMB's preferred definitions of the metropolitan areas are in terms of cities and towns, but the available data for cities and towns are not sufficient to prepare estimates of personal income.

For the list of the metropolitan areas and their constituent counties and county equivalents, go to BEA's Web site at <www.bea.doc.gov/bea/regional/docs/msalist.htm>, or call the National Technical Information Service at 1-800-553-6847 (accession no. PB99-132698).

2. For a description of the economic areas and the methodology used to define them, see Kenneth P. Johnson, “Redefinition of the BEA Economic Areas,” SURVEY 75 (February 1995): 75–81.

statistical changes that were introduced as part of the comprehensive revision of the estimates of State personal income.³ However, some of the changes to the sources and methods that were incorporated into the State estimates involve detailed estimation that cannot be replicated at the local area level, because the underlying source data are not available for local areas; these changes are implicitly incorporated into the local area estimates

through the use of the State estimates as the control totals for the local area estimates.

Definitional changes

The comprehensive revisions of the estimates of local area personal income incorporate the following definitional and classificational changes: The reclassification of government employee retirement plans; the modified treatment of private noninsured pension plans; the reclassification of directors' fees; and the reclassification of special

3. See Brown, "Comprehensive Revision of State Personal Income," 71–75.

Table A.—Personal Income for Metropolitan Areas for 1998: Areas with the Fastest and Slowest Growth

	Personal income				Population			
	Millions of dollars		Percent change		Thousands		Percent change	
	1997	1998	1996–97	1997–98	1997	1998	1996–97	1997–98
United States	6,942,114	7,351,547	6.2	5.9	267,784	270,248	1.0	0.9
Fastest growing areas								
Austin-San Marcos, TX	27,912	32,130	11.4	15.1	1,068	1,105	3.1	3.5
Seattle-Bellevue-Everett, WA	77,181	85,191	10.6	10.4	2,272	2,312	2.1	1.8
St. Cloud, MN	3,332	3,670	3.3	10.1	162	163	1.3	.6
Boulder-Longmont, CO	8,746	9,619	10.3	10.0	261	267	1.6	2.3
Kenosha, WI	3,391	3,730	7.8	10.0	143	144	1.4	.7
Fort Collins-Loveland, CO	5,818	6,380	9.2	9.7	225	231	1.8	2.7
Yuma, AZ	2,200	2,411	6.2	9.6	129	132	3.2	2.3
Phoenix-Mesa, AZ	71,417	78,210	9.9	9.5	2,841	2,931	3.2	3.2
Greeley, CO	3,180	3,478	7.3	9.4	156	160	3.3	2.6
Dallas, TX	94,986	103,788	9.0	9.3	3,117	3,203	2.8	2.8
Slowest growing areas								
Florence, AL	2,875	2,887	3.9	.4	137	137	0	0
Flint, MI	10,258	10,433	1.8	1.7	435	436	0	.2
Texarkana, TX-Texarkana, AR	2,492	2,535	5.5	1.7	123	123	0	0
Honolulu, HI	24,570	24,994	2.7	1.7	873	872	.1	-.1
New London-Norwich, CT	7,257	7,392	5.3	1.9	250	247	-8	-1.2
Lansing-East Lansing, MI	10,690	10,909	4.9	2.0	450	450	.2	0
Benton Harbor, MI	3,776	3,874	7.2	2.6	160	160	-6	0
Bremerton, WA	5,210	5,347	6.4	2.6	233	233	1.3	0
Yolo, CA	3,851	3,954	5.6	2.7	151	153	1.3	1.3
Youngstown-Warren, OH	13,339	13,693	4.9	2.7	596	593	-5	-5

Data Availability

This article presents summary estimates of personal income and per capita personal income for 1996–98. More detailed estimates for 1969–98 are available in other media.

The entire set of estimates for all areas is available on a new CD-ROM that also contains the quarterly State estimates of personal income for 1969–99 and an updated description of the sources and methods that are used to prepare the estimates of local area personal income. To order the CD-ROM *Regional Economic Information System, 1969–98* (price \$35, product number RCN-0250), call the Order Desk at 1-800-704-0415 (outside the United States, call 202-606-9666).

The estimates of personal income are also available through the members of the BEA User Group, which consists of State agencies and universities that help BEA to disseminate the estimates within their States.

For the detailed estimates, go to <www.bea.doc.gov/bea/regional/reis/index.html>, and look for the local area estimates that are organized in the following files:

- Personal income, per capita personal income, and population for 1969–98

- Personal income by major source and earnings by Standard Industrial Classification (SIC) two-digit industry for 1994–98
- Full-time and part-time employment by SIC division-level industry for 1994–98
- Regional economic profile (which includes a selection of data from several other tables) for 1994–98
- Transfer payments (by major program) for 1994–98
- Farm income and expenses (which include the major categories of gross receipts and expenses for all farms and for measures of farm income) for 1994–98
- Counties with the highest and lowest per capita personal income in 1998
- Personal income and per capita personal income, with 1998 rankings of per capita personal income, for 1996–98
- Total wage and salary disbursements, total wage employment, and average wages for counties and metropolitan statistical areas for 1969–98

For more information about these estimates, call the Regional Economic Information System at 202-606-5360, fax 202-606-5322, or E-mail reis.remd@bea.doc.gov.

supplemental nutrition program for women, infants, and children (WIC).

In some cases, the State estimates were allocated to the counties by related source data. The following series could not replicate the State estimating procedures because county data for these items are not available: For employer contributions for State and local government employees, the State controls are allocated to the counties in proportion to State and local government wages and salaries by place-of-work; for dividends and interest received by State and local government employee retirement plans, the State controls are allocated to the counties by State and local government wages and salaries by place-of-residence; for WIC benefits, the State controls are allocated to the counties by family assistance payments.

Statistical changes

This comprehensive revision incorporates the statistical changes that were introduced as part of the comprehensive revision of State personal income. However, in some cases, the State estimating procedures could not be replicated, because county data for these items were not available. The improved State estimates of employer contributions for workers' compensation insurance were allocated to counties on the basis of private wages and salaries; the State estimates of dividends for S-corporations are allocated to counties on the basis of tabulations of dividends received by individuals

from the IRS, and the State estimates of the payments for foster care are distributed to counties on the basis of civilian population.⁴

Revisions to Metropolitan Area Personal Income

The comprehensive revision resulted in large percentage revisions to the estimates of personal income for a few metropolitan areas. For all years, personal income for the Nation and for most metropolitan areas was revised up. The effects of the revisions to the national totals of the components of personal income on the estimate for each metropolitan area differed because of the differing structures of the economy of each area, but the primary source of the revisions was the reclassification of government employee retirement plans. As a result of the reclassification, other labor income, personal interest income, and personal dividend income were raised, and personal contributions for social insurance (which is subtracted in calculating personal income) and transfer payments to persons were reduced.

Revisions to long-term growth rates for 1991–97.—The average annual percent change in personal income for the United States was unrevised at 5.4 percent for 1991—the beginning of the current expansion—through 1997. The average annual percent changes in personal income were unrevised for 48 metropolitan areas, were revised

4. "S-corporations" are generally small corporations.

Table B.—Metropolitan Areas with the Highest and Lowest Per Capita Personal Income for 1998

	Per capita personal income			Population		
	Dollars		Percent change	Thousands		Percent change
	1997	1998	1997–98	1997	1998	1997–98
United States	25,924	27,203	4.9	267,784	270,248	0.9
Highest per capita personal income						
San Francisco, CA	42,706	45,199	5.8	1,671	1,683	.7
Naples, FL	41,913	42,813	2.1	193	200	3.6
New Haven-Bridgeport-Stamford-Danbury-Waterbury, CT	40,383	42,346	4.9	1,626	1,630	.2
San Jose, CA	37,974	40,828	7.5	1,622	1,642	1.2
West Palm Beach-Boca Raton, FL	38,272	40,044	4.6	1,015	1,033	1.8
Bergen-Passaic, NJ	37,057	39,750	7.3	1,334	1,337	.2
Middlesex-Somerset-Hunterdon, NJ	36,473	38,414	5.3	1,105	1,117	1.1
Trenton, NJ	35,557	37,551	5.6	330	331	.3
Nassau-Suffolk, NY	35,878	37,381	4.2	2,659	2,672	.5
Newark, NJ	35,172	37,136	5.6	1,943	1,948	.3
Lowest per capita personal income						
Auburn-Opelika, AL	18,529	18,831	1.6	98	100	2.0
Yuma, AZ	17,047	18,277	7.2	129	132	2.3
Provo-Orem, UT	17,189	17,956	4.5	329	340	3.3
Merced, CA	17,337	17,732	2.3	194	197	1.5
Sumter, SC	16,650	17,294	3.9	111	112	.9
Las Cruces, NM	15,832	16,599	4.8	166	169	1.8
El Paso, TX	15,751	16,359	3.9	685	695	1.5
Laredo, TX	13,508	13,870	2.7	180	187	3.9
Brownsville-Harlingen-San Benito, TX	13,210	13,766	4.2	318	324	1.9
McAllen-Edinburg-Mission, TX	12,330	12,759	3.5	504	520	3.2

Alternative Measures of County Employment and Wages

Three widely used measures of county employment and wages by place of work are the employment and payroll data in the Census Bureau's *County Business Patterns (CBP)* series, employment and wage tabulations from the unemployment insurance program by the Bureau of Labor Statistics' (BLS), and total wage and salary disbursements and employment by the Bureau of Economic Analysis (BEA).

The *CBP* data are an annual extension of the data from the Census Bureau's quinquennial economic censuses; the data are derived from Federal administrative records and from survey information of business establishments. The BLS data are the product of a Federal-State cooperative program known as the Covered Employment and Wages, or ES-202, program; the data are derived from tabulations of monthly employment and quarterly total wages of workers covered by State unemployment insurance (UI) legislation and of Federal workers covered by the unemployment compensation for Federal employees (UCFE) program. BEA publishes total employment and total wage and salary disbursements as part of its local area estimates of personal income, a measure of the local area economies; the estimates are derived from the BLS data, which account for 94 percent of the wage and salary component of the personal income estimates.

The coverage of the BLS data differs from that of the *CBP* data primarily because the BLS data cover civilian government employees, whereas *CBP* data exclude most government employees (exhibit A).¹ In addition, the *CBP* coverage of the employees of educational and membership organizations and of small nonprofit organizations in other industries is more complete than the coverage of these employees in the BLS data. In contrast, the BLS data cover some agricultural production employees and household employees that are excluded from the *CBP* data. Finally, the BLS employment data are an annual average of monthly data, whereas *CBP* reports employment for the month of March.

The BEA employment and wage estimates differ from the BLS data because BEA adjusts the estimates to account for employment and wages not covered, or not fully covered, by the State UI and UCFE programs. First, additional source data are used to estimate most, or all, of the employment and wages for the following: Farms, farm labor contractors, private households, private elementary and secondary schools, religious membership organizations, railroads, military, and U.S. residents who are employed by international organizations and by foreign embassies and consulates in the United States. Second, employment and wage estimates are added to the BLS data to bridge small gaps in UI coverage for nonprofit organizations not participating in the UI program (several industries), for students and their spouses employed by colleges or universities (private education and State and local government), for elected officials and members of the judiciary (State and local government), for interns employed by hospitals

1. The *CBP* coverage of government employees is limited to those working in government hospitals, depository institutions, Federal and federally sponsored credit agencies, liquor stores, and wholesale liquor establishments.

and by social service agencies, and for insurance agents classified as statutory employees (insurance agencies). Third, the employment and wage data are adjusted for misreporting under the UI and UCFE programs.²

The Census Bureau released 1997 county total employment and payrolls on October 5, 1999, on its Web site.³ BLS released 1998 annual county total employment and average annual pay on January 15, 1999, on its Web site.⁴ BEA's revised local area estimates of total wage employment and total wage and salary disbursements for 1997 and 1998 were released April 5, 2000, on its Web site.⁵

Exhibit A.—National Estimates of Wages and Salaries in the BEA County Series and Payrolls and Wages From the Bureau of the Census and BLS

[Billions of dollars]

	Line	1997	1998
Total payroll, Census Bureau ¹	1	3,047.9	n.a.
Plus: Civilian government wages, BLS ²	2	602.2	.....
Other differences, net ³	3	23.9	.....
Equals: Total wages, BLS	4	3,674.0	3,961.4
Plus: Adjustments for			
Misreporting on employment tax returns ⁴	5	89.9	97.4
Thrift savings plans ⁵	6	1.5	0
Selected industries ⁶	7	105.1	108.4
Other ⁷	8	15.2	16.9
Equals: Wage and salary disbursements, BEA	9	3,885.7	4,184.1

1. From *County Business Patterns 1997* (Washington, DC: U.S. Government Printing Office (GPO), 1999).
2. From *Employment and Wages Annual Averages, 1998* (Washington, DC: U.S. GPO, 1999).
3. Includes differences of coverage in private education, membership organizations, and government.
4. Consists of unreported wages and salaries paid by employers and of unreported tips.
5. Consists of voluntary contributions by employees that employers have been required to report since 1985, when reporting requirements were enacted by over half of the States; since 1990, the reports are required by almost all of the States.
6. Consists of the difference between estimates from more comprehensive source data (excluding the adjustments in lines 5 and 6) and BLS wages and salaries for these industries: Agriculture, forestry and fishing; railroad transportation; health services; educational services; social services; membership organizations; private households; and the Federal Government.
7. Consists of adjustments for the coverage of wages and salaries for insurance agents classified as statutory employees, for students and their spouses employed by public colleges or universities, for nonprofit organizations not in the State unemployment insurance program (in industries not listed in footnote 6), and of other adjustments.
BEA Bureau of Economic Analysis
BLS Bureau of Labor Statistics
n.a. Not available

2. For more information, see *Local Area Personal Income, 1969-92* (Washington, DC: U.S. Government Printing Office, September 1994): M-9—M-13. This information is available on BEA's Web site at <www.bea.doc.gov>; under "Regional," select "Articles."

3. Data are available on the Census Bureau's Web site at <www.census.gov>; under "Business," select "More," then "County Business Patterns." In addition, see the Bureau of the Census, *County Business Patterns, 1997* (Washington, DC: U.S. Government Printing Office, September 1999).

4. Data are available on the BLS Web Site at <www.bls.gov>; select "Surveys and Programs," then "Employment and Unemployment," and then "Covered Employment and Wages." See also *Employment and Wages Annual Averages, 1998* (Washington, DC: U.S. Government Printing Office, December 1999).

5. See the BEA Web site at <www.bea.doc.gov>; under "Regional," select "Data," then "Local area personal income," and then "CA34."

up for 154 metropolitan areas, and were revised down for 114 metropolitan areas. The revisions to the growth rates in personal income ranged from an upward revision of 2.3 percentage points to a downward revision of 1.1 percentage points.

Eight of the ten metropolitan areas with the highest growth rates in personal income in the previously published estimates are ranked among the top 10 areas in the revised estimates. Las Vegas, NV-AZ, with a revised 10.6-percent growth rate, still has the highest growth rate (table C).

Eight of the eleven metropolitan areas with the lowest growth rates in the previously published estimates are ranked among the bottom 11 areas in the revised estimates. Binghamton, NY, with a 2.2-percent revised growth, still has the lowest 1991-97 growth rate.

Revisions to personal income for 1997.—The upward revisions to the estimates of personal income for most local areas for 1997 largely reflected the reclassification of government employee retirement plans. This change resulted in large upward revisions to other labor income and to the dividends and interest portions of dividends, interest, and rent and in downward revisions to the estimates of transfer payments and personal contributions for social insurance (table D).

Personal income for the Nation was revised up \$171.5 billion, or 2.5 percent, to \$6,942.1 billion.

The revisions ranged between 26.6 percent for Jacksonville, NC, and -3.7 percent for Wilmington-Newark, DE-MD. In Jacksonville, which contains a large Marine Corps base, the revision

Table C.—Revisions to Average Annual Growth Rates in Personal Income for 1991-97

[Percent]

	1991-97		
	Pre-viously published	Revised	Revision
United States	5.4	5.4	0
Areas with the fastest growth rates for the revised estimates			
Las Vegas, NV-AZ	10.2	10.6	.4
Naples, FL	7.5	9.8	2.3
Austin-San Marcos, TX	9.3	9.3	0
Laredo, TX	9.1	9.2	.1
Boise City, ID	9.1	9.1	0
Fort Collins-Loveland, CO	8.4	8.7	.3
Killeen-Temple, TX	8.1	8.7	.6
Phoenix-Mesa, AZ	8.3	8.5	.2
Boulder-Longmont, CO	7.6	8.5	.9
Provo-Orem, UT	8.5	8.4	-.1
Areas with the slowest growth rates for the revised estimates			
Wheeling, WV-OH	3.0	3.2	.2
Syracuse, NY	3.3	3.2	-.1
Santa Barbara-Santa Maria-Lompoc, CA	3.7	3.1	-.6
Jamestown, NY	3.3	3.1	-.2
Merced, CA	3.8	3.0	-.8
Los Angeles-Long Beach, CA	3.3	2.9	-.4
Steubenville-Weirton, OH-WV	2.8	2.7	-.1
Honolulu, HI	3.1	2.7	-.4
Utica-Rome, NY	3.0	2.7	-.3
Pittsfield, MA	3.7	2.6	-1.1
Binghamton, NY	2.0	2.2	.2

Table D.—Metropolitan Areas with the Largest Percentage Revisions in Personal Income for 1997

	Millions of dollars			Percent revision ¹	Components ²
	Previously published	Revised	Revision		
United States	6,770,650	6,942,114	171,464	2.5	DIR (2.2), TP (-2.2), OLI (1.5)
Areas with the largest upward revisions					
Jacksonville, NC	2,421	3,066	645	26.6	OLI (21.5), DIR (9.4), TP (-5.9)
Naples, FL	6,969	8,082	1,113	16.0	DIR (13.2), AFR (2.2), NFPI (1.4), TP (-1.3)
Clarksville-Hopkinsville, TN-KY	3,410	3,950	540	15.8	OLI (11.8), DIR (6.1), TP (-3.9)
Fayetteville, NC	5,742	6,621	879	15.3	OLI (14.4), DIR (6.9), TP (-5.6)
Killeen-Temple, TX	5,348	6,086	738	13.8	OLI (13.5), DIR (5.9), TP (-6.0)
Lawton, OK	1,993	2,211	218	10.9	OLI (12.5), DIR (6.4), TP (-7.8)
Yolo, CA	3,519	3,851	332	9.4	DIR (5.1), OLI (2.4), AFR (2.3), PCSI (1.3), TP (-2.5)
Yuma, AZ	2,019	2,200	181	9.0	DIR (4.7), OLI (4.5), AFR (1.2), TP (-2.7), NFPI (-1.0)
Lafayette, IN	3,582	3,870	288	8.0	DIR (6.5), OLI (1.8), TP (-1.1)
Rapid City, SD	1,852	1,993	141	7.6	DIR (8.7), OLI (3.7), TP (-3.4), NFPI (-1.2)
Cheyenne, WY	1,793	1,929	136	7.6	DIR (5.1), OLI (4.9), TP (-4.6)
Areas with the largest downward revisions					
Wilmington-Newark, DE-MD	17,262	16,628	-634	-3.7	NFPI (-4.4), TP (-1.5), OLI (.9), AFR (.9)
Odessa-Midland, TX	5,887	5,706	-181	-3.1	DIR (-3.3), TP (-1.2), OLI (.7)
Pittsfield, MA	3,643	3,529	-114	-3.1	DIR (-3.8), TP (-1.4), OLI (1.0), NFPI (1.0)
Trenton, NJ	12,070	11,729	-341	-2.8	AFR (-5.4), DIR (-1.7), TP (-1.7), OLI (4.1)
Victoria, TX	1,888	1,856	-32	-1.7	TP (-1.5), DIR (-1.1), OLI (.8)
New Haven-Bridgeport-Stamford-Danbury-Waterbury, CT ...	66,562	65,661	-901	-1.4	DIR (-1.5), TP (-1.0), OLI (.7)
Santa Barbara-Santa Maria-Lompoc, CA	10,760	10,628	-132	-1.2	TP (-2.7), DIR (-.8), OLI (1.7)
Richmond-Petersburg, VA	26,312	26,023	-289	-1.1	TP (-2.3), DIR (-.8), OLI (1.9)
West Palm Beach-Boca Raton, FL	39,269	38,836	-433	-1.1	AFR (-1.3), TP (-1.2), DIR (-1.0), NFPI (1.5), OLI (.8)
Merced, CA	3,394	3,361	-33	-1.0	TP (-3.4), FPI (-1.6), DIR (1.6), OLI (1.1)

1. The revision to personal income as a percent of the previously published estimate.

2. This column shows the revised components of personal income and the adjustment for residence that substantially contributed to the revisions to personal income. The revision is shown as a percentage of the previously published estimate of personal income for the area.

AFR Adjustment for residence
DIR Dividends, interest, and rent

FPI Farm proprietors' income
NFPI Nonfarm proprietors' income
OLI Other labor income
PCSI Personal contributions for social insurance
TP Transfer payments

largely reflected the reclassification of government employee retirement plans. Personal income was revised up for 297 areas, was revised down for 17 areas, and was unrevised for 4 areas.

Revisions to per capita personal income for 1997.—The rankings of the 10 metropolitan areas with the highest per capita personal income remained unchanged (table E). San Francisco, CA, at \$42,706, still has the highest per capita personal income.

The ranking of 1 area in the bottom 10 changed: Merced, CA, shifted from 305th to 310th. The ranking of Jacksonville, NC, shifted from 310th to 226th. McAllen-Edinburg-Mission, TX, at \$12,330, still has the lowest per capita personal income.⁵

Tables 1 to 3 follow. 

5. The previously published estimates had 316 metropolitan areas: Auburn-Opelika, AL, and Corvallis, OR, were recognized as new metropolitan areas in June 1999.

Table E.—Revisions to Per Capita Personal Income for 1997

	Dollars		Rank	
	Pre-viously published	Revised	Pre-viously published †	Revised
United States	25,288	25,924	.....	.....
Areas with the highest per capita personal income				
San Francisco, CA	41,128	42,706	1	1
Naples, FL	36,210	41,913	7	2
New Haven-Bridgeport-Stamford-Danbury-Waterbury, CT	40,928	40,383	2	3
West Palm Beach-Boca Raton, FL	38,772	38,272	3	4
San Jose, CA	37,856	37,974	4	5
Bergen-Passaic, NJ	36,769	37,057	5	6
Middlesex-Somerset-Hunterdon, NJ	35,734	36,473	8	7
Nassau-Suffolk, NY	34,902	35,878	10	8
Trenton, NJ	36,598	35,557	6	9
Newark, NJ	35,038	35,172	9	10
Areas with the lowest per capita personal income				
Visalia-Tulare-Porterville, CA	17,116	17,943	307	309
Merced, CA	17,485	17,337	305	310
Provo-Orem, UT	16,567	17,189	310	311
Yuma, AZ	15,629	17,047	311	312
Sumter, SC	16,883	16,650	309	313
Las Cruces, NM	14,923	15,832	313	314
El Paso, TX	15,216	15,751	312	315
Laredo, TX	12,999	13,508	314	316
Brownsville-Harlingen-San Benito, TX	12,857	13,210	315	317
McAllen-Edinburg-Mission, TX	12,005	12,330	316	318

1. Auburn-Opelika, AL, and Corvallis, OR, were recognized as new metropolitan areas in June 1999, so the revised rankings now total 318 metropolitan areas instead of 316.

Acknowledgments

The comprehensive revision of local area personal income was prepared by the Regional Economic Measurement Division under the direction of Robert L. Brown, Chief. Hugh W. Knox, Associate Director for Regional Economics, provided general guidance. The preparation of the revised estimates was a divisionwide effort.

The estimates of nonfarm wages and salaries and other labor income were prepared by the Regional Wage Branch under the supervision of Sharon C. Carnevale, Chief. Major responsibilities were assigned to Elizabeth P. Cologer, Lisa C. Ninomiya, Michael G. Pilot, John A. Rusinko, and James M. Scott. Contributing staff members were Susan P. Den Herder, Lisa B. Emerson, John D. Laffman, Lela S. Lester, Russell C. Lusher, Richard A. Lutyk, Paul K. Medzerian, Mauricio Ortiz, Michael Phillips, Adrienne T. Pilot, Curtis Roberson, Victor A. Sahadachny, Elizabeth F. Stell, and Jaime Zenzano.

The annual estimates of farm wages and salaries and other labor income and of proprietors' income, property income, transfer payments, personal contributions for social insurance, and the adjustment for residence were prepared by the Regional Income Branch under the supervision of James M. Zavrel, Chief. Major responsibilities were assigned to Charles A. Jolley and James P. Stehle. Contributing staff members were Elaine M. Briccetti, Carrie L. Case, Daniel R. Corrin, Ann E. Dunbar, Toan A. Ly, W. Tim McKeel, Jeffrey L. Newman, Suet M. Ng, Ellen M. Wright, and Marianne A. Ziver.

The public use tabulations and data files were assembled and the tables and text for this publication were prepared by the Regional Economic Information System Branch under the supervision of Kathy A. Albetski, Chief. Gary V. Kennedy guided the preparation of the materials for the publication. Contributing staff members were Wallace K. Bailey, H. Steven Dolan, Michael J. Paris, Albert Silverman, Nancy E. Smith, Callan S. Swenson, Monique B. Tyes, and Mary C. Williams.

Table 3.—Personal Income and Per Capita Personal Income by County, 1996–98—Continued

Main table with columns: Area name, Personal income (Millions of dollars, Percent change), Per capita personal income (Dollars, Rank in State). Rows list counties for Missouri, Montana, and Wyoming.

See footnotes at end of table.

SURVEY OF CURRENT BUSINESS

Table 3.—Personal Income and Per Capita Personal Income by County, 1996–98—Continued

Table with columns for Area name, Personal income (Millions of dollars, Percent change), and Per capita personal income (Dollars, Rank in State). Includes counties from Arion to Bennington.

See footnotes at end of table.

National Data

A. Selected NIPA Tables

The tables in this section include the most recent estimates of gross domestic product and its components; these estimates were released on June 29, 2000 and include the "final" estimates for the first quarter of 2000.

The selected set of NIPA tables shown in this section presents quarterly estimates, which are updated monthly; in most of these tables, annual estimates are also shown.

The news release on gross domestic product (GDP) is available within minutes of the time of release, and the "Selected NIPA Tables" are available later that day, on STAT-USA's Web site <www.stat-usa.gov>; for information, call STAT-USA on 202-482-1986. The GDP news release is also available within minutes of the time of release, and the "Selected NIPA Tables" a day or two later, on BEA's Web site <www.bea.doc.gov>.

The "Selected NIPA Tables" are also available on printouts or diskettes from BEA. To order NIPA subscription products, call the BEA Order Desk at 1-800-704-0415 (outside the United States, 202-606-9666).

S. Summary Tables

Table S.1.—Summary of Percent Change From Preceding Period in Real Gross Domestic Product and Related Measures

[Percent]

	1998	1999	Seasonally adjusted at annual rates						
			1998	1999					2000
				IV	I	II	III	IV		I
Gross domestic product	4.3	4.2	5.9	3.7	1.9	5.7	7.3	5.5	
Personal consumption expenditures	4.9	5.3	4.6	6.5	5.1	4.9	5.9	7.7	
Durable goods	11.3	11.5	20.4	12.4	9.1	7.7	13.0	24.3	
Nondurable goods	4.0	5.4	5.0	8.9	3.3	3.6	7.6	5.8	
Services	4.1	4.0	1.5	4.2	5.2	5.0	3.7	5.5	
Gross private domestic investment	11.7	5.8	11.5	3.6	-2.1	13.6	10.0	8.3	
Fixed investment	11.8	8.1	13.8	9.1	6.6	6.8	2.6	18.7	
Nonresidential	12.7	8.3	15.3	7.8	7.0	10.9	2.9	23.7	
Structures	4.1	-2.4	5.8	-5.8	-5.3	-3.8	-5	20.6	
Equipment and software	15.8	12.0	18.6	12.5	11.2	15.7	4.0	24.7	
Residential	9.2	7.4	9.8	12.9	5.5	-3.8	1.8	5.2	
Change in private inventories									
Net exports of goods and services									
Exports	2.2	3.8	16.3	-5.5	4.0	11.5	10.1	6.2	
Goods	2.1	4.0	19.4	-9.3	4.3	16.9	11.1	6.0	
Services	2.5	3.2	9.2	4.1	3.2	0	7.6	6.8	
Imports	11.6	11.7	10.8	12.5	14.4	14.9	8.7	11.7	
Goods	11.7	12.7	12.8	12.6	15.5	17.3	9.7	11.3	
Services	10.8	6.9	1.6	11.9	8.9	3.6	3.4	13.5	
Government consumption expenditures and gross investment	1.7	3.7	2.9	5.1	1.3	4.5	9.3	-1.5	
Federal	-9	2.8	3.9	-5	2.1	4.1	14.7	-15.2	
National defense	-1.9	1.8	-2.9	-4.0	-2.6	11.2	17.2	-22.3	
Nondefense .....	.9	4.7	17.9	6.1	10.9	-7.1	10.3	-1.2
State and local	3.2	4.2	2.4	8.2	.9	4.8	6.4	6.7	
Addenda:									
Final sales of domestic product	4.3	4.5	6.3	4.6	3.4	4.5	6.0	7.1	
Gross domestic purchases	5.4	5.1	5.5	5.8	3.2	6.2	7.2	6.2	
Final sales to domestic purchasers	5.4	5.5	5.8	6.7	4.7	5.1	5.9	7.8	
Gross national product	4.1	4.0	6.3	3.8	1.9	5.6	6.4	5.8	
Disposable personal income	4.1	4.0	4.8	4.1	3.2	2.9	4.7	1.5	

NOTE.—Percent changes from preceding period in the current-dollar and price measures for these series are shown in table 8.1.

Table S.2.—Summary of Contributions to Percent Change in Real Gross Domestic Product

	1998	1999	Seasonally adjusted at annual rates						
			1998	1999					2000
				IV	I	II	III	IV		I
Percent change at annual rate:									
Gross domestic product	4.3	4.2	5.9	3.7	1.9	5.7	7.3	5.5	
Percentage points at annual rates:									
Personal consumption expenditures	3.25	3.45	3.14	4.28	3.36	3.33	4.07	5.18	
Durable goods .....	.86	.81	1.51	.96	.71	.62	1.03	1.84
Nondurable goods .....	.79	1.05	.98	1.69	.64	.73	1.51	1.17
Services	1.59	1.59	.66	1.63	2.00	1.98	1.53	2.17	
Gross private domestic investment	1.93	.99	1.94	.64	-3.6	2.26	1.72	1.44	
Fixed investment	1.86	.97	2.20	1.49	1.10	1.16	.48	2.98	
Nonresidential	1.49	.83	1.79	.95	.86	1.33	.39	2.75	
Structures .....	.13	-1.4	.18	-1.8	-1.6	-1.1	-0.1	.56
Equipment and software	1.37	.96	1.61	1.13	1.02	1.44	.40	2.19	
Residential .....	.37	.15	.41	.54	.24	-1.7	.09	.23
Change in private inventories .....	.07	.01	-.26	-.85	-1.46	1.09	1.24	-1.54
Net exports of goods and services	-1.18	-1.09	.33	-2.13	-1.35	-.73	-.12	-.91	
Exports .....	.25	.48	1.67	-.61	.42	1.19	1.08	.68
Goods .....	.17	.37	1.38	-.74	.32	1.19	.83	.46
Services .....	.08	.10	.29	.13	.10	0	.24	.22
Imports	-1.43	-1.57	-1.34	-1.53	-1.77	-1.92	-1.20	-1.59	
Goods	-1.21	-1.43	-1.30	-1.28	-1.59	-1.84	-1.12	-1.30	
Services	-.22	-.14	-.04	-.24	-.19	-.08	-.08	-.29	
Government consumption expenditures and gross investment .....	.31	.80	.53	.88	.23	.81	1.61	-.24
Federal	-.06	.28	.24	-.03	.13	.26	.87	-1.01	
National defense	-.08	.19	-.12	-.16	-.10	.42	.65	-.98	
Nondefense .....	.02	.10	.36	.13	.23	-.16	.22	-.03
State and local .....	.37	.52	.29	.91	.10	.55	.75	.77

NOTE.—More detailed contributions to percent change in real gross domestic product are shown in table 8.2. Contributions to percent change in major components of real gross domestic product are shown in tables 8.3 through 8.6.

1. National Product and Income

Table 1.1.—Gross Domestic Product

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998	1999				2000
			IV	I	II	III	IV	I
Gross domestic product	8,759.9	9,256.1	8,947.6	9,072.7	9,146.2	9,297.8	9,507.9	9,707.0
Personal consumption expenditures	5,848.6	6,257.3	5,973.7	6,090.8	6,200.8	6,303.7	6,434.1	6,612.0
Durable goods	698.2	758.6	722.8	739.0	751.6	761.8	782.1	821.8
Nondurable goods	1,708.9	1,843.1	1,742.9	1,787.8	1,824.8	1,853.9	1,905.8	1,958.4
Services	3,441.5	3,655.6	3,508.0	3,564.0	3,624.3	3,688.0	3,746.2	3,831.8
Gross private domestic investment	1,531.2	1,622.7	1,580.3	1,594.3	1,585.4	1,635.0	1,675.8	1,715.1
Fixed investment	1,460.0	1,578.0	1,508.9	1,543.3	1,567.8	1,594.2	1,606.8	1,683.6
Nonresidential	1,091.3	1,166.7	1,121.4	1,139.9	1,155.4	1,181.6	1,190.0	1,257.1
Structures	272.8	273.4	278.0	274.7	272.5	272.1	274.1	290.4
Equipment and software	818.5	893.4	843.4	865.2	882.9	909.5	916.0	966.7
Residential	368.7	411.3	387.5	403.4	412.4	412.7	416.7	426.5
Change in private inventories	71.2	44.6	71.4	51.0	17.6	40.8	69.1	31.5
Net exports of goods and services	-149.6	-253.9	-161.2	-201.6	-245.8	-278.2	-290.1	-326.1
Exports	966.3	998.3	981.8	966.9	978.2	1,008.5	1,039.5	1,060.5
Goods	681.3	699.0	693.3	674.3	680.5	708.8	732.3	745.3
Services	285.1	299.3	288.6	292.6	297.7	299.7	307.2	315.2
Imports	1,115.9	1,252.2	1,143.1	1,168.5	1,224.0	1,286.6	1,329.6	1,386.7
Goods	930.4	1,049.1	952.6	974.3	1,022.3	1,079.3	1,120.5	1,169.4
Services	185.5	203.1	190.4	194.2	201.7	207.4	209.0	217.2
Government consumption expenditures and gross investment	1,529.7	1,630.1	1,554.8	1,589.1	1,605.9	1,637.2	1,688.0	1,706.1
Federal	538.7	570.6	546.7	557.4	561.6	569.8	593.6	579.8
National defense	348.6	364.5	352.9	355.8	354.3	365.4	382.6	364.8
Nondefense	190.1	206.1	193.8	201.6	207.3	204.4	211.1	215.0
State and local	991.0	1,059.4	1,008.1	1,031.8	1,044.3	1,067.4	1,094.4	1,126.3

NOTE.—Percent changes from preceding period for selected items in this table are shown in table 8.1.

Table 1.2.—Real Gross Domestic Product

[Billions of chained (1996) dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998	1999				2000
			IV	I	II	III	IV	I
Gross domestic product	8,495.7	8,848.2	8,639.5	8,717.6	8,758.3	8,879.8	9,037.2	9,158.2
Personal consumption expenditures	5,681.8	5,983.6	5,779.3	5,871.3	5,944.5	6,015.7	6,102.9	6,217.8
Durable goods	731.5	815.7	766.0	788.8	806.1	821.2	846.7	894.1
Nondurable goods	1,685.3	1,776.1	1,712.6	1,749.5	1,763.7	1,779.3	1,812.0	1,837.9
Services	3,268.0	3,400.1	3,305.9	3,339.8	3,382.3	3,423.4	3,454.7	3,501.2
Gross private domestic investment	1,547.4	1,637.7	1,593.9	1,608.2	1,599.8	1,651.6	1,691.4	1,725.6
Fixed investment	1,471.8	1,590.5	1,522.5	1,555.9	1,581.0	1,607.3	1,617.8	1,688.7
Nonresidential	1,122.5	1,215.8	1,160.8	1,182.7	1,202.9	1,234.3	1,243.2	1,311.3
Structures	254.1	248.1	255.7	251.9	248.5	246.1	245.8	257.5
Equipment and software	870.6	974.9	908.5	935.7	960.9	996.6	1,006.4	1,063.6
Residential	350.2	376.1	362.6	373.7	378.8	375.1	376.8	381.6
Change in private inventories	74.3	42.2	70.7	50.1	14.0	38.0	66.7	28.0
Net exports of goods and services	-217.6	-323.0	-234.4	-286.6	-321.1	-340.4	-344.1	-367.5
Exports	1,004.6	1,042.3	1,028.7	1,014.3	1,024.3	1,052.6	1,078.2	1,094.6
Goods	722.8	751.9	744.2	726.4	734.1	763.3	783.7	795.2
Services	282.0	290.9	285.0	287.9	290.1	290.2	295.5	300.4
Imports	1,222.2	1,365.4	1,263.1	1,300.9	1,345.4	1,393.0	1,422.3	1,462.1
Goods	1,031.6	1,162.5	1,069.7	1,102.0	1,142.5	1,188.9	1,216.8	1,249.8
Services	190.7	203.9	193.8	199.4	203.7	205.5	207.2	213.9
Government consumption expenditures and gross investment	1,478.8	1,534.1	1,494.7	1,513.4	1,518.3	1,535.3	1,569.6	1,563.8
Federal	525.9	540.8	531.9	531.2	534.1	539.5	558.3	535.7
National defense	341.7	347.8	344.9	341.4	339.2	348.3	362.4	340.2
Nondefense	184.2	192.9	186.9	189.7	194.7	191.1	195.9	195.3
State and local	952.7	993.1	962.6	981.8	984.0	995.5	1,011.1	1,027.6
Residual	.6	4.8	-2.6	2.3	8.1	6.1	3.5	-7

NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The residual line is the difference between the first line and the sum of the most detailed lines.

Percent changes from preceding period for selected items in this table are shown in table 8.1; contributions to the percent change in real gross domestic product are shown in table 8.2.

Chain-type quantity indexes for the series in this table are shown in table 7.1.

6. Income and Employment by Industry

Table 6.1C.—National Income Without Capital Consumption Adjustment by Industry Group

[Billions of dollars]

Table with 8 columns: 1998, 1999, and four sub-columns for 1998 and 1999 (IV, I, II, III, IV, I) and 2000. Rows include National income without capital consumption adjustment, Domestic industries, Private industries, and Government.

NOTE.—Estimates in this table are based on the 1987 Standard Industrial Classification (SIC).

Table 6.16C.—Corporate Profits by Industry Group

[Billions of dollars]

Table with 9 columns: 1998, 1999, and six sub-columns for 1998 and 1999 (IV, I, II, III, IV, I) and 2000. Rows include Corporate profits with inventory valuation and capital consumption adjustments, Domestic industries, and Rest of the world.

NOTE.—Estimates in this table are based on the 1987 Standard Industrial Classification.

Appendix A

Additional Information About the NIPA Estimates

Statistical Conventions

Changes in current-dollar GDP measure changes in the market value of goods and services produced in the economy in a particular period. For many purposes, it is necessary to decompose these changes into quantity and price components. To compute the quantity indexes, changes in the quantities of individual goods and services are weighted by their prices. (Quantity changes for GDP are often referred to as changes in “real GDP.”) For the price indexes, changes in the prices for individual goods and services are weighted by quantities produced. (In practice, the current-dollar value and price indexes for most GDP components are determined largely using data from Federal Government surveys, and the real values of these components are calculated by deflation at the most detailed level for which all the required data are available.)

The annual changes in quantities and prices are calculated using a Fisher formula that incorporates weights from 2 adjacent years. For example, the annual percent change in real GDP in 1997–98 uses prices for 1997 and 1998 as weights, and the 1997–98 annual percent change in the GDP price index uses quantities for 1997 and 1998 as weights. Because the Fisher formula allows for the effects of changes in relative prices and in the composition of output over time, the resulting quantity or price changes are not affected by the substitution bias that is associated with changes in quantities and prices calculated using a fixed-weighted formula.¹ These annual changes are “chained” (multiplied) together to form time series of quantity and price; the percent changes that are calculated from these time series are not affected by the choice of reference period.

The quarterly changes in quantities and prices are calculated with weights from two adjacent quarters. As part of an annual or comprehensive revision, the quarterly indexes through the most recent complete year are adjusted to ensure that the average of the quarterly indexes conforms to the corresponding annual index.

In addition, BEA prepares measures of real GDP and its components in a dollar-denominated form, designated “chained (1996) dollar estimates.” These estimates are computed by multiplying the 1996 current-dollar value of GDP, or of a GDP component, by the corresponding quantity index number. For example, if a current-dollar GDP component equaled \$100 in 1996 and if real output for this component

increased by 10 percent in 1997, then the “chained (1996) dollar” value of this component in 1997 would be \$110 ($\100×1.10). Note that percentage changes in the chained (1996) dollar estimates and the percentage changes calculated from the quantity indexes are identical, except for small differences due to rounding.

Because of the formula used for calculating real GDP, the chained (1996) dollar estimates for detailed GDP components do not add to the chained-dollar value of GDP or to any intermediate aggregates. A “residual” line is shown as the difference between GDP and the sum of the most detailed components shown in each table. The residual generally is small close to the base period but tends to become larger as one moves further from it. Accurate measures of component contributions to the percentage changes in real GDP and its major components are shown in NIPA tables 8.2–8.6.

BEA also publishes the “implicit price deflator” (IPD), which is calculated as the ratio of current-dollar value to the corresponding chained-dollar value, multiplied by 100; the values of the IPD and of the corresponding “chain-type” price index are very close.

For quarters and months, the estimates are presented at annual rates, which show the value that would be registered if the rate of activity measured for a quarter or a month were maintained for a full year. Annual rates are used so that time periods of different lengths—for example, quarters and years—may be compared easily. These annual rates are determined simply by multiplying the estimated rate of activity by 4 (for quarterly data) or by 12 (for monthly data).

Percent changes in the estimates are also expressed at annual rates. Calculating these *changes* requires a variant of the compound interest formula:

$$r = \left[\left(\frac{x_t}{x_o} \right)^{m/n} - 1 \right] \times 100,$$

where r is the percent change at an annual rate; x_t is the level of activity in the later period; x_o is the level of activity in the earlier period; m is the yearly periodicity of the data (for example, 1 for annual data, 4 for quarterly, or 12 for monthly); and n is the number of periods between the earlier and later periods (that is, $t - o$).

Quarterly and monthly NIPA estimates are seasonally adjusted, if necessary. Seasonal adjustment removes from the time series the average impact of variations that normally occur at about the same time and in about the same magnitude each year—for example, weather, holidays, and tax payment dates. After seasonal adjustment, cyclical and other short-term changes in the economy stand out more clearly.

1. In addition, because the changes in quantities and prices calculated using these weights are symmetric, the product of a quantity index and the corresponding price index is generally equal to the current-dollar index.

Appendix B

Suggested Reading

The Bureau of Economic Analysis (BEA) has published a wealth of information about the methodologies that are used to prepare its national, regional, and international accounts.

National accounts

The national accounts encompass the detailed estimates in the national income and product accounts (including gross domestic product), the estimates of wealth and related estimates, gross product by industry, the input-output accounts, and the satellite accounts.

National income and product accounts (NIPAs). This series of papers documents the conceptual framework of the NIPAs and the methodologies that have been used to prepare the estimates.

An Introduction to National Economic Accounting (1985) [also in the March 1985 SURVEY]

Corporate Profits: Profits Before Tax, Profits Tax Liability, and Dividends (1985)

Foreign Transactions (1987) [A revised version is forthcoming.]

GNP: An Overview of Source Data and Estimating Methods (1987) [Most of the information in this paper has been superseded by "A Guide to the NIPAs" (March 1998 SURVEY).]

Government Transactions (1988)

Personal Consumption Expenditures (1990)

These methodologies have been updated and improved, typically as part of the comprehensive and annual revisions of the NIPAs. The most recent revisions are described in the following SURVEY articles.

"A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts" **Definitional and Classification Changes** (August 1999)

New and Redesigned Tables (September 1999)

Statistical Changes (October 1999)

"Improved Estimates of the National Income and Product Accounts: Results of the Comprehensive Revision"

For 1959–98 (December 1999)

For 1929–99 (April 2000)

"Annual Revision of the U.S. National Income and Product Accounts" (August 1998)

"A Guide to the NIPAs" (March 1998) provides the definitions of the major NIPA aggregates and components, discusses the measures of real output and prices, explains how production is classified and how the NIPAs are presented, describes the statistical conventions that are used, and lists the principal source data and methods that are used to prepare the estimates of gross domestic product (GDP).

Information about the sources and methods that are used to prepare the national estimates of personal income, which are the basis for the State estimates, is in *State Personal Income, 1929–97* (1999).

"BEA's Chain Indexes, Time Series, and Measures of Long-Term Economic Growth" (May 1997) is the most recent in a series of articles that describe the conceptual basis for the chain-type measures of real output and prices that are used in the NIPAs.

"Reliability of the Quarterly and Annual Estimates of GDP and Gross Domestic Income" (December 1998) evaluates these estimates by examining the record of revisions to them.

Wealth and related estimates. *Fixed Reproducible Tangible Wealth in the United States, 1929–94* (1999) discusses the concepts and statistical considerations that underlie the estimates and their derivation.

"Fixed Assets and Consumer Durable Goods for 1925–98" (April 2000) describes the definitional and statistical improvements that were incorporated in the comprehensive revision of the estimates.

Gross product by industry. "Improved Estimates of

Mission and Strategic Plan

The mission statement of the Bureau of Economic Analysis and the latest update to its strategic plan for improving the accuracy, reliability, and relevance of the national, regional, and international accounts are available on BEA's Web site at <www.bea.doc.gov>. For information about the development and the implementation of the plan, see these SURVEY articles.

"Mid-Decade Strategic Review of BEA's Economic Accounts: Maintaining and Improving Their Performance" (February 1995)

"Mid-Decade Strategic Review of BEA's Economic Accounts: An Update" (April 1995)

"BEA's Mid-Decade Strategic Plan: A Progress Report" (June 1996)

