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BUSINESS SITUATION

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ECONOMIC GROWTH accelerated in the fourth quarter of 1997, according to the "advance" estimates of the national income and product accounts (NIPA's), as real gross domestic product (GDP) increased 4.3 percent after increasing 3.1 percent in the third quarter (chart 1 and table 1).[1] The step-up reflected an upturn in inventory investment that more than offset a slowdown in final sales of domestic product. The price index for gross domestic purchases increased 1.5 percent after increasing 1.3 percent.

The upturn in inventory investment reflected a step-up in accumulation of inventories after a slowdown in the third quarter; the upturn was most pronounced in manufacturing. The deceleration in final sales was more than accounted for by a downturn in nonresidential fixed investment, mainly in producers' durable equipment and by a slowdown in personal consumption expenditures (PCE) for goods. In contrast, exports

1. Quarterly estimates in the NIPA's are expressed at seasonally adjusted annual rates unless otherwise specified. Quarter-to-quarter dollar changes are differences between the published estimates. Quarter-to-quarter percent changes are annualized and are calculated from unrounded data. Real estimates are expressed in chained (1992) dollars, and price indexes are chain-type indexes.

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

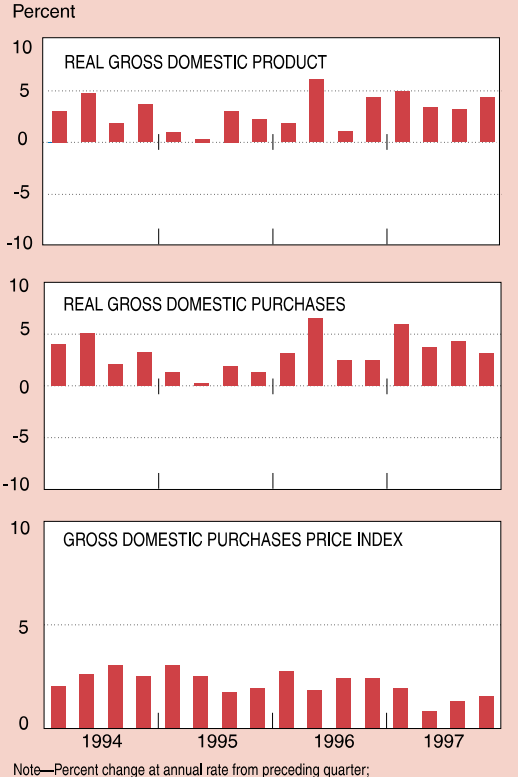
[Quarterly estimates seasonally adjusted at annual rates]

	Billions of chained (1992) dollars						Percent change from preceding quarter					
	Change from preceding quarter											
	1996	1997	1997				1996	1997	1997			
			I	II	III	IV			I	II	III	IV
Gross domestic product	**186.3**	**263.0**	**84.2**	**58.0**	**54.4**	**76.3**	**2.8**	**3.8**	**4.9**	**3.3**	**3.1**	**4.3**
Less: Exports of goods and services	65.8	107.4	21.6	39.8	10.5	26.3	8.3	12.5	9.9	18.4	4.4	11.3
Plus: Imports of goods and services	81.4	135.0	42.3	50.2	38.0	3.7	9.1	13.9	17.9	20.5	14.6	1.3
***Equals*: Gross domestic purchases**	**200.2**	**285.7**	**102.5**	**66.0**	**77.7**	**56.6**	**2.9**	**4.1**	**5.9**	**3.7**	**4.3**	**3.1**
Less: Change in business inventories	–2.3	37.2	30.8	13.9	–30.1	12.4						
***Equals*: Final sales to domestic purchasers**	**202.1**	**245.8**	**70.4**	**51.6**	**106.2**	**44.5**	**3.0**	**3.5**	**4.0**	**2.9**	**6.0**	**2.5**
Personal consumption expenditures	118.8	155.6	61.7	11.3	66.8	38.8	2.6	3.3	5.3	.9	5.6	3.2
Durable goods	27.5	34.7	20.7	–8.8	27.1	4.2	4.7	5.7	14.1	–5.4	18.4	2.6
Nondurable goods	19.7	27.0	16.6	–7.8	15.5	–1.4	1.4	1.9	4.7	–2.1	4.3	–.4
Services	71.4	94.2	25.7	25.9	26.3	34.9	2.7	3.5	3.9	3.9	3.9	5.1
Private nonresidential fixed investment	65.2	75.0	8.1	28.1	37.5	–8.0	9.2	9.7	4.1	14.6	19.2	–3.6
Structures	8.8	6.7	–1.0	–2.4	3.2	–1.4	4.8	3.6	–2.1	–4.8	6.7	–2.7
Producers' durable equipment	57.7	71.4	9.9	32.7	36.0	–6.8	10.9	12.2	6.7	23.0	24.1	–3.9
Private residential investment	15.1	7.6	2.2	4.9	1.9	7.0	5.9	2.8	3.3	7.4	2.7	10.4
Government consumption expenditures and gross investment	6.0	12.7	–1.3	9.6	3.3	5.1	.5	1.0	–.4	3.1	1.1	1.6
Federal	–6.1	–6.4	–6.8	7.3	–1.3	.7	–1.3	–1.4	–5.8	6.6	–1.1	.7
State and local	12.1	19.2	5.4	2.4	4.6	4.3	1.6	2.4	2.7	1.2	2.3	2.1
Addendum: Final sales of domestic product	**188.3**	**223.2**	**52.4**	**43.6**	**82.6**	**64.3**	**2.8**	**3.2**	**3.0**	**2.5**	**4.7**	**3.6**

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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 (1992) dollar levels and residuals, which measure the extent of nonadditivity in each table, are found in NIPA tables 1.2, 1.4, and 1.6. Percent changes are found in table 8.1. Contributions of the major components to the quarter-to-quarter percent change in real GDP are found in table 8.2.

CHART 1

Selected Measures: Change From Preceding Quarter



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

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stepped up, and imports (which are subtracted in deriving final sales) slowed.

The largest contribution to the fourth-quarter increase in real GDP was made by PCE, which increased 3.2 percent; most of the increase in PCE was in services.[2] Exports of goods and services, which increased 11.3 percent, also contributed substantially to the increase in GDP; exports of nonautomotive capital goods, of autos, and of agricultural products all rose markedly.[3] Inventory investment also contributed to the increase

2. NIPA table 8.2 shows the contributions of the major components of GDP to the quarter-to-quarter percent change in real GDP.

3. Exports (and imports) of nonautomotive capital goods include both parts and equipment. In contrast, parts are not included in producers' durable equipment in business fixed investment or in the equipment component of government investment. The difference arises because the end-use classification system used for exports and imports does not distinguish between equipment and machinery, which are treated as investment in the NIPA's, and parts, which are treated as intermediate purchases in the NIPA's.

Fourth-Quarter 1997 Advance GDP Estimate: Source Data and Assumptions

The "advance" GDP estimate for the fourth quarter is based on preliminary and incomplete source data; as more and better data become available, the estimate will be revised. The advance estimate is based on the following major source data. (The number of months for which data were available is shown in parentheses.)

Personal consumption expenditures: Sales of retail stores (3) and unit auto and truck sales (3);

Nonresidential fixed investment: Unit auto and truck sales (3), construction put in place (2), manufacturers' shipments of machinery and equipment other than aircraft (3), aircraft shipments (2), and exports and imports of machinery and equipment (2);

Residential investment: Construction put in place (2) and single-family housing starts (3);

Change in business inventories: Manufacturing and trade inventories (2) and unit auto and truck inventories (3);

Net exports of goods and services: Exports and imports of goods and services (2);

Government consumption expenditures and gross investment: Department of Defense outlays (3), other Federal outlays (3), State and local construction put in place (2), and State and local employment (3);

GDP prices: Consumer Price Index (3), Producer Price Index (3), U.S. Import and Export Price Indexes (3), and values and quantities of petroleum imports (2).

BEA made assumptions for source data that were not available. Table A shows the assumptions for key series; a more comprehensive listing of assumptions is available on the Department of Commerce's Economic Bulletin Board or from BEA.

Table A.—Summary of Major Data Assumptions for Advance Estimates, 1997:IV

[Billions of dollars, seasonally adjusted at annual rates]

	1997					
	July	August	September	October	November	December [1]
Fixed investment:						
Nonresidential structures:						
Buildings, utilities, and farm:						
Value of new nonresidential construction put in place	164.5	163.4	163.3	165.0	158.7	163.4
Producers' durable equipment:						
Manufacturers' shipments of complete civilian aircraft	42.6	31.2	30.0	28.3	29.3	39.3
Residential structures:						
Value of new residential construction put in place:						
1-unit structures	161.5	161.7	163.7	165.7	167.7	170.8
2-or-more-unit structures	21.4	22.1	22.9	24.7	23.1	23.9
Change in business inventories nonfarm:						
Change in inventories for manufacturing and trade (except nonmerchant wholesalers) for industries other than motor vehicles and equipment in trade	17.6	21.1	71.4	37.7	51.4	23.0
Net exports: [2]						
Exports of goods:						
U.S. exports of goods, balance-of-payments basis	680.9	687.9	676.4	701.4	693.4	708.2
Excluding nonmonetary gold	677.6	684.6	672.8	698.0	690.5	702.6
Imports of goods:						
U.S. imports of goods, balance-of-payments basis	883.1	886.6	898.9	899.1	874.6	882.0
Excluding nonmonetary gold	880.1	884.0	895.6	896.5	871.2	876.5
Net exports of goods (exports less imports)	–202.2	–198.7	–222.5	–197.7	–181.2	–173.8
Excluding nonmonetary gold	–202.5	–199.4	–222.8	–198.5	–180.7	–173.9
Government consumption expenditures and gross investment:						
State and local:						
Structures:						
Value of new construction put in place	123.8	123.9	121.4	125.4	124.4	124.4

1. Assumed.
2. Nonmonetary gold is included in balance-of-payments-basis exports and imports but is not used directly in the estimation of NIPA exports and imports.

in GDP, mainly reflecting higher rates of accumulation in manufacturing and in retail trade. These positive contributions to GDP growth were partly offset by a negative contribution from nonresidential fixed investment; structures and producers' durable equipment both decreased.

Motor vehicles.—Real motor vehicle output increased 21.7 percent in the fourth quarter after increasing 24.1 percent in the third, as a downturn in auto output more than offset a step-up in truck output (table 2). Gross domestic purchases of motor vehicles slowed sharply—to a 1.1-percent increase after a 26.9-percent increase—as exports turned up and imports turned down. The small fourth-quarter increase in purchases reflected almost offsetting changes in final sales to domestic purchasers and in inventory investment. A decrease in sales was more than accounted for by autos, and an increase in inventory investment was more than accounted for by trucks.

Much of the downturn in final sales was accounted for by consumer purchases. The weakness in consumer purchases occurred despite favorable developments in several factors frequently considered in analyses of consumer spending. Growth of real disposable personal income picked up, to 4.7 percent from 2.6 percent, and the unemployment rate decreased, to 4.7 percent from 4.9 percent. The Index of Consumer Sentiment (prepared by the University of Michigan's Survey Research Center) slipped only slightly from its highest level in 45 years. Factors specific to motor vehicle purchases were also favorable in the fourth quarter. Interest rates on new-car loans made by commercial banks were unchanged at 9.0 percent, and manufacturers continued to offer sales-incentive programs that included rebates and below-market interest rates for new-vehicle loans.

Business purchases increased much less than in the third quarter. Government purchases turned down. Imports decreased after increasing. Exports increased sharply after decreasing; the increase reflected substantially higher truck exports to Canada and Mexico.

Motor vehicle inventory investment increased after decreasing. The inventory-sales ratio for new domestic autos, which is calculated from units data, edged up from 2.3 at the end of the third quarter to 2.4 (the traditional industry target) at the end of the fourth.

Prices

The price index for gross domestic purchases, which measures the prices paid for goods and services purchased by U.S. residents, increased

Table 2.—Motor Vehicle Output, Sales, and Inventories

[Seasonally adjusted at annual rates]

	Billions of chained (1992) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter				1997			
	1997	1997							
	IV	I	II	III	IV	I	II	III	IV
Output	**266.8**	**11.0**	**–6.9**	**13.4**	**12.8**	**19.9**	**–10.7**	**24.1**	**21.7**
Autos	120.4	6.0	–2.9	5.3	–1.7	22.5	–9.3	19.6	–5.6
Trucks	146.0	5.0	–4.0	8.0	14.4	17.6	–12.0	28.4	51.5
Less: Exports	30.2	–.3	1.1	–1.5	5.3	–4.5	17.8	–20.8	116.3
Autos	17.0	–.2	1.4	–1.9	1.9	–5.0	39.8	–36.9	59.5
Trucks	13.2	0	–.4	.4	3.4	–3.6	–12.3	16.1	232.6
Plus: Imports	76.0	10.4	–2.2	3.3	–6.9	72.6	–10.5	17.8	–29.4
Autos	62.4	8.4	–1.9	1.7	–5.0	69.9	–11.2	11.2	–26.8
Trucks	13.6	2.1	–.3	1.6	–1.9	86.5	–7.0	53.9	–40.3
***Equals*: Gross domestic purchases**	**312.7**	**21.4**	**–10.0**	**18.0**	**.8**	**34.1**	**–12.6**	**26.9**	**1.1**
Autos	165.7	14.3	–6.1	8.8	–8.5	41.8	–13.5	23.1	–18.3
Trucks	146.8	7.1	–3.9	9.1	9.4	24.8	–11.5	31.8	30.0
Less: Change in business inventories	4.8	12.5	.9	–2.4	4.6	.....	.....	.....	.....
Autos	–.7	6.1	2.7	–1.5	–.1	.....	.....	.....	.....
Trucks	5.7	6.5	–1.9	–.8	4.8	.....	.....	.....	.....
***Equals*: Final sales to domestic purchasers**	**307.6**	**9.4**	**–10.9**	**20.2**	**–3.8**	**13.4**	**–13.7**	**30.9**	**–4.9**
Autos	166.2	8.4	–8.7	10.2	–8.4	21.8	–18.6	27.4	–18.0
Trucks	141.1	1.0	–2.2	10.0	4.5	3.2	–6.7	35.6	13.9
Addenda:									
Personal consumption expenditures	179.8	4.8	–9.0	13.7	–3.0	11.5	–18.8	36.4	–6.2
Producers' durable equipment	120.7	3.9	–2.1	5.4	.7	14.5	–7.0	20.5	2.1
Gross government investment	8.5	.7	.4	1.1	–1.5	43.3	18.5	60.0	–47.6

NOTE.—See note to table 1 for an explanation of chained (1992) dollars. Truck output includes new trucks only; auto output includes new cars and used cars. Chained (1992) dollar levels for motor vehicle output, auto and truck output, and residuals, which measure the extent of nonadditivity in each table, are found in NIPA tables 1.4, 8.5, and 8.7.

1.5 percent in the fourth quarter after increasing 1.3 percent in the third (chart 2 and table 3).

Prices of PCE increased 1.3 percent after increasing 1.5 percent. A slowdown in food prices was largely offset by a step-up in energy prices. Food prices increased 1.4 percent after increasing 3.4 percent; the slowdown was more than accounted for by downturns in the prices of beef and nonalcoholic beverages and by a slowdown in the price of fresh vegetables. Energy prices increased 3.0 percent after increasing 2.4 percent; the price of natural gas increased more than in the third quarter, the price of electricity decreased less, and prices of fuel oil and coal turned up. "Other" PCE prices increased 1.2 percent, about the same as in the third quarter.

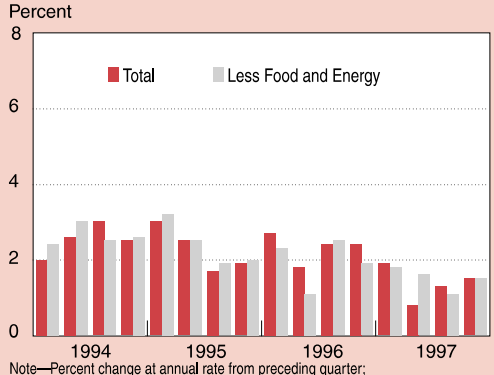
Prices of nonresidential fixed investment decreased 0.8 percent, the same as in the third quarter. Prices of structures increased 4.4 percent after increasing 4.2 percent. Prices of producers' durable equipment decreased 2.7 percent after decreasing 2.6 percent; prices of transportation equipment turned down, but prices of information processing equipment (particularly computers and peripheral equipment) decreased less than in the third quarter, and prices of "other" equipment increased after decreasing.

Prices of government consumption expenditures and gross investment increased 3.3 percent after increasing 1.4 percent. Prices for all levels of government contributed to the step-up. Prices paid by the Federal Government increased 3.5 percent after increasing 0.9 percent; both nondefense and national defense prices accelerated. Prices paid by State and local governments increased 3.1 percent after increasing 1.7 percent, partly reflecting a step-up in the price of structures.

The price index for GDP increased 1.5 percent after increasing 1.4 percent; the fourth-quarter increase was the same as that in the price index for gross domestic purchases, reflecting virtually identical changes in the prices of exports and of imports. Export prices, which are included in the GDP price index but not in the price index for gross domestic purchases, decreased 2.0 percent, the same as in the third quarter; most major categories of goods posted changes similar to those in the third quarter, except that prices of industrial supplies and materials turned down, and prices of "other" goods turned up. Import prices, which are included in the price index for gross domestic purchases but not in the price index for GDP, decreased 2.1 percent after decreasing 3.0 percent; an upturn in services prices constrained the fourth-quarter decrease.

CHART 2

Gross Domestic Purchases Prices: Change From Preceding Quarter



Note—Percent change at annual rate from preceding quarter; based on seasonally adjusted index numbers (1992=100).

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Table 3.—Price Indexes

[Percent change at annual rates; quarterly estimates based on seasonally adjusted index numbers (1992=100)]

	1996	1997	1997			
			I	II	III	IV
Gross domestic product	**2.3**	**2.0**	**2.4**	**1.8**	**1.4**	**1.5**
Less: Exports of goods and services	–1.8	–2.2	–1.8	–.7	–2.0	–2.0
Plus: Imports of goods and services	–2.2	–3.9	–5.3	–7.6	–3.0	–2.1
***Equals*: Gross domestic purchases**	**2.2**	**1.7**	**1.9**	**.8**	**1.3**	**1.5**
Less: Change in business inventories	.....	.....	.....	.....	.....	.....
***Equals*: Final sales to domestic purchasers**	**2.2**	**1.8**	**2.0**	**.9**	**1.3**	**1.5**
Personal consumption expenditures	2.4	2.0	2.2	1.0	1.5	1.3
Food	3.0	2.7	1.4	1.6	3.4	1.4
Energy	4.6	1.1	7.7	–15.7	2.4	3.0
Other	2.2	2.0	2.0	2.0	1.1	1.2
Private nonresidential fixed investment	–1.0	–1.4	–2.0	–1.5	–.8	–.8
Structures	2.3	3.3	2.8	3.9	4.2	4.4
Producers' durable equipment	–2.3	–3.1	–3.8	–3.5	–2.6	–2.7
Private residential investment	2.4	3.0	2.0	3.4	3.2	3.1
Government consumption expenditures and gross investment	3.3	2.4	3.5	1.4	1.4	3.3
Federal	3.4	2.4	4.9	1.3	.9	3.5
National defense	3.9	2.4	4.3	1.1	.6	2.8
Nondefense	2.3	2.5	6.1	1.5	1.5	5.1
State and local	3.2	2.3	2.7	1.5	1.7	3.1
Addendum: Gross domestic purchases less food and energy	2.0	1.7	1.8	1.6	1.1	1.5

NOTE.—Percent changes in major aggregates are found in NIPA table 8.1. Most index number levels are found in tables 7.1 and 7.2.

Personal income

Real disposable personal income (DPI) increased 4.7 percent in the fourth quarter after increasing 2.6 percent in the third (chart 3). Current-dollar DPI increased 6.1 percent after increasing 4.1 percent. The personal saving rate (saving as a percentage of current-dollar DPI) increased to

3.9 percent from 3.5 percent, reflecting a larger increase in DPI than in outlays.

Personal income increased $108.5 billion in the fourth quarter after increasing $77.8 billion in the third (table 4). The acceleration was almost entirely accounted for by wage and salary disbursements. Proprietors' income increased more than in third quarter, and all the other components changed about as much as in the third quarter.

Wage and salary disbursements increased $83.6 billion after increasing $54.5 billion. Almost all of the acceleration was in the private sector, particularly goods-producing industries and service industries. The step-up in private industry wages and salaries reflected step-ups in employment and in average hourly earnings and an upturn in average weekly hours.

Proprietors' income increased $6.1 billion after increasing $3.6 billion. Nonfarm proprietors' income increased more than in the third quarter, and farm proprietors' income decreased less.

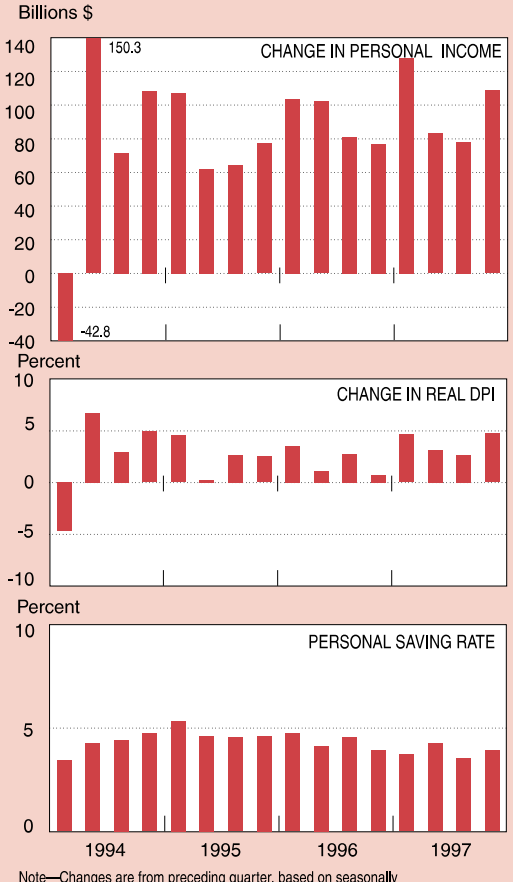
Transfer payments increased $9.1 billion after increasing $8.7 billion. The fourth-quarter increase included $1.1 billion in retroactive social security payments; these payments result when the Social Security Administration recalculates benefits on the basis of updated information on the earnings base of recent retirees.

The Year 1997

The rate of growth of output and income stepped up in 1997, and inflation slowed. Real GDP increased 3.8 percent, up from a 2.8-percent increase in 1996 and the highest growth rate since 1988. Real DPI increased 2.9 percent, up from a 2.3-percent increase. The price index for gross

CHART 3

Selected Personal Income and Saving Measures



Note—Changes are from preceding quarter, based on seasonally adjusted annual rates.

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Table 4.—Personal Income and Its Disposition

[Billions of dollars; quarterly estimates seasonally adjusted at annual rates]

	Level		Change from preceding quarter					
	1997	1997 IV	1996	1997	1997 I	1997 II	1997 III	1997 IV
Wage and salary disbursements	3,877.2	3,979.7	203.0	244.7	74.6	50.1	54.5	83.6
Private industries	3,211.8	3,305.5	183.4	221.9	65.8	45.9	48.8	77.1
Goods-producing industries	960.1	983.5	44.7	51.0	15.1	9.9	8.6	22.1
Manufacturing	705.9	723.1	26.3	31.2	8.5	6.2	5.7	17.1
Distributive industries	876.0	899.6	40.2	52.7	16.2	10.2	13.8	18.8
Service industries	1,375.6	1,422.4	98.5	118.1	34.6	25.7	26.5	36.1
Government	665.4	674.2	19.6	22.8	8.9	4.2	5.7	6.5
Other labor income	416.6	421.4	.8	9.0	3.2	2.8	2.6	3.7
Proprietors' income with IVA and CCAdj	544.7	553.3	31.3	24.4	6.3	9.0	3.6	6.1
Farm	40.9	39.0	13.8	3.7	–.2	3.4	–2.7	–1.9
Nonfarm	503.8	514.4	17.6	20.7	6.5	5.6	6.3	8.1
Rental income of persons with CCAdj	148.1	146.6	13.5	1.8	–.2	–.3	–.7	–1.4
Personal dividend income	321.5	330.7	39.3	30.3	17.3	5.8	6.2	6.2
Personal interest income	768.8	779.1	16.8	33.1	7.4	8.9	6.5	6.5
Transfer payments to persons	1,121.1	1,134.8	53.0	53.1	25.7	9.8	8.7	9.1
Less: Personal contributions for social insurance	323.6	330.2	13.2	17.3	6.7	3.1	3.5	5.4
Personal income	**6,874.4**	**7,015.4**	**344.4**	**379.2**	**127.8**	**82.9**	**77.8**	**108.5**
Less: Personal tax and nontax payments	987.9	1,018.5	91.8	101.0	33.1	23.5	18.8	20.5
***Equals:* Disposable personal income**	**5,886.6**	**5,996.9**	**252.6**	**278.3**	**94.7**	**59.4**	**59.0**	**88.0**
Less: Personal outlays	5,661.0	5,765.8	267.7	292.2	99.2	28.2	98.0	65.0
***Equals:* Personal saving**	**225.6**	**231.1**	**–15.0**	**–14.0**	**–4.5**	**31.1**	**–38.8**	**22.9**
Addendum: Special factors in personal income:								
In wages and salaries:								
Federal Government and Postal Service pay adjustments, including "buyouts"	.....	0	.....	.....	4.4	–.2	–.1	0
In transfer payments to persons:								
Social security retroactive payments	.....	1.1	.....	.....	–1.1	0	0	1.1
Cost-of-living adjustments in Federal transfer programs	.....	0	.....	.....	13.5	0	0	0
Earned Income Tax Credit payments	.....	0	.....	.....	4.3	0	0	0
In personal contributions for social insurance:								
Social security base changes and increase in premium for supplementary medical insurance	.....	0	.....	.....	2.1	0	0	0
In personal tax and nontax payments:								
Recent tax law changes	.....	0	.....	.....	–4.1	0	0	0

NOTE.—Most dollar levels are found in NIPA table 2.1.
IVA Inventory valuation adjustment
CCAdj Capital consumption adjustment

domestic purchases increased 1.7 percent—its lowest rate since 1964.

The biggest contributions to the growth in real GDP were made by PCE, by exports, and by nonresidential fixed investment. In PCE, almost two-thirds of the increase was in services, mainly in medical care, housing, recreation, and brokerage fees. In exports, most categories contributed to the rise; nonautomotive capital goods (the largest category) contributed the most. In nonresidential fixed investment, the increase was mostly accounted for by information processing and related equipment, especially computers and peripheral equipment. Inventory investment also contributed to the increase in GDP, as the pace of inventory accumulation in wholesale trade and in manufacturing increased. In contrast to these positive contributions, a sizable increase in imports (which are subtracted in deriving GDP) made a large negative contribution.

The step-up in real DPI reflected both a step-up in current-dollar DPI and a slowdown in the rate of increase of consumer prices. The step-up in current-dollar DPI was more than accounted for by wage and salary disbursements, which increased $244.7 billion in 1997 after increasing $203.0 billion in 1996, and by personal interest income, which increased $33.1 billion after increasing $16.8 billion.

The personal saving rate declined to 3.8 percent, the lowest rate since 1939. This low rate of saving out of current income may partly reflect the large capital gains that households accumulated as a result of increases in stock prices. Such capital gains, which are not included in the NIPA measure of personal saving, may reduce the need to save out of current incomes.

The price index for gross domestic purchases increased 1.7 percent after increasing 2.2 percent in 1996. The slowdown was evident in all major components except residential investment and nonresidential structures. PCE prices increased 2.0 percent after increasing 2.4 percent; prices of food, energy, and "other" PCE all contributed to the slowdown. Prices of producers' durable equipment decreased 3.1 percent after decreasing 2.3 percent. Prices paid by the Federal Government increased 2.4 percent after increasing 3.4 percent, and prices paid by State and local governments increased 2.3 percent after increasing 3.2 percent.

The price index for GDP increased 2.0 percent after increasing 2.3 percent. Export prices, which are included in the GDP price index but not in the price index for gross domestic purchases, decreased 2.2 percent after decreasing 1.8 percent. Import prices, which are included in the price index for gross domestic purchases but not in the GDP price index, decreased 3.9 percent after decreasing 2.2 percent, as the price of imported petroleum turned down.

BUSINESS SITUATION

This article was prepared by Daniel Larkins, Larry R. Moran, Ralph W. Morris, and Deborah Y. Sieff.

ECONOMIC GROWTH accelerated in the fourth quarter of 1997, according to the "advance" estimates of the national income and product accounts (NIPA's), as real gross domestic product (GDP) increased 4.3 percent after increasing 3.1 percent in the third quarter (chart 1 and table 1).[1] The step-up reflected an upturn in inventory investment that more than offset a slowdown in final sales of domestic product. The price index for gross domestic purchases increased 1.5 percent after increasing 1.3 percent.

The upturn in inventory investment reflected a step-up in accumulation of inventories after a slowdown in the third quarter; the upturn was most pronounced in manufacturing. The deceleration in final sales was more than accounted for by a downturn in nonresidential fixed investment, mainly in producers' durable equipment and by a slowdown in personal consumption expenditures (PCE) for goods. In contrast, exports

1. Quarterly estimates in the NIPA's are expressed at seasonally adjusted annual rates unless otherwise specified. Quarter-to-quarter dollar changes are differences between the published estimates. Quarter-to-quarter percent changes are annualized and are calculated from unrounded data. Real estimates are expressed in chained (1992) dollars, and price indexes are chain-type indexes.

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

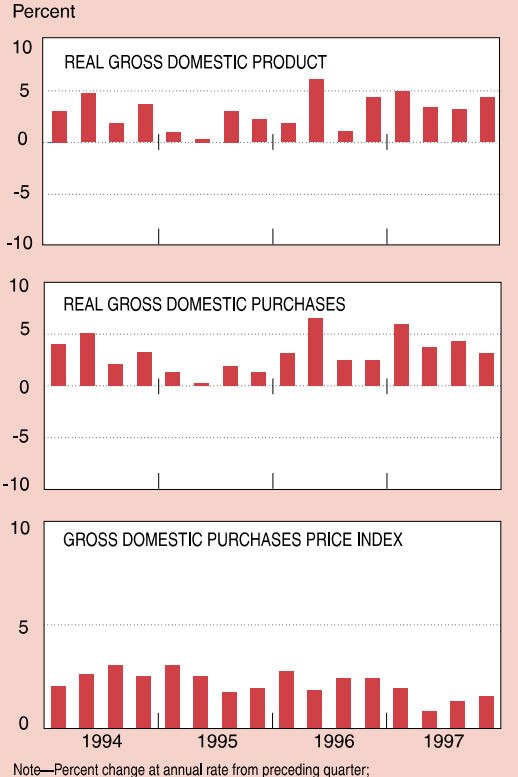
[Quarterly estimates seasonally adjusted at annual rates]

	Billions of chained (1992) dollars						Percent change from preceding quarter					
	Change from preceding quarter											
	1996	1997	1997				1996	1997	1997			
			I	II	III	IV			I	II	III	IV
Gross domestic product	**186.3**	**263.0**	**84.2**	**58.0**	**54.4**	**76.3**	**2.8**	**3.8**	**4.9**	**3.3**	**3.1**	**4.3**
Less: Exports of goods and services	65.8	107.4	21.6	39.8	10.5	26.3	8.3	12.5	9.9	18.4	4.4	11.3
Plus: Imports of goods and services	81.4	135.0	42.3	50.2	38.0	3.7	9.1	13.9	17.9	20.5	14.6	1.3
***Equals*: Gross domestic purchases**	**200.2**	**285.7**	**102.5**	**66.0**	**77.7**	**56.6**	**2.9**	**4.1**	**5.9**	**3.7**	**4.3**	**3.1**
Less: Change in business inventories	–2.3	37.2	30.8	13.9	–30.1	12.4						
***Equals*: Final sales to domestic purchasers**	**202.1**	**245.8**	**70.4**	**51.6**	**106.2**	**44.5**	**3.0**	**3.5**	**4.0**	**2.9**	**6.0**	**2.5**
Personal consumption expenditures	118.8	155.6	61.7	11.3	66.8	38.8	2.6	3.3	5.3	.9	5.6	3.2
Durable goods	27.5	34.7	20.7	–8.8	27.1	4.2	4.7	5.7	14.1	–5.4	18.4	2.6
Nondurable goods	19.7	27.0	16.6	–7.8	15.5	–1.4	1.4	1.9	4.7	–2.1	4.3	–.4
Services	71.4	94.2	25.7	25.9	26.3	34.9	2.7	3.5	3.9	3.9	3.9	5.1
Private nonresidential fixed investment	65.2	75.0	8.1	28.1	37.5	–8.0	9.2	9.7	4.1	14.6	19.2	–3.6
Structures	8.8	6.7	–1.0	–2.4	3.2	–1.4	4.8	3.6	–2.1	–4.8	6.7	–2.7
Producers' durable equipment	57.7	71.4	9.9	32.7	36.0	–6.8	10.9	12.2	6.7	23.0	24.1	–3.9
Private residential investment	15.1	7.6	2.2	4.9	1.9	7.0	5.9	2.8	3.3	7.4	2.7	10.4
Government consumption expenditures and gross investment	6.0	12.7	–1.3	9.6	3.3	5.1	.5	1.0	–.4	3.1	1.1	1.6
Federal	–6.1	–6.4	–6.8	7.3	–1.3	.7	–1.3	–1.4	–5.8	6.6	–1.1	.7
State and local	12.1	19.2	5.4	2.4	4.6	4.3	1.6	2.4	2.7	1.2	2.3	2.1
Addendum: Final sales of domestic product	**188.3**	**223.2**	**52.4**	**43.6**	**82.6**	**64.3**	**2.8**	**3.2**	**3.0**	**2.5**	**4.7**	**3.6**

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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 (1992) dollar levels and residuals, which measure the extent of nonadditivity in each table, are found in NIPA tables 1.2, 1.4, and 1.6. Percent changes are found in table 8.1. Contributions of the major components to the quarter-to-quarter percent change in real GDP are found in table 8.2.

CHART 1

Selected Measures: Change From Preceding Quarter



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

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

stepped up, and imports (which are subtracted in deriving final sales) slowed.

The largest contribution to the fourth-quarter increase in real GDP was made by PCE, which increased 3.2 percent; most of the increase in PCE was in services.[2] Exports of goods and services, which increased 11.3 percent, also contributed substantially to the increase in GDP; exports of nonautomotive capital goods, of autos, and of agricultural products all rose markedly.[3] Inventory investment also contributed to the increase

2. NIPA table 8.2 shows the contributions of the major components of GDP to the quarter-to-quarter percent change in real GDP.

3. Exports (and imports) of nonautomotive capital goods include both parts and equipment. In contrast, parts are not included in producers' durable equipment in business fixed investment or in the equipment component of government investment. The difference arises because the end-use classification system used for exports and imports does not distinguish between equipment and machinery, which are treated as investment in the NIPA's, and parts, which are treated as intermediate purchases in the NIPA's.

Fourth-Quarter 1997 Advance GDP Estimate: Source Data and Assumptions

The "advance" GDP estimate for the fourth quarter is based on preliminary and incomplete source data; as more and better data become available, the estimate will be revised. The advance estimate is based on the following major source data. (The number of months for which data were available is shown in parentheses.)

Personal consumption expenditures: Sales of retail stores (3) and unit auto and truck sales (3);

Nonresidential fixed investment: Unit auto and truck sales (3), construction put in place (2), manufacturers' shipments of machinery and equipment other than aircraft (3), aircraft shipments (2), and exports and imports of machinery and equipment (2);

Residential investment: Construction put in place (2) and single-family housing starts (3);

Change in business inventories: Manufacturing and trade inventories (2) and unit auto and truck inventories (3);

Net exports of goods and services: Exports and imports of goods and services (2);

Government consumption expenditures and gross investment: Department of Defense outlays (3), other Federal outlays (3), State and local construction put in place (2), and State and local employment (3);

GDP prices: Consumer Price Index (3), Producer Price Index (3), U.S. Import and Export Price Indexes (3), and values and quantities of petroleum imports (2).

BEA made assumptions for source data that were not available. Table A shows the assumptions for key series; a more comprehensive listing of assumptions is available on the Department of Commerce's Economic Bulletin Board or from BEA.

Table A.—Summary of Major Data Assumptions for Advance Estimates, 1997:IV

[Billions of dollars, seasonally adjusted at annual rates]

	1997					
	July	August	September	October	November	December [1]
Fixed investment:						
Nonresidential structures:						
Buildings, utilities, and farm:						
Value of new nonresidential construction put in place	164.5	163.4	163.3	165.0	158.7	163.4
Producers' durable equipment:						
Manufacturers' shipments of complete civilian aircraft	42.6	31.2	30.0	28.3	29.3	39.3
Residential structures:						
Value of new residential construction put in place:						
1-unit structures	161.5	161.7	163.7	165.7	167.7	170.8
2-or-more-unit structures	21.4	22.1	22.9	24.7	23.1	23.9
Change in business inventories nonfarm:						
Change in inventories for manufacturing and trade (except nonmerchant wholesalers) for industries other than motor vehicles and equipment in trade	17.6	21.1	71.4	37.7	51.4	23.0
Net exports: [2]						
Exports of goods:						
U.S. exports of goods, balance-of-payments basis	680.9	687.9	676.4	701.4	693.4	708.2
Excluding nonmonetary gold	677.6	684.6	672.8	698.0	690.5	702.6
Imports of goods:						
U.S. imports of goods, balance-of-payments basis	883.1	886.6	898.9	899.1	874.6	882.0
Excluding nonmonetary gold	880.1	884.0	895.6	896.5	871.2	876.5
Net exports of goods (exports less imports)	–202.2	–198.7	–222.5	–197.7	–181.2	–173.8
Excluding nonmonetary gold	–202.5	–199.4	–222.8	–198.5	–180.7	–173.9
Government consumption expenditures and gross investment:						
State and local:						
Structures:						
Value of new construction put in place	123.8	123.9	121.4	125.4	124.4	124.4

1. Assumed.
2. Nonmonetary gold is included in balance-of-payments-basis exports and imports but is not used directly in the estimation of NIPA exports and imports.

in GDP, mainly reflecting higher rates of accumulation in manufacturing and in retail trade. These positive contributions to GDP growth were partly offset by a negative contribution from nonresidential fixed investment; structures and producers' durable equipment both decreased.

Motor vehicles.—Real motor vehicle output increased 21.7 percent in the fourth quarter after increasing 24.1 percent in the third, as a downturn in auto output more than offset a step-up in truck output (table 2). Gross domestic purchases of motor vehicles slowed sharply—to a 1.1-percent increase after a 26.9-percent increase—as exports turned up and imports turned down. The small fourth-quarter increase in purchases reflected almost offsetting changes in final sales to domestic purchasers and in inventory investment. A decrease in sales was more than accounted for by autos, and an increase in inventory investment was more than accounted for by trucks.

Much of the downturn in final sales was accounted for by consumer purchases. The weakness in consumer purchases occurred despite favorable developments in several factors frequently considered in analyses of consumer spending. Growth of real disposable personal income picked up, to 4.7 percent from 2.6 percent, and the unemployment rate decreased, to 4.7 percent from 4.9 percent. The Index of Consumer Sentiment (prepared by the University of Michigan's Survey Research Center) slipped only slightly from its highest level in 45 years. Factors specific to motor vehicle purchases were also favorable in the fourth quarter. Interest rates on new-car loans made by commercial banks were unchanged at 9.0 percent, and manufacturers continued to offer sales-incentive programs that included rebates and below-market interest rates for new-vehicle loans.

Business purchases increased much less than in the third quarter. Government purchases turned down. Imports decreased after increasing. Exports increased sharply after decreasing; the increase reflected substantially higher truck exports to Canada and Mexico.

Motor vehicle inventory investment increased after decreasing. The inventory-sales ratio for new domestic autos, which is calculated from units data, edged up from 2.3 at the end of the third quarter to 2.4 (the traditional industry target) at the end of the fourth.

Prices

The price index for gross domestic purchases, which measures the prices paid for goods and services purchased by U.S. residents, increased

Table 2.—Motor Vehicle Output, Sales, and Inventories

[Seasonally adjusted at annual rates]

	Billions of chained (1992) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter				1997			
	1997	1997							
	IV	I	II	III	IV	I	II	III	IV
Output	**266.8**	**11.0**	**–6.9**	**13.4**	**12.8**	**19.9**	**–10.7**	**24.1**	**21.7**
Autos	120.4	6.0	–2.9	5.3	–1.7	22.5	–9.3	19.6	–5.6
Trucks	146.0	5.0	–4.0	8.0	14.4	17.6	–12.0	28.4	51.5
Less: Exports	30.2	–.3	1.1	–1.5	5.3	–4.5	17.8	–20.8	116.3
Autos	17.0	–.2	1.4	–1.9	1.9	–5.0	39.8	–36.9	59.5
Trucks	13.2	0	–.4	.4	3.4	–3.6	–12.3	16.1	232.6
Plus: Imports	76.0	10.4	–2.2	3.3	–6.9	72.6	–10.5	17.8	–29.4
Autos	62.4	8.4	–1.9	1.7	–5.0	69.9	–11.2	11.2	–26.8
Trucks	13.6	2.1	–.3	1.6	–1.9	86.5	–7.0	53.9	–40.3
***Equals*: Gross domestic purchases**	**312.7**	**21.4**	**–10.0**	**18.0**	**.8**	**34.1**	**–12.6**	**26.9**	**1.1**
Autos	165.7	14.3	–6.1	8.8	–8.5	41.8	–13.5	23.1	–18.3
Trucks	146.8	7.1	–3.9	9.1	9.4	24.8	–11.5	31.8	30.0
Less: Change in business inventories	4.8	12.5	.9	–2.4	4.6	.....	.....	.....	.....
Autos	–.7	6.1	2.7	–1.5	–.1	.....	.....	.....	.....
Trucks	5.7	6.5	–1.9	–.8	4.8	.....	.....	.....	.....
***Equals*: Final sales to domestic purchasers**	**307.6**	**9.4**	**–10.9**	**20.2**	**–3.8**	**13.4**	**–13.7**	**30.9**	**–4.9**
Autos	166.2	8.4	–8.7	10.2	–8.4	21.8	–18.6	27.4	–18.0
Trucks	141.1	1.0	–2.2	10.0	4.5	3.2	–6.7	35.6	13.9
Addenda:									
Personal consumption expenditures	179.8	4.8	–9.0	13.7	–3.0	11.5	–18.8	36.4	–6.2
Producers' durable equipment	120.7	3.9	–2.1	5.4	.7	14.5	–7.0	20.5	2.1
Gross government investment	8.5	.7	.4	1.1	–1.5	43.3	18.5	60.0	–47.6

NOTE.—See note to table 1 for an explanation of chained (1992) dollars. Truck output includes new trucks only; auto output includes new cars and used cars. Chained (1992) dollar levels for motor vehicle output, auto and truck output, and residuals, which measure the extent of nonadditivity in each table, are found in NIPA tables 1.4, 8.5, and 8.7.

1.5 percent in the fourth quarter after increasing 1.3 percent in the third (chart 2 and table 3).

Prices of PCE increased 1.3 percent after increasing 1.5 percent. A slowdown in food prices was largely offset by a step-up in energy prices. Food prices increased 1.4 percent after increasing 3.4 percent; the slowdown was more than accounted for by downturns in the prices of beef and nonalcoholic beverages and by a slowdown in the price of fresh vegetables. Energy prices increased 3.0 percent after increasing 2.4 percent; the price of natural gas increased more than in the third quarter, the price of electricity decreased less, and prices of fuel oil and coal turned up. "Other" PCE prices increased 1.2 percent, about the same as in the third quarter.

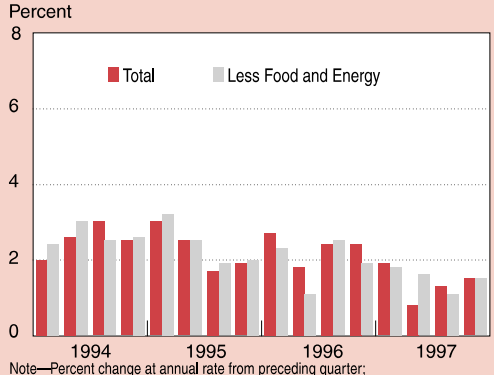
Prices of nonresidential fixed investment decreased 0.8 percent, the same as in the third quarter. Prices of structures increased 4.4 percent after increasing 4.2 percent. Prices of producers' durable equipment decreased 2.7 percent after decreasing 2.6 percent; prices of transportation equipment turned down, but prices of information processing equipment (particularly computers and peripheral equipment) decreased less than in the third quarter, and prices of "other" equipment increased after decreasing.

Prices of government consumption expenditures and gross investment increased 3.3 percent after increasing 1.4 percent. Prices for all levels of government contributed to the step-up. Prices paid by the Federal Government increased 3.5 percent after increasing 0.9 percent; both nondefense and national defense prices accelerated. Prices paid by State and local governments increased 3.1 percent after increasing 1.7 percent, partly reflecting a step-up in the price of structures.

The price index for GDP increased 1.5 percent after increasing 1.4 percent; the fourth-quarter increase was the same as that in the price index for gross domestic purchases, reflecting virtually identical changes in the prices of exports and of imports. Export prices, which are included in the GDP price index but not in the price index for gross domestic purchases, decreased 2.0 percent, the same as in the third quarter; most major categories of goods posted changes similar to those in the third quarter, except that prices of industrial supplies and materials turned down, and prices of "other" goods turned up. Import prices, which are included in the price index for gross domestic purchases but not in the price index for GDP, decreased 2.1 percent after decreasing 3.0 percent; an upturn in services prices constrained the fourth-quarter decrease.

CHART 2

Gross Domestic Purchases Prices: Change From Preceding Quarter



Note—Percent change at annual rate from preceding quarter; based on seasonally adjusted index numbers (1992=100).

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Table 3.—Price Indexes

[Percent change at annual rates; quarterly estimates based on seasonally adjusted index numbers (1992=100)]

	1996	1997	1997			
			I	II	III	IV
Gross domestic product	**2.3**	**2.0**	**2.4**	**1.8**	**1.4**	**1.5**
Less: Exports of goods and services	–1.8	–2.2	–1.8	–.7	–2.0	–2.0
Plus: Imports of goods and services	–2.2	–3.9	–5.3	–7.6	–3.0	–2.1
***Equals*: Gross domestic purchases**	**2.2**	**1.7**	**1.9**	**.8**	**1.3**	**1.5**
Less: Change in business inventories	.....	.....	.....	.....	.....	.....
***Equals*: Final sales to domestic purchasers**	**2.2**	**1.8**	**2.0**	**.9**	**1.3**	**1.5**
Personal consumption expenditures	2.4	2.0	2.2	1.0	1.5	1.3
Food	3.0	2.7	1.4	1.6	3.4	1.4
Energy	4.6	1.1	7.7	–15.7	2.4	3.0
Other	2.2	2.0	2.0	2.0	1.1	1.2
Private nonresidential fixed investment	–1.0	–1.4	–2.0	–1.5	–.8	–.8
Structures	2.3	3.3	2.8	3.9	4.2	4.4
Producers' durable equipment	–2.3	–3.1	–3.8	–3.5	–2.6	–2.7
Private residential investment	2.4	3.0	2.0	3.4	3.2	3.1
Government consumption expenditures and gross investment	3.3	2.4	3.5	1.4	1.4	3.3
Federal	3.4	2.4	4.9	1.3	.9	3.5
National defense	3.9	2.4	4.3	1.1	.6	2.8
Nondefense	2.3	2.5	6.1	1.5	1.5	5.1
State and local	3.2	2.3	2.7	1.5	1.7	3.1
Addendum: Gross domestic purchases less food and energy	2.0	1.7	1.8	1.6	1.1	1.5

NOTE.—Percent changes in major aggregates are found in NIPA table 8.1. Most index number levels are found in tables 7.1 and 7.2.

Personal income

Real disposable personal income (DPI) increased 4.7 percent in the fourth quarter after increasing 2.6 percent in the third (chart 3). Current-dollar DPI increased 6.1 percent after increasing 4.1 percent. The personal saving rate (saving as a percentage of current-dollar DPI) increased to

3.9 percent from 3.5 percent, reflecting a larger increase in DPI than in outlays.

Personal income increased $108.5 billion in the fourth quarter after increasing $77.8 billion in the third (table 4). The acceleration was almost entirely accounted for by wage and salary disbursements. Proprietors' income increased more than in third quarter, and all the other components changed about as much as in the third quarter.

Wage and salary disbursements increased $83.6 billion after increasing $54.5 billion. Almost all of the acceleration was in the private sector, particularly goods-producing industries and service industries. The step-up in private industry wages and salaries reflected step-ups in employment and in average hourly earnings and an upturn in average weekly hours.

Proprietors' income increased $6.1 billion after increasing $3.6 billion. Nonfarm proprietors' income increased more than in the third quarter, and farm proprietors' income decreased less.

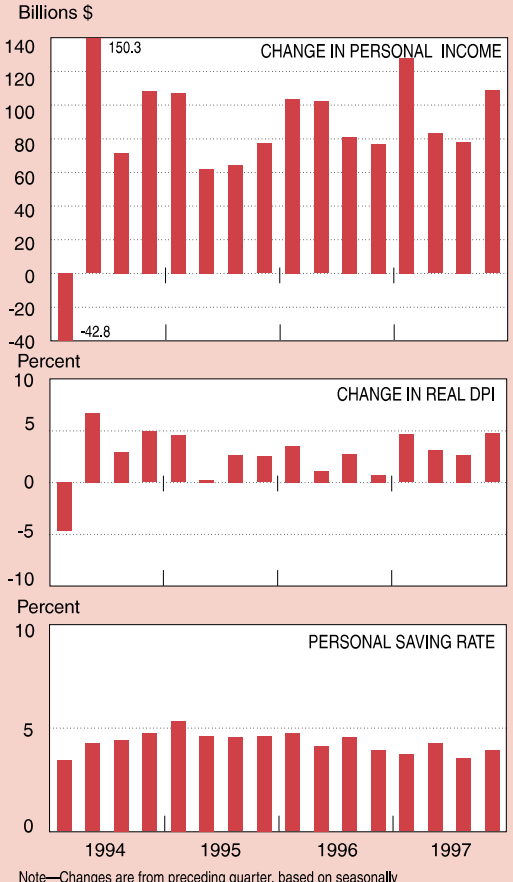
Transfer payments increased $9.1 billion after increasing $8.7 billion. The fourth-quarter increase included $1.1 billion in retroactive social security payments; these payments result when the Social Security Administration recalculates benefits on the basis of updated information on the earnings base of recent retirees.

The Year 1997

The rate of growth of output and income stepped up in 1997, and inflation slowed. Real GDP increased 3.8 percent, up from a 2.8-percent increase in 1996 and the highest growth rate since 1988. Real DPI increased 2.9 percent, up from a 2.3-percent increase. The price index for gross

CHART 3

Selected Personal Income and Saving Measures



Note—Changes are from preceding quarter, based on seasonally adjusted annual rates.

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

Table 4.—Personal Income and Its Disposition

[Billions of dollars; quarterly estimates seasonally adjusted at annual rates]

	Level		Change from preceding quarter					
	1997	1997 IV	1996	1997	1997 I	1997 II	1997 III	1997 IV
Wage and salary disbursements	3,877.2	3,979.7	203.0	244.7	74.6	50.1	54.5	83.6
Private industries	3,211.8	3,305.5	183.4	221.9	65.8	45.9	48.8	77.1
Goods-producing industries	960.1	983.5	44.7	51.0	15.1	9.9	8.6	22.1
Manufacturing	705.9	723.1	26.3	31.2	8.5	6.2	5.7	17.1
Distributive industries	876.0	899.6	40.2	52.7	16.2	10.2	13.8	18.8
Service industries	1,375.6	1,422.4	98.5	118.1	34.6	25.7	26.5	36.1
Government	665.4	674.2	19.6	22.8	8.9	4.2	5.7	6.5
Other labor income	416.6	421.4	.8	9.0	3.2	2.8	2.6	3.7
Proprietors' income with IVA and CCAdj	544.7	553.3	31.3	24.4	6.3	9.0	3.6	6.1
Farm	40.9	39.0	13.8	3.7	–.2	3.4	–2.7	–1.9
Nonfarm	503.8	514.4	17.6	20.7	6.5	5.6	6.3	8.1
Rental income of persons with CCAdj	148.1	146.6	13.5	1.8	–.2	–.3	–.7	–1.4
Personal dividend income	321.5	330.7	39.3	30.3	17.3	5.8	6.2	6.2
Personal interest income	768.8	779.1	16.8	33.1	7.4	8.9	6.5	6.5
Transfer payments to persons	1,121.1	1,134.8	53.0	53.1	25.7	9.8	8.7	9.1
Less: Personal contributions for social insurance	323.6	330.2	13.2	17.3	6.7	3.1	3.5	5.4
Personal income	**6,874.4**	**7,015.4**	**344.4**	**379.2**	**127.8**	**82.9**	**77.8**	**108.5**
Less: Personal tax and nontax payments	987.9	1,018.5	91.8	101.0	33.1	23.5	18.8	20.5
***Equals:* Disposable personal income**	**5,886.6**	**5,996.9**	**252.6**	**278.3**	**94.7**	**59.4**	**59.0**	**88.0**
Less: Personal outlays	5,661.0	5,765.8	267.7	292.2	99.2	28.2	98.0	65.0
***Equals:* Personal saving**	**225.6**	**231.1**	**–15.0**	**–14.0**	**–4.5**	**31.1**	**–38.8**	**22.9**
Addendum: Special factors in personal income:								
In wages and salaries:								
Federal Government and Postal Service pay adjustments, including "buyouts"	.....	0	.....	.....	4.4	–.2	–.1	0
In transfer payments to persons:								
Social security retroactive payments	.....	1.1	.....	.....	–1.1	0	0	1.1
Cost-of-living adjustments in Federal transfer programs	.....	0	.....	.....	13.5	0	0	0
Earned Income Tax Credit payments	.....	0	.....	.....	4.3	0	0	0
In personal contributions for social insurance:								
Social security base changes and increase in premium for supplementary medical insurance	.....	0	.....	.....	2.1	0	0	0
In personal tax and nontax payments:								
Recent tax law changes	.....	0	.....	.....	–4.1	0	0	0

NOTE.—Most dollar levels are found in NIPA table 2.1.
IVA Inventory valuation adjustment
CCAdj Capital consumption adjustment

domestic purchases increased 1.7 percent—its lowest rate since 1964.

The biggest contributions to the growth in real GDP were made by PCE, by exports, and by nonresidential fixed investment. In PCE, almost two-thirds of the increase was in services, mainly in medical care, housing, recreation, and brokerage fees. In exports, most categories contributed to the rise; nonautomotive capital goods (the largest category) contributed the most. In nonresidential fixed investment, the increase was mostly accounted for by information processing and related equipment, especially computers and peripheral equipment. Inventory investment also contributed to the increase in GDP, as the pace of inventory accumulation in wholesale trade and in manufacturing increased. In contrast to these positive contributions, a sizable increase in imports (which are subtracted in deriving GDP) made a large negative contribution.

The step-up in real DPI reflected both a step-up in current-dollar DPI and a slowdown in the rate of increase of consumer prices. The step-up in current-dollar DPI was more than accounted for by wage and salary disbursements, which increased $244.7 billion in 1997 after increasing $203.0 billion in 1996, and by personal interest income, which increased $33.1 billion after increasing $16.8 billion.

The personal saving rate declined to 3.8 percent, the lowest rate since 1939. This low rate of saving out of current income may partly reflect the large capital gains that households accumulated as a result of increases in stock prices. Such capital gains, which are not included in the NIPA measure of personal saving, may reduce the need to save out of current incomes.

The price index for gross domestic purchases increased 1.7 percent after increasing 2.2 percent in 1996. The slowdown was evident in all major components except residential investment and nonresidential structures. PCE prices increased 2.0 percent after increasing 2.4 percent; prices of food, energy, and "other" PCE all contributed to the slowdown. Prices of producers' durable equipment decreased 3.1 percent after decreasing 2.3 percent. Prices paid by the Federal Government increased 2.4 percent after increasing 3.4 percent, and prices paid by State and local governments increased 2.3 percent after increasing 3.2 percent.

The price index for GDP increased 2.0 percent after increasing 2.3 percent. Export prices, which are included in the GDP price index but not in the price index for gross domestic purchases, decreased 2.2 percent after decreasing 1.8 percent. Import prices, which are included in the price index for gross domestic purchases but not in the GDP price index, decreased 3.9 percent after decreasing 2.2 percent, as the price of imported petroleum turned down.

Price Indexes for Selected Semiconductors, 1974–96

By Bruce T. Grimm

In the comprehensive revision of the national income and product accounts (NIPA's) that was released in January 1996, BEA introduced the use of quality-adjusted price indexes for the calculation of real exports and imports of semiconductors. The improved measurement of real output and prices of high-tech goods through expanded use of quality-adjusted price indexes is part of BEA's strategic plan to improve the quality of its economic accounts (see the box "Measurement of Real Output and Prices for High-Tech Goods"). The quality-adjusted price indexes for semiconductors, which are based on indexes for several types of memory chips and of microprocessors, were incorporated into the estimates of exports and imports beginning with 1981.[1]

This article describes the development of quality-adjusted price indexes for seven types of metal oxide semiconductor (MOS) digital memory integrated circuits ("memory chips") and for two different lines of MOS digital microprocessor integrated circuits ("microprocessors"). It also describes the aggregation of the seven memory chip indexes into one summary index and the aggregation of the two microprocessor indexes into one summary index.

Memory chips, microprocessors, and other related integrated circuits are probably best known for their use in personal computers, but they can be found in a vast array of products, such as digital cable TV boxes, automobiles, and microwave ovens. In 1995, domestic shipments of memory chips were $11.1 billion, and domestic shipments of microprocessors were $11.4 billion. Most domestically produced memory chips and microprocessors are counted as intermediate consumption that is incorporated in the production of other goods. However, imports and exports of memory chips and microprocessors appear directly in estimates of GDP; in 1995, imports were $19.9 billion. and exports were $4.0 billion.

The new indexes described in this article use quality-adjusted prices in combination with Fisher chain-type indexes to produce price indexes for the 1974–96 period. These new indexes attempt to address biases associated with conventional measures of real output for high-tech products. As was noted in the most recent comprehensive NIPA revision, the introduction of these indexes resulted in a significantly faster rate of real growth of exports and imports. Among the more important results are the following:

- The price index for memory chips declined at a 37-percent average annual rate from 1975 to 1985 and at a 20-percent average annual rate from 1985 to 1996.
- The price index for microprocessors declined at a 35-percent average annual rate from 1985 to 1996.
- The price index for imports of semiconductors declined at a 19-percent average annual rate from 1985 to 1994; the previously used price index had increased at a 2-percent average annual rate. Reflecting this revision, real imports of semiconductors increased at a 47-percent average annual rate from 1985 to 1994; they had previously increased at a 17-percent average annual rate.
- The price index for exports of semiconductors declined at a 21-percent average annual rate from 1985 to 1994. The previously used price index had declined at a 2-percent average annual rate. Reflecting this revision, real exports of semiconductors increased at a 55-percent average annual rate from 1985 to 1994; they had previously increased at a 24-percent average annual rate.

The first section of this article examines the patterns of prices for memory chips and discusses the construction of price indexes for memory

1. See "Improved Estimates of The National Income and Product Accounts for 1959–95: Results of the Comprehensive Revision," SURVEY OF CURRENT BUSINESS 76 (January/February 1996): 27. The indexes also were incorporated into the improved estimates of gross domestic product by industry; see "Improved Estimates of Gross Domestic Product by Industry, 1959–94," SURVEY 76 (August 1996): 140–41. The indexes used in both of these sets of estimates were improved in the annual revision of the NIPA's that were released in July 1997; see "Annual Revision of the National Income and Product Accounts: Annual Estimates, 1993–96, and Quarterly Estimates, 1993:1-1997:1," SURVEY 77 (August 1997): 30.

chips based on prices per bit of memory. It also describes the results of hedonic regression experiments on two types of memory chips that examined how their performance characteristics determine their prices. The second section describes the characteristics of microprocessors and the results of hedonic regression experiments that examined how microprocessor prices are determined. It also describes how price indexes were constructed using both conventional methodologies and the hedonic regression results to support matched-model estimates. The third section describes how the summary price indexes for memory chips and microprocessors were used to construct price indexes that are used to deflate exports and imports of semiconductors and in the calculation of real gross product originating in the electronic and electronic equipment industry and in other industries.

The quality-adjusted price indexes for semiconductors cover 1974–96. BEA does not plan to extend its price estimates beyond 1996, because recent improvements by the Bureau of Labor Statistics in the methodologies used for estimating the producer price indexes for semiconductors make those indexes superior to those that can be generated using BEA's methodologies.

Data sources

Most of the price and quantity data that are used in this study were purchased from a commercial source.[2] In addition, some early-year price and quantity data for some types of memory chips were provided by Ellen Dulberger of the IBM Corporation. The data on the price-determining characteristics of both memory chips and mi-

2. The source was Dataquest, a subsidiary of the Gartner Group, Inc.

Measurement of Real Output and Prices for High-Tech Goods

The preparation of a new price index for semiconductors is part of a broader program that BEA has undertaken to improve its measures of the output and prices of high-tech goods in the national income and product accounts (NIPA's). These goods present problems for measurement because their quality and performance change rapidly and because their production costs and prices often fall relative to those of other goods. In particular, they pose problems for conventional fixed-weighted price indexes, for which the products in the sample and the relative weights are updated infrequently. Such indexes tend to miss the early part of a high-tech product's life cycle, when prices tend to decline rapidly, and to place too heavy a weight on the later part of the life cycle, when the prices of the older vintage technologies tend to decline less or even to rise.

Another measurement problem is the adjustment of prices for improvements in product quality. The conventional methodology assumes that an improvement in the quality of a product will be associated with an increase in the cost of producing it; the increase in cost is then used to determine how much of the product's price increase is attributable to quality difference and how much to pure price change. For high-tech goods, however, the cost and price of a new product—especially by the time it is beginning to replace an old product—are often lower than the old product.

BEA has attempted to improve its measures of output and prices through a combination of new weighting schemes and of new methods for assessing the impact of quality change. In 1995, BEA introduced chain-weighted price and quantity indexes that use a type of "superlative" index to address the bias associated with the use of fixed weights. These indexes use annual weights that reflect the adjustments that buyers make in purchasing patterns as relative prices change; thus, they more accurately measure overall changes in prices and in the pattern of production over time. However, these weights do not adjust for biases that arise from the use of fixed-weighted price indexes in the deflation of the detailed components of gross domestic product (GDP).[1]

BEA has attempted to address the problem of measuring quality change through the use of hedonic indexes and other quality adjustments. The hedonic indexes attempt to look explicitly at the differences in the prices and characteristics of high-tech and other products and to observe what consumers pay for various characteristics. Hedonic indexes were first used by BEA and IBM Corporation on a joint project to develop an improved price index for computers; this index was introduced into the NIPA's in 1986. This work has been largely taken over by the Bureau of Labor Statistics, which introduced hedonic price indexes for personal computers in 1990 and large-scale computers in 1997.

When BEA first introduced the computer price index, it was believed that the rapid decline in computer prices was partly due to declines in the prices of inputs, particularly of some types of semiconductors, to the computer manufacturing industry. However, the price indexes for semiconductors that were available showed only modest declines. If the prices of semiconductors were declining more rapidly than the price indexes indicated, the NIPA's were understating the increases in real imports and exports of semiconductors; in addition, real gross product would be overstated for the computer industry (in industrial machinery) and understated for the semiconductor industry (in electrical equipment). In researching this question, BEA, working with the Bureau of Labor Statistics, has developed several extensions of the earlier work on computer prices, including the quality-adjusted, reweighted price indexes for semiconductors that were introduced in the most recent comprehensive revision of the NIPA's and that are discussed in this article.

1. The Bureau of Labor Statistics (BLS) is examining the use of geometric means to address such lower level aggregation bias in the Consumer Price Index (CPI), components of which are used in deflating detailed components of consumer spending in GDP. BLS is not presently examining the use of geometric means in the Producer Price Index (PPI), components of which are used in deflating detailed components of investment and consumer spending in GDP. BLS believes that the PPI has a different conceptual basis than the CPI, and the use of geometric means is not "readily justifiable" within that conceptual framework. (See Bureau of Labor Statistics, "The Experimental CPI Using Geometric Means (CPI-U-XG)," April 10, 1997 at <http://www.bls.gov/cpigmrp.htm>.)

croprocessors came from both the commercial source and from published sources.

For memory chips, data on worldwide billing prices per unit and quantities of units shipped worldwide were used. These data cover a number of subtypes of memory chips, classified by chip "density," or the number of bits of data that can be stored on one chip. In addition, some types of memory chips have different capabilities: For example, DRAM chips are available in standard and video (VRAM) subtypes.

For microprocessors, the commercial-source data on North American booking prices—the prices at which orders are placed—and quantities of units shipped worldwide were used. These data cover a number of subtypes of microprocessors. For example, the price data on 80486 microprocessors includes six different subtypes that feature four different speeds of operation and three different configurations. Information from other published sources was used to identify the price-determining characteristics for each subtype of microprocessor. These characteristics are valued by the market, and differences in characteristics are reflected in the relative prices paid for the different types of microprocessors.

Beginning with 1974 for memory chips and 1985 for microprocessors, the data include prices and quantities only if there were significant numbers of shipments. Thus, the data set does not include early, limited shipments nor some late, limited shipments. In addition, only prices for the most prominent types of microprocessors are in the data set, and these are almost entirely from two manufacturers; microprocessors from "clone" suppliers are underrepresented in the data set. Nevertheless, the data set appears to cover most of the memory chips and microprocessors.

MOS Digital Memory Chips

Different types of memory chips have different performance characteristics and are typically used in different ways or in different types of products. As a result, the patterns of prices over time for the various types of chip are quite distinct. Due to the differing patterns, it was necessary to estimate separate price indexes for each type of chip.

Types of memory chips.—Quality-adjusted price indexes were estimated for seven types of memory chips:

DRAM Dynamic random access memory

EEPROM Erasable electronically programmable read-only memory

EPROM Electronically programmable read-only memory

Flash Flash memory; derived from EEPROM's

ROM Read-only memory

Fast SRAM Static random access memory, with access time of less than 70 nanoseconds

Slow SRAM SRAM with access time of more than 70 nanoseconds

Each type of memory chip is distinguished by its specific characteristics and uses.[3] For example, DRAM's are used for the main memories of personal computers, while SRAM's are generally used for their "cache" memories. Fast SRAM's command a higher price than slow SRAM's. Some additional data on price-determining technical characteristics are available for specific chip densities within chip types, and these chips are treated as separate subtypes. For example, DRAM chips that are specialized to speed computer video displays (VRAM technology) have been produced since the late 1980's, and these chips command a higher price than conventional DRAM's. The price indexes do not distinguish all the price-determining characteristics: According to Kenneth Flamm, chips with the same densities but with different configurations and packaging have different unit prices; however, the data do not contain enough information to make these distinctions.[4] Similarly, the data on DRAM's do not distinguish between parity and non-parity subtypes.

Life-cycle patterns.—Each chip density and subtype has a typical life-cycle pattern for prices and quantities. Quantities of shipments of chips of a specific density begin with small numbers, grow to a peak, and then decline to insignificant numbers. Unit prices start at typically high amounts, decline to a low, and then increase as the chip nears the end of its lifespan. The lows for unit prices may coincide with peak shipment rates, or they may lag several years. Table 1 illustrates this pattern for 16-kilobit DRAM's.

3. For more details about the various types of chips and their uses, see Winn L. Rosch, *The Winn L. Rosch Hardware Bible* (Indianapolis, IN: Sams Publishing, 1994):156–208.

4. See Kenneth Flamm, "Measurement of DRAM Prices: Technology and Market Structure," *Price Measurements and Their Uses*, ed. Murray Foss, Marilyn Manser, and Allan Young, (Chicago, IL: The University of Chicago Press, 1993): 157–197.

Prices per bit

For the selected chip types, the life-cycle price patterns for different chip densities result, over time, in chips with increasingly higher densities offering the lowest price per bit of storage capacity (table 2). This pattern starts with 4-kilobit DRAM chips in 1975 and ends with 16-megabit chips in 1995. In 1995, the cheapest price is less than 0.2 percent of the cheapest price in 1975.

Price indexes for the selected chip types.—The principal methodology used to estimate price indexes for the various chip types is an extension of Ellen Dulberger's work. It is a matched-model approach that is based on the unit prices and the density for each subtype of memory chip.[5] Separate indexes were estimated for each of the seven types of memory chips and were constructed using value weights derived from the price and quantity data.

Four annual price indexes were constructed for each type of memory chip. Three of the four are chain-type indexes that have weights that change each year: Price relatives for each density of each type of chip are weighted together, using the values of shipments, to obtain price indexes. The first index is a Laspeyres index that uses prior-year weights, the second is a Paasche index that uses current-year weights, and the third is a Fisher index, which is a superlative index that is constructed using the geometric average of the changes in the Laspeyres and Paasche indexes for each year.

The fourth index is calculated using the cheapest price per bit for any chip density in each year. This index provides a rough proxy for changes in the cost of the cheapest available technology for products that are designed to minimize cost and that require the amount of memory provided by the cheapest price-per-bit chip. This index is used only to provide a rough check on the price changes found using the other three indexes. In order for this index to be the useful in estimating quality-adjusted price indexes, the other characteristics of chip subtypes—which are not accounted for in this price index—would have to be unimportant, contrary to the price differentials reported by Flamm.

Table 3 shows the average rates of change for the four indexes for 1977–96. It was possible to construct all four indexes for five of the memory chip types: The declines in the indexes based on the "cheapest" price per bit are generally of the same order of magnitude as those in other indexes, but they are the largest for four of the five chip types. The declines in the Fisher indexes vary from 18 percent for EEPROM's to 31 percent for DRAM's. The Fisher index for Flash memory chips declines at a 37-percent rate for the shorter period for which that index is available.[6]

The pattern of memory chip prices.—In order to summarize the changes in quality-adjusted price indexes for memory chips over time, a Fisher chain-type index was constructed using the Fisher price indexes for the seven individual

5. See Ellen Dulberger, "Sources of Price Decline in Computer Processors: Selected Electronic Components," in *Price Measurements and Their Uses*, ed. Murray Foss, Marilyn Manser, and Allan Young (Chicago, IL: The University of Chicago Press, 1993) 103–124.

6. Some indexes for EEPROM's and ROM's are not shown because the estimates before 1988 were based on Dulberger's data. The methodology used to link the estimates based on Dulberger's data with the other estimates does not support the calculation of these indexes.

Table 1.—Prices and Quantities Shipped of 16 Kilobit DRAM's

Year	Dollars	Thousands
1976	52.50	54
1977	23.00	2,008
1978	9.25	20,785
1979	6.13	53,218
1980	4.81	184,020
1981	2.11	221,473
1982	1.24	286,290
1983	1.05	296,610
1984	1.11	161,290
1985	1.34	70,920
1986	.....	.....

DRAM Dynamic random access memory

Table 2.—DRAM Prices

[Dollars per kilobit]

Chip type	1975	1980	1985	1990	1995
4 kilobit	***1.8125***	0.4813	0.9375	.....	.....
16 kilobit	.....	***0.3008***	0.0836	.....	.....
64 kilobit	.....	0.9766	***0.0170***	0.0226	0.0188
256 kilobit	.....	.....	0.0194	0.0077	0.0078
1 megabit	.....	.....	0.1184	***0.0061***	0.0039
4 megabit	.....	.....	.....	0.0103	0.0031
16 megabit	.....	.....	.....	.....	***0.0030***

NOTE.—Bold italics indicate lowest price per bit of memory for the corresponding year.
DRAM Dynamic random access memory (standard technology)

Table 3.—Price Indexes: Average Annual Rates of Change, 1977–96

[Percent]

Chip type	Fisher chain	Laspeyres chain	Paasche chain	Cheapest
DRAM's	–31.1	–28.2	–34.0	–28.7
EEPROM's	–17.8	.....	.....	.....
EPROM's	–27.8	–27.9	–28.0	–32.3
Flash (1988–96)	–37.4	–39.3	–35.4	–40.1
ROM's	–21.7	.....	.....	.....
Fast SRAM's	–26.7	–27.3	–25.2	–28.6
Slow SRAM's	–19.9	–21.2	–18.5	–28.3

DRAM Dynamic random access memory
EEPROM Erasable electronically programmable read-only memory
EPROM Electronically programmable read-only memory
Flash Flash memory
ROM Read-only memory
SRAM Static random access memory

memory chip types as the components (table 4). This index reflects both the price indexes for the individual chip types and their changing value weights: In particular, note that the weight for DRAM's increased from about one-third of the total in the early 1980's to about two-thirds in 1995–96.

The index declines sharply in most years in 1975–92. However, the index declines more slowly in 1987 and then increases in 1988, reflecting the xffects of the U.S.-Japan Semiconductor Trade Agreement in late 1986.[7] In 1993, the decline in the index slows, and in 1994, the index increases slightly. It declines modestly in 1995 and very rapidly in 1996, as overcapacity in worldwide chip-production facilities led to sharp price cuts in DRAM's, beginning in the first quarter of 1996.

Fisher chain-type price indexes for each type of memory chip are shown in table 5. The time patterns for the indexes are roughly similar to those of the summary index. The indexes for DRAM's and fast SRAM's generally decline more rapidly than the other indexes, and the indexes for ROM's and slow SRAM's generally decline more slowly. These patterns support Dulberger's finding that the prices of the various types of MOS memory chips declined sharply from the mid-1970's through the mid-1980's.[8] They also indicate continuing sharp declines through 1992. In 1993, however, the declines generally slowed or halted, and prices of several types of memory chips increased in 1994. In 1995 and 1996, the prices of nearly all types of memory chips declined.

Table 4.—Summary Price Index for Memory Chips

[1992=1.00]

Year	Index	Percent change from previous year
1974	1,778.37	
1975	560.57	–68.5
1976	343.62	–38.7
1977	199.23	–42.0
1978	116.68	–41.4
1979	97.33	–16.6
1980	68.97	–29.1
1981	33.48	–51.4
1982	20.73	–38.1
1983	15.13	–27.0
1984	11.86	–21.6
1985	5.57	–53.0
1986	3.61	–35.2
1987	3.23	–8.0
1988	3.87	16.5
1989	3.29	–15.1
1990	1.83	–44.5
1991	1.30	–29.0
1992	1.00	–22.4
1993	0.94	–6.4
1994	0.94	0.3
1995	0.87	–7.6
1996	0.47	–46.0
Averages:		
1975–85		–36.9
1985–96		–20.1

Regression experiments

The prices of memory chips are determined by several factors, or quality characteristics. Hedonic regressions may be used to estimate the values

7. See Flamm, 163–64.
8. See Dulberger, 115–18.

Table 5.—Price Indexes for MOS Memory Chips

[1992=1.00]

Year	DRAM's		EEPROM's		EPROM's		Flash memories		ROM's		Fast SRAM's		Slow SRAM's	
	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year
1974	4,173.40													
1975	1,315.53	–68.5											129.52	
1976	805.19	–38.8			726.08								81.31	–37.2
1977	480.58	–40.3	24.42		374.35	–48.4			74.99		125.84		46.60	–42.7
1978	267.55	–44.3	18.07	–26.0	163.21	–56.4			45.62	–39.2	95.69	–24.0	36.91	–20.8
1979	215.35	–19.5	13.40	–25.9	131.49	–19.4			40.93	–10.3	85.21	–11.0	31.72	–14.1
1980	175.99	–18.3	10.97	–18.1	71.49	–45.6			31.13	–23.9	41.29	–51.5	23.49	–26.0
1981	75.32	–57.2	9.45	–13.8	24.30	–66.0			21.60	–30.6	19.79	–52.1	12.49	–46.8
1982	38.25	–49.2	8.80	–6.9	16.10	–33.7			15.82	–26.7	11.38	–42.5	7.51	–39.9
1983	27.58	–27.9	8.54	–3.0	11.47	–28.7			10.83	–31.5	10.59	–6.9	5.70	–24.1
1984	21.57	–21.8	7.41	–13.1	8.24	–28.2			8.82	–18.6	10.85	2.4	4.79	–16.0
1985	7.39	–65.7	5.08	–31.5	4.28	–48.0			5.44	–38.3	7.49	–30.9	2.83	–40.9
1986	4.34	–41.3	3.82	–24.8	2.94	–31.3			3.98	–27.0	5.00	–33.3	1.97	–30.2
1987	3.99	–8.0	3.36	–12.0	3.04	3.4			3.08	–22.7	3.95	–21.0	1.82	–8.0
1988	5.08	27.3	2.69	–19.9	3.19	5.0	10.92		2.00	–35.1	3.92	–0.8	2.62	44.2
1989	4.43	–12.8	2.30	–14.7	2.29	–28.2	5.46	–50.0	1.57	–21.6	3.43	–12.5	2.41	–7.8
1990	2.14	–51.8	1.73	–24.9	1.43	–37.8	2.08	–61.8	1.29	–17.8	2.19	–36.1	1.38	–42.8
1991	1.42	–33.5	1.23	–28.7	1.13	–21.0	1.20	–42.3	1.07	–16.6	1.42	–34.9	1.10	–20.3
1992	1.00	–29.5	1.00	–18.7	1.00	–11.2	1.00	–16.8	1.00	–6.8	1.00	–29.8	1.00	–9.1
1993	0.98	–1.5	0.92	–8.2	0.88	–12.1	0.88	–12.3	0.77	–22.5	0.66	–33.6	1.03	2.7
1994	1.01	2.2	0.74	–19.7	0.88	0.7	0.63	–28.3	0.84	7.8	0.62	–6.3	1.01	–2.0
1995	0.98	–2.6	0.62	–16.2	0.74	–16.9	0.38	–39.9	0.77	–8.2	0.40	–36.0	0.82	–19.0
1996	0.40	–59.4	0.59	–4.2	0.76	3.4	0.26	–32.0	0.71	–7.3	0.35	–13.3	0.69	–15.5

DRAM Dynamic random access memory
EEPROM Erasable electronically programable read-only memory
EPROM Electronically programmable read-only memory
Flash Flash memory
MOS Metal oxide semiconductor
ROM Read-only memory
SRAM Static random access memory

of the quality characteristics.[9] In order to evaluate the possible usefulness of hedonic regressions for supporting the estimation of quality-adjusted price indexes for memory chips, regressions were estimated for two types of chips—DRAM's and EPROM's. DRAM's were chosen because of their large share in total memory chip shipments, and EPROM's were chosen to evaluate whether the results from the regressions for DRAM's tended to hold for other types of memory chips. In addition, both types of memory chips were chosen because they have been produced for a relatively long time. Together, DRAM's and EPROM's accounted for two-thirds of the commercial-source data's estimates of the value of worldwide shipments of MOS digital memory integrated circuits in 1980 and for more than three-quarters in 1994.

The determinants of memory chip prices.—Only limited information about the characteristics of DRAM's and EPROM's is available, including annual data for worldwide unit prices for shipments, chip density, and quantities shipped. In addition, it is possible to construct measures of how long the chips of each density had been produced in significant numbers and of the ratio of their density to that of the cheapest per-bit density of chip.

As noted earlier, Kenneth Flamm found that other chip characteristics, such as packaging and the way that the memory is grouped on the chip are also significant in determining unit prices.[10] However, data on these characteristics were not available.

The primary explanatory variable is density. By and large, it is expected that larger capacity, higher density memory chips will sell for more than lower density chips. An examination of the data on prices largely confirms this. However, some types of older memory chips have higher unit prices than newer, higher density memory chips, but the quantities of shipments of these older chips are usually small.

A second explanatory variable may be a general decline in memory chip prices over time. This tendency is evident in the pronounced downtrend in the summary Fisher chain-type price index.

An additional factor for DRAM's is the appearance in the mid-1980's of VRAM technology chips, which led to persistent price premiums for VRAM's. The prices of VRAM chips have been roughly double the prices of standard technology DRAM chips of the same density.

The U.S.-Japan Semiconductor Trade Arrangement in late 1986 led temporarily to higher unit prices for some types of memory chips. To account for the effects of the arrangement on chip prices, experiments were performed with dummy variables. The effects were statistically significant for both chip types in 1988 and for DRAM's in 1989, but they were not statistically significant for 1987 or for years after 1989.[11] For both types of chips, the preferred equations used a dummy variable with a value of 1 in 1988 and 1989 and a value of zero elsewhere.

The price patterns for DRAM's appear to follow the typical life cycle (chart 1).[12] The unit prices are initially very high, then decline—rapidly at first and then less rapidly—to reach a low range, and finally tend to increase until significant shipments end. However, most densities of DRAM's are still being shipped.

9. Hedonic regressions have been used by BEA to support the estimation of quality-adjusted price indexes for mainframe and personal computers. For a discussion of the use of hedonic regressions to estimate price indexes for mainframe computers, see Roseanne Cole, Y. C. Chen, Joan A. Barquin-Stolleman, Ellen Dulberger, Nurhan Helvacian, and James H. Hodge, "Quality-Adjusted Price Indexes for Computer Processors and Selected Peripheral Equipment," SURVEY OF CURRENT BUSINESS 66 (January 1986): 41–50. For a discussion of the use of hedonic techniques for estimating price indexes, see Jack E. Triplett, "The Economic Interpretation of Hedonic Methods," SURVEY 66 (January 1986): 36–40.

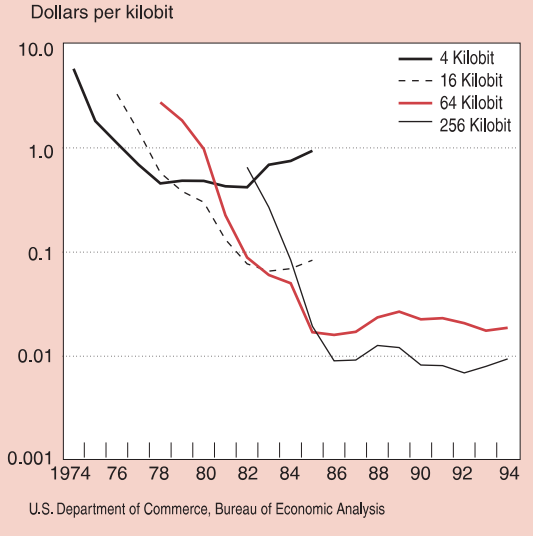
10. See Flamm, 158–161.

11. Experiments were also performed with individual-year time dummy variables in an attempt to find time-related price declines that were not captured elsewhere in the equation for DRAM prices, but these efforts were unsuccessful.

12. Ellen Dulberger suggested the existence of a life-cycle pattern in an informal discussion with BEA staff.

CHART 1

DRAM Prices Per Bit of Memory



This life-cycle pattern also appears to apply to other types of memory chips. The early price declines probably reflect a learning curve for the manufacturers, economies of scale, and increasing competition as more manufacturers supply the memory chips. The later price increases appear to reflect decreasing economies of scale and declining competition as fewer manufacturers supply the memory chips. It seems likely that the life-cycle pattern is primarily a result of supply and not demand; if so, then variables explaining the life cycles should not be used in estimating hedonic price indexes.

Two proxy variables were constructed to account for life-cycle patterns. The first is a nonlinear variable based on how long memory chips of a given type and density have been shipped. This variable is designed to decrease rapidly at first and then less rapidly to reach a low, constant value at 7 years, the typical time for a chip's price to reach the low range. The functional form chosen was

$$\text{Nlage7max} = (8 - \min(\text{age},7))^2,$$

where *age* is the number of years that shipments of the memory chip's density and type are recorded. For example, the age of 16-kilobit DRAM's, which were first shipped in significant numbers in 1976, in 1979 was 3.

The second proxy variable is the ratio of each chip's density to the density of the cheapest price-per-bit chip of the same type. Because the cheapest per-bit chips have had increasingly higher densities over time and because lower density chips are those whose prices tend to increase, this variable proxies for the price increases. This variable also helps to explain the initial price declines because new, higher density chips are those whose prices tend to decline and because they have large ratios of own densities to those of the cheapest price-per-bit chips.

Four functional forms were used in the initial regression experiments: Log-log, log-linear, linear-linear, and linear-log. Log-log and log-linear forms were clearly superior, and only equations with these two forms are shown.

The sample period used is 1976–94. The earliest data for EPROM's is for 1976, so it was chosen as the initial year in equations for both types of memory chips for the sake of uniformity. The year 1994 was the latest year for which data were available at the time the regressions were estimated. The sample period was not extended, because new technical characteristics emerged—in particular, "fast page mode" and "extended data out" technologies for DRAM's—that affected memory chip prices in ways that could not be captured by the available data on explanatory variables.

Results of regression equations.—The results for selected equations for the logarithm of unit prices for DRAM's are shown in table 6. The explanatory variables are as follows:

Density Number of bits of data that may be stored on a chip, in kilobits

Time Year of the price observation (for example, 1976 = 76)

Stan-vram Dummy variable for VRAM technology; standard DRAM technology = 0, VRAM technology = 1

Nlage7max Nonlinear variable for the age of the chip's density class, as described earlier

Cheaprat Ratio of the chip's density to the density of the cheapest per-bit chip (for example 64K/1M = 0.0625)

Dum8889 Dummy variable for the effects of the semiconductor trade agreement; 1988–89 = 1, other years = 0

Equation 1 uses the logarithm of density and a linear time trend as explanatory variables. Both explanatory variables are highly significant statistically. Equation 2 adds the two variables that explain the life-cycle patterns of prices for individual chip densities and the dummy variable for VRAM technology. The measure of the time trend was changed to a logarithmic one in order to keep time as a statistically significant explanatory variable. The equation has an improved fit,

Table 6.—Hedonic Regressions for DRAM's, 1976–94

[Coefficients, with t-test statistics in parentheses]

Explanatory variable	Equation number				
	1	2	3	4	5
Density			0.00040	0.00038	0.00038
			(7.92)	(10.03)	(10.32)
Log (Density)	0.88575	0.32690			
	(14.32)	(4.83)			
Time	–0.27168		–0.00702		
	(10.49)		(0.51)		
Log (Time)		–4.72498			
		(1.99)			
Stan-vram		0.78798	1.01305	0.99964	0.95543
		(4.68)	(7.29)	(7.41)	(7.19)
Nlage7max		0.04630	0.04947	0.05023	0.05412
		(9.08)	(13.27)	(14.81)	(15.30)
Cheaprat		0.05285	0.06563	0.06617	0.05369
		(2.40)	(3.61)	(3.67)	(2.90)
Dum8889					0.33529
					(2.21)
Constant	21.0254	20.2759	0.99367	0.38423	0.35181
	(10.35)	(1.96)	(0.82)	(5.04)	(4.63)
R-bar square	0.6956	0.8680	0.9035	0.9043	0.9085
F-test statistic	102.68	118.59	167.59	211.28	177.76
	(2,87)	(5,84)	(5,84)	(4,85)	(5,84)

NOTE.—The dependent variable is the natural logarithm of the unit price of a DRAM.
DRAM Dynamic random access memory

as measured both by R-bar square and the F-test statistic.

Equation 3 substitutes the level of density for its logarithm. With this specification, both forms of the time trend continue to have negative coefficients, but are insignificant. Deleting the time trend yields equation 4, which is otherwise similar to equation 3. The coefficients for the nontime explanatory variables all continue to be highly significant.

Equation 5 adds the variable for the semiconductor trade agreement. It is positive, as expected, and is statistically significant at the 0.95 confidence level. The values of the statistic for the F-test and R-bar square are highest for equation 5. Variants of equation 5 that included time trends were also estimated, but the coefficients for the time trends were highly insignificant and had little effects on the coefficients of the other explanatory variables.

The results for selected equations for the logarithm of unit prices for EPROM's are shown in table 7. The variables have the same names as those in table 6.[13]

Equation 1 makes the logarithm of the unit price a function of the levels of density and time. Both density and time are highly significant. Equation 2 replaces density with the logarithm of density. This equation has summary statistics that are considerably higher than those in equation 1. (The level of density was never significant at the 0.9 confidence level in equations with explanatory variables in addition to time, and no additional equations with the level of density are shown.)

Equation 3 adds the two variables that proxy for life-cycle price patterns for EPROM's. The t-test statistic for the log(density) variable's coefficient decreases sharply. Equation 4 replaces the linear time trend with a logarithmic time trend and uses the level of density. In contrast to the regressions for DRAM's, the time trend is statistically significant.

Equation 5 adds the 1988–89 dummy variable that proxies for the effects of the trade agreement. While R-bar square rises slightly, to the highest value for any of the equations, the F-test statistic declines somewhat from its peak value in equation 4. The t-test statistic for density declines slightly.

The regressions yield statistically significant explanations of the prices of DRAM's and EPROM's, as measured by F-test statistics. However, the limited data available on quality characteristics that might be important to purchasers means that the regression approach is not a competitive alternative to the matched-model methodology. Aside from density and VRAM technology for DRAM's, all the other significant explanatory variables in the regressions are primarily measures of supply conditions and not of quality characteristics that affect demand. Although the importance of life-cycle variables in determining the prices of both types of memory chips is interesting, life cycles are mainly the result of supply-determining factors. Similarly, the effects of the trade agreement are not characteristics that would enter into a quality-adjusted price index.

13. There is no Stan-vram dummy variable, because this technology is not a quality characteristic for EPROM's.

Table 7.—Hedonic Regressions for EPROM's, 1976–94

[Coefficients, with t-test statistics in parentheses]

Explanatory variable	Equation number				
	1	2	3	4	5
Density	0.00034			0.06373	0.05863
	(7.52)			(1.87)	(1.74)
Log(Density)		0.50381	0.6094		
		(12.16)	(1.80)		
Time	–1.5259	–.21748	–.04164		
	(8.87)	(13.71)	(3.12)		
Log(Time)				–3.68864	–3.66299
				(3.18)	(3.20)
Nlage7max			0.03731	0.03697	0.03775
			(10.86)	(10.64)	(10.93)
Cheaprat			0.14048	0.14203	0.13550
			(4.21)	(4.27)	(4.10)
Dum8889					0.20089
					(2.00)
Constant	14.8952	18.3991	4.33743	17.1641	17.0494
	(9.97)	(14.31)	(4.03)	(3.37)	(3.39)
R-bar square	0.4575	0.6443	0.9004	0.9007	0.9032
F-test statistic	51.17	108.76	269.91	270.78	223.06
	(2,117)	(2,117)	(4,115)	(4,115)	(5,114)

NOTE.—The dependent variable is the natural logarithm of the unit price of an EPROM.
EPROM Electronically programmable read-only memory

Microprocessors

Quality-adjusted annual price indexes were estimated for two lines of MOS digital microprocessor integrated circuits; the methodology used for these indexes was quite different from that used for the indexes for memory chips. The methodology was partly based on hedonic regression equations, which were used both to construct price indexes directly and to augment the data set that was used to construct other price indexes. In addition, the methodology used conventional interpolation and extrapolation techniques that are similar to those used for some other components of the NIPA's. Although this approach echoes some aspects of the work by Roseanne Cole and her colleagues on the prices of mainframe com-

puter central processing units, it evaluates the effects of many more characteristics.[14]

After the "missing" unit prices for microprocessors were estimated, Fisher chain-type price indexes were constructed from the resulting price and quantity data using the same methodology that was used to estimate the price indexes for memory chips. Because there is no predominant univariate measure for the performance of microprocessors, an index comparable to the price indexes for the cheapest price-per-bit memory chips was not constructed.

Description of the microprocessors

The MOS digital microprocessors are key components of personal computers and include gate arrays, which are largely composed of sets of electrical circuits that carry out the three Boolean logical operations: AND, OR, and NOT. They regulate the flow of electricity according to these operations, allowing it to pass or shutting it off according to programmed instructions.[15] In addition, over time, microprocessors have increasingly added circuits that store data and instructions (in memory and registers), control other functions used to make personal computers work, and perform other operations.

Contemporary microprocessors typically have thousands, or millions, of gates and memory cells. The commands under which the microprocessors operate make up their instruction or command set, and this set varies among different types of microprocessors. Nearly all of the microprocessors included in the price index estimation are of the CISC (Complex Instruction Set Computer) variety. Of increasing importance, however, is the RISC (Reduced Instruction Set Computer) variety, which uses a more limited set of instructions to increase the speed of most operations. The technology underlying RISC microprocessors is sufficiently different that the characteristics that are important in determining the prices of CISC microprocessors may differ from those for RISC microprocessors.

Two principal lines of microprocessors are evaluated—the 80x86 line, including clones, and the 680x0 line, including follow-on PowerPC microprocessors. The 80x86-type chips have been used in IBM and IBM-compatible personal computers (PC's), and the 680x0 chips have been used in Macintosh computers. Although a number of manufacturers have produced clones of 80x86 chips, most of these chips have been produced by one manufacturer.[16]

In addition to the older generations of microprocessors, price data for Pentium microprocessors, which is an extension of the 80x86 line, are available beginning with 1993. Price data for PowerPC microprocessors are available beginning with 1995.[17] The Pentium microprocessors incorporate design improvements that yield higher performance ratings than 80486 microprocessors with the same clock speeds on many standardized tests of computing power. The RISC technology incorporated in PowerPC microprocessors also boosts performance relative to clock speed in many applications.

Distinguishing characteristics.—A number of quality characteristics can be used to measure a microprocessor's computing power, capabilities, and efficiency. The speed of operation is an important characteristic for microprocessors because it helps determine how fast the PC using the microprocessor performs. One measure of speed is the microprocessor's internal clock speed, which is measured in megahertz (millions of cycles per second). Internal clock speed is either the rate or a multiple of the rate at which the microprocessor deals with the rest of the circuits of a computer. However, clock speed does not capture all of the factors that determine the speed of a microprocessor.[18] An alternative measure of speed is MIPS (millions of instructions per second); data for this measure were available only for the 80x86 line of microprocessors, including Pentiums.

Recent microprocessors contain a number of registers that store data and instructions that are, or that are about to be, used by the logic circuits. An important characteristic is the size of the packets of information that the microprocessor's architecture allows it to deal with simultaneously; this characteristic can be measured by the "width" of the internal data registers. Some early microprocessors dealt with 8 bits simultaneously,

14. See Cole, et al., 41–50.

15. For a more complete description of microprocessors, see Rosch, 36–153.

16. This estimate is based on the commercial-source worldwide shipments data. In 1994, the principal producers of 80486-type chips, including clones, were Intel (77 percent of the total), Advanced Micro Devices (11 percent), Cyrix (5 percent), IBM (4 percent), and Texas Instruments (3 percent).

17. Manufacturers of PowerPC microprocessors include Motorola and IBM.

18. In addition to clock speed, a number of other features determine the speed of performing operations. More advanced chips typically are faster than less advanced chips with the same clock speed from the same manufacturer. For example, on a number of standard performance tests, some computers with 66-MHZ-rated Pentium microprocessors deliver much higher performance than the same manufacturer's computers with 66-MHZ-rated 80486 microprocessors; the advantages are especially large for tests using 32-bit codes. Further, the architecture of the PC helps determine its speed in performing operations. See for example, *Gateway 2000 Product Guide* (North Sioux City, SD: Gateway 2000, April 1994).

and later microprocessors deal with 16 or 32 bits.[19] Alternatively the size of the packets of information can be measured as the width of the "bus" that connects the microprocessor with the rest of the PC's circuitry. This width ranges from 8 to 64 bits and is determined by the number of parallel wires that carry data. Data for both register and bus width are available for 80x86 and 680x0 microprocessors.

A characteristic somewhat related to register width and to bus width is the amount of random access memory that the microprocessor can access at one time. The width of the "address bus" to the memory chips determines how much memory can be accessed. Generally, as register widths have increased over time, widths of address busses have also increased. The amount of memory that can be addressed is determined by the formula $M = 2^N$, where M is the number of bytes of memory that can be addressed, and N is the width of the address bus.[20]

Another characteristic that can proxy for increasing speed and capability of microprocessors is the number of transistors they contain. Data on the number of transistors were available only for 80x86 microprocessors.

Some recent types of microprocessors contain integral memory units, or "caches." These are used to temporarily hold data or instructions that are likely to be needed soon for operations by the microprocessor. Having this information on the same chip as the logic circuits helps to speed operations. The 80x86 microprocessors use one cache for both data and instructions. The first caches on 680x0 microprocessors held only instructions, but more recent types of 680x0 microprocessors have separate caches for instructions and for data.

Because general-purpose logic circuits are rather slow at doing complex mathematical operations, specialized floating-point logic units have been developed to handle them. At first, these "math coprocessors" were separate chips that worked alongside the general-purpose microprocessors. More recent types of microprocessors, however, have often included integral math coprocessors. Data on the incorporation of coprocessors are available for both 80x86 and 680x0 microprocessors.

Newer microprocessors incorporate some PC management functions that were handled by separate circuits in earlier designs. For 80x86 microprocessors, the characteristic measured was the presence of support circuits. For 680x0 microprocessors, two characteristics are measured—the presence of external memory management and, with the most recent types, the presence of integral memory management.

Some 80x86 microprocessors have the ability to multitask, or to run two or more programs at the same time. Integral multitasking capabilities were first offered on 80386 microprocessors.

In addition, the age of the types of microprocessors may be a price-determining characteristic. Alternatively, a general time trend would be indicative of price declines over time that are not related to the ages of the microprocessors.

The most recent, and capable, microprocessors incorporate additional features that speed operations; for example, "superscalar" design allows the microprocessor to do more than one operation at the same time. Such features, as well as the incorporation of RISC technology, might be expected to influence prices. However, these features are highly collinear with other characteristics and so do not appear as separate explanatory variables in the regression equations.

The prices of microprocessors may also have been influenced by such factors as the type of packaging of the chips, the operating voltage (important for notebook PC's and for some recent high-speed microprocessors), and transistor technology. However, information from the data set suggests that the price differences due to these factors are small in comparison with the effects of the other characteristics.

Clones.—Clones of 80x86 microprocessor types usually appear after the 80x86 types are introduced, and the market share of the clones gradually increases.[21] There is price data for only one clone, the AMD386 40-megahertz microprocessor.

The clones often offer a somewhat different mix of characteristics than do corresponding 80x86 microprocessors in the data set. Clones often offer somewhat greater capabilities. However, it is not unreasonable to suppose that, given the rough similarity of capabilities, the clones' prices move in the same general patterns as those of 80x86 chips included in the data set.

19. All 680x0 microprocessors in the data set have a 32-bit register width, so width is not a distinguishing characteristic for these chips. Pentium and PowerPC microprocessors incorporate some 64-bit aspects.

20. Recent types of microprocessors have additional capabilities that further enhance the speed with which they can get data to and from memory and the total amount of memory that can be addressed, but these capabilities were highly collinear with other characteristics and did not prove to be significant in the hedonic regression experiments.

21. The clones either are produced under license (for example, some IBM and Advanced Micro Devices microprocessors) or are designed to be compatible with the 80x86 microprocessors.

Data.—The microprocessor price data used in the regressions are for North American booking prices for 1985–94. Although the actual prices paid may vary somewhat from the booking prices, there is no reason to assume that they would differ consistently from the booking prices. In addition, because this analysis uses annual average prices, the effects of lags between bookings and shipments are mitigated. Research on the lags between booking prices and prices paid for memory chips (not reported here) suggests that the effects of lags are small.

Regressions for 80x86 microprocessors

The first regression-based experiments used the 80x86 microprocessor data because there were more observations and because the explanatory data set described more characteristics. The data set had a total of 72 observations available, ranging from 3 observations for 1985 to 11 observations for 1991. There were data for a total of 22 types of 80x86 microprocessors, classified by clock speed, plus the AMD386 clone. The data set did not include all speeds of a given microprocessor type in all periods, but it did include prices for more than one speed of a given microprocessor type in a given year. In many cases—for example, the 80386 series—the first year for which there were prices for a new type of microprocessor was the year following its initial introduction: The data set often indicated small numbers of shipments in the first year, but it did not include corresponding price data.

The following 12 explanatory variables were available for the regression experiments:

Speed Internal clock speed, in megahertz[22]

MIPS Computing power, in millions of instructions per second

Register Internal register width, in bits

Bus External bus width, in bits

Transistor Number of transistors on the microprocessor chip, in thousands

Memory Addressable memory, in number of bits of address register width (see previous formula)

Cache Amount of on-chip memory cache, in kilobytes

Year Year of the observation (for example, 1990 = 90)

Age Number of years since the microprocessor chip series was introduced (for example, in 1993 the age of an 80486DX chip, which was introduced in 1989, was 4)

Coprocessor Dummy variable for the existence of a math coprocessor on the microprocessor chip: Yes = 1, no = 0

Support Dummy variable for PC support/control capabilities on the microprocessor chip: Yes = 1, no = 0

Multitask Dummy variable for the ability to do multitasking on the microprocessor chip: Yes = 1, no = 0

The equations that were initially estimated focused on the key characteristics of MIPS and Speed, each in combination with time. Next, the other explanatory variables were added one at a time in the following judgmentally preferred order: Register, Bus, Transistor, Memory, Cache, Age, Coprocessor, Support, and Multitask. The variables that had t-test statistics of 1.0 or higher with either speed specification (roughly the 50-percent confidence level) were retained.

In order to avoid possible spurious results due to chance nonlinear relationships, an iterative Box-Cox test for functional form was not performed. Instead, the initial equations were estimated using four alternative functional forms: Log-log, log-linear, linear-linear, and linear-log. These four forms were also used for the second set of equations that added register width. At this point, the "preferred" equations with either speed variable had R-bar squares of about 0.9 or higher, and the log-log forms had much higher F-test statistics.[23] As a result, the log-log form was adopted for further experimentation.[24]

After a preferred equation was estimated according to the iterative process, the other explanatory variables, such as memory, that were dropped earlier were added back one at a time to see if any were significant in equations containing the preferred explanatory variables. They were not.

Table 8 shows a selected set of the log-log form equations. In equations 1 and 2, which were the starting points of the regression experiments,

22. Data on external clock speed are also available but were not used, because of high collinearity with internal clock speed.

23. For example, for the equations with MIPS, Register, and Year as explanatory variables, the F-test statistics for the various functional forms were

Log-log	308.9
Log-linear	58.8
Linear-log	54.5
Linear-linear	53.2

24. The log-log functional form was used for all but one of the nondummy explanatory variables other than Year and Age. It was not used for Cache, because Cache has a value of zero for some of the earlier microprocessor types and therefore cannot be expressed in logarithmic form.

unit prices are a function of speed and the time trend variable. Equation 1 uses MIPS as the speed measure, and equation 2 uses Speed as the speed measure. Year has a highly significant negative coefficient that is consistent with declining prices over time (this result holds for all the other equations as well). The "fits" of the equations as measured by the summary statistics are already reasonably good, and all the coefficients of the variables have highly significant t-test statistics. MIPS yields a slightly better fit than Speed.

In equations 3 and 4, which are counterparts to equations 1 and 2, Register was added as an explanatory variable. Its coefficients are positive, a result that is consistent with increased unit prices. The summary statistics improve somewhat, and the t-test statistics for each variable's coefficients are highly significant. Again, MIPS yields a slightly better fit than Speed.

Equations 5 and 6 incorporate all the nondummy measures of chip performance. The R-bar squares improve, but the F-test statistics decline somewhat, reflecting the larger number of explanatory variables. In equation 5, the coefficient of Cache is insignificant; moreover, it is negative, a result that is inconsistent with increased unit prices. Speed yields a slightly better fit than MIPS.

Equations 7 and 8 incorporate the dummy variables that describe the performance characteristics of microprocessors. All of the dummy variables' coefficients have significant t-test statistics with at least one speed variable. However, the t-test statistics for Transistor in equation 7 and for Register in equation 8 drop well below 1.0, reflecting the high degree of collinearity among the explanatory variables, including the dummy variables, in the equations.

Equations 9 and 10 add Age to the explanatory variable set. Although Age is primarily a measure of supply conditions rather than a quality characteristic affecting demand, it is included in order to look for life-cycle patterns of the prices of microprocessors that might be similar to the strong patterns found for the various types of memory chips. Adding Age roughly doubles the negative coefficient of the Year (time trend) variable; moreover, Age has a positive coefficient approximately the same size as the previous negative coefficient of the time trend. This result suggests that the prices of individual microprocessor types tend to decline more slowly over time than the quality-adjusted price of microprocessors, which also reflects the introduction of new types of microprocessors. This pattern is analogous to that of memory chips, but strong life-cycle patterns are less evident for microprocessors.

In both equations, adding Age also dramatically lowers the t-test statistics of Bus and increases the t-test statistics of both Transistor and Register.

Equation 11 is similar to equation 8, but it excludes the statistically insignificant Register variable. Equation 12 is similar to equation 10,

Table 8.—Hedonic Regressions for 80x86 Microprocessors, 1985-94

Explanatory variable	Equation number											
	1	2	3	4	5	6	7	8	9	10	11	12
Log(Speed)		2.88881		1.52999		0.99176		0.46413		0.47581	0.48465	0.47740
		(17.9)		(6.1)		(5.0)		(3.0)		(3.4)	(3.4)	(3.5)
Log(MIPS)	1.21178		0.69201		0.48408		0.22524		0.12350			
	(19.0)		(9.1)		(4.4)		(2.7)		(1.4)			
Log(Register)			2.32770	2.38626	1.75624	1.03812	0.84904	0.14523	1.44337	1.03003		1.04219
			(8.4)	(6.3)	(5.7)	(3.1)	(2.2)	(0.4)	(3.4)	(2.5)		(2.6)
Log(Bus)					0.62346	0.75728	0.32671	0.34673	0.09800	0.02410	0.34619	
					(2.3)	(3.0)	(1.7)	(1.9)	(0.5)	(0.1)	(1.9)	
Log(Transistor)					0.28486	0.46221	0.05489	0.12684	0.10362	0.14101	0.12139	0.14326
					(2.2)	(4.2)	(0.6)	(1.4)	(1.1)	(1.7)	(1.4)	(1.4)
Cache					–0.1159	0.03644	0.01099	0.05754	0.06732	0.10882	0.06358	0.10921
					(0.4)	(1.6)	(0.4)	(2.2)	(2.0)	(4.1)	(3.1)	(4.1)
Year	–0.24272	–0.33258	–0.20617	–0.23786	–0.23322	–0.30509	–0.22026	–0.25173	–0.41138	–0.49226	–0.25358	–0.49549
	(6.0)	(7.2)	(7.1)	(6.0)	(8.4)	(9.9)	(11.6)	(11.3)	(5.7)	(7.8)	(11.8)	(8.7)
Age									0.21830	0.27060		0.27442
									(2.8)	(4.0)		(4.6)
Coprocessor							1.07509	0.87492	1.09237	0.87284	0.84618	0.87214
							(6.2)	(4.7)	(6.6)	(5.2)	(5.0)	(5.2)
Support							0.76248	0.73808	1.59025	1.71035	0.73860	1.72643
							(5.2)	(5.0)	(4.8)	(6.2)	(5.1)	(7.1)
Multitask							1.42498	1.74107	2.36798	2.70367	1.82437	2.72775
							(4.3)	(5.7)	(5.1)	(7.5)	(9.1)	(8.8)
Constant	24.202	25.8223	14.1657	13.4625	15.2709	20.4055	17.7464	21.1432	31.1581	38.0158	21.6911	38.2782
	(6.7)	(6.7)	(5.0)	(3.7)	(5.9)	(7.0)	(9.1)	(9.3)	(6.0)	(8.2)	(12.6)	(9.2)
R-bar square	0.8565	0.8406	0.9286	0.8984	0.9410	0.9449	0.9733	0.9739	0.9759	0.9791	0.9743	0.9794
F-test statistic	212.9	188.1	308.9	210.2	189.8	203.9	289.1	295.8	288.5	333.8	337.4	376.9
	(2,69)	(2,69)	(3,68)	(3,68)	(6,65)	(6,65)	(9,62)	(9,62)	(10,61)	(10,61)	(8,63)	(8,63)

NOTE.—The dependent variable is the natural logarithm of the unit price of an 80X86 microprocessor.

but it excludes the statistically insignificant Bus variable. Excluding the insignificant variables has little effect on the coefficients of the remaining variables, and it improves the summary statistics slightly.

The equation specification that uses Speed as an explanatory variable is preferred to the one using MIPS. In addition, ratings for speed (in megahertz), but not for MIPS, are available for the 680x0 microprocessors, and it seemed advantageous to make the equations for the two lines of microprocessors as similar as possible.

Equation 11 was selected as the starting point for the final regression equation that would be the basis for the hedonic price index work. Next, dummy variables were substituted for the Year time trend for each year. As a result of this substitution, the t-test statistics for Cache and Support fell below 1.0. The time dummy variables have increasingly negative coefficients, consistent with price declines over time. The final estimated regression is

$$
\begin{aligned}
&\log(\text{Price}) = \\
&0.72368 * \log(\text{Speed}) && +0.33233 * \log(\text{Bus}) \\
&(4.7) && (1.6) \\
&+0.48027 * \log(\text{Transistor}) && +0.87170 * \text{Coprocessor} \\
&(6.2) && (5.7) \\
&+1.28774 * \text{Multitask} && -0.12929 * D86 \\
&(6.2) && (0.5) \\
&-0.23317 * D87 && -0.22704 * D88 \\
&(1.0) && (1.0) \\
&-0.50193 * D89 && -1.003384 * D90 \\
&(2.2) && (4.6) \\
&-1.22490 * D91 && -1.64202 * D92 \\
&(5.2) && (6.6) \\
&-1.97719 * D93 && -2.23826 * D94 \\
&(7.7) && (8.2) \\
&-1.56854 \\
&(1.6) \\
&\text{R-bar square} = 0.9680 \\
&F\ (14,57) = 154.4
\end{aligned}
$$

(In the equation, the variables labeled as Dyy are the time-related dummy variables; yy is the year of the observation.)

Regressions for 680x0 microprocessors

Next, experiments were conducted with the data set for 680x0 microprocessors. The data set had a total of 48 observations available, ranging from 1 observation in 1985 to 8 observations in 1990. Data were available for 8 types of 680x0 microprocessors, classified by clock speed. Like the data set for 80x86 microprocessors, this data set did not track all speeds of a given type of microprocessor in all periods, but there were a number of overlaps. For microprocessors that were introduced in 1985–94, price data were available beginning with the year after the year of introduction.

The following 10 explanatory variables were used for the regression experiments:

Speed Internal clock speed, in megahertz

Bus Bus interface width, in bits (this is similar to but not identical with the Bus measure used for 80x86 microprocessors)

Memory Addressable memory, in number of bits of address register width (see the formula for 80x86 microprocessors)

Year Year of observation (for example, 1990 = 90)

Age Number of years since the microprocessor was introduced

Dcache Number of bits of data available in cache memory, on the microprocessor chip

Icache Number of instructions that can be stored in cache memory, on the microprocessor chip

Pipeline Dummy variable for the existence of pipeline logic operations on the chip; also denotes the existence of a floating-point logic circuit on the microprocessor chip: Yes = 1, no = 0

Manage Dummy variable for the existence of an external memory-management circuit on the microprocessor chip: Yes = 1, no = 0

Manage-I Dummy variable for the existence of an internal memory-management unit on the microprocessor chip: Yes = 1, no = 0

The estimation process was largely the same as that for 80x86 microprocessors, but it used shortcuts based on the results of the 80x86 estimates. In particular, only the log-log functional form was used. Because for the 680x0 microprocessors, Memory is perfectly correlated with Bus, Memory was dropped as an explanatory variable. Because of the high correlations among the explanatory variables, the number of variables that could be included in the preferred equation was even fewer than for the 80x86 microprocessors.

Table 9 shows a selected set of equations. In equation 1, the starting point of the experiments, the unit price of the microprocessors is a function of Speed and Year. Equation 2 adds Bus to the explanatory variable set. In these equations, as well as in most of the other equations shown, the Year variable's coefficient is negative, which is consistent with the pattern of declining prices over time. As before, positive coefficients for the performance variables are consistent with the premise that additional features increase unit prices. All t-test statistics in the two equations

are highly significant, and the summary statistics are reasonably good.

Equation 3 adds Pipeline, which has a high t-test statistic and improves summary statistics. However, Pipeline is highly correlated with other explanatory variables and is never significant when any of the others are added; as a result, it is not used in any other equations in table 9.

Equations 4 and 5 add Dcache and Icache, respectively, to the explanatory variable set. The coefficient of each of the cache variables is highly significant, and each yields greater improvements to the summary statistics than Pipeline. The two cache variables have a correlation coefficient of 0.997, so it was not possible to get both of them to be significant in the same equation. Dcache turned out to be a slightly better explanatory variable, so it is used in the preferred equation.

Equation 6 adds the two memory-management circuit variables. All of the variables are highly significant, and the summary statistics are quite good. (Additional work showed that Manage is significant without the inclusion of Manage-I, but not conversely.) All of the performance variables' coefficients are positive.

Equation 7 is similar to equation 4, but it adds Age to the explanatory variable set. The coefficient of Age is negative, and it is about the same size as the coefficient of Year in the other equations. In addition, the Year coefficient becomes highly insignificant. This result is the reverse of the results for 80x86 microprocessor prices; however, it is consistent with the pattern of prices declining over time that results from price declines in prices of individual microprocessors as their designs become older.

Equation 8 drops the Year variable and adds the two memory-management variables; however, their coefficients are insignificant. The summary statistics for this equation are similar to those for equation 6.

Equation 6 was selected as the starting point for the final regression equation that would be used as the basis for the hedonic price estimates. Next, the Year time trend was replaced by individual dummy variables for each year. Unlike the corresponding equation for 80x86 microprocessors, all of the performance-characteristic explanatory variables from equation 6 were significant in the resulting equation. In addition, substituting Icache for Dcache did not affect the time dummy coefficients to 5 decimal places or the summary statistics to 4 places, but the t-test statistic for Manage-I increased 0.5, to 8.3. The estimated regression is

$$
\begin{aligned}
\log(\text{Price}) = {} & \\
& 1.27102 * \log(\text{Speed}) && +0.97516 * \log(\text{Bus}) \\
& (5.1) && (8.3) \\
& +0.00098 * \text{Icache} && +0.89557 * \text{Manage} \\
& (8.1) && (5.8) \\
& +1.55735 * \text{Manage-I} && -0.13063 * D86 \\
& (8.3) && (0.4) \\
& -0.46500 * D87 && -0.60028 * D88 \\
& (1.4) && (1.9) \\
& -0.78569 * D89 && -1.00557 * D90 \\
& (2.5) && (3.3) \\
& -1.22273 * D91 && -1.52591 * D92 \\
& (4.0) && (4.9) \\
& -1.93050 * D93 && -2.08266 * D94 \\
& (6.2) && (6.7) \\
& -2.90252 & & \\
& (3.9) & &
\end{aligned}
$$

R-bar square = 0.9637

F (14,33) = 90.2

Price indexes for 1985–94

The preferred hedonic equations—with year dummy variables—were used to construct two types of quality-adjusted price indexes for the 80x86 and the 680x0 microprocessors. The first type was a "regression" price index. In regression indexes, the coefficients of characteristics and of the year dummy variables are used to construct a price index. As Cole and others have noted, regression indexes are unweighted and may therefore produce different results than alternative methods.[25] The second type was a "composite" price index. Composite indexes use prices in a matched-model framework. Actual microprocessor prices are used when they are available; otherwise, hypothetical prices based on equation

25. See Cole, et al., 48–49.

Table 9.—Hedonic Regressions for 680x0 Microprocessors, 1985–94

Explanatory variable	Equation number							
	1	2	3	4	5	6	7	8
Log(Speed)	3.60632	2.24665	1.64466	1.25183	1.28761	1.33620	1.33742	1.22620
	(12.4)	(4.5)	(3.9)	(3.5)	(3.4)	(6.1)	(6.0)	(6.1)
Log(Bus)		1.83498	2.23686	2.41715	2.34678	1.02843	.46449	.31417
		(3.2)	(4.8)	(6.3)	(5.8)	(3.5)	(1.4)	(1.0)
Year	–0.30897	–0.27285	–0.27589	–0.25642	–0.25489	–0.24755	–0.01279	
	(6.1)	(5.8)	(7.3)	(8.2)	(7.7)	(12.5)	(0.4)	
Age							–0.24101	–0.24755
							(8.1)	(12.5)
Dcache				0.00043		0.00033	0.00019	0.00020
				(7.6)		(8.4)	(4.0)	(4.8)
Icache					0.00126			
					(6.9)			
Pipeline			1.46224					
			(5.0)					
Manage						0.90321		0.16057
						(6.3)		(1.0)
Manage-I						1.48509		0.03282
						(8.4)		(0.2)
Constant	21.7361	16.2533	16.7477	15.3848	15.3633	17.9909	1.12248	0.41510
	(5.2)	(3.9)	(5.0)	(5.6)	(5.3)	(10.3)	(0.5)	(0.7)
R-bar square	0.7641	0.8045	0.8731	0.9150	0.9057	0.9672	0.9660	0.9627
F-test statistic	77.1	65.5	81.9	127.4	113.9	231.9	267.8	231.9
	(2,45)	(3,44)	(4,43)	(4,43)	(4,43)	(6,41)	(5,42)	(6,41)

NOTE.—The dependent variable is the natural logarithm of the unit price of a 680X0 microprocessor.

values (that is, estimated prices based on the year and the microprocessor's characteristics) or on conventional interpolation and extrapolation techniques are used.

The price indexes presented in this article differ in concept from those developed by Cole and others because these indexes are chain-type indexes rather than indexes with fixed base-period weights. The chain-type-index approach for preparing composite indexes requires fewer estimated prices than approaches with base-period weights. In the calculation of the composite indexes for 80x86 microprocessors, 32 percent of the unit prices were estimates based on the final hedonic regression equation, and an additional 10 percent were extrapolated or interpolated using conventional techniques. In the calculation of the composite indexes for 680x0 microprocessors, the figures were 7 percent and 9 percent, respectively.

80x86 price indexes.—Table 10 shows four price indexes for 80x86 microprocessors for 1985–94. In 1985–94, the regression price index declines at an average annual rate of 22 percent. It declines sharply in most years but registers a small increase in 1988. The rates of decline peak at 41 percent in 1990 but continue to decline rapidly thereafter.

The other three indexes are chain-type price indexes. The Laspeyres and Paasche indexes are shown largely as background information. The Fisher index is featured in this article, as it is in the NIPA's. In 1985–94, the Fisher index declines at an average annual rate of 27 percent. It declines less in 1987 and 1988 than in the other years, but the pattern is much less emphatic than that shown in the regression index. The sharpest decline is 39 percent in 1994, and there is no apparent deceleration of the index.

680x0 price indexes.—Table 11 shows four price indexes for 680x0 microprocessors. In 1985–94, the regression price index declines at an average annual rate of 21 percent. The index declines substantially in all years, including 1988. This index shows considerably more year-to-year fluctuation than the regression index for 80x86 microprocessors. The smallest decline is 12 percent in 1986, and the largest decline is 33 percent in 1993.

The Fisher chain-type price index declines at an average annual rate of 23 percent in 1985–94. Its rate of decline exhibits considerable year-to-year volatility. The smallest decline is 15 percent in 1994, and the largest decline is 38 percent in 1993.

Extension to 1995–96

As with memory chips, price and quantity data for 1995 and 1996 became available after the regression experiments were completed. The regression experiments were not repeated with a longer sample period, because the most recently introduced microprocessors have performance-enhancing characteristics that are not in the ex-

Table 10.—Price Indexes for 80x86 Microprocessors

Year	Regression index	Chain indexes		
		Laspeyres	Paasche	Fisher
	Levels [1992=100]			
1985	5.11	6.11	9.93	7.79
1986	4.49	4.15	6.04	5.01
1987	4.05	3.77	5.38	4.50
1988	4.08	3.39	4.71	4.00
1989	3.10	2.57	3.32	2.92
1990	1.82	1.86	1.89	1.88
1991	1.50	1.54	1.56	1.55
1992	1.00	1.00	1.00	1.00
1993	0.71	0.71	0.72	0.72
1994	0.55	0.37	0.51	0.43
	Percent change from previous year			
1986	–12.1	–32.1	–39.1	–35.7
1987	–9.9	–9.1	–11.0	–10.1
1988	0.6	–10.0	–12.6	–11.3
1989	–24.0	–24.3	–29.4	–26.9
1990	–41.3	–27.5	–43.2	–35.8
1991	–17.4	–17.2	–17.1	–17.2
1992	–33.4	–35.2	–36.1	–35.6
1993	–29.2	–28.9	–27.7	–28.3
1994	–23.0	–48.0	–29.7	–39.5
Average: 1985–94	–22.0	–26.8	–28.1	–27.4

Table 11.—Price Indexes for 680x0 Microprocessors

Year	Regression index	Chain indexes		
		Laspeyres	Paasche	Fisher
	Levels [1992=1.00]			
1985	4.60	6.81	4.78	5.71
1986	4.04	5.74	3.93	4.75
1987	2.89	3.87	2.90	3.35
1988	2.52	3.14	2.53	2.82
1989	2.10	2.57	2.12	2.33
1990	1.68	1.90	1.75	1.82
1991	1.35	1.39	1.30	1.35
1992	1.00	1.00	1.00	1.00
1993	0.67	0.60	0.65	0.62
1994	0.57	0.51	0.55	0.53
	Percent change from previous year			
1986	–12.2	–15.8	–17.8	–16.8
1987	–28.4	–32.5	–26.2	–29.4
1988	–12.7	–18.8	–12.7	–15.8
1989	–16.9	–18.4	–16.4	–17.4
1990	–19.7	–26.0	–17.4	–21.8
1991	–19.5	–26.8	–25.5	–26.1
1992	–26.2	–28.0	–23.3	–25.7
1993	–33.3	–39.8	–35.2	–37.6
1994	–14.1	–15.6	–15.3	–15.4
Average: 1985–94	–20.7	–25.1	–21.4	–23.2

planatory variable set used for 1985–94.[26] Adding 2 more years of observations was not sufficient to accurately estimate the values of these characteristics. As a result, the "missing" prices—that is the prices for which 1995–96 data were not available—were estimated using conventional interpolation and extrapolation techniques.

As shown in the following tabulation, the prices of microprocessors continued to decline in 1995–96. For 80x86 microprocessors, the Fisher chain-type price index drops especially sharply, registering much larger rates of decline than those in previous years. This drop reflects very large declines in unit prices for the various types of 80486 and Pentium microprocessors. For 680x0 microprocessors, the Fisher chain-type price index declines at about the same rate in 1995 as in 1994 and then declines more rapidly in 1996. The sharp 1996 decline reflects large decreases in unit prices for the 68040 and the various PowerPC microprocessors. Thus, for both lines of microprocessors, the sharp rates of decline are associated with the newest, most technologically advanced microprocessors.

Microprocessor Price Indexes

[Percent change]

	80x86	680x0
1995	-69.8	-14.2
1996	-63.3	-32.9

Summary price index

A summary Fisher chain-type price index for both types of microprocessors was constructed using the two individual Fisher chain-type price indexes. The summary index uses current-dollar shipment weights based on unit prices and quantities of shipments from the data set. The weight for 80x86 microprocessors ranges from a low of 80 percent in 1989 to a high of 93 percent in 1994.

The summary Fisher chain-type price index for microprocessors declines at an average annual rate of 35 percent in 1985–96 (table 12). It also fluctuates considerably from year to year. The smallest decline is 12 percent in 1988, and the largest declines are 66 percent in 1995 and 60 percent in 1996. In comparison, the summary price index for memory chips declines at an average annual rate of 18 percent in the same period; the rates of change vary from a decline of 53 percent in 1985 to an increase of 16 percent in 1988.

26. Only one price observation on a Pentium microprocessor was in the data set used to estimate the hedonic regressions for the 80x86 microprocessors.

Table 12.—Summary Price Index for Microprocessors

[1992 = 1.00]

Year	Index	Percent change from previous year
1985	7.24	
1986	4.89	–32.4
1987	4.27	–12.8
1988	3.77	–11.8
1989	2.81	–25.4
1990	1.87	–33.3
1991	1.53	–18.5
1992	1.00	–34.5
1993	0.71	–29.1
1994	0.44	–44.2
1995	0.15	–65.6
1996	0.06	–60.1
Average: 1985–96		–35.3

Semiconductor Price Indexes in the NIPA's

The price indexes for semiconductors play a modest role in the calculation of real gross domestic product (GDP). Most semiconductors are used as intermediate inputs and are netted out before the various real product-side components are calculated. However, exports and imports of semiconductors are separately identifiable components of GDP beginning with 1981. As part of the comprehensive revision of the NIPA's that was released in January 1996, the semiconductor price indexes described in this article were used in calculating real exports and imports of semiconductors. In the annual NIPA revision that was released in July 1997, these price indexes were revised and extended for use in calculating real exports and imports of semiconductors for 1993–96.

The price indexes for semiconductors play a significant role in the estimates of real gross product originating by industry. They affect both the real output of the industry in which semiconductors are produced and the real intermediate inputs of semiconductors into the industries that use them to make other products.

Exports and imports

The price indexes for exports and imports of semiconductors for 1993–96 are based on BEA's price indexes for memory chips and microprocessors and on the producer price index (PPI) for semiconductor dice and wafers. The estimates for 1981–92 are also based on BEA's price indexes, but the methodology was somewhat simpler and was based on the less complete information that was available at the time of the comprehensive revision of the NIPA's.

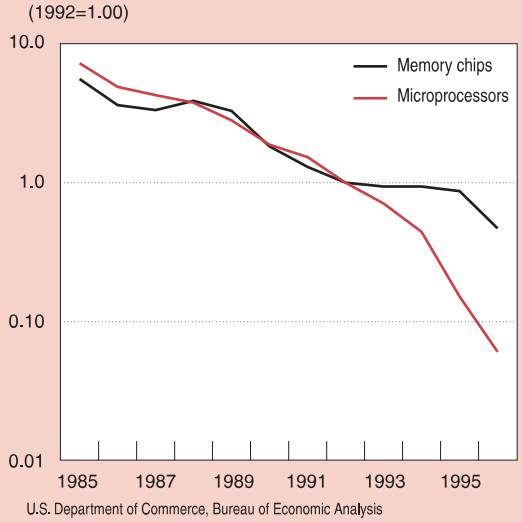
Differences between the estimates of export prices and import prices of semiconductors reflect differences in the relative importance of the two types of semiconductors in exports and imports. Microprocessors are more important than memory chips in domestic production and exports, whereas memory chips are more important than microprocessors in imports. In addition, exports include substantial numbers of domestically produced silicon wafers and semifinished semiconductor dice that are shipped abroad for further manufacturing, testing, and packaging; imports contain fewer numbers of dice and wafers.

The price weights used for exports of semiconductors are roughly as follows: One-quarter for semiconductor dice and wafers, one-third for memory chips, and the remainder—somewhat less than half—for microprocessors. The price weights used for imports of semiconductors are roughly as follows: Somewhat less than one-tenth for semiconductor dice and wafers, three-quarters for memory chips, and the remainder for microprocessors. These weighting schemes are based on the implicit assumption that the prices of other types of semiconductors follow the same patterns as the prices of the types of semiconductors used to calculate of BEA's price indexes.

In 1992–96, the price index for microprocessors, which are relatively more important in exports, declined somewhat more rapidly than the price index for memory chips, which are relatively more important in imports (chart 2). However, because of the heavier weight of semiconductor wafers and dice—whose prices have declined less rapidly than those of finished semiconductors—in the exports index, the average rates of decline in the exports and imports price indexes were about the same. Using the new price indexes raises the average annual growth rates of real exports and imports of semiconductors in 1985–94 by roughly equal amounts relative to the previous estimates.

CHART 2

Semiconductor Price Indexes



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

Quarterly estimates.—Two different quarterly indicator series are used to interpolate between and extrapolate from the annual estimates for semiconductors; both series are based on price indexes published by the Bureau of Labor Statistics. For exports, the indicator series used is a weighted sum of detailed PPI's for selected semiconductors. For imports, the indicator series used is the International Price Project index for imports of semiconductors.

Gross product originating in the semiconductors industry

The price indexes described in this article were also incorporated into the gross product originating (GPO) estimates of real industry gross output and real intermediate inputs for 1977–96. For gross output, the indexes were weighted together with appropriate PPI's in order to develop a composite deflator that covered all the products of the semiconductor manufacturing industry. For intermediate inputs, the same composite deflator was used for estimating the purchases by other industries of domestically produced semiconductors. In addition, the price index for imports of semiconductors was used for imported semiconductor inputs.

In particular, the incorporation of the semiconductor price indexes directly affected the estimation of the real output of the industry that produces semiconductors, the electronic and other electric equipment industry. The real growth rates for both semiconductor output and intermediate inputs were revised up substantially, especially after 1992. In turn, both real gross output and GPO in the electronic and other electric equipment industry were revised up. In industries where GPO is calculated by double deflation and where intermediate inputs of semiconductors are significant, real GPO was revised down, but real gross output was unrevised.

Price Indexes for Selected Semiconductors, 1974–96

By Bruce T. Grimm

In the comprehensive revision of the national income and product accounts (NIPA's) that was released in January 1996, BEA introduced the use of quality-adjusted price indexes for the calculation of real exports and imports of semiconductors. The improved measurement of real output and prices of high-tech goods through expanded use of quality-adjusted price indexes is part of BEA's strategic plan to improve the quality of its economic accounts (see the box "Measurement of Real Output and Prices for High-Tech Goods"). The quality-adjusted price indexes for semiconductors, which are based on indexes for several types of memory chips and of microprocessors, were incorporated into the estimates of exports and imports beginning with 1981.[1]

This article describes the development of quality-adjusted price indexes for seven types of metal oxide semiconductor (MOS) digital memory integrated circuits ("memory chips") and for two different lines of MOS digital microprocessor integrated circuits ("microprocessors"). It also describes the aggregation of the seven memory chip indexes into one summary index and the aggregation of the two microprocessor indexes into one summary index.

Memory chips, microprocessors, and other related integrated circuits are probably best known for their use in personal computers, but they can be found in a vast array of products, such as digital cable TV boxes, automobiles, and microwave ovens. In 1995, domestic shipments of memory chips were $11.1 billion, and domestic shipments of microprocessors were $11.4 billion. Most domestically produced memory chips and microprocessors are counted as intermediate consumption that is incorporated in the production of other goods. However, imports and exports of memory chips and microprocessors appear directly in estimates of GDP; in 1995, imports were $19.9 billion. and exports were $4.0 billion.

The new indexes described in this article use quality-adjusted prices in combination with Fisher chain-type indexes to produce price indexes for the 1974–96 period. These new indexes attempt to address biases associated with conventional measures of real output for high-tech products. As was noted in the most recent comprehensive NIPA revision, the introduction of these indexes resulted in a significantly faster rate of real growth of exports and imports. Among the more important results are the following:

- The price index for memory chips declined at a 37-percent average annual rate from 1975 to 1985 and at a 20-percent average annual rate from 1985 to 1996.
- The price index for microprocessors declined at a 35-percent average annual rate from 1985 to 1996.
- The price index for imports of semiconductors declined at a 19-percent average annual rate from 1985 to 1994; the previously used price index had increased at a 2-percent average annual rate. Reflecting this revision, real imports of semiconductors increased at a 47-percent average annual rate from 1985 to 1994; they had previously increased at a 17-percent average annual rate.
- The price index for exports of semiconductors declined at a 21-percent average annual rate from 1985 to 1994. The previously used price index had declined at a 2-percent average annual rate. Reflecting this revision, real exports of semiconductors increased at a 55-percent average annual rate from 1985 to 1994; they had previously increased at a 24-percent average annual rate.

The first section of this article examines the patterns of prices for memory chips and discusses the construction of price indexes for memory

1. See "Improved Estimates of The National Income and Product Accounts for 1959–95: Results of the Comprehensive Revision," SURVEY OF CURRENT BUSINESS 76 (January/February 1996): 27. The indexes also were incorporated into the improved estimates of gross domestic product by industry; see "Improved Estimates of Gross Domestic Product by Industry, 1959–94," SURVEY 76 (August 1996): 140–41. The indexes used in both of these sets of estimates were improved in the annual revision of the NIPA's that were released in July 1997; see "Annual Revision of the National Income and Product Accounts: Annual Estimates, 1993–96, and Quarterly Estimates, 1993:1-1997:1," SURVEY 77 (August 1997): 30.

chips based on prices per bit of memory. It also describes the results of hedonic regression experiments on two types of memory chips that examined how their performance characteristics determine their prices. The second section describes the characteristics of microprocessors and the results of hedonic regression experiments that examined how microprocessor prices are determined. It also describes how price indexes were constructed using both conventional methodologies and the hedonic regression results to support matched-model estimates. The third section describes how the summary price indexes for memory chips and microprocessors were used to construct price indexes that are used to deflate exports and imports of semiconductors and in the calculation of real gross product originating in the electronic and electronic equipment industry and in other industries.

The quality-adjusted price indexes for semiconductors cover 1974–96. BEA does not plan to extend its price estimates beyond 1996, because recent improvements by the Bureau of Labor Statistics in the methodologies used for estimating the producer price indexes for semiconductors make those indexes superior to those that can be generated using BEA's methodologies.

Data sources

Most of the price and quantity data that are used in this study were purchased from a commercial source.[2] In addition, some early-year price and quantity data for some types of memory chips were provided by Ellen Dulberger of the IBM Corporation. The data on the price-determining characteristics of both memory chips and mi-

2. The source was Dataquest, a subsidiary of the Gartner Group, Inc.

Measurement of Real Output and Prices for High-Tech Goods

The preparation of a new price index for semiconductors is part of a broader program that BEA has undertaken to improve its measures of the output and prices of high-tech goods in the national income and product accounts (NIPA's). These goods present problems for measurement because their quality and performance change rapidly and because their production costs and prices often fall relative to those of other goods. In particular, they pose problems for conventional fixed-weighted price indexes, for which the products in the sample and the relative weights are updated infrequently. Such indexes tend to miss the early part of a high-tech product's life cycle, when prices tend to decline rapidly, and to place too heavy a weight on the later part of the life cycle, when the prices of the older vintage technologies tend to decline less or even to rise.

Another measurement problem is the adjustment of prices for improvements in product quality. The conventional methodology assumes that an improvement in the quality of a product will be associated with an increase in the cost of producing it; the increase in cost is then used to determine how much of the product's price increase is attributable to quality difference and how much to pure price change. For high-tech goods, however, the cost and price of a new product—especially by the time it is beginning to replace an old product—are often lower than the old product.

BEA has attempted to improve its measures of output and prices through a combination of new weighting schemes and of new methods for assessing the impact of quality change. In 1995, BEA introduced chain-weighted price and quantity indexes that use a type of "superlative" index to address the bias associated with the use of fixed weights. These indexes use annual weights that reflect the adjustments that buyers make in purchasing patterns as relative prices change; thus, they more accurately measure overall changes in prices and in the pattern of production over time. However, these weights do not adjust for biases that arise from the use of fixed-weighted price indexes in the deflation of the detailed components of gross domestic product (GDP).[1]

BEA has attempted to address the problem of measuring quality change through the use of hedonic indexes and other quality adjustments. The hedonic indexes attempt to look explicitly at the differences in the prices and characteristics of high-tech and other products and to observe what consumers pay for various characteristics. Hedonic indexes were first used by BEA and IBM Corporation on a joint project to develop an improved price index for computers; this index was introduced into the NIPA's in 1986. This work has been largely taken over by the Bureau of Labor Statistics, which introduced hedonic price indexes for personal computers in 1990 and large-scale computers in 1997.

When BEA first introduced the computer price index, it was believed that the rapid decline in computer prices was partly due to declines in the prices of inputs, particularly of some types of semiconductors, to the computer manufacturing industry. However, the price indexes for semiconductors that were available showed only modest declines. If the prices of semiconductors were declining more rapidly than the price indexes indicated, the NIPA's were understating the increases in real imports and exports of semiconductors; in addition, real gross product would be overstated for the computer industry (in industrial machinery) and understated for the semiconductor industry (in electrical equipment). In researching this question, BEA, working with the Bureau of Labor Statistics, has developed several extensions of the earlier work on computer prices, including the quality-adjusted, reweighted price indexes for semiconductors that were introduced in the most recent comprehensive revision of the NIPA's and that are discussed in this article.

1. The Bureau of Labor Statistics (BLS) is examining the use of geometric means to address such lower level aggregation bias in the Consumer Price Index (CPI), components of which are used in deflating detailed components of consumer spending in GDP. BLS is not presently examining the use of geometric means in the Producer Price Index (PPI), components of which are used in deflating detailed components of investment and consumer spending in GDP. BLS believes that the PPI has a different conceptual basis than the CPI, and the use of geometric means is not "readily justifiable" within that conceptual framework. (See Bureau of Labor Statistics, "The Experimental CPI Using Geometric Means (CPI-U-XG)," April 10, 1997 at <http://www.bls.gov/cpigmrp.htm>.)

croprocessors came from both the commercial source and from published sources.

For memory chips, data on worldwide billing prices per unit and quantities of units shipped worldwide were used. These data cover a number of subtypes of memory chips, classified by chip "density," or the number of bits of data that can be stored on one chip. In addition, some types of memory chips have different capabilities: For example, DRAM chips are available in standard and video (VRAM) subtypes.

For microprocessors, the commercial-source data on North American booking prices—the prices at which orders are placed—and quantities of units shipped worldwide were used. These data cover a number of subtypes of microprocessors. For example, the price data on 80486 microprocessors includes six different subtypes that feature four different speeds of operation and three different configurations. Information from other published sources was used to identify the price-determining characteristics for each subtype of microprocessor. These characteristics are valued by the market, and differences in characteristics are reflected in the relative prices paid for the different types of microprocessors.

Beginning with 1974 for memory chips and 1985 for microprocessors, the data include prices and quantities only if there were significant numbers of shipments. Thus, the data set does not include early, limited shipments nor some late, limited shipments. In addition, only prices for the most prominent types of microprocessors are in the data set, and these are almost entirely from two manufacturers; microprocessors from "clone" suppliers are underrepresented in the data set. Nevertheless, the data set appears to cover most of the memory chips and microprocessors.

MOS Digital Memory Chips

Different types of memory chips have different performance characteristics and are typically used in different ways or in different types of products. As a result, the patterns of prices over time for the various types of chip are quite distinct. Due to the differing patterns, it was necessary to estimate separate price indexes for each type of chip.

Types of memory chips.—Quality-adjusted price indexes were estimated for seven types of memory chips:

DRAM Dynamic random access memory

EEPROM Erasable electronically programmable read-only memory

EPROM Electronically programmable read-only memory

Flash Flash memory; derived from EEPROM's

ROM Read-only memory

Fast SRAM Static random access memory, with access time of less than 70 nanoseconds

Slow SRAM SRAM with access time of more than 70 nanoseconds

Each type of memory chip is distinguished by its specific characteristics and uses.[3] For example, DRAM's are used for the main memories of personal computers, while SRAM's are generally used for their "cache" memories. Fast SRAM's command a higher price than slow SRAM's. Some additional data on price-determining technical characteristics are available for specific chip densities within chip types, and these chips are treated as separate subtypes. For example, DRAM chips that are specialized to speed computer video displays (VRAM technology) have been produced since the late 1980's, and these chips command a higher price than conventional DRAM's. The price indexes do not distinguish all the price-determining characteristics: According to Kenneth Flamm, chips with the same densities but with different configurations and packaging have different unit prices; however, the data do not contain enough information to make these distinctions.[4] Similarly, the data on DRAM's do not distinguish between parity and non-parity subtypes.

Life-cycle patterns.—Each chip density and subtype has a typical life-cycle pattern for prices and quantities. Quantities of shipments of chips of a specific density begin with small numbers, grow to a peak, and then decline to insignificant numbers. Unit prices start at typically high amounts, decline to a low, and then increase as the chip nears the end of its lifespan. The lows for unit prices may coincide with peak shipment rates, or they may lag several years. Table 1 illustrates this pattern for 16-kilobit DRAM's.

3. For more details about the various types of chips and their uses, see Winn L. Rosch, *The Winn L. Rosch Hardware Bible* (Indianapolis, IN: Sams Publishing, 1994):156–208.

4. See Kenneth Flamm, "Measurement of DRAM Prices: Technology and Market Structure," *Price Measurements and Their Uses*, ed. Murray Foss, Marilyn Manser, and Allan Young, (Chicago, IL: The University of Chicago Press, 1993): 157–197.

Prices per bit

For the selected chip types, the life-cycle price patterns for different chip densities result, over time, in chips with increasingly higher densities offering the lowest price per bit of storage capacity (table 2). This pattern starts with 4-kilobit DRAM chips in 1975 and ends with 16-megabit chips in 1995. In 1995, the cheapest price is less than 0.2 percent of the cheapest price in 1975.

Price indexes for the selected chip types.—The principal methodology used to estimate price indexes for the various chip types is an extension of Ellen Dulberger's work. It is a matched-model approach that is based on the unit prices and the density for each subtype of memory chip.[5] Separate indexes were estimated for each of the seven types of memory chips and were constructed using value weights derived from the price and quantity data.

Four annual price indexes were constructed for each type of memory chip. Three of the four are chain-type indexes that have weights that change each year: Price relatives for each density of each type of chip are weighted together, using the values of shipments, to obtain price indexes. The first index is a Laspeyres index that uses prior-year weights, the second is a Paasche index that uses current-year weights, and the third is a Fisher index, which is a superlative index that is constructed using the geometric average of the changes in the Laspeyres and Paasche indexes for each year.

The fourth index is calculated using the cheapest price per bit for any chip density in each year. This index provides a rough proxy for changes in the cost of the cheapest available technology for products that are designed to minimize cost and that require the amount of memory provided by the cheapest price-per-bit chip. This index is used only to provide a rough check on the price changes found using the other three indexes. In order for this index to be the useful in estimating quality-adjusted price indexes, the other characteristics of chip subtypes—which are not accounted for in this price index—would have to be unimportant, contrary to the price differentials reported by Flamm.

Table 3 shows the average rates of change for the four indexes for 1977–96. It was possible to construct all four indexes for five of the memory chip types: The declines in the indexes based on the "cheapest" price per bit are generally of the same order of magnitude as those in other indexes, but they are the largest for four of the five chip types. The declines in the Fisher indexes vary from 18 percent for EEPROM's to 31 percent for DRAM's. The Fisher index for Flash memory chips declines at a 37-percent rate for the shorter period for which that index is available.[6]

The pattern of memory chip prices.—In order to summarize the changes in quality-adjusted price indexes for memory chips over time, a Fisher chain-type index was constructed using the Fisher price indexes for the seven individual

5. See Ellen Dulberger, "Sources of Price Decline in Computer Processors: Selected Electronic Components," in *Price Measurements and Their Uses*, ed. Murray Foss, Marilyn Manser, and Allan Young (Chicago, IL: The University of Chicago Press, 1993) 103–124.

6. Some indexes for EEPROM's and ROM's are not shown because the estimates before 1988 were based on Dulberger's data. The methodology used to link the estimates based on Dulberger's data with the other estimates does not support the calculation of these indexes.

Table 1.—Prices and Quantities Shipped of 16 Kilobit DRAM's

Year	Dollars	Thousands
1976	52.50	54
1977	23.00	2,008
1978	9.25	20,785
1979	6.13	53,218
1980	4.81	184,020
1981	2.11	221,473
1982	1.24	286,290
1983	1.05	296,610
1984	1.11	161,290
1985	1.34	70,920
1986	.....	.....

DRAM Dynamic random access memory

Table 2.—DRAM Prices

[Dollars per kilobit]

Chip type	1975	1980	1985	1990	1995
4 kilobit	***1.8125***	0.4813	0.9375	.....	.....
16 kilobit	.....	***0.3008***	0.0836	.....	.....
64 kilobit	.....	0.9766	***0.0170***	0.0226	0.0188
256 kilobit	.....	.....	0.0194	0.0077	0.0078
1 megabit	.....	.....	0.1184	***0.0061***	0.0039
4 megabit	.....	.....	.....	0.0103	0.0031
16 megabit	.....	.....	.....	.....	***0.0030***

NOTE.—Bold italics indicate lowest price per bit of memory for the corresponding year.
DRAM Dynamic random access memory (standard technology)

Table 3.—Price Indexes: Average Annual Rates of Change, 1977–96

[Percent]

Chip type	Fisher chain	Laspeyres chain	Paasche chain	Cheapest
DRAM's	–31.1	–28.2	–34.0	–28.7
EEPROM's	–17.8	.....	.....	.....
EPROM's	–27.8	–27.9	–28.0	–32.3
Flash (1988–96)	–37.4	–39.3	–35.4	–40.1
ROM's	–21.7	.....	.....	.....
Fast SRAM's	–26.7	–27.3	–25.2	–28.6
Slow SRAM's	–19.9	–21.2	–18.5	–28.3

DRAM Dynamic random access memory
EEPROM Erasable electronically programmable read-only memory
EPROM Electronically programmable read-only memory
Flash Flash memory
ROM Read-only memory
SRAM Static random access memory

memory chip types as the components (table 4). This index reflects both the price indexes for the individual chip types and their changing value weights: In particular, note that the weight for DRAM's increased from about one-third of the total in the early 1980's to about two-thirds in 1995–96.

The index declines sharply in most years in 1975–92. However, the index declines more slowly in 1987 and then increases in 1988, reflecting the xffects of the U.S.-Japan Semiconductor Trade Agreement in late 1986.[7] In 1993, the decline in the index slows, and in 1994, the index increases slightly. It declines modestly in 1995 and very rapidly in 1996, as overcapacity in worldwide chip-production facilities led to sharp price cuts in DRAM's, beginning in the first quarter of 1996.

Fisher chain-type price indexes for each type of memory chip are shown in table 5. The time patterns for the indexes are roughly similar to those of the summary index. The indexes for DRAM's and fast SRAM's generally decline more rapidly than the other indexes, and the indexes for ROM's and slow SRAM's generally decline more slowly. These patterns support Dulberger's finding that the prices of the various types of MOS memory chips declined sharply from the mid-1970's through the mid-1980's.[8] They also indicate continuing sharp declines through 1992. In 1993, however, the declines generally slowed or halted, and prices of several types of memory chips increased in 1994. In 1995 and 1996, the prices of nearly all types of memory chips declined.

Table 4.—Summary Price Index for Memory Chips

[1992=1.00]

Year	Index	Percent change from previous year
1974	1,778.37	
1975	560.57	–68.5
1976	343.62	–38.7
1977	199.23	–42.0
1978	116.68	–41.4
1979	97.33	–16.6
1980	68.97	–29.1
1981	33.48	–51.4
1982	20.73	–38.1
1983	15.13	–27.0
1984	11.86	–21.6
1985	5.57	–53.0
1986	3.61	–35.2
1987	3.23	–8.0
1988	3.87	16.5
1989	3.29	–15.1
1990	1.83	–44.5
1991	1.30	–29.0
1992	1.00	–22.4
1993	0.94	–6.4
1994	0.94	0.3
1995	0.87	–7.6
1996	0.47	–46.0
Averages:		
1975–85		–36.9
1985–96		–20.1

Regression experiments

The prices of memory chips are determined by several factors, or quality characteristics. Hedonic regressions may be used to estimate the values

7. See Flamm, 163–64.
8. See Dulberger, 115–18.

Table 5.—Price Indexes for MOS Memory Chips

[1992=1.00]

Year	DRAM's		EEPROM's		EPROM's		Flash memories		ROM's		Fast SRAM's		Slow SRAM's	
	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year	Index	Percent change from previous year
1974	4,173.40													
1975	1,315.53	–68.5											129.52	
1976	805.19	–38.8			726.08								81.31	–37.2
1977	480.58	–40.3	24.42		374.35	–48.4			74.99		125.84		46.60	–42.7
1978	267.55	–44.3	18.07	–26.0	163.21	–56.4			45.62	–39.2	95.69	–24.0	36.91	–20.8
1979	215.35	–19.5	13.40	–25.9	131.49	–19.4			40.93	–10.3	85.21	–11.0	31.72	–14.1
1980	175.99	–18.3	10.97	–18.1	71.49	–45.6			31.13	–23.9	41.29	–51.5	23.49	–26.0
1981	75.32	–57.2	9.45	–13.8	24.30	–66.0			21.60	–30.6	19.79	–52.1	12.49	–46.8
1982	38.25	–49.2	8.80	–6.9	16.10	–33.7			15.82	–26.7	11.38	–42.5	7.51	–39.9
1983	27.58	–27.9	8.54	–3.0	11.47	–28.7			10.83	–31.5	10.59	–6.9	5.70	–24.1
1984	21.57	–21.8	7.41	–13.1	8.24	–28.2			8.82	–18.6	10.85	2.4	4.79	–16.0
1985	7.39	–65.7	5.08	–31.5	4.28	–48.0			5.44	–38.3	7.49	–30.9	2.83	–40.9
1986	4.34	–41.3	3.82	–24.8	2.94	–31.3			3.98	–27.0	5.00	–33.3	1.97	–30.2
1987	3.99	–8.0	3.36	–12.0	3.04	3.4			3.08	–22.7	3.95	–21.0	1.82	–8.0
1988	5.08	27.3	2.69	–19.9	3.19	5.0	10.92		2.00	–35.1	3.92	–0.8	2.62	44.2
1989	4.43	–12.8	2.30	–14.7	2.29	–28.2	5.46	–50.0	1.57	–21.6	3.43	–12.5	2.41	–7.8
1990	2.14	–51.8	1.73	–24.9	1.43	–37.8	2.08	–61.8	1.29	–17.8	2.19	–36.1	1.38	–42.8
1991	1.42	–33.5	1.23	–28.7	1.13	–21.0	1.20	–42.3	1.07	–16.6	1.42	–34.9	1.10	–20.3
1992	1.00	–29.5	1.00	–18.7	1.00	–11.2	1.00	–16.8	1.00	–6.8	1.00	–29.8	1.00	–9.1
1993	0.98	–1.5	0.92	–8.2	0.88	–12.1	0.88	–12.3	0.77	–22.5	0.66	–33.6	1.03	2.7
1994	1.01	2.2	0.74	–19.7	0.88	0.7	0.63	–28.3	0.84	7.8	0.62	–6.3	1.01	–2.0
1995	0.98	–2.6	0.62	–16.2	0.74	–16.9	0.38	–39.9	0.77	–8.2	0.40	–36.0	0.82	–19.0
1996	0.40	–59.4	0.59	–4.2	0.76	3.4	0.26	–32.0	0.71	–7.3	0.35	–13.3	0.69	–15.5

DRAM Dynamic random access memory
EEPROM Erasable electronically programable read-only memory
EPROM Electronically programmable read-only memory
Flash Flash memory
MOS Metal oxide semiconductor
ROM Read-only memory
SRAM Static random access memory

of the quality characteristics.[9] In order to evaluate the possible usefulness of hedonic regressions for supporting the estimation of quality-adjusted price indexes for memory chips, regressions were estimated for two types of chips—DRAM's and EPROM's. DRAM's were chosen because of their large share in total memory chip shipments, and EPROM's were chosen to evaluate whether the results from the regressions for DRAM's tended to hold for other types of memory chips. In addition, both types of memory chips were chosen because they have been produced for a relatively long time. Together, DRAM's and EPROM's accounted for two-thirds of the commercial-source data's estimates of the value of worldwide shipments of MOS digital memory integrated circuits in 1980 and for more than three-quarters in 1994.

The determinants of memory chip prices.—Only limited information about the characteristics of DRAM's and EPROM's is available, including annual data for worldwide unit prices for shipments, chip density, and quantities shipped. In addition, it is possible to construct measures of how long the chips of each density had been produced in significant numbers and of the ratio of their density to that of the cheapest per-bit density of chip.

As noted earlier, Kenneth Flamm found that other chip characteristics, such as packaging and the way that the memory is grouped on the chip are also significant in determining unit prices.[10] However, data on these characteristics were not available.

The primary explanatory variable is density. By and large, it is expected that larger capacity, higher density memory chips will sell for more than lower density chips. An examination of the data on prices largely confirms this. However, some types of older memory chips have higher unit prices than newer, higher density memory chips, but the quantities of shipments of these older chips are usually small.

A second explanatory variable may be a general decline in memory chip prices over time. This tendency is evident in the pronounced downtrend in the summary Fisher chain-type price index.

An additional factor for DRAM's is the appearance in the mid-1980's of VRAM technology chips, which led to persistent price premiums for VRAM's. The prices of VRAM chips have been roughly double the prices of standard technology DRAM chips of the same density.

The U.S.-Japan Semiconductor Trade Arrangement in late 1986 led temporarily to higher unit prices for some types of memory chips. To account for the effects of the arrangement on chip prices, experiments were performed with dummy variables. The effects were statistically significant for both chip types in 1988 and for DRAM's in 1989, but they were not statistically significant for 1987 or for years after 1989.[11] For both types of chips, the preferred equations used a dummy variable with a value of 1 in 1988 and 1989 and a value of zero elsewhere.

The price patterns for DRAM's appear to follow the typical life cycle (chart 1).[12] The unit prices are initially very high, then decline—rapidly at first and then less rapidly—to reach a low range, and finally tend to increase until significant shipments end. However, most densities of DRAM's are still being shipped.

9. Hedonic regressions have been used by BEA to support the estimation of quality-adjusted price indexes for mainframe and personal computers. For a discussion of the use of hedonic regressions to estimate price indexes for mainframe computers, see Roseanne Cole, Y. C. Chen, Joan A. Barquin-Stolleman, Ellen Dulberger, Nurhan Helvacian, and James H. Hodge, "Quality-Adjusted Price Indexes for Computer Processors and Selected Peripheral Equipment," SURVEY OF CURRENT BUSINESS 66 (January 1986): 41–50. For a discussion of the use of hedonic techniques for estimating price indexes, see Jack E. Triplett, "The Economic Interpretation of Hedonic Methods," SURVEY 66 (January 1986): 36–40.

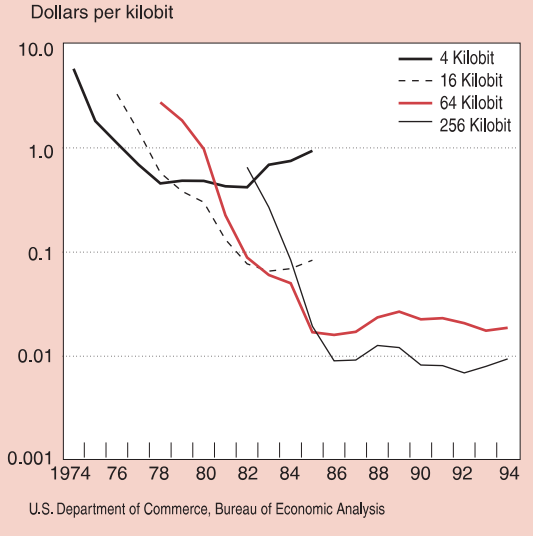
10. See Flamm, 158–161.

11. Experiments were also performed with individual-year time dummy variables in an attempt to find time-related price declines that were not captured elsewhere in the equation for DRAM prices, but these efforts were unsuccessful.

12. Ellen Dulberger suggested the existence of a life-cycle pattern in an informal discussion with BEA staff.

CHART 1

DRAM Prices Per Bit of Memory



This life-cycle pattern also appears to apply to other types of memory chips. The early price declines probably reflect a learning curve for the manufacturers, economies of scale, and increasing competition as more manufacturers supply the memory chips. The later price increases appear to reflect decreasing economies of scale and declining competition as fewer manufacturers supply the memory chips. It seems likely that the life-cycle pattern is primarily a result of supply and not demand; if so, then variables explaining the life cycles should not be used in estimating hedonic price indexes.

Two proxy variables were constructed to account for life-cycle patterns. The first is a nonlinear variable based on how long memory chips of a given type and density have been shipped. This variable is designed to decrease rapidly at first and then less rapidly to reach a low, constant value at 7 years, the typical time for a chip's price to reach the low range. The functional form chosen was

$$\text{Nlage7max} = (8 - \min(\text{age},7))^2,$$

where *age* is the number of years that shipments of the memory chip's density and type are recorded. For example, the age of 16-kilobit DRAM's, which were first shipped in significant numbers in 1976, in 1979 was 3.

The second proxy variable is the ratio of each chip's density to the density of the cheapest price-per-bit chip of the same type. Because the cheapest per-bit chips have had increasingly higher densities over time and because lower density chips are those whose prices tend to increase, this variable proxies for the price increases. This variable also helps to explain the initial price declines because new, higher density chips are those whose prices tend to decline and because they have large ratios of own densities to those of the cheapest price-per-bit chips.

Four functional forms were used in the initial regression experiments: Log-log, log-linear, linear-linear, and linear-log. Log-log and log-linear forms were clearly superior, and only equations with these two forms are shown.

The sample period used is 1976–94. The earliest data for EPROM's is for 1976, so it was chosen as the initial year in equations for both types of memory chips for the sake of uniformity. The year 1994 was the latest year for which data were available at the time the regressions were estimated. The sample period was not extended, because new technical characteristics emerged—in particular, "fast page mode" and "extended data out" technologies for DRAM's—that affected memory chip prices in ways that could not be captured by the available data on explanatory variables.

Results of regression equations.—The results for selected equations for the logarithm of unit prices for DRAM's are shown in table 6. The explanatory variables are as follows:

Density Number of bits of data that may be stored on a chip, in kilobits

Time Year of the price observation (for example, 1976 = 76)

Stan-vram Dummy variable for VRAM technology; standard DRAM technology = 0, VRAM technology = 1

Nlage7max Nonlinear variable for the age of the chip's density class, as described earlier

Cheaprat Ratio of the chip's density to the density of the cheapest per-bit chip (for example 64K/1M = 0.0625)

Dum8889 Dummy variable for the effects of the semiconductor trade agreement; 1988–89 = 1, other years = 0

Equation 1 uses the logarithm of density and a linear time trend as explanatory variables. Both explanatory variables are highly significant statistically. Equation 2 adds the two variables that explain the life-cycle patterns of prices for individual chip densities and the dummy variable for VRAM technology. The measure of the time trend was changed to a logarithmic one in order to keep time as a statistically significant explanatory variable. The equation has an improved fit,

Table 6.—Hedonic Regressions for DRAM's, 1976–94

[Coefficients, with t-test statistics in parentheses]

Explanatory variable	Equation number				
	1	2	3	4	5
Density			0.00040	0.00038	0.00038
			(7.92)	(10.03)	(10.32)
Log (Density)	0.88575	0.32690			
	(14.32)	(4.83)			
Time	–0.27168		–0.00702		
	(10.49)		(0.51)		
Log (Time)		–4.72498			
		(1.99)			
Stan-vram		0.78798	1.01305	0.99964	0.95543
		(4.68)	(7.29)	(7.41)	(7.19)
Nlage7max		0.04630	0.04947	0.05023	0.05412
		(9.08)	(13.27)	(14.81)	(15.30)
Cheaprat		0.05285	0.06563	0.06617	0.05369
		(2.40)	(3.61)	(3.67)	(2.90)
Dum8889					0.33529
					(2.21)
Constant	21.0254	20.2759	0.99367	0.38423	0.35181
	(10.35)	(1.96)	(0.82)	(5.04)	(4.63)
R-bar square	0.6956	0.8680	0.9035	0.9043	0.9085
F-test statistic	102.68	118.59	167.59	211.28	177.76
	(2,87)	(5,84)	(5,84)	(4,85)	(5,84)

NOTE.—The dependent variable is the natural logarithm of the unit price of a DRAM.
DRAM Dynamic random access memory

as measured both by R-bar square and the F-test statistic.

Equation 3 substitutes the level of density for its logarithm. With this specification, both forms of the time trend continue to have negative coefficients, but are insignificant. Deleting the time trend yields equation 4, which is otherwise similar to equation 3. The coefficients for the nontime explanatory variables all continue to be highly significant.

Equation 5 adds the variable for the semiconductor trade agreement. It is positive, as expected, and is statistically significant at the 0.95 confidence level. The values of the statistic for the F-test and R-bar square are highest for equation 5. Variants of equation 5 that included time trends were also estimated, but the coefficients for the time trends were highly insignificant and had little effects on the coefficients of the other explanatory variables.

The results for selected equations for the logarithm of unit prices for EPROM's are shown in table 7. The variables have the same names as those in table 6.[13]

Equation 1 makes the logarithm of the unit price a function of the levels of density and time. Both density and time are highly significant. Equation 2 replaces density with the logarithm of density. This equation has summary statistics that are considerably higher than those in equation 1. (The level of density was never significant at the 0.9 confidence level in equations with explanatory variables in addition to time, and no additional equations with the level of density are shown.)

Equation 3 adds the two variables that proxy for life-cycle price patterns for EPROM's. The t-test statistic for the log(density) variable's coefficient decreases sharply. Equation 4 replaces the linear time trend with a logarithmic time trend and uses the level of density. In contrast to the regressions for DRAM's, the time trend is statistically significant.

Equation 5 adds the 1988–89 dummy variable that proxies for the effects of the trade agreement. While R-bar square rises slightly, to the highest value for any of the equations, the F-test statistic declines somewhat from its peak value in equation 4. The t-test statistic for density declines slightly.

The regressions yield statistically significant explanations of the prices of DRAM's and EPROM's, as measured by F-test statistics. However, the limited data available on quality characteristics that might be important to purchasers means that the regression approach is not a competitive alternative to the matched-model methodology. Aside from density and VRAM technology for DRAM's, all the other significant explanatory variables in the regressions are primarily measures of supply conditions and not of quality characteristics that affect demand. Although the importance of life-cycle variables in determining the prices of both types of memory chips is interesting, life cycles are mainly the result of supply-determining factors. Similarly, the effects of the trade agreement are not characteristics that would enter into a quality-adjusted price index.

13. There is no Stan-vram dummy variable, because this technology is not a quality characteristic for EPROM's.

Table 7.—Hedonic Regressions for EPROM's, 1976–94

[Coefficients, with t-test statistics in parentheses]

Explanatory variable	Equation number				
	1	2	3	4	5
Density	0.00034			0.06373	0.05863
	(7.52)			(1.87)	(1.74)
Log(Density)		0.50381	0.6094		
		(12.16)	(1.80)		
Time	–1.5259	–.21748	–.04164		
	(8.87)	(13.71)	(3.12)		
Log(Time)				–3.68864	–3.66299
				(3.18)	(3.20)
Nlage7max			0.03731	0.03697	0.03775
			(10.86)	(10.64)	(10.93)
Cheaprat			0.14048	0.14203	0.13550
			(4.21)	(4.27)	(4.10)
Dum8889					0.20089
					(2.00)
Constant	14.8952	18.3991	4.33743	17.1641	17.0494
	(9.97)	(14.31)	(4.03)	(3.37)	(3.39)
R-bar square	0.4575	0.6443	0.9004	0.9007	0.9032
F-test statistic	51.17	108.76	269.91	270.78	223.06
	(2,117)	(2,117)	(4,115)	(4,115)	(5,114)

NOTE.—The dependent variable is the natural logarithm of the unit price of an EPROM.
EPROM Electronically programmable read-only memory

Microprocessors

Quality-adjusted annual price indexes were estimated for two lines of MOS digital microprocessor integrated circuits; the methodology used for these indexes was quite different from that used for the indexes for memory chips. The methodology was partly based on hedonic regression equations, which were used both to construct price indexes directly and to augment the data set that was used to construct other price indexes. In addition, the methodology used conventional interpolation and extrapolation techniques that are similar to those used for some other components of the NIPA's. Although this approach echoes some aspects of the work by Roseanne Cole and her colleagues on the prices of mainframe com-

puter central processing units, it evaluates the effects of many more characteristics.[14]

After the "missing" unit prices for microprocessors were estimated, Fisher chain-type price indexes were constructed from the resulting price and quantity data using the same methodology that was used to estimate the price indexes for memory chips. Because there is no predominant univariate measure for the performance of microprocessors, an index comparable to the price indexes for the cheapest price-per-bit memory chips was not constructed.

Description of the microprocessors

The MOS digital microprocessors are key components of personal computers and include gate arrays, which are largely composed of sets of electrical circuits that carry out the three Boolean logical operations: AND, OR, and NOT. They regulate the flow of electricity according to these operations, allowing it to pass or shutting it off according to programmed instructions.[15] In addition, over time, microprocessors have increasingly added circuits that store data and instructions (in memory and registers), control other functions used to make personal computers work, and perform other operations.

Contemporary microprocessors typically have thousands, or millions, of gates and memory cells. The commands under which the microprocessors operate make up their instruction or command set, and this set varies among different types of microprocessors. Nearly all of the microprocessors included in the price index estimation are of the CISC (Complex Instruction Set Computer) variety. Of increasing importance, however, is the RISC (Reduced Instruction Set Computer) variety, which uses a more limited set of instructions to increase the speed of most operations. The technology underlying RISC microprocessors is sufficiently different that the characteristics that are important in determining the prices of CISC microprocessors may differ from those for RISC microprocessors.

Two principal lines of microprocessors are evaluated—the 80x86 line, including clones, and the 680x0 line, including follow-on PowerPC microprocessors. The 80x86-type chips have been used in IBM and IBM-compatible personal computers (PC's), and the 680x0 chips have been used in Macintosh computers. Although a number of manufacturers have produced clones of 80x86 chips, most of these chips have been produced by one manufacturer.[16]

In addition to the older generations of microprocessors, price data for Pentium microprocessors, which is an extension of the 80x86 line, are available beginning with 1993. Price data for PowerPC microprocessors are available beginning with 1995.[17] The Pentium microprocessors incorporate design improvements that yield higher performance ratings than 80486 microprocessors with the same clock speeds on many standardized tests of computing power. The RISC technology incorporated in PowerPC microprocessors also boosts performance relative to clock speed in many applications.

Distinguishing characteristics.—A number of quality characteristics can be used to measure a microprocessor's computing power, capabilities, and efficiency. The speed of operation is an important characteristic for microprocessors because it helps determine how fast the PC using the microprocessor performs. One measure of speed is the microprocessor's internal clock speed, which is measured in megahertz (millions of cycles per second). Internal clock speed is either the rate or a multiple of the rate at which the microprocessor deals with the rest of the circuits of a computer. However, clock speed does not capture all of the factors that determine the speed of a microprocessor.[18] An alternative measure of speed is MIPS (millions of instructions per second); data for this measure were available only for the 80x86 line of microprocessors, including Pentiums.

Recent microprocessors contain a number of registers that store data and instructions that are, or that are about to be, used by the logic circuits. An important characteristic is the size of the packets of information that the microprocessor's architecture allows it to deal with simultaneously; this characteristic can be measured by the "width" of the internal data registers. Some early microprocessors dealt with 8 bits simultaneously,

14. See Cole, et al., 41–50.

15. For a more complete description of microprocessors, see Rosch, 36–153.

16. This estimate is based on the commercial-source worldwide shipments data. In 1994, the principal producers of 80486-type chips, including clones, were Intel (77 percent of the total), Advanced Micro Devices (11 percent), Cyrix (5 percent), IBM (4 percent), and Texas Instruments (3 percent).

17. Manufacturers of PowerPC microprocessors include Motorola and IBM.

18. In addition to clock speed, a number of other features determine the speed of performing operations. More advanced chips typically are faster than less advanced chips with the same clock speed from the same manufacturer. For example, on a number of standard performance tests, some computers with 66-MHZ-rated Pentium microprocessors deliver much higher performance than the same manufacturer's computers with 66-MHZ-rated 80486 microprocessors; the advantages are especially large for tests using 32-bit codes. Further, the architecture of the PC helps determine its speed in performing operations. See for example, *Gateway 2000 Product Guide* (North Sioux City, SD: Gateway 2000, April 1994).

and later microprocessors deal with 16 or 32 bits.[19] Alternatively the size of the packets of information can be measured as the width of the "bus" that connects the microprocessor with the rest of the PC's circuitry. This width ranges from 8 to 64 bits and is determined by the number of parallel wires that carry data. Data for both register and bus width are available for 80x86 and 680x0 microprocessors.

A characteristic somewhat related to register width and to bus width is the amount of random access memory that the microprocessor can access at one time. The width of the "address bus" to the memory chips determines how much memory can be accessed. Generally, as register widths have increased over time, widths of address busses have also increased. The amount of memory that can be addressed is determined by the formula $M = 2^N$, where M is the number of bytes of memory that can be addressed, and N is the width of the address bus.[20]

Another characteristic that can proxy for increasing speed and capability of microprocessors is the number of transistors they contain. Data on the number of transistors were available only for 80x86 microprocessors.

Some recent types of microprocessors contain integral memory units, or "caches." These are used to temporarily hold data or instructions that are likely to be needed soon for operations by the microprocessor. Having this information on the same chip as the logic circuits helps to speed operations. The 80x86 microprocessors use one cache for both data and instructions. The first caches on 680x0 microprocessors held only instructions, but more recent types of 680x0 microprocessors have separate caches for instructions and for data.

Because general-purpose logic circuits are rather slow at doing complex mathematical operations, specialized floating-point logic units have been developed to handle them. At first, these "math coprocessors" were separate chips that worked alongside the general-purpose microprocessors. More recent types of microprocessors, however, have often included integral math coprocessors. Data on the incorporation of coprocessors are available for both 80x86 and 680x0 microprocessors.

Newer microprocessors incorporate some PC management functions that were handled by separate circuits in earlier designs. For 80x86 microprocessors, the characteristic measured was the presence of support circuits. For 680x0 microprocessors, two characteristics are measured—the presence of external memory management and, with the most recent types, the presence of integral memory management.

Some 80x86 microprocessors have the ability to multitask, or to run two or more programs at the same time. Integral multitasking capabilities were first offered on 80386 microprocessors.

In addition, the age of the types of microprocessors may be a price-determining characteristic. Alternatively, a general time trend would be indicative of price declines over time that are not related to the ages of the microprocessors.

The most recent, and capable, microprocessors incorporate additional features that speed operations; for example, "superscalar" design allows the microprocessor to do more than one operation at the same time. Such features, as well as the incorporation of RISC technology, might be expected to influence prices. However, these features are highly collinear with other characteristics and so do not appear as separate explanatory variables in the regression equations.

The prices of microprocessors may also have been influenced by such factors as the type of packaging of the chips, the operating voltage (important for notebook PC's and for some recent high-speed microprocessors), and transistor technology. However, information from the data set suggests that the price differences due to these factors are small in comparison with the effects of the other characteristics.

Clones.—Clones of 80x86 microprocessor types usually appear after the 80x86 types are introduced, and the market share of the clones gradually increases.[21] There is price data for only one clone, the AMD386 40-megahertz microprocessor.

The clones often offer a somewhat different mix of characteristics than do corresponding 80x86 microprocessors in the data set. Clones often offer somewhat greater capabilities. However, it is not unreasonable to suppose that, given the rough similarity of capabilities, the clones' prices move in the same general patterns as those of 80x86 chips included in the data set.

19. All 680x0 microprocessors in the data set have a 32-bit register width, so width is not a distinguishing characteristic for these chips. Pentium and PowerPC microprocessors incorporate some 64-bit aspects.

20. Recent types of microprocessors have additional capabilities that further enhance the speed with which they can get data to and from memory and the total amount of memory that can be addressed, but these capabilities were highly collinear with other characteristics and did not prove to be significant in the hedonic regression experiments.

21. The clones either are produced under license (for example, some IBM and Advanced Micro Devices microprocessors) or are designed to be compatible with the 80x86 microprocessors.

Data.—The microprocessor price data used in the regressions are for North American booking prices for 1985–94. Although the actual prices paid may vary somewhat from the booking prices, there is no reason to assume that they would differ consistently from the booking prices. In addition, because this analysis uses annual average prices, the effects of lags between bookings and shipments are mitigated. Research on the lags between booking prices and prices paid for memory chips (not reported here) suggests that the effects of lags are small.

Regressions for 80x86 microprocessors

The first regression-based experiments used the 80x86 microprocessor data because there were more observations and because the explanatory data set described more characteristics. The data set had a total of 72 observations available, ranging from 3 observations for 1985 to 11 observations for 1991. There were data for a total of 22 types of 80x86 microprocessors, classified by clock speed, plus the AMD386 clone. The data set did not include all speeds of a given microprocessor type in all periods, but it did include prices for more than one speed of a given microprocessor type in a given year. In many cases—for example, the 80386 series—the first year for which there were prices for a new type of microprocessor was the year following its initial introduction: The data set often indicated small numbers of shipments in the first year, but it did not include corresponding price data.

The following 12 explanatory variables were available for the regression experiments:

Speed Internal clock speed, in megahertz[22]

MIPS Computing power, in millions of instructions per second

Register Internal register width, in bits

Bus External bus width, in bits

Transistor Number of transistors on the microprocessor chip, in thousands

Memory Addressable memory, in number of bits of address register width (see previous formula)

Cache Amount of on-chip memory cache, in kilobytes

Year Year of the observation (for example, 1990 = 90)

Age Number of years since the microprocessor chip series was introduced (for example, in 1993 the age of an 80486DX chip, which was introduced in 1989, was 4)

Coprocessor Dummy variable for the existence of a math coprocessor on the microprocessor chip: Yes = 1, no = 0

Support Dummy variable for PC support/control capabilities on the microprocessor chip: Yes = 1, no = 0

Multitask Dummy variable for the ability to do multitasking on the microprocessor chip: Yes = 1, no = 0

The equations that were initially estimated focused on the key characteristics of MIPS and Speed, each in combination with time. Next, the other explanatory variables were added one at a time in the following judgmentally preferred order: Register, Bus, Transistor, Memory, Cache, Age, Coprocessor, Support, and Multitask. The variables that had t-test statistics of 1.0 or higher with either speed specification (roughly the 50-percent confidence level) were retained.

In order to avoid possible spurious results due to chance nonlinear relationships, an iterative Box-Cox test for functional form was not performed. Instead, the initial equations were estimated using four alternative functional forms: Log-log, log-linear, linear-linear, and linear-log. These four forms were also used for the second set of equations that added register width. At this point, the "preferred" equations with either speed variable had R-bar squares of about 0.9 or higher, and the log-log forms had much higher F-test statistics.[23] As a result, the log-log form was adopted for further experimentation.[24]

After a preferred equation was estimated according to the iterative process, the other explanatory variables, such as memory, that were dropped earlier were added back one at a time to see if any were significant in equations containing the preferred explanatory variables. They were not.

Table 8 shows a selected set of the log-log form equations. In equations 1 and 2, which were the starting points of the regression experiments,

22. Data on external clock speed are also available but were not used, because of high collinearity with internal clock speed.

23. For example, for the equations with MIPS, Register, and Year as explanatory variables, the F-test statistics for the various functional forms were

Log-log	308.9
Log-linear	58.8
Linear-log	54.5
Linear-linear	53.2

24. The log-log functional form was used for all but one of the nondummy explanatory variables other than Year and Age. It was not used for Cache, because Cache has a value of zero for some of the earlier microprocessor types and therefore cannot be expressed in logarithmic form.

unit prices are a function of speed and the time trend variable. Equation 1 uses MIPS as the speed measure, and equation 2 uses Speed as the speed measure. Year has a highly significant negative coefficient that is consistent with declining prices over time (this result holds for all the other equations as well). The "fits" of the equations as measured by the summary statistics are already reasonably good, and all the coefficients of the variables have highly significant t-test statistics. MIPS yields a slightly better fit than Speed.

In equations 3 and 4, which are counterparts to equations 1 and 2, Register was added as an explanatory variable. Its coefficients are positive, a result that is consistent with increased unit prices. The summary statistics improve somewhat, and the t-test statistics for each variable's coefficients are highly significant. Again, MIPS yields a slightly better fit than Speed.

Equations 5 and 6 incorporate all the nondummy measures of chip performance. The R-bar squares improve, but the F-test statistics decline somewhat, reflecting the larger number of explanatory variables. In equation 5, the coefficient of Cache is insignificant; moreover, it is negative, a result that is inconsistent with increased unit prices. Speed yields a slightly better fit than MIPS.

Equations 7 and 8 incorporate the dummy variables that describe the performance characteristics of microprocessors. All of the dummy variables' coefficients have significant t-test statistics with at least one speed variable. However, the t-test statistics for Transistor in equation 7 and for Register in equation 8 drop well below 1.0, reflecting the high degree of collinearity among the explanatory variables, including the dummy variables, in the equations.

Equations 9 and 10 add Age to the explanatory variable set. Although Age is primarily a measure of supply conditions rather than a quality characteristic affecting demand, it is included in order to look for life-cycle patterns of the prices of microprocessors that might be similar to the strong patterns found for the various types of memory chips. Adding Age roughly doubles the negative coefficient of the Year (time trend) variable; moreover, Age has a positive coefficient approximately the same size as the previous negative coefficient of the time trend. This result suggests that the prices of individual microprocessor types tend to decline more slowly over time than the quality-adjusted price of microprocessors, which also reflects the introduction of new types of microprocessors. This pattern is analogous to that of memory chips, but strong life-cycle patterns are less evident for microprocessors.

In both equations, adding Age also dramatically lowers the t-test statistics of Bus and increases the t-test statistics of both Transistor and Register.

Equation 11 is similar to equation 8, but it excludes the statistically insignificant Register variable. Equation 12 is similar to equation 10,

Table 8.—Hedonic Regressions for 80x86 Microprocessors, 1985-94

Explanatory variable	Equation number											
	1	2	3	4	5	6	7	8	9	10	11	12
Log(Speed)		2.88881		1.52999		0.99176		0.46413		0.47581	0.48465	0.47740
		(17.9)		(6.1)		(5.0)		(3.0)		(3.4)	(3.4)	(3.5)
Log(MIPS)	1.21178		0.69201		0.48408		0.22524		0.12350			
	(19.0)		(9.1)		(4.4)		(2.7)		(1.4)			
Log(Register)			2.32770	2.38626	1.75624	1.03812	0.84904	0.14523	1.44337	1.03003		1.04219
			(8.4)	(6.3)	(5.7)	(3.1)	(2.2)	(0.4)	(3.4)	(2.5)		(2.6)
Log(Bus)					0.62346	0.75728	0.32671	0.34673	0.09800	0.02410	0.34619	
					(2.3)	(3.0)	(1.7)	(1.9)	(0.5)	(0.1)	(1.9)	
Log(Transistor)					0.28486	0.46221	0.05489	0.12684	0.10362	0.14101	0.12139	0.14326
					(2.2)	(4.2)	(0.6)	(1.4)	(1.1)	(1.7)	(1.4)	(1.4)
Cache					–0.1159	0.03644	0.01099	0.05754	0.06732	0.10882	0.06358	0.10921
					(0.4)	(1.6)	(0.4)	(2.2)	(2.0)	(4.1)	(3.1)	(4.1)
Year	–0.24272	–0.33258	–0.20617	–0.23786	–0.23322	–0.30509	–0.22026	–0.25173	–0.41138	–0.49226	–0.25358	–0.49549
	(6.0)	(7.2)	(7.1)	(6.0)	(8.4)	(9.9)	(11.6)	(11.3)	(5.7)	(7.8)	(11.8)	(8.7)
Age									0.21830	0.27060		0.27442
									(2.8)	(4.0)		(4.6)
Coprocessor							1.07509	0.87492	1.09237	0.87284	0.84618	0.87214
							(6.2)	(4.7)	(6.6)	(5.2)	(5.0)	(5.2)
Support							0.76248	0.73808	1.59025	1.71035	0.73860	1.72643
							(5.2)	(5.0)	(4.8)	(6.2)	(5.1)	(7.1)
Multitask							1.42498	1.74107	2.36798	2.70367	1.82437	2.72775
							(4.3)	(5.7)	(5.1)	(7.5)	(9.1)	(8.8)
Constant	24.202	25.8223	14.1657	13.4625	15.2709	20.4055	17.7464	21.1432	31.1581	38.0158	21.6911	38.2782
	(6.7)	(6.7)	(5.0)	(3.7)	(5.9)	(7.0)	(9.1)	(9.3)	(6.0)	(8.2)	(12.6)	(9.2)
R-bar square	0.8565	0.8406	0.9286	0.8984	0.9410	0.9449	0.9733	0.9739	0.9759	0.9791	0.9743	0.9794
F-test statistic	212.9	188.1	308.9	210.2	189.8	203.9	289.1	295.8	288.5	333.8	337.4	376.9
	(2,69)	(2,69)	(3,68)	(3,68)	(6,65)	(6,65)	(9,62)	(9,62)	(10,61)	(10,61)	(8,63)	(8,63)

NOTE.—The dependent variable is the natural logarithm of the unit price of an 80X86 microprocessor.

but it excludes the statistically insignificant Bus variable. Excluding the insignificant variables has little effect on the coefficients of the remaining variables, and it improves the summary statistics slightly.

The equation specification that uses Speed as an explanatory variable is preferred to the one using MIPS. In addition, ratings for speed (in megahertz), but not for MIPS, are available for the 680x0 microprocessors, and it seemed advantageous to make the equations for the two lines of microprocessors as similar as possible.

Equation 11 was selected as the starting point for the final regression equation that would be the basis for the hedonic price index work. Next, dummy variables were substituted for the Year time trend for each year. As a result of this substitution, the t-test statistics for Cache and Support fell below 1.0. The time dummy variables have increasingly negative coefficients, consistent with price declines over time. The final estimated regression is

$$
\begin{aligned}
&\log(\text{Price}) = \\
&0.72368 * \log(\text{Speed}) && +0.33233 * \log(\text{Bus}) \\
&(4.7) && (1.6) \\
&+0.48027 * \log(\text{Transistor}) && +0.87170 * \text{Coprocessor} \\
&(6.2) && (5.7) \\
&+1.28774 * \text{Multitask} && -0.12929 * D86 \\
&(6.2) && (0.5) \\
&-0.23317 * D87 && -0.22704 * D88 \\
&(1.0) && (1.0) \\
&-0.50193 * D89 && -1.003384 * D90 \\
&(2.2) && (4.6) \\
&-1.22490 * D91 && -1.64202 * D92 \\
&(5.2) && (6.6) \\
&-1.97719 * D93 && -2.23826 * D94 \\
&(7.7) && (8.2) \\
&-1.56854 \\
&(1.6) \\
&\text{R-bar square} = 0.9680 \\
&F\ (14,57) = 154.4
\end{aligned}
$$

(In the equation, the variables labeled as Dyy are the time-related dummy variables; yy is the year of the observation.)

Regressions for 680x0 microprocessors

Next, experiments were conducted with the data set for 680x0 microprocessors. The data set had a total of 48 observations available, ranging from 1 observation in 1985 to 8 observations in 1990. Data were available for 8 types of 680x0 microprocessors, classified by clock speed. Like the data set for 80x86 microprocessors, this data set did not track all speeds of a given type of microprocessor in all periods, but there were a number of overlaps. For microprocessors that were introduced in 1985–94, price data were available beginning with the year after the year of introduction.

The following 10 explanatory variables were used for the regression experiments:

Speed Internal clock speed, in megahertz

Bus Bus interface width, in bits (this is similar to but not identical with the Bus measure used for 80x86 microprocessors)

Memory Addressable memory, in number of bits of address register width (see the formula for 80x86 microprocessors)

Year Year of observation (for example, 1990 = 90)

Age Number of years since the microprocessor was introduced

Dcache Number of bits of data available in cache memory, on the microprocessor chip

Icache Number of instructions that can be stored in cache memory, on the microprocessor chip

Pipeline Dummy variable for the existence of pipeline logic operations on the chip; also denotes the existence of a floating-point logic circuit on the microprocessor chip: Yes = 1, no = 0

Manage Dummy variable for the existence of an external memory-management circuit on the microprocessor chip: Yes = 1, no = 0

Manage-I Dummy variable for the existence of an internal memory-management unit on the microprocessor chip: Yes = 1, no = 0

The estimation process was largely the same as that for 80x86 microprocessors, but it used shortcuts based on the results of the 80x86 estimates. In particular, only the log-log functional form was used. Because for the 680x0 microprocessors, Memory is perfectly correlated with Bus, Memory was dropped as an explanatory variable. Because of the high correlations among the explanatory variables, the number of variables that could be included in the preferred equation was even fewer than for the 80x86 microprocessors.

Table 9 shows a selected set of equations. In equation 1, the starting point of the experiments, the unit price of the microprocessors is a function of Speed and Year. Equation 2 adds Bus to the explanatory variable set. In these equations, as well as in most of the other equations shown, the Year variable's coefficient is negative, which is consistent with the pattern of declining prices over time. As before, positive coefficients for the performance variables are consistent with the premise that additional features increase unit prices. All t-test statistics in the two equations

are highly significant, and the summary statistics are reasonably good.

Equation 3 adds Pipeline, which has a high t-test statistic and improves summary statistics. However, Pipeline is highly correlated with other explanatory variables and is never significant when any of the others are added; as a result, it is not used in any other equations in table 9.

Equations 4 and 5 add Dcache and Icache, respectively, to the explanatory variable set. The coefficient of each of the cache variables is highly significant, and each yields greater improvements to the summary statistics than Pipeline. The two cache variables have a correlation coefficient of 0.997, so it was not possible to get both of them to be significant in the same equation. Dcache turned out to be a slightly better explanatory variable, so it is used in the preferred equation.

Equation 6 adds the two memory-management circuit variables. All of the variables are highly significant, and the summary statistics are quite good. (Additional work showed that Manage is significant without the inclusion of Manage-I, but not conversely.) All of the performance variables' coefficients are positive.

Equation 7 is similar to equation 4, but it adds Age to the explanatory variable set. The coefficient of Age is negative, and it is about the same size as the coefficient of Year in the other equations. In addition, the Year coefficient becomes highly insignificant. This result is the reverse of the results for 80x86 microprocessor prices; however, it is consistent with the pattern of prices declining over time that results from price declines in prices of individual microprocessors as their designs become older.

Equation 8 drops the Year variable and adds the two memory-management variables; however, their coefficients are insignificant. The summary statistics for this equation are similar to those for equation 6.

Equation 6 was selected as the starting point for the final regression equation that would be used as the basis for the hedonic price estimates. Next, the Year time trend was replaced by individual dummy variables for each year. Unlike the corresponding equation for 80x86 microprocessors, all of the performance-characteristic explanatory variables from equation 6 were significant in the resulting equation. In addition, substituting Icache for Dcache did not affect the time dummy coefficients to 5 decimal places or the summary statistics to 4 places, but the t-test statistic for Manage-I increased 0.5, to 8.3. The estimated regression is

$$
\begin{aligned}
\log(\text{Price}) = {} & \\
& 1.27102 * \log(\text{Speed}) && +0.97516 * \log(\text{Bus}) \\
& (5.1) && (8.3) \\
& +0.00098 * \text{Icache} && +0.89557 * \text{Manage} \\
& (8.1) && (5.8) \\
& +1.55735 * \text{Manage-I} && -0.13063 * D86 \\
& (8.3) && (0.4) \\
& -0.46500 * D87 && -0.60028 * D88 \\
& (1.4) && (1.9) \\
& -0.78569 * D89 && -1.00557 * D90 \\
& (2.5) && (3.3) \\
& -1.22273 * D91 && -1.52591 * D92 \\
& (4.0) && (4.9) \\
& -1.93050 * D93 && -2.08266 * D94 \\
& (6.2) && (6.7) \\
& -2.90252 & & \\
& (3.9) & &
\end{aligned}
$$

R-bar square = 0.9637

F (14,33) = 90.2

Price indexes for 1985–94

The preferred hedonic equations—with year dummy variables—were used to construct two types of quality-adjusted price indexes for the 80x86 and the 680x0 microprocessors. The first type was a "regression" price index. In regression indexes, the coefficients of characteristics and of the year dummy variables are used to construct a price index. As Cole and others have noted, regression indexes are unweighted and may therefore produce different results than alternative methods.[25] The second type was a "composite" price index. Composite indexes use prices in a matched-model framework. Actual microprocessor prices are used when they are available; otherwise, hypothetical prices based on equation

25. See Cole, et al., 48–49.

Table 9.—Hedonic Regressions for 680x0 Microprocessors, 1985–94

Explanatory variable	Equation number							
	1	2	3	4	5	6	7	8
Log(Speed)	3.60632	2.24665	1.64466	1.25183	1.28761	1.33620	1.33742	1.22620
	(12.4)	(4.5)	(3.9)	(3.5)	(3.4)	(6.1)	(6.0)	(6.1)
Log(Bus)		1.83498	2.23686	2.41715	2.34678	1.02843	.46449	.31417
		(3.2)	(4.8)	(6.3)	(5.8)	(3.5)	(1.4)	(1.0)
Year	–0.30897	–0.27285	–0.27589	–0.25642	–0.25489	–0.24755	–0.01279	
	(6.1)	(5.8)	(7.3)	(8.2)	(7.7)	(12.5)	(0.4)	
Age							–0.24101	–0.24755
							(8.1)	(12.5)
Dcache				0.00043		0.00033	0.00019	0.00020
				(7.6)		(8.4)	(4.0)	(4.8)
Icache					0.00126			
					(6.9)			
Pipeline			1.46224					
			(5.0)					
Manage						0.90321		0.16057
						(6.3)		(1.0)
Manage-I						1.48509		0.03282
						(8.4)		(0.2)
Constant	21.7361	16.2533	16.7477	15.3848	15.3633	17.9909	1.12248	0.41510
	(5.2)	(3.9)	(5.0)	(5.6)	(5.3)	(10.3)	(0.5)	(0.7)
R-bar square	0.7641	0.8045	0.8731	0.9150	0.9057	0.9672	0.9660	0.9627
F-test statistic	77.1	65.5	81.9	127.4	113.9	231.9	267.8	231.9
	(2,45)	(3,44)	(4,43)	(4,43)	(4,43)	(6,41)	(5,42)	(6,41)

NOTE.—The dependent variable is the natural logarithm of the unit price of a 680X0 microprocessor.

values (that is, estimated prices based on the year and the microprocessor's characteristics) or on conventional interpolation and extrapolation techniques are used.

The price indexes presented in this article differ in concept from those developed by Cole and others because these indexes are chain-type indexes rather than indexes with fixed base-period weights. The chain-type-index approach for preparing composite indexes requires fewer estimated prices than approaches with base-period weights. In the calculation of the composite indexes for 80x86 microprocessors, 32 percent of the unit prices were estimates based on the final hedonic regression equation, and an additional 10 percent were extrapolated or interpolated using conventional techniques. In the calculation of the composite indexes for 680x0 microprocessors, the figures were 7 percent and 9 percent, respectively.

80x86 price indexes.—Table 10 shows four price indexes for 80x86 microprocessors for 1985–94. In 1985–94, the regression price index declines at an average annual rate of 22 percent. It declines sharply in most years but registers a small increase in 1988. The rates of decline peak at 41 percent in 1990 but continue to decline rapidly thereafter.

The other three indexes are chain-type price indexes. The Laspeyres and Paasche indexes are shown largely as background information. The Fisher index is featured in this article, as it is in the NIPA's. In 1985–94, the Fisher index declines at an average annual rate of 27 percent. It declines less in 1987 and 1988 than in the other years, but the pattern is much less emphatic than that shown in the regression index. The sharpest decline is 39 percent in 1994, and there is no apparent deceleration of the index.

680x0 price indexes.—Table 11 shows four price indexes for 680x0 microprocessors. In 1985–94, the regression price index declines at an average annual rate of 21 percent. The index declines substantially in all years, including 1988. This index shows considerably more year-to-year fluctuation than the regression index for 80x86 microprocessors. The smallest decline is 12 percent in 1986, and the largest decline is 33 percent in 1993.

The Fisher chain-type price index declines at an average annual rate of 23 percent in 1985–94. Its rate of decline exhibits considerable year-to-year volatility. The smallest decline is 15 percent in 1994, and the largest decline is 38 percent in 1993.

Extension to 1995–96

As with memory chips, price and quantity data for 1995 and 1996 became available after the regression experiments were completed. The regression experiments were not repeated with a longer sample period, because the most recently introduced microprocessors have performance-enhancing characteristics that are not in the ex-

Table 10.—Price Indexes for 80x86 Microprocessors

Year	Regression index	Chain indexes		
		Laspeyres	Paasche	Fisher
	Levels [1992=100]			
1985	5.11	6.11	9.93	7.79
1986	4.49	4.15	6.04	5.01
1987	4.05	3.77	5.38	4.50
1988	4.08	3.39	4.71	4.00
1989	3.10	2.57	3.32	2.92
1990	1.82	1.86	1.89	1.88
1991	1.50	1.54	1.56	1.55
1992	1.00	1.00	1.00	1.00
1993	0.71	0.71	0.72	0.72
1994	0.55	0.37	0.51	0.43
	Percent change from previous year			
1986	–12.1	–32.1	–39.1	–35.7
1987	–9.9	–9.1	–11.0	–10.1
1988	0.6	–10.0	–12.6	–11.3
1989	–24.0	–24.3	–29.4	–26.9
1990	–41.3	–27.5	–43.2	–35.8
1991	–17.4	–17.2	–17.1	–17.2
1992	–33.4	–35.2	–36.1	–35.6
1993	–29.2	–28.9	–27.7	–28.3
1994	–23.0	–48.0	–29.7	–39.5
Average: 1985–94	–22.0	–26.8	–28.1	–27.4

Table 11.—Price Indexes for 680x0 Microprocessors

Year	Regression index	Chain indexes		
		Laspeyres	Paasche	Fisher
	Levels [1992=1.00]			
1985	4.60	6.81	4.78	5.71
1986	4.04	5.74	3.93	4.75
1987	2.89	3.87	2.90	3.35
1988	2.52	3.14	2.53	2.82
1989	2.10	2.57	2.12	2.33
1990	1.68	1.90	1.75	1.82
1991	1.35	1.39	1.30	1.35
1992	1.00	1.00	1.00	1.00
1993	0.67	0.60	0.65	0.62
1994	0.57	0.51	0.55	0.53
	Percent change from previous year			
1986	–12.2	–15.8	–17.8	–16.8
1987	–28.4	–32.5	–26.2	–29.4
1988	–12.7	–18.8	–12.7	–15.8
1989	–16.9	–18.4	–16.4	–17.4
1990	–19.7	–26.0	–17.4	–21.8
1991	–19.5	–26.8	–25.5	–26.1
1992	–26.2	–28.0	–23.3	–25.7
1993	–33.3	–39.8	–35.2	–37.6
1994	–14.1	–15.6	–15.3	–15.4
Average: 1985–94	–20.7	–25.1	–21.4	–23.2

planatory variable set used for 1985–94.[26] Adding 2 more years of observations was not sufficient to accurately estimate the values of these characteristics. As a result, the "missing" prices—that is the prices for which 1995–96 data were not available—were estimated using conventional interpolation and extrapolation techniques.

As shown in the following tabulation, the prices of microprocessors continued to decline in 1995–96. For 80x86 microprocessors, the Fisher chain-type price index drops especially sharply, registering much larger rates of decline than those in previous years. This drop reflects very large declines in unit prices for the various types of 80486 and Pentium microprocessors. For 680x0 microprocessors, the Fisher chain-type price index declines at about the same rate in 1995 as in 1994 and then declines more rapidly in 1996. The sharp 1996 decline reflects large decreases in unit prices for the 68040 and the various PowerPC microprocessors. Thus, for both lines of microprocessors, the sharp rates of decline are associated with the newest, most technologically advanced microprocessors.

Microprocessor Price Indexes

[Percent change]

	80x86	680x0
1995	-69.8	-14.2
1996	-63.3	-32.9

Summary price index

A summary Fisher chain-type price index for both types of microprocessors was constructed using the two individual Fisher chain-type price indexes. The summary index uses current-dollar shipment weights based on unit prices and quantities of shipments from the data set. The weight for 80x86 microprocessors ranges from a low of 80 percent in 1989 to a high of 93 percent in 1994.

The summary Fisher chain-type price index for microprocessors declines at an average annual rate of 35 percent in 1985–96 (table 12). It also fluctuates considerably from year to year. The smallest decline is 12 percent in 1988, and the largest declines are 66 percent in 1995 and 60 percent in 1996. In comparison, the summary price index for memory chips declines at an average annual rate of 18 percent in the same period; the rates of change vary from a decline of 53 percent in 1985 to an increase of 16 percent in 1988.

26. Only one price observation on a Pentium microprocessor was in the data set used to estimate the hedonic regressions for the 80x86 microprocessors.

Table 12.—Summary Price Index for Microprocessors

[1992 = 1.00]

Year	Index	Percent change from previous year
1985	7.24	
1986	4.89	–32.4
1987	4.27	–12.8
1988	3.77	–11.8
1989	2.81	–25.4
1990	1.87	–33.3
1991	1.53	–18.5
1992	1.00	–34.5
1993	0.71	–29.1
1994	0.44	–44.2
1995	0.15	–65.6
1996	0.06	–60.1
Average: 1985–96		–35.3

Semiconductor Price Indexes in the NIPA's

The price indexes for semiconductors play a modest role in the calculation of real gross domestic product (GDP). Most semiconductors are used as intermediate inputs and are netted out before the various real product-side components are calculated. However, exports and imports of semiconductors are separately identifiable components of GDP beginning with 1981. As part of the comprehensive revision of the NIPA's that was released in January 1996, the semiconductor price indexes described in this article were used in calculating real exports and imports of semiconductors. In the annual NIPA revision that was released in July 1997, these price indexes were revised and extended for use in calculating real exports and imports of semiconductors for 1993–96.

The price indexes for semiconductors play a significant role in the estimates of real gross product originating by industry. They affect both the real output of the industry in which semiconductors are produced and the real intermediate inputs of semiconductors into the industries that use them to make other products.

Exports and imports

The price indexes for exports and imports of semiconductors for 1993–96 are based on BEA's price indexes for memory chips and microprocessors and on the producer price index (PPI) for semiconductor dice and wafers. The estimates for 1981–92 are also based on BEA's price indexes, but the methodology was somewhat simpler and was based on the less complete information that was available at the time of the comprehensive revision of the NIPA's.

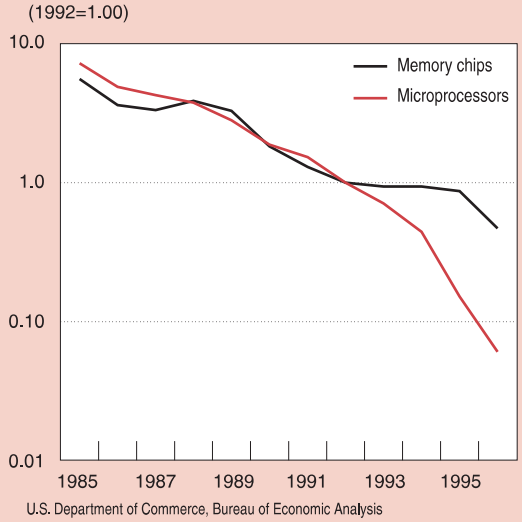
Differences between the estimates of export prices and import prices of semiconductors reflect differences in the relative importance of the two types of semiconductors in exports and imports. Microprocessors are more important than memory chips in domestic production and exports, whereas memory chips are more important than microprocessors in imports. In addition, exports include substantial numbers of domestically produced silicon wafers and semifinished semiconductor dice that are shipped abroad for further manufacturing, testing, and packaging; imports contain fewer numbers of dice and wafers.

The price weights used for exports of semiconductors are roughly as follows: One-quarter for semiconductor dice and wafers, one-third for memory chips, and the remainder—somewhat less than half—for microprocessors. The price weights used for imports of semiconductors are roughly as follows: Somewhat less than one-tenth for semiconductor dice and wafers, three-quarters for memory chips, and the remainder for microprocessors. These weighting schemes are based on the implicit assumption that the prices of other types of semiconductors follow the same patterns as the prices of the types of semiconductors used to calculate of BEA's price indexes.

In 1992–96, the price index for microprocessors, which are relatively more important in exports, declined somewhat more rapidly than the price index for memory chips, which are relatively more important in imports (chart 2). However, because of the heavier weight of semiconductor wafers and dice—whose prices have declined less rapidly than those of finished semiconductors—in the exports index, the average rates of decline in the exports and imports price indexes were about the same. Using the new price indexes raises the average annual growth rates of real exports and imports of semiconductors in 1985–94 by roughly equal amounts relative to the previous estimates.

CHART 2

Semiconductor Price Indexes



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

Quarterly estimates.—Two different quarterly indicator series are used to interpolate between and extrapolate from the annual estimates for semiconductors; both series are based on price indexes published by the Bureau of Labor Statistics. For exports, the indicator series used is a weighted sum of detailed PPI's for selected semiconductors. For imports, the indicator series used is the International Price Project index for imports of semiconductors.

Gross product originating in the semiconductors industry

The price indexes described in this article were also incorporated into the gross product originating (GPO) estimates of real industry gross output and real intermediate inputs for 1977–96. For gross output, the indexes were weighted together with appropriate PPI's in order to develop a composite deflator that covered all the products of the semiconductor manufacturing industry. For intermediate inputs, the same composite deflator was used for estimating the purchases by other industries of domestically produced semiconductors. In addition, the price index for imports of semiconductors was used for imported semiconductor inputs.

In particular, the incorporation of the semiconductor price indexes directly affected the estimation of the real output of the industry that produces semiconductors, the electronic and other electric equipment industry. The real growth rates for both semiconductor output and intermediate inputs were revised up substantially, especially after 1992. In turn, both real gross output and GPO in the electronic and other electric equipment industry were revised up. In industries where GPO is calculated by double deflation and where intermediate inputs of semiconductors are significant, real GPO was revised down, but real gross output was unrevised.

Personal Income by State and Region, Third Quarter 1997

By Duke Tran

The quarterly estimates of State personal income are prepared by the Regional Economic Measurement Division.

IN THE third quarter of 1997, U.S. personal income increased $77.8 billion (table A).[1] Three-fifths of the increase was accounted for by three regions—the Southeast, the Far West, and the Mideast (chart 1). Within these regions, the increase in personal income was largely accounted for by these States: Florida, Georgia, and Virginia in the Southeast; California in the Far West; and New York and Pennsylvania in the Mideast.

About three-fourths of the $77.8 billion increase in U.S. personal income was in net earnings, which increased $57.2 billion.[2] Dividends, interest, and rent increased $12.0 billion, and transfer payments increased $8.7 billion.

U.S. earnings increased in each major industry except farming (table B). More than half of the increase was accounted for by services and by finance, insurance, and real estate.

More than three-fifths of the increase in U.S. earnings in services was accounted for by the Southeast, Far West, and Mideast regions.

1. The estimate of personal income for the Nation is derived as the sum of the State estimates; it differs from the estimate of personal income in the national income and product accounts (NIPA's) because, by definition, State personal income omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. This estimate can also differ from the NIPA estimate because of different data sources and revision schedules.

2. Net earnings by place of residence is earnings by place of work less personal contributions for social insurance plus an adjustment for residence. Earnings by place of work is the sum of wage and salary disbursements (payrolls), other labor income, and proprietors' income.

Table A.—Personal Income by Component: Dollar Change, 1997:II-1997:III

[Millions of dollars]

	Personal income	Net earnings by place of residence [1]	Dividends, interest, and rent	Transfer payments
United States	**77,841**	**57,166**	**11,970**	**8,705**
New England	**5,367**	**4,116**	**819**	**432**
Connecticut	1,834	1,485	225	124
Maine	297	221	46	30
Massachusetts	2,426	1,839	410	177
New Hampshire	363	260	67	37
Rhode Island	270	181	37	53
Vermont	179	132	35	12
Mideast	**14,299**	**10,435**	**2,227**	**1,636**
Delaware	312	250	40	22
District of Columbia	148	105	21	21
Maryland	1,507	1,046	251	209
New Jersey	2,801	2,146	454	201
New York	6,560	4,832	929	799
Pennsylvania	2,971	2,055	532	385
Great Lakes	**9,851**	**6,759**	**1,895**	**1,197**
Illinois	3,911	2,930	606	376
Indiana	1,184	785	224	174
Michigan	1,209	563	399	247
Ohio	2,119	1,395	434	290
Wisconsin	1,428	1,086	232	111
Plains	**4,268**	**3,028**	**738**	**503**
Iowa	242	98	77	66
Kansas	628	436	136	56
Minnesota	1,590	1,285	207	99
Missouri	1,109	666	241	202
Nebraska	454	368	35	51
North Dakota	175	151	20	3
South Dakota	70	24	22	25
Southeast	**16,725**	**11,643**	**2,706**	**2,375**
Alabama	787	492	140	154
Arkansas	65	–88	74	78
Florida	4,699	3,208	876	616
Georgia	2,786	2,223	323	238
Kentucky	828	558	125	144
Louisiana	1,123	822	126	174
Mississippi	462	290	63	108
North Carolina	1,231	646	317	269
South Carolina	1,060	806	128	126
Tennessee	1,359	977	190	190
Virginia	1,998	1,477	300	221
West Virginia	327	230	42	56
Southwest	**8,947**	**6,878**	**1,093**	**976**
Arizona	1,547	1,153	236	158
New Mexico	317	194	55	68
Oklahoma	1,112	905	102	104
Texas	5,971	4,626	700	645
Rocky Mountain	**2,825**	**2,184**	**406**	**235**
Colorado	1,392	1,047	227	118
Idaho	409	329	48	33
Montana	124	72	34	18
Utah	768	644	70	54
Wyoming	131	94	27	11
Far West	**15,559**	**12,122**	**2,085**	**1,351**
Alaska	190	156	24	10
California	10,922	8,460	1,437	1,025
Hawaii	258	165	50	43
Nevada	691	504	123	64
Oregon	948	688	165	94
Washington	2,549	2,148	286	115

1. Net earnings by place of residence is earnings by place of work—the sum of wage and salary disbursements (payrolls), other labor income, and proprietors' income—less personal contributions for social insurance plus an adjustment for residence.

Table B.—Earnings by Place of Work: Dollar Change by Industry, 1997:II-1997:III

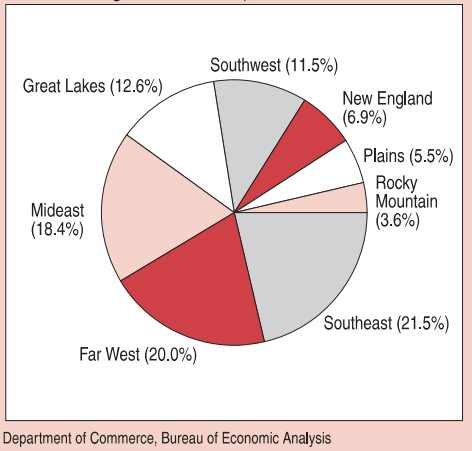
[Millions of dollars]

	Total earnings by place of work	Farm	Agricultural services, forestry, and fishing	Mining	Construction	Durable goods manufacturing	Nondurable goods manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government
United States	**60,712**	**–2,488**	**1,142**	**44**	**2,171**	**4,219**	**2,146**	**4,546**	**4,300**	**6,148**	**9,486**	**23,185**	**5,812**
New England	**4,284**	**18**	**52**	**–1**	**65**	**314**	**69**	**193**	**370**	**520**	**819**	**1,543**	**322**
Connecticut	1,515	13	16	0	85	147	60	59	129	145	249	493	118
Maine	229	5	6	0	30	–16	–19	11	22	44	40	83	23
Massachusetts	2,001	4	19	–2	–29	167	9	76	176	236	457	761	127
New Hampshire	230	–2	5	1	–19	–5	–15	36	21	67	29	83	29
Rhode Island	168	–1	3	0	0	–35	8	15	15	23	31	97	13
Vermont	141	0	1	–1	0	54	25	–3	7	6	13	27	12
Mideast	**11,115**	**–1**	**126**	**–1**	**324**	**612**	**438**	**643**	**711**	**1,004**	**2,326**	**4,055**	**876**
Delaware	307	6	2	0	17	82	–9	28	5	12	86	64	13
District of Columbia	219	0	10	0	–10	0	21	8	1	14	39	184	–49
Maryland	994	4	17	–3	–39	–37	57	57	98	110	156	406	168
New Jersey	2,025	3	28	–1	58	173	–88	142	199	192	355	916	48
New York	5,445	2	36	–5	302	317	368	270	262	442	1,385	1,719	348
Pennsylvania	2,123	–15	34	8	–4	78	88	138	144	235	304	766	348
Great Lakes	**7,054**	**–19**	**145**	**–50**	**–45**	**–631**	**224**	**534**	**661**	**845**	**1,254**	**3,073**	**1,063**
Illinois	3,119	–17	42	–22	46	183	58	144	208	176	536	1,214	553
Indiana	798	–15	18	–6	–142	116	97	53	49	122	121	297	89
Michigan	558	–3	35	–20	124	–683	–88	172	168	221	152	521	–45
Ohio	1,462	20	32	–2	–99	–389	72	105	171	211	287	644	408
Wisconsin	1,117	–5	18	–1	26	141	84	61	64	115	158	397	57
Plains	**3,312**	**–856**	**78**	**–11**	**110**	**498**	**343**	**271**	**263**	**393**	**644**	**1,032**	**545**
Iowa	125	–424	13	2	–51	181	45	48	10	75	80	105	42
Kansas	467	28	11	–3	20	–15	63	26	46	83	70	112	24
Minnesota	1,401	–203	14	–8	17	252	191	79	124	96	196	399	245
Missouri	696	–20	18	–4	89	–14	4	37	8	85	195	178	119
Nebraska	419	–123	12	2	–16	61	56	72	61	28	59	132	74
North Dakota	168	4	3	–3	33	12	–1	10	13	11	19	45	24
South Dakota	36	–117	6	3	18	19	–15	1	0	16	24	61	18
Southeast	**12,421**	**–1,288**	**280**	**0**	**393**	**579**	**250**	**1,221**	**890**	**1,488**	**1,837**	**5,406**	**1,366**
Alabama	508	–86	18	5	–38	16	–10	63	53	65	92	255	78
Arkansas	–72	–383	12	–2	13	23	12	27	21	51	33	74	50
Florida	3,415	–159	82	4	139	194	13	254	215	453	553	1,469	201
Georgia	2,380	–33	37	0	72	–119	–35	410	230	303	330	1,002	184
Kentucky	603	62	14	–30	–16	–30	36	5	29	35	72	253	175
Louisiana	872	28	13	53	27	153	33	107	38	58	81	221	61
Mississippi	293	–67	10	1	34	57	–44	15	18	31	11	98	129
North Carolina	724	–612	34	0	18	63	135	84	60	17	235	645	45
South Carolina	849	11	13	0	45	5	46	37	25	105	71	224	268
Tennessee	1,029	–7	20	6	104	83	60	25	59	97	121	434	27
Virginia	1,578	–40	26	–5	–23	111	1	183	124	253	223	625	99
West Virginia	241	–2	3	–30	18	23	5	10	19	20	17	107	51
Southwest	**7,283**	**–36**	**126**	**70**	**272**	**572**	**249**	**835**	**514**	**664**	**901**	**2,615**	**501**
Arizona	1,222	–8	31	12	73	200	5	70	46	148	196	470	–22
New Mexico	204	–38	7	0	26	10	–12	17	9	42	17	102	22
Oklahoma	964	8	10	1	10	345	46	92	31	52	59	197	114
Texas	4,893	2	79	57	162	16	210	656	427	422	628	1,845	387
Rocky Mountain	**2,305**	**–5**	**48**	**9**	**198**	**407**	**87**	**127**	**128**	**213**	**267**	**651**	**174**
Colorado	1,105	–10	25	2	7	305	–38	44	69	138	161	269	130
Idaho	344	4	9	–7	27	87	54	32	15	–19	21	87	35
Montana	73	–7	4	7	26	0	–13	0	5	21	15	42	–26
Utah	684	–2	8	5	119	10	71	49	33	55	60	228	48
Wyoming	99	10	2	2	19	4	12	4	7	17	10	24	–13
Far West	**12,939**	**–303**	**286**	**28**	**853**	**1,870**	**486**	**719**	**764**	**1,021**	**1,441**	**4,810**	**964**
Alaska	178	–1	9	45	8	–1	–25	19	6	34	16	40	26
California	9,011	–239	204	–10	642	1,175	362	507	546	617	1,094	3,496	615
Hawaii	173	2	3	0	–27	–5	–22	35	12	6	32	57	81
Nevada	542	1	11	–5	43	–12	1	47	32	73	66	254	36
Oregon	734	0	28	3	123	–19	20	17	39	100	91	282	51
Washington	2,301	–67	32	–3	63	731	150	95	130	192	142	682	154

CHART 1

Personal Income: Dollar Change for Regions as a Percent of the U.S. Dollar Change, 1997:II–1997:III

(U.S. dollar change=$77.8 billion)



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

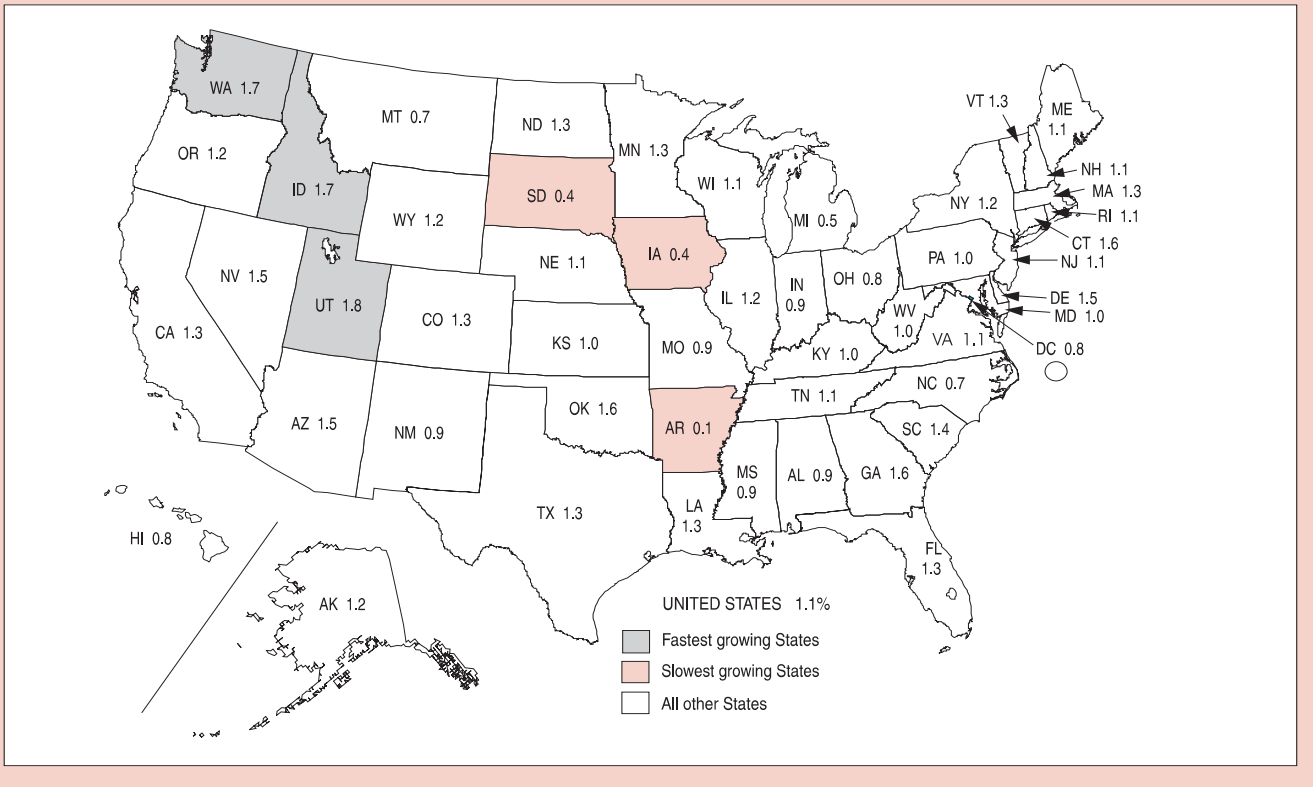
Within these regions, the increase was largely accounted for by these States: Florida, Georgia, and North Carolina in the Southeast; California in the Far West; and New York and New Jersey in the Mideast.

Nearly three-fifths of the increase in U.S. earnings in finance, insurance, and real estate was accounted for by the Mideast, Southeast, and Far West regions. Within these regions, the increase was largely accounted for by these States: New York in the Mideast; Florida, Georgia, and North Carolina in the Southeast; and California in the Far West.

Table 1 at the end of this article presents the quarterly estimates of personal income for each State and region, beginning with the first quarter of 1995. Table 2 presents the quarterly estimates of personal income by major source and of earnings by Standard Industrial Classification division, beginning with the first quarter of 1996.

CHART 2

Personal Income: Percent Change, 1997:II – 1997:III



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

Newly Available Estimates for States and Local Areas

The release of State personal income for 1929–57 on January 7, 1998, completed the comprehensive revision of State personal income. For 1929–57, estimates are available for personal income, per capita personal income, personal income by type of income payment, and earnings and wages and salaries by broad industry group. For 1948–57, estimates are available for disposable personal income, per capita disposable personal income, personal tax and nontax payments by level of government and by type, and transfer payments by major program.

On December 30, 1997, the estimates for 1996 of wage and salary disbursements by place of work, wage and salary employment, and average wages per job for counties and metropolitan areas were released; the release of the full set of estimates of personal income for local areas is scheduled for May 4, 1998.

These newly released estimates are available on BEA's Internet site. Go to <http://www.bea.doc.gov>, and select "Data" under the "Regional" heading.

Fastest and slowest growing States

The rate of growth in personal income in the Nation in the third quarter was 1.1 percent, compared with a 1.2-percent growth rate in the second.[3] In all States except Arkansas, the third-quarter growth rates in personal income exceeded or equaled the 0.4-percent rate of increase in prices paid by U.S. consumers (as measured by the price index for personal consumption expenditures).

By State, the growth rates in personal income ranged from 1.8 percent in Utah to 0.1 percent in Arkansas. The States with the fastest rates of growth in personal income were the western States of Utah (1.8 percent), Washington (1.7 percent), and Idaho (1.7 percent) (chart 2).

In Utah, the major contributors to the growth in personal income were earnings in services, construction, and nondurable goods manufacturing (table B); the growth in construction reflected statewide road reconstruction. In Washington, the major contributors were earnings in durable goods manufacturing and services; the growth in durable goods manufacturing reflected strength in the aircraft industry. In Idaho, the major contributors were earnings in services, durable goods manufacturing, and nondurable goods manufacturing; the growth in durable goods manufacturing reflected strength in the electronic and other electric equipment industry.

The States with the slowest rates of growth in personal income were Arkansas (0.1 percent), Iowa (0.4 percent), and South Dakota (0.4 percent). In all three States, the major contributor to the slow growth was a decline in farm earnings. In addition, earnings declined in mining in Arkansas, in construction in Iowa, and in nondurable goods manufacturing in South Dakota.

Tables 1 and 2 follow.

3. In this article, the percent changes are at quarterly—not at annual—rates.

Table 1.—Personal Income by State and Region

[Millions of dollars, seasonally adjusted at annual rates]

Area name	1995				1996				1997			Percent change [2]	
	I	II	III	IV	I	II	III	IV	I [r]	II [r]	III [p]	1997:I-1997:II	1997:II-1997:III
United States [1]	**6,040,235**	**6,102,138**	**6,166,454**	**6,242,674**	**6,344,946**	**6,446,004**	**6,526,017**	**6,602,689**	**6,730,234**	**6,813,111**	**6,890,952**	**1.2**	**1.1**
New England	**361,426**	**366,632**	**370,349**	**375,186**	**379,607**	**385,048**	**388,521**	**394,993**	**403,164**	**407,102**	**412,469**	**1.0**	**1.3**
Connecticut	104,157	105,263	106,209	107,485	109,083	110,491	111,178	112,912	116,058	117,258	119,092	1.0	1.6
Maine	24,630	24,975	24,979	25,282	25,590	25,984	26,251	26,669	27,068	27,371	27,668	1.1	1.1
Massachusetts	168,247	170,826	173,256	175,702	177,592	180,415	182,334	185,678	189,306	190,836	193,262	.8	1.3
New Hampshire	28,839	29,559	29,592	30,050	30,336	30,727	31,109	31,584	31,984	32,533	32,896	1.7	1.1
Rhode Island	23,121	23,507	23,684	23,853	23,971	24,270	24,341	24,743	25,105	25,330	25,600	.9	1.1
Vermont	12,433	12,502	12,630	12,815	13,034	13,160	13,307	13,407	13,643	13,773	13,952	1.0	1.3
Mideast	**1,186,541**	**1,194,849**	**1,203,961**	**1,216,140**	**1,237,524**	**1,251,871**	**1,264,426**	**1,280,913**	**1,304,447**	**1,311,683**	**1,325,982**	**.6**	**1.1**
Delaware	18,424	18,573	18,823	19,208	19,552	19,842	20,252	20,735	20,806	20,858	21,170	.2	1.5
District of Columbia	17,979	17,999	18,011	18,097	18,444	18,299	18,629	18,787	19,046	18,980	19,128	0	.8
Maryland	132,435	133,396	134,073	135,171	137,621	139,245	140,748	142,657	145,585	146,772	148,279	.8	1.0
New Jersey	235,873	238,211	239,921	242,202	245,984	249,308	251,460	254,430	259,568	260,234	263,035	.3	1.1
New York	500,818	502,971	507,122	512,336	522,825	527,239	532,396	540,159	550,752	552,885	559,445	.4	1.2
Pennsylvania	281,013	283,700	286,012	289,126	293,099	297,938	300,941	304,145	308,691	311,954	314,925	1.1	1.0
Great Lakes	**1,011,205**	**1,016,414**	**1,025,335**	**1,037,991**	**1,050,678**	**1,067,473**	**1,080,212**	**1,088,807**	**1,107,241**	**1,118,858**	**1,128,709**	**1.0**	**.9**
Illinois	297,953	299,874	302,507	306,538	311,898	316,298	320,221	323,827	329,728	334,795	338,706	1.5	1.2
Indiana	125,000	125,260	125,840	127,120	128,813	131,434	133,113	134,643	136,273	137,946	139,130	1.2	.9
Michigan	228,072	227,381	229,862	232,862	235,014	238,849	241,129	242,326	246,604	246,771	247,980	.1	.5
Ohio	247,297	249,836	252,041	254,992	257,084	261,194	264,418	265,610	270,378	273,296	275,415	1.1	.8
Wisconsin	112,884	114,063	115,086	116,480	117,869	119,697	121,331	122,402	124,257	126,050	127,478	1.4	1.1
Plains	**396,928**	**401,414**	**405,940**	**411,894**	**422,854**	**430,289**	**436,027**	**440,502**	**447,509**	**454,004**	**458,272**	**1.5**	**.9**
Iowa	58,230	58,654	59,339	60,349	62,444	63,330	64,071	64,608	65,608	66,547	66,789	1.4	.4
Kansas	55,452	55,957	56,483	56,978	58,546	59,253	59,992	60,546	61,519	62,694	63,322	1.9	1.0
Minnesota	108,996	110,264	111,360	113,501	116,196	118,885	120,959	122,079	123,362	125,624	127,214	1.8	1.3
Missouri	114,669	116,225	117,492	118,622	121,011	122,784	124,035	125,633	128,408	129,378	130,487	.8	.9
Nebraska	34,259	34,631	35,324	36,008	36,963	37,686	38,117	38,681	39,335	39,833	40,287	1.3	1.1
North Dakota	11,619	11,828	11,871	12,141	12,842	13,111	13,347	13,338	13,507	13,758	13,933	1.9	1.3
South Dakota	13,702	13,854	14,072	14,295	14,853	15,239	15,505	15,617	15,769	16,170	16,240	2.5	.4
Southeast	**1,315,532**	**1,330,900**	**1,346,689**	**1,366,123**	**1,384,840**	**1,409,188**	**1,427,939**	**1,443,187**	**1,472,789**	**1,490,004**	**1,506,729**	**1.2**	**1.1**
Alabama	80,849	81,643	82,531	83,247	84,122	85,655	86,740	87,568	88,998	89,800	90,587	.9	.9
Arkansas	44,006	44,711	45,284	46,153	46,329	47,567	48,005	48,436	48,995	50,187	50,252	2.4	.1
Florida	322,062	325,801	330,072	334,334	342,159	346,800	351,320	355,118	362,557	366,848	371,547	1.2	1.3
Georgia	154,451	156,103	158,784	162,162	164,063	168,023	170,891	172,857	176,818	178,647	181,433	1.0	1.6
Kentucky	71,560	72,417	72,972	74,008	75,075	76,525	77,707	78,235	79,899	80,934	81,762	1.3	1.0
Louisiana	81,220	81,823	82,912	83,053	83,917	85,273	86,111	86,892	88,374	89,748	90,871	1.6	1.3
Mississippi	44,325	44,797	45,387	46,079	46,721	47,627	48,188	48,402	49,263	50,109	50,571	1.7	.9
North Carolina	148,917	151,505	153,258	156,724	158,014	161,859	163,920	166,616	170,544	172,999	174,230	1.4	.7
South Carolina	69,009	69,827	70,483	71,511	72,080	73,495	74,607	75,377	76,809	77,602	78,662	1.0	1.4
Tennessee	109,635	111,021	112,222	113,817	114,441	116,169	117,626	118,806	121,368	122,635	123,994	1.0	1.1
Virginia	157,790	159,368	160,764	162,642	165,259	167,219	169,444	171,277	175,302	176,238	178,236	.5	1.1
West Virginia	31,708	31,885	32,021	32,392	32,659	32,976	33,381	33,603	33,864	34,258	34,585	1.2	1.0
Southwest	**568,008**	**576,315**	**584,361**	**592,619**	**603,099**	**613,576**	**623,327**	**630,151**	**645,366**	**656,488**	**665,435**	**1.7**	**1.4**
Arizona	85,300	86,460	88,345	89,968	92,200	93,851	95,623	96,709	99,123	100,860	102,407	1.8	1.5
New Mexico	30,231	30,580	31,009	31,304	31,823	32,152	32,367	32,526	33,301	33,837	34,154	1.6	.9
Oklahoma	60,341	61,041	61,604	62,385	63,239	64,273	65,003	65,541	67,017	67,547	68,659	.8	1.6
Texas	392,135	398,234	403,402	408,962	415,838	423,301	430,334	435,376	445,924	454,244	460,215	1.9	1.3
Rocky Mountain	**172,902**	**174,647**	**177,649**	**180,764**	**183,459**	**187,084**	**190,154**	**192,566**	**196,311**	**199,637**	**202,462**	**1.7**	**1.4**
Colorado	89,985	90,804	92,494	93,779	95,749	97,514	99,191	100,578	102,455	104,393	105,785	1.9	1.3
Idaho	21,944	22,135	22,446	22,945	23,112	23,581	23,795	23,877	24,354	24,760	25,169	1.7	1.7
Montana	15,891	16,029	16,250	16,456	16,566	16,788	17,017	17,213	17,294	17,536	17,660	1.4	.7
Utah	35,196	35,701	36,388	37,378	37,856	38,848	39,697	40,397	41,520	42,153	42,921	1.5	1.8
Wyoming	9,885	9,977	10,072	10,205	10,177	10,354	10,453	10,501	10,687	10,795	10,926	1.0	1.2
Far West	**1,027,694**	**1,040,967**	**1,052,169**	**1,061,958**	**1,082,884**	**1,101,474**	**1,115,412**	**1,131,570**	**1,153,406**	**1,175,334**	**1,190,893**	**1.9**	**1.3**
Alaska	14,500	14,548	14,590	14,615	14,731	14,789	14,826	14,894	15,055	15,384	15,574	2.2	1.2
California	752,421	761,430	768,728	775,160	790,291	803,573	812,716	825,321	840,004	855,514	866,436	1.8	1.3
Hawaii	29,352	29,669	29,633	29,716	29,902	30,067	30,150	30,169	30,549	30,837	31,095	.9	.8
Nevada	36,893	37,503	38,351	39,055	40,255	41,286	42,207	43,050	44,032	44,799	45,490	1.7	1.5
Oregon	67,167	68,155	69,323	70,580	71,934	73,336	74,683	75,735	77,505	79,098	80,046	2.1	1.2
Washington	127,361	129,663	131,544	132,832	135,771	138,424	140,830	142,401	146,261	149,703	152,252	2.4	1.7

[p] Preliminary.
[r] Revised.

1. The personal income level shown for the United States is derived as the sum of the State estimates. It differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

2. Percent changes are expressed at quarterly rates and are calculated from seasonally adjusted unrounded data.

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally

Line	Item	United States							New England						
		1996				1997			1996				1997		
		I	II	III	IV	I r	II r	III p	I	II	III	IV	I r	II r	III p
	Income by Place of Residence														
1	Personal income (lines 4-11)	6,344,946	6,446,004	6,526,017	6,602,689	6,730,234	6,813,111	6,890,952	379,607	385,048	388,521	394,993	403,164	407,102	412,469
2	Nonfarm personal income	6,302,835	6,400,089	6,476,984	6,553,152	6,680,685	6,759,984	6,840,313	379,017	384,413	387,823	394,302	402,515	406,374	411,723
3	Farm income (line 17)	42,111	45,915	49,033	49,537	49,549	53,127	50,639	590	635	698	690	650	728	746
	Derivation of Personal Income														
4	Earnings by place of work (line 12-16 or 17-34)	4,441,995	4,526,759	4,582,201	4,641,597	4,725,608	4,787,585	4,848,297	259,848	265,007	267,262	273,014	278,457	281,180	285,464
5	Less: Personal contributions for social insurance [1]	300,024	304,576	307,752	311,016	317,710	320,837	324,320	17,074	17,358	17,476	17,825	18,235	18,356	18,591
6	Plus: Adjustment for residence [2]	–3,297	–3,375	–3,424	–3,484	–3,558	–3,638	–3,701	4,544	4,534	4,615	4,698	4,795	4,708	4,774
7	Equals: Net earnings by place of residence	4,138,674	4,218,808	4,271,025	4,327,097	4,404,340	4,463,110	4,520,276	247,318	252,182	254,401	259,887	265,017	267,532	271,648
8	Plus: Dividends, interest, and rent [3]	1,153,180	1,162,440	1,182,632	1,194,204	1,218,792	1,233,114	1,245,084	73,450	73,840	74,995	75,646	77,342	78,317	79,136
9	Plus: Transfer payments	1,053,092	1,064,756	1,072,360	1,081,388	1,107,102	1,116,887	1,125,592	58,838	59,026	59,125	59,460	60,806	61,253	61,685
10	State unemployment insurance benefits	22,444	21,628	20,804	21,092	21,654	21,487	21,092	1,684	1,542	1,475	1,524	1,594	1,537	1,507
11	Transfers excluding State unemployment insurance benefits	1,030,648	1,043,128	1,051,556	1,060,296	1,085,448	1,095,400	1,104,500	57,155	57,484	57,650	57,936	59,211	59,716	60,178
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	3,532,560	3,604,680	3,656,444	3,710,692	3,785,153	3,835,312	3,889,852	208,564	213,098	215,321	220,510	225,307	227,584	231,281
13	Other labor income	404,804	407,696	408,180	408,848	412,075	414,873	417,464	23,490	23,668	23,574	23,830	24,063	24,168	24,369
14	Proprietors' income [4]	504,631	514,383	517,577	522,057	528,380	537,400	540,981	27,794	28,241	28,366	28,674	29,086	29,428	29,814
15	Farm	27,275	30,891	33,829	34,149	33,979	37,371	34,698	245	289	351	340	296	370	384
16	Nonfarm	477,356	483,492	483,748	487,908	494,401	500,029	506,283	27,548	27,951	28,015	28,333	28,791	29,058	29,430
	Earnings by Industry														
17	Farm	42,111	45,915	49,033	49,537	49,549	53,127	50,639	590	635	698	690	650	728	746
18	Nonfarm	4,399,884	4,480,844	4,533,168	4,592,060	4,676,059	4,734,458	4,797,658	259,258	264,372	266,564	272,324	277,807	280,453	284,718
19	Private	3,714,828	3,790,720	3,837,480	3,892,964	3,968,192	4,022,304	4,079,693	226,687	231,723	233,660	239,466	244,648	247,024	250,968
20	Agricultural services, forestry, fishing and other [5]	28,848	29,708	30,232	30,292	31,126	32,235	33,377	1,485	1,541	1,572	1,596	1,625	1,665	1,717
21	Mining	39,004	39,232	38,808	39,132	39,813	40,227	40,271	210	216	213	206	209	218	217
22	Construction	247,524	253,412	257,152	261,072	266,089	269,321	271,492	12,481	12,868	13,139	13,391	13,831	13,673	13,738
23	Manufacturing	804,184	820,808	826,668	831,912	841,060	847,891	854,256	49,632	50,660	50,891	51,500	51,924	52,350	52,732
24	Durable goods	491,816	504,208	508,400	510,688	517,268	522,272	526,491	33,548	34,316	34,362	34,885	34,918	35,274	35,588
25	Nondurable goods	312,368	316,600	318,268	321,224	323,792	325,619	327,765	16,083	16,344	16,530	16,615	17,006	17,076	17,145
26	Transportation and public utilities	305,672	308,788	311,164	310,284	316,643	320,130	324,676	14,066	14,324	14,254	14,392	14,425	14,729	14,922
27	Wholesale trade	277,308	282,696	286,588	291,436	296,861	301,328	305,628	16,529	16,883	17,060	17,598	17,816	18,288	18,658
28	Retail trade	406,096	413,512	416,636	425,168	431,821	435,286	441,434	23,281	23,753	24,126	24,655	24,769	24,902	25,422
29	Finance, insurance, and real estate	364,064	374,624	378,292	385,524	392,861	401,490	410,976	25,952	26,559	26,338	27,214	28,617	28,907	29,726
30	Services	1,242,128	1,267,940	1,291,940	1,318,144	1,351,918	1,374,397	1,397,582	83,051	84,919	86,066	88,914	91,432	92,293	93,836
31	Government and government enterprises	685,056	690,124	695,688	699,096	707,867	712,154	717,966	32,571	32,649	32,904	32,858	33,159	33,428	33,750
32	Federal, civilian	132,036	132,356	131,952	132,340	135,607	135,292	134,825	5,355	5,359	5,347	5,376	5,491	5,479	5,455
33	Military	49,216	48,880	48,752	48,484	49,467	49,153	49,222	1,285	1,245	1,249	1,248	1,274	1,267	1,254
34	State and local	503,804	508,888	514,984	518,272	522,792	527,709	533,919	25,931	26,045	26,308	26,233	26,393	26,682	27,041

Line	Item	New Hampshire							Rhode Island						
		1996				1997			1996				1997		
		I	II	III	IV	I r	II r	III p	I	II	III	IV	I r	II r	III p
	Income by Place of Residence														
1	Personal income (lines 4-11)	30,336	30,727	31,109	31,584	31,984	32,533	32,896	23,971	24,270	24,341	24,743	25,105	25,330	25,600
2	Nonfarm personal income	30,294	30,682	31,062	31,537	31,937	32,481	32,846	23,944	24,241	24,310	24,712	25,073	25,294	25,566
3	Farm income (line 17)	42	45	47	47	47	52	50	27	29	31	31	32	35	34
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	19,287	19,613	19,921	20,302	20,390	20,874	21,104	14,955	15,219	15,217	15,579	15,739	15,912	16,080
5	Less: Personal contributions for social insurance [1]	1,339	1,358	1,377	1,403	1,412	1,442	1,456	1,181	1,197	1,195	1,222	1,236	1,247	1,257
6	Plus: Adjustment for residence [2]	2,400	2,461	2,480	2,542	2,623	2,605	2,649	933	958	982	1,002	1,039	1,042	1,064
7	Equals: Net earnings by place of residence	20,349	20,716	21,024	21,442	21,601	22,037	22,297	14,708	14,981	15,004	15,359	15,541	15,707	15,888
8	Plus: Dividends, interest, and rent [3]	5,906	5,955	6,059	6,117	6,258	6,337	6,404	4,382	4,402	4,458	4,490	4,568	4,612	4,649
9	Plus: Transfer payments	4,081	4,056	4,027	4,026	4,125	4,159	4,196	4,882	4,887	4,879	4,894	4,996	5,011	5,064
10	State unemployment insurance benefits	39	35	33	35	37	33	35	191	185	176	177	179	154	171
11	Transfers excluding State unemployment insurance benefits	4,042	4,021	3,993	3,991	4,087	4,126	4,160	4,691	4,702	4,703	4,718	4,817	4,857	4,893
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	15,157	15,458	15,741	16,096	16,176	16,587	16,799	12,224	12,460	12,485	12,820	12,956	13,113	13,264
13	Other labor income	1,800	1,813	1,825	1,837	1,822	1,861	1,868	1,276	1,286	1,271	1,290	1,292	1,295	1,300
14	Proprietors' income [4]	2,329	2,343	2,355	2,369	2,391	2,427	2,437	1,455	1,472	1,462	1,469	1,491	1,504	1,517
15	Farm proprietors' income	16	18	20	21	20	24	23	17	18	21	20	21	24	23
16	Nonfarm proprietors' income	2,313	2,324	2,334	2,348	2,371	2,402	2,414	1,439	1,454	1,441	1,449	1,470	1,480	1,494
	Earnings by Industry														
17	Farm	42	45	47	47	47	52	50	27	29	31	31	32	35	34
18	Nonfarm	19,245	19,569	19,874	20,255	20,343	20,823	21,054	14,928	15,190	15,186	15,548	15,707	15,877	16,046
19	Private	16,974	17,293	17,557	17,955	18,023	18,444	18,646	12,499	12,752	12,715	13,072	13,180	13,309	13,465
20	Agricultural services, forestry, fishing, and other [5]	109	112	115	117	123	124	129	103	107	108	107	105	108	111
21	Mining	19	20	20	21	18	18	19	8	9	8	8	8	9	9
22	Construction	1,159	1,138	1,176	1,170	1,198	1,238	1,219	687	723	712	727	763	753	753
23	Manufacturing	4,345	4,512	4,646	4,622	4,530	4,715	4,695	2,958	2,983	2,935	3,035	3,124	2,976	2,949
24	Durable goods	3,105	3,212	3,348	3,320	3,219	3,363	3,358	1,882	1,902	1,885	1,883	1,907	1,891	1,856
25	Nondurable goods	1,241	1,299	1,298	1,302	1,312	1,352	1,337	1,076	1,081	1,050	1,152	1,217	1,085	1,093
26	Transportation and public utilities	1,141	1,149	1,157	1,172	1,175	1,186	1,222	758	768	756	757	773	785	800
27	Wholesale trade	1,307	1,289	1,297	1,410	1,423	1,451	1,472	768	776	777	794	806	803	818
28	Retail trade	2,239	2,278	2,294	2,401	2,423	2,456	2,523	1,388	1,391	1,409	1,444	1,457	1,480	1,503
29	Finance, insurance, and real estate	1,262	1,296	1,275	1,323	1,369	1,415	1,444	1,062	1,093	1,076	1,090	1,116	1,213	1,244
30	Services	5,393	5,499	5,578	5,718	5,763	5,840	5,923	4,767	4,904	4,934	5,110	5,029	5,182	5,279
31	Government and government enterprises	2,270	2,276	2,318	2,299	2,320	2,379	2,408	2,429	2,438	2,471	2,476	2,527	2,568	2,581
32	Federal, civilian	366	370	369	374	387	392	394	428	433	441	451	465	465	465
33	Military	45	43	43	42	44	44	43	228	215	215	224	237	234	226
34	State and local	1,860	1,863	1,906	1,884	1,890	1,944	1,971	1,772	1,790	1,815	1,802	1,824	1,868	1,891

See footnotes at end of table.

and Earnings by Industry, 1996:I–1997:III

adjusted at annual rates]

Connecticut							Maine							Massachusetts							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
109,083	110,491	111,178	112,912	116,058	117,258	119,092	25,590	25,984	26,251	26,669	27,068	27,371	27,668	177,592	180,415	182,334	185,678	189,306	190,836	193,262	1
108,922	110,311	110,977	112,709	115,884	117,053	118,874	25,485	25,877	26,139	26,559	26,957	27,255	27,548	177,455	180,267	182,171	185,515	189,154	190,663	193,085	2
161	181	202	202	175	205	218	106	107	112	110	112	116	121	137	149	163	163	152	173	177	3
73,380	74,715	74,976	76,435	78,848	79,806	81,321	16,648	16,937	17,069	17,396	17,583	17,792	18,021	126,800	129,643	131,103	134,269	136,737	137,570	139,571	4
4,683	4,755	4,765	4,855	5,026	5,068	5,150	1,180	1,199	1,207	1,228	1,246	1,259	1,272	8,092	8,244	8,323	8,505	8,691	8,714	8,822	5
3,880	3,864	3,947	4,018	4,083	3,987	4,038	217	222	228	235	234	241	246	–2,955	–3,045	–3,100	–3,184	–3,266	–3,255	–3,310	6
72,578	73,824	74,158	75,598	77,905	78,724	80,209	15,685	15,960	16,091	16,403	16,571	16,773	16,994	115,752	118,354	119,680	122,580	124,780	125,601	127,440	7
21,694	21,830	22,179	22,394	22,871	23,137	23,362	4,697	4,737	4,814	4,864	4,966	5,019	5,065	34,045	34,171	34,694	34,961	35,789	36,281	36,691	8
14,812	14,837	14,842	14,919	15,282	15,397	15,521	5,209	5,287	5,346	5,403	5,532	5,579	5,609	27,794	27,890	27,960	28,137	28,737	28,954	29,131	9
468	420	395	402	407	380	374	123	117	114	116	122	120	106	809	733	705	743	793	793	771	10
14,344	14,417	14,447	14,517	14,875	15,017	15,147	5,086	5,170	5,232	5,286	5,410	5,459	5,503	26,985	27,157	27,255	27,394	27,944	28,161	28,360	11
58,354	59,537	59,862	61,239	63,298	64,054	65,303	13,133	13,398	13,520	13,803	13,982	14,184	14,378	102,856	105,322	106,729	109,502	111,723	112,429	114,197	12
6,764	6,799	6,735	6,799	6,951	6,994	7,076	1,486	1,496	1,492	1,504	1,509	1,520	1,527	11,335	11,448	11,426	11,577	11,661	11,673	11,762	13
8,262	8,378	8,379	8,398	8,600	8,758	8,942	2,028	2,044	2,058	2,088	2,093	2,088	2,115	12,609	12,872	12,947	13,189	13,353	13,469	13,612	14
66	86	107	106	78	107	118	32	34	38	36	37	40	44	43	55	69	68	56	76	78	15
8,196	8,292	8,272	8,292	8,523	8,651	8,824	1,996	2,010	2,020	2,052	2,056	2,047	2,072	12,565	12,817	12,879	13,121	13,297	13,393	13,534	16
161	181	202	202	175	205	218	106	107	112	110	112	116	121	137	149	163	163	152	173	177	17
73,219	74,534	74,774	76,233	78,674	79,601	81,103	16,542	16,830	16,958	17,285	17,471	17,676	17,900	126,663	129,494	130,940	134,106	136,585	137,397	139,395	18
64,552	65,833	65,958	67,638	69,951	70,833	72,217	13,715	13,984	14,121	14,407	14,581	14,762	14,963	111,618	114,468	115,828	118,843	121,309	121,975	123,846	19
395	401	407	415	423	431	447	185	191	195	198	198	208	214	632	669	684	695	712	727	746	20
91	93	94	87	89	91	91	5	5	4	5	5	5	5	66	69	66	63	69	73	71	21
3,313	3,480	3,533	3,527	3,764	3,767	3,852	1,039	1,065	1,125	1,205	1,179	1,110	1,140	5,708	5,872	5,958	6,136	6,311	6,182	6,153	22
15,154	15,410	15,606	15,835	16,074	16,393	16,602	3,204	3,217	3,222	3,209	3,306	3,294	3,261	22,147	22,740	22,651	22,962	22,994	23,126	23,302	23
10,640	10,931	10,959	11,271	11,348	11,561	11,708	1,540	1,549	1,553	1,533	1,629	1,600	1,584	15,051	15,431	15,297	15,555	15,427	15,522	15,689	24
4,514	4,479	4,647	4,563	4,726	4,833	4,893	1,664	1,668	1,668	1,676	1,677	1,695	1,676	7,096	7,309	7,353	7,407	7,567	7,604	7,613	25
3,896	3,976	3,905	3,971	4,029	3,987	4,046	983	986	988	993	1,003	1,029	1,040	6,784	6,935	6,935	6,983	6,932	7,219	7,295	26
4,671	4,795	4,800	4,918	5,015	5,398	5,527	897	901	930	938	928	961	983	8,425	8,677	8,805	9,059	9,183	9,220	9,396	27
5,909	5,950	5,928	6,212	6,192	6,157	6,302	1,959	2,016	2,021	2,066	2,084	2,103	2,147	10,857	11,181	11,533	11,569	11,646	11,724	11,960	28
9,355	9,521	9,172	9,393	10,420	10,318	10,567	997	1,065	1,056	1,110	1,110	1,184	1,224	12,790	13,088	13,251	13,791	14,117	14,251	14,708	29
21,767	22,208	22,514	23,280	23,944	24,290	24,783	4,447	4,539	4,580	4,684	4,767	4,867	4,950	44,207	45,239	45,945	47,585	49,345	49,454	50,215	30
8,667	8,701	8,817	8,595	8,723	8,768	8,886	2,827	2,845	2,837	2,878	2,891	2,914	2,937	15,045	15,026	15,112	15,263	15,276	15,422	15,549	31
1,129	1,130	1,125	1,113	1,114	1,111	1,110	577	579	575	577	592	593	588	2,627	2,616	2,610	2,634	2,700	2,684	2,665	32
377	376	385	388	393	396	395	194	201	205	205	212	208	205	399	370	359	347	346	343	343	33
7,162	7,196	7,306	7,094	7,215	7,260	7,382	2,057	2,066	2,057	2,096	2,087	2,113	2,144	12,019	12,040	12,144	12,282	12,231	12,395	12,541	34

Vermont							**Mideast**							Delaware							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
13,034	13,160	13,307	13,407	13,643	13,773	13,952	1,237,524	1,251,871	1,264,426	1,280,913	1,304,447	1,311,683	1,325,982	19,552	19,842	20,252	20,735	20,806	20,858	21,170	1
12,917	13,036	13,164	13,270	13,510	13,627	13,805	1,235,538	1,249,804	1,262,188	1,278,616	1,302,211	1,309,329	1,323,628	19,453	19,729	20,129	20,595	20,669	20,720	21,026	2
117	124	144	137	132	147	147	1,986	2,067	2,239	2,296	2,236	2,354	2,353	100	112	123	141	137	138	144	3
8,778	8,879	8,975	9,033	9,160	9,226	9,367	858,641	868,827	876,481	890,145	905,207	907,294	918,409	14,971	15,194	15,573	16,048	15,962	15,925	16,232	4
600	605	609	612	624	626	634	57,884	58,300	58,658	59,410	60,629	60,558	61,156	925	935	957	983	981	978	995	5
69	74	77	84	83	89	88	–11,784	–11,309	–11,591	–11,762	–11,928	–11,530	–11,610	–1,171	–1,180	–1,232	–1,294	–1,258	–1,246	–1,287	6
8,247	8,349	8,444	8,505	8,619	8,689	8,821	788,973	799,218	806,231	818,972	832,650	835,207	845,642	12,875	13,079	13,384	13,770	13,724	13,700	13,950	7
2,726	2,743	2,792	2,820	2,890	2,931	2,966	232,245	233,702	237,161	239,266	243,909	246,540	248,767	3,897	3,923	3,970	4,000	4,097	4,141	4,181	8
2,061	2,068	2,072	2,082	2,133	2,153	2,165	216,307	218,951	221,034	222,674	227,889	229,936	231,572	2,781	2,840	2,898	2,965	2,985	3,016	3,038	9
55	52	51	52	56	56	51	5,757	5,479	5,519	5,183	5,290	5,315	5,103	83	82	97	126	70	71	65	10
2,006	2,016	2,021	2,030	2,078	2,097	2,114	210,550	213,472	215,515	217,491	222,599	224,621	226,469	2,698	2,757	2,801	2,839	2,915	2,945	2,973	11
6,840	6,922	6,985	7,051	7,173	7,218	7,341	691,126	699,953	707,477	719,831	733,525	735,124	744,889	11,627	11,814	12,137	12,514	12,469	12,476	12,732	12
829	826	825	822	828	826	835	75,995	75,841	75,636	75,889	76,386	76,115	76,553	1,479	1,471	1,488	1,513	1,491	1,469	1,494	13
1,110	1,131	1,166	1,161	1,159	1,183	1,191	91,520	93,033	93,368	94,424	95,296	96,055	96,967	1,865	1,908	1,947	2,021	2,002	1,979	2,007	14
70	77	97	89	84	98	98	876	954	1,121	1,169	1,095	1,199	1,185	72	85	95	113	109	109	115	15
1,039	1,054	1,069	1,071	1,074	1,085	1,093	90,644	92,079	92,248	93,256	94,202	94,857	95,782	1,793	1,824	1,852	1,909	1,893	1,870	1,892	16
117	124	144	137	132	147	147	1,986	2,067	2,239	2,296	2,236	2,354	2,353	100	112	123	141	137	138	144	17
8,661	8,755	8,832	8,897	9,027	9,080	9,220	856,655	866,760	874,242	887,848	902,971	904,941	916,055	14,872	15,081	15,450	15,907	15,825	15,787	16,088	18
7,329	7,392	7,482	7,551	7,604	7,702	7,830	718,440	727,500	736,102	749,417	764,252	762,740	772,978	12,972	13,165	13,507	13,973	13,872	13,838	14,126	19
61	63	64	65	64	67	68	3,837	3,823	3,961	3,994	4,050	4,101	4,227	60	60	64	63	65	68	70	20
21	21	21	22	20	22	21	2,086	2,118	2,083	2,171	2,076	2,151	2,150	7	7	7	7	7	7	7	21
575	590	635	626	615	622	622	37,197	38,537	39,354	40,180	41,258	41,056	41,380	924	979	1,102	1,277	1,181	1,038	1,055	22
1,824	1,799	1,833	1,837	1,896	1,845	1,925	126,430	127,840	128,751	128,961	129,715	130,720	131,770	4,415	4,273	4,391	4,420	4,490	4,184	4,256	23
1,331	1,291	1,320	1,323	1,388	1,338	1,392	63,386	64,460	64,771	64,578	64,812	65,214	65,826	885	893	846	807	910	818	900	24
492	508	513	514	507	507	532	63,044	63,379	63,980	64,382	64,903	65,506	65,944	3,530	3,380	3,545	3,613	3,580	3,366	3,357	25
504	510	512	516	512	523	520	58,411	57,737	57,938	57,622	57,694	58,305	58,948	677	706	704	693	682	700	728	26
462	446	451	478	460	455	462	52,068	52,624	53,037	53,809	54,935	55,702	56,413	574	584	599	606	594	601	606	27
929	937	942	963	968	982	988	65,651	66,684	67,110	68,503	69,567	69,725	70,729	1,233	1,256	1,277	1,288	1,334	1,322	1,334	28
484	496	507	506	485	526	539	107,372	108,712	110,649	114,657	120,014	113,333	115,659	1,823	1,909	1,910	2,107	1,910	2,264	2,350	29
2,469	2,529	2,516	2,538	2,583	2,659	2,686	265,389	269,424	273,218	279,520	284,942	287,648	291,703	3,261	3,391	3,453	3,512	3,609	3,654	3,718	30
1,332	1,363	1,350	1,346	1,423	1,378	1,390	138,214	139,260	138,140	138,431	138,718	142,201	143,077	1,899	1,916	1,943	1,934	1,953	1,949	1,962	31
229	231	227	229	234	234	235	34,328	34,344	34,277	34,357	35,145	34,992	34,965	239	241	247	245	243	243	244	32
42	41	42	42	43	42	43	4,400	4,284	4,239	4,184	4,255	4,280	4,280	177	174	170	167	169	168	167	33
1,062	1,091	1,081	1,076	1,146	1,102	1,112	99,486	100,631	99,624	99,890	99,319	102,929	103,833	1,484	1,501	1,526	1,523	1,541	1,538	1,550	34

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally

Line	Item	District of Columbia							Maryland						
		1996				1997			1996				1997		
		I	II	III	IV	I r	II r	III p	I	II	III	IV	I r	II r	III p
	Income by Place of Residence														
1	Personal income (lines 4-11)	18,444	18,299	18,629	18,787	19,046	18,980	19,128	137,621	139,245	140,748	142,657	145,585	146,772	148,279
2	Nonfarm personal income	18,444	18,299	18,629	18,787	19,046	18,980	19,128	137,338	138,940	140,410	142,311	145,241	146,419	147,921
3	Farm income (line 17)	0	0	0	0	0	0	0	282	305	338	346	344	354	358
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	34,714	33,472	34,370	34,636	35,066	34,265	34,484	83,969	85,741	86,243	87,689	89,546	90,631	91,625
5	Less: Personal contributions for social insurance [1]	2,233	2,142	2,201	2,214	2,246	2,183	2,190	5,747	5,851	5,875	5,964	6,112	6,170	6,223
6	Plus: Adjustment for residence [2]	–20,972	–20,052	–20,670	–20,853	–21,101	–20,486	–20,593	13,691	13,217	13,643	13,763	13,920	13,573	13,678
7	Equals: Net earnings by place of residence	11,509	11,278	11,500	11,568	11,719	11,596	11,701	91,913	93,107	94,011	95,488	97,354	98,034	99,080
8	Plus: Dividends, interest, and rent [3]	3,206	3,226	3,263	3,292	3,349	3,373	3,394	25,070	25,162	25,515	25,713	26,227	26,528	26,779
9	Plus: Transfer payments	3,729	3,795	3,867	3,926	3,977	4,012	4,033	20,638	20,976	21,222	21,457	22,004	22,211	22,420
10	State unemployment insurance benefits	95	74	77	86	72	81	78	389	365	347	346	369	368	387
11	Transfers excluding State unemployment insurance benefits	3,634	3,721	3,790	3,840	3,905	3,931	3,954	20,249	20,611	20,875	21,111	21,635	21,843	22,033
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	29,739	28,634	29,499	29,783	30,165	29,427	29,615	69,242	70,857	71,418	72,803	74,487	75,470	76,373
13	Other labor income	2,791	2,661	2,714	2,709	2,718	2,630	2,629	7,148	7,225	7,192	7,239	7,327	7,370	7,401
14	Proprietors' income [4]	2,184	2,177	2,158	2,143	2,183	2,208	2,240	7,578	7,659	7,633	7,648	7,732	7,791	7,851
15	Farm proprietors' income	0	0	0	0	0	0	0	171	193	226	233	230	238	241
16	Nonfarm proprietors' income	2,184	2,177	2,158	2,143	2,183	2,208	2,240	7,407	7,465	7,407	7,414	7,502	7,553	7,611
	Earnings by Industry														
17	Farm	0	0	0	0	0	0	0	282	305	338	346	344	354	358
18	Nonfarm	34,714	33,472	34,370	34,636	35,066	34,265	34,484	83,687	85,436	85,905	87,343	89,202	90,277	91,268
19	Private	20,521	19,623	20,452	20,761	21,090	20,453	20,721	65,284	66,824	67,331	68,566	70,425	71,069	71,891
20	Agricultural services, forestry, fishing, and other [5]	388	276	331	351	360	336	346	489	503	518	523	529	536	553
21	Mining	16	14	14	14	15	12	12	70	72	73	74	77	78	75
22	Construction	389	363	386	380	434	392	382	5,483	5,719	5,797	5,938	6,233	6,227	6,188
23	Manufacturing	967	941	972	971	974	954	976	7,821	8,030	8,040	7,988	8,130	8,148	8,168
24	Durable goods	141	138	145	134	147	112	112	4,282	4,397	4,379	4,305	4,370	4,359	4,322
25	Nondurable goods	826	804	827	837	828	842	863	3,539	3,633	3,661	3,683	3,759	3,788	3,845
26	Transportation and public utilities	1,384	1,276	1,351	1,337	1,386	1,266	1,274	4,983	5,037	5,068	5,090	5,112	5,076	5,133
27	Wholesale trade	306	299	294	295	308	283	284	4,675	4,798	4,905	5,010	5,000	5,096	5,194
28	Retail trade	878	855	887	889	889	864	878	8,044	8,208	8,300	8,478	8,613	8,554	8,664
29	Finance, insurance, and real estate	1,906	1,716	1,873	1,965	2,027	1,914	1,953	6,739	6,781	6,674	6,736	7,117	7,277	7,433
30	Services	14,288	13,883	14,344	14,558	14,696	14,433	14,617	26,980	27,675	27,956	28,730	29,616	30,078	30,484
31	Government and government enterprises	14,193	13,849	13,918	13,875	13,976	13,812	13,763	18,402	18,612	18,574	18,777	18,777	19,209	19,377
32	Federal, civilian	11,475	11,278	11,200	11,192	11,405	11,286	11,227	7,325	7,415	7,448	7,516	7,758	7,762	7,845
33	Military	777	748	735	733	745	736	727	1,382	1,372	1,370	1,343	1,369	1,408	1,411
34	State and local	1,940	1,823	1,983	1,950	1,826	1,789	1,809	9,696	9,825	9,757	9,918	9,649	10,038	10,121

Line	Item	Great Lakes							Illinois						
		1996				1997			1996				1997		
		I	II	III	IV	I r	II r	III p	I	II	III	IV	I r	II r	III p
	Income by Place of Residence														
1	Personal income (lines 4-11)	1,050,678	1,067,473	1,080,212	1,088,807	1,107,241	1,118,858	1,128,709	311,898	316,298	320,221	323,827	329,728	334,795	338,706
2	Nonfarm personal income	1,046,480	1,063,215	1,075,483	1,084,008	1,102,381	1,113,986	1,123,856	310,280	314,731	318,444	321,971	327,760	332,978	336,906
3	Farm income (line 17)	4,198	4,259	4,729	4,799	4,859	4,872	4,853	1,618	1,567	1,777	1,856	1,969	1,817	1,800
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	745,695	760,606	770,296	776,163	787,924	796,416	803,470	222,837	226,555	229,426	232,231	236,157	240,442	243,561
5	Less: Personal contributions for social insurance [1]	49,712	50,596	51,179	51,463	52,399	52,820	53,162	14,850	15,065	15,232	15,380	15,672	15,921	16,084
6	Plus: Adjustment for residence [2]	2,709	2,755	2,783	2,862	2,916	2,949	2,995	–580	–564	–584	–567	–575	–629	–655
7	Equals: Net earnings by place of residence	698,692	712,766	721,900	727,562	738,441	746,544	753,303	207,407	210,926	213,610	216,285	219,911	223,892	226,822
8	Plus: Dividends, interest, and rent [3]	187,723	188,712	191,474	193,030	196,934	199,201	201,096	59,937	60,331	61,301	61,846	63,097	63,822	64,428
9	Plus: Transfer payments	164,263	165,995	166,838	168,215	171,866	173,113	174,310	44,553	45,041	45,311	45,697	46,720	47,080	47,456
10	State unemployment insurance benefits	3,864	3,875	3,553	3,728	3,938	3,824	3,777	1,312	1,299	1,228	1,264	1,297	1,265	1,282
11	Transfers excluding State unemployment insurance benefits	160,399	162,120	163,285	164,488	167,928	169,289	170,533	43,241	43,742	44,083	44,432	45,423	45,815	46,173
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	603,519	616,923	625,977	631,765	642,285	649,738	656,114	178,749	182,030	184,526	186,953	190,216	193,930	196,578
13	Other labor income	76,437	77,175	77,230	76,821	77,166	77,383	77,378	20,842	20,944	20,947	20,932	21,057	21,370	21,475
14	Proprietors' income [4]	65,739	66,509	67,089	67,577	68,473	69,296	69,978	23,246	23,581	23,953	24,347	24,885	25,142	25,508
15	Farm proprietors' income	2,455	2,487	2,931	2,981	3,019	3,010	2,970	1,303	1,253	1,466	1,549	1,659	1,503	1,483
16	Nonfarm proprietors' income	63,284	64,021	64,158	64,597	65,453	66,286	67,009	21,943	22,328	22,487	22,798	23,226	23,639	24,025
	Earnings by Industry														
17	Farm	4,198	4,259	4,729	4,799	4,859	4,872	4,853	1,618	1,567	1,777	1,856	1,969	1,817	1,800
18	Nonfarm	741,497	756,347	765,567	771,364	783,065	791,544	798,617	221,219	224,988	227,649	230,376	234,189	238,625	241,761
19	Private	645,545	659,515	667,642	672,576	683,526	691,817	697,827	193,274	196,392	198,831	200,823	204,984	208,776	211,359
20	Agricultural services, forestry, fishing, and other [5]	3,410	3,521	3,624	3,595	3,702	3,831	3,976	1,012	1,048	1,081	1,065	1,116	1,157	1,199
21	Mining	2,431	2,506	2,482	2,483	2,393	2,508	2,458	769	787	777	768	698	712	690
22	Construction	40,860	41,855	42,945	43,259	44,022	45,105	45,060	12,013	12,201	12,504	12,588	12,712	13,234	13,280
23	Manufacturing	202,890	208,259	209,870	209,496	212,082	211,200	210,793	44,322	45,234	45,459	45,536	46,385	46,900	47,141
24	Durable goods	141,686	146,196	147,553	146,774	148,377	147,500	146,869	26,650	27,349	27,632	27,520	27,647	28,471	28,654
25	Nondurable goods	61,205	62,063	62,318	62,722	63,704	63,700	63,924	17,672	17,885	17,826	18,015	18,738	18,429	18,487
26	Transportation and public utilities	45,565	46,329	46,573	46,379	46,846	48,117	48,651	16,461	16,671	16,684	16,642	16,781	17,519	17,663
27	Wholesale trade	48,186	48,831	49,584	50,203	51,416	51,962	52,623	16,127	16,207	16,429	16,499	16,970	17,192	17,400
28	Retail trade	65,489	66,315	66,666	67,905	69,083	69,241	70,086	18,272	18,498	18,463	18,852	19,418	19,293	19,469
29	Finance, insurance, and real estate	51,901	53,413	54,038	54,375	55,244	57,961	59,215	21,500	21,764	21,975	22,128	23,175	23,720	24,256
30	Services	184,814	188,486	191,860	194,883	198,738	201,892	204,965	62,798	63,981	65,460	66,745	67,729	69,048	70,262
31	Government and government enterprises	95,952	96,832	97,925	98,788	99,539	99,727	100,790	27,945	28,596	28,817	29,553	29,205	29,849	30,402
32	Federal, civilian	14,006	14,055	14,050	14,113	14,172	14,131	14,079	4,630	4,670	4,679	4,706	4,816	4,821	4,813
33	Military	2,543	2,507	2,500	2,483	2,512	2,467	2,568	1,187	1,190	1,201	1,206	1,221	1,181	1,282
34	State and local	79,403	80,270	81,376	82,192	82,854	83,129	84,143	22,128	22,736	22,937	23,641	23,168	23,847	24,307

See footnotes at end of table.

and Earnings by Industry, 1996:I–1997:III—Continued

adjusted at annual rates]

New Jersey							New York							Pennsylvania							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
245,984	249,308	251,460	254,430	259,568	260,234	263,035	522,825	527,239	532,396	540,159	550,752	552,885	559,445	293,099	297,938	300,941	304,145	308,691	311,954	314,925	1
245,743	249,057	251,186	254,144	259,290	259,937	262,736	522,289	526,713	531,843	539,608	550,198	552,314	558,872	292,272	297,066	299,990	303,171	307,768	310,959	313,946	2
242	251	273	285	277	296	299	536	526	553	550	554	571	573	827	872	952	974	923	995	980	3
159,517	162,563	163,447	165,961	169,377	169,233	171,258	370,427	372,855	376,038	382,755	389,935	389,584	395,029	195,043	199,003	200,810	203,057	205,321	207,657	209,780	4
11,069	11,239	11,270	11,414	11,690	11,632	11,743	24,307	24,325	24,470	24,843	25,412	25,281	25,574	13,604	13,808	13,885	13,991	14,189	14,314	14,431	5
14,057	13,983	14,210	14,550	14,845	14,784	15,017	–18,815	–18,697	–18,980	–19,427	–19,904	–19,654	–19,974	1,427	1,419	1,437	1,500	1,570	1,500	1,549	6
162,506	165,307	166,387	169,096	172,532	172,385	174,531	327,306	329,833	332,588	338,484	344,619	344,649	349,481	182,865	186,614	188,362	190,565	192,702	194,843	196,898	7
49,972	50,288	51,021	51,471	52,432	52,968	53,422	95,622	96,330	97,937	98,904	100,741	101,860	102,789	54,478	54,773	55,456	55,887	57,062	57,670	58,202	8
33,507	33,713	34,052	33,863	34,604	34,880	35,081	99,897	101,076	101,872	102,770	105,392	106,376	107,175	55,755	56,551	57,124	57,693	58,927	59,441	59,826	9
1,385	1,403	1,649	1,295	1,281	1,258	1,186	2,064	1,934	1,833	1,827	1,944	1,937	1,831	1,741	1,622	1,516	1,504	1,554	1,600	1,556	10
32,122	32,310	32,403	32,568	33,323	33,622	33,895	97,833	99,142	100,039	100,944	103,448	104,438	105,344	54,014	54,929	55,607	56,189	57,373	57,841	58,270	11
129,763	132,446	133,319	135,586	138,649	138,458	140,250	297,491	299,441	302,536	308,506	315,092	314,604	319,321	153,264	156,760	158,568	160,640	162,663	164,689	166,598	12
14,239	14,347	14,277	14,327	14,460	14,359	14,430	31,324	30,969	30,837	30,980	31,267	31,038	31,283	19,013	19,168	19,128	19,121	19,122	19,249	19,316	13
15,515	15,769	15,852	16,047	16,269	16,416	16,577	41,613	42,444	42,665	43,269	43,575	43,942	44,426	22,765	23,075	23,114	23,296	23,536	23,719	23,866	14
103	113	134	145	135	153	154	132	122	147	140	139	151	148	397	441	519	538	482	549	528	15
15,412	15,657	15,718	15,903	16,133	16,264	16,424	41,481	42,323	42,518	43,129	43,436	43,791	44,277	22,368	22,634	22,595	22,758	23,054	23,170	23,338	16
242	251	273	285	277	296	299	536	526	553	550	554	571	573	827	872	952	974	923	995	980	17
159,276	162,311	163,174	165,676	169,099	168,937	170,959	369,892	372,329	375,485	382,205	389,381	389,013	394,456	194,216	198,131	199,859	202,082	204,398	206,661	208,801	18
135,936	138,749	140,022	142,191	145,233	144,758	146,731	315,198	316,875	320,830	327,624	335,227	332,549	337,644	168,530	172,264	173,960	176,302	178,405	180,075	181,866	19
693	717	733	741	747	751	779	1,251	1,285	1,308	1,327	1,329	1,368	1,404	957	982	1,008	990	1,021	1,042	1,076	20
212	216	214	215	223	226	225	305	310	316	345	307	301	296	1,475	1,499	1,460	1,516	1,448	1,527	1,535	21
6,930	7,232	7,316	7,395	7,704	7,699	7,757	12,833	13,190	13,528	13,723	13,767	13,844	14,146	10,638	11,055	11,225	11,467	11,939	11,855	11,851	22
25,693	25,959	26,112	26,030	26,165	26,442	26,527	46,729	46,936	47,136	47,221	47,720	48,221	48,906	40,806	41,701	42,099	42,331	42,236	42,772	42,938	23
9,355	9,542	9,536	9,371	9,428	9,451	9,624	24,808	25,009	25,119	25,266	25,363	25,433	25,750	23,916	24,482	24,747	24,696	24,595	25,040	25,118	24
16,337	16,418	16,577	16,659	16,738	16,991	16,903	21,922	21,927	22,017	21,956	22,357	22,788	23,156	16,890	17,219	17,352	17,635	17,641	17,732	17,820	25
14,089	14,365	14,419	14,567	14,429	14,611	14,753	23,665	22,770	22,733	22,362	22,209	22,748	23,018	13,612	13,584	13,663	13,572	13,875	13,904	14,042	26
13,825	14,074	14,277	14,518	14,919	15,102	15,301	21,533	21,616	21,584	21,849	22,442	22,770	23,032	11,155	11,253	11,377	11,530	11,673	11,851	11,995	27
12,842	13,027	13,055	13,277	13,536	13,471	13,663	24,671	25,042	25,156	25,775	26,028	26,352	26,794	17,983	18,296	18,435	18,796	19,166	19,161	19,396	28
13,731	14,247	14,238	14,634	15,660	14,162	14,517	68,726	68,709	70,548	73,519	77,820	71,695	73,080	14,448	15,349	15,407	15,695	15,480	16,021	16,325	29
47,922	48,911	49,658	50,814	51,850	52,294	53,210	115,484	117,019	118,520	121,502	123,604	125,248	126,967	57,455	58,545	59,286	60,405	61,567	61,941	62,707	30
23,340	23,563	23,152	23,484	23,866	24,180	24,228	54,694	55,453	54,655	54,580	54,154	56,465	56,813	25,686	25,867	25,899	25,781	25,992	26,587	26,935	31
3,298	3,326	3,307	3,303	3,365	3,364	3,344	6,571	6,634	6,603	6,602	6,780	6,822	6,757	5,419	5,450	5,472	5,500	5,594	5,514	5,548	32
540	516	504	496	512	520	524	968	925	909	898	900	897	898	556	549	552	548	559	550	551	33
19,502	19,720	19,340	19,686	19,989	20,295	20,360	47,155	47,895	47,144	47,080	46,474	48,745	49,157	19,710	19,868	19,875	19,733	19,840	20,524	20,836	34

Indiana							Michigan							Ohio							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
128,813	131,434	133,113	134,643	136,273	137,946	139,130	235,014	238,849	241,129	242,326	246,604	246,771	247,980	257,084	261,194	264,418	265,610	270,378	273,296	275,415	1
127,976	130,552	132,162	133,730	135,346	136,975	138,173	234,600	238,405	240,650	241,835	246,107	246,248	247,459	256,198	260,294	263,411	264,609	269,448	272,301	274,400	2
837	882	951	913	927	971	956	414	444	480	491	497	523	520	887	900	1,007	1,000	930	995	1,015	3
92,497	94,673	95,720	96,826	97,599	98,844	99,642	167,214	170,741	172,580	173,183	176,113	175,426	175,984	181,168	184,966	187,571	188,102	191,157	193,382	194,844	4
6,194	6,318	6,377	6,441	6,510	6,574	6,614	10,984	11,199	11,316	11,338	11,569	11,491	11,501	12,327	12,560	12,725	12,734	12,991	13,102	13,169	5
2,283	2,322	2,354	2,376	2,442	2,493	2,520	722	737	746	760	774	802	817	–1,496	–1,554	–1,574	–1,566	–1,608	–1,639	–1,638	6
88,587	90,677	91,697	92,761	93,531	94,763	95,548	156,952	160,278	162,010	162,606	165,318	164,737	165,300	167,344	170,851	173,272	173,802	176,559	178,641	180,036	7
20,996	21,186	21,605	21,851	22,288	22,560	22,784	41,593	41,670	42,120	42,371	43,184	43,667	44,066	43,697	43,912	44,516	44,853	45,771	46,284	46,718	8
19,230	19,571	19,811	20,031	20,454	20,623	20,797	36,470	36,901	36,999	37,349	38,102	38,367	38,614	46,043	46,432	46,630	46,955	48,048	48,371	48,661	9
269	270	256	263	271	276	300	992	1,059	911	1,007	1,034	1,011	995	796	757	677	693	825	769	711	10
18,961	19,301	19,555	19,768	20,183	20,347	20,497	35,478	35,842	36,088	36,342	37,069	37,356	37,619	45,247	45,674	45,953	46,262	47,222	47,603	47,950	11
73,838	75,676	76,658	77,726	78,432	79,496	80,248	136,445	139,763	141,694	142,511	145,202	144,737	145,355	147,461	150,892	153,329	153,994	156,861	158,775	160,124	12
9,876	10,006	9,989	9,967	9,935	10,001	10,015	19,825	20,004	19,972	19,777	19,931	19,581	19,432	17,475	17,709	17,757	17,594	17,672	17,762	17,735	13
8,783	8,990	9,073	9,133	9,232	9,347	9,379	10,944	10,974	10,913	10,895	10,980	11,109	11,197	16,232	16,365	16,484	16,513	16,624	16,845	16,985	14
627	672	742	708	719	761	744	–30	–15	5	2	2	22	14	626	640	748	746	673	734	752	15
8,157	8,318	8,330	8,425	8,513	8,586	8,636	10,974	10,989	10,908	10,893	10,978	11,087	11,183	15,606	15,725	15,736	15,767	15,952	16,110	16,233	16
837	882	951	913	927	971	956	414	444	480	491	497	523	520	887	900	1,007	1,000	930	995	1,015	17
91,660	93,791	94,769	95,912	96,672	97,873	98,686	166,800	170,297	172,100	172,692	175,616	174,903	175,464	180,281	184,066	186,564	187,101	190,227	192,387	193,828	18
80,284	82,290	83,191	84,105	85,234	86,224	86,948	145,429	148,763	150,573	151,161	153,259	153,015	153,620	156,215	160,136	161,991	162,700	165,238	167,672	168,705	19
392	410	422	420	419	444	462	726	747	762	774	804	813	848	809	832	855	843	878	900	932	20
328	351	361	377	368	389	383	404	405	401	402	404	423	403	813	846	823	816	803	860	858	21
5,747	6,007	6,067	6,193	6,345	6,411	6,269	8,315	8,467	8,594	8,691	8,910	9,142	9,266	9,737	10,034	10,371	10,396	10,592	10,739	10,640	22
29,890	30,670	30,818	30,754	31,033	31,126	31,339	55,243	56,685	57,345	57,091	57,995	55,983	55,214	50,114	51,796	52,149	51,912	52,137	52,227	51,910	23
21,447	22,222	22,292	22,052	22,215	22,418	22,534	44,467	45,688	46,236	46,187	46,919	45,183	44,500	34,706	36,055	36,320	36,011	36,282	35,981	35,592	24
8,443	8,447	8,527	8,702	8,818	8,708	8,805	10,776	10,996	11,109	10,904	11,076	10,801	10,713	15,408	15,741	15,830	15,901	15,856	16,246	16,318	25
5,726	5,852	5,852	5,775	5,803	5,891	5,944	8,183	8,382	8,389	8,330	8,590	8,772	8,944	10,363	10,510	10,576	10,586	10,612	10,833	10,938	26
5,159	5,270	5,352	5,432	5,498	5,553	5,602	10,240	10,414	10,552	10,737	11,017	11,008	11,176	11,736	11,920	12,146	12,366	12,618	12,870	13,041	27
8,638	8,772	8,845	8,992	9,107	9,172	9,294	13,924	14,164	14,294	14,518	14,562	14,812	15,033	17,164	17,298	17,455	17,776	18,106	18,032	18,243	28
5,055	5,303	5,394	5,549	5,448	5,771	5,892	8,889	9,125	9,234	9,198	9,114	9,745	9,897	11,034	11,582	11,741	11,741	11,810	12,697	12,984	29
19,349	19,656	20,079	20,614	21,213	21,466	21,763	39,506	40,374	41,002	41,420	41,862	42,317	42,838	44,447	45,317	45,874	46,263	47,683	48,514	49,158	30
11,376	11,501	11,578	11,807	11,438	11,649	11,738	21,371	21,534	21,527	21,531	22,357	21,889	21,844	24,065	23,929	24,574	24,401	24,989	24,715	25,123	31
1,789	1,772	1,758	1,750	1,667	1,659	1,649	2,422	2,448	2,456	2,462	2,438	2,440	2,434	3,937	3,916	3,900	3,923	3,962	3,919	3,893	32
232	227	227	223	225	224	226	272	258	255	250	252	252	252	663	648	636	625	633	627	623	33
9,355	9,501	9,594	9,834	9,545	9,767	9,863	18,677	18,829	18,816	18,819	19,668	19,197	19,158	19,466	19,365	20,038	19,853	20,394	20,169	20,607	34

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally

Line	Item	Wisconsin							Plains						
		1996				1997			1996				1997		
		I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]
	Income by Place of Residence														
1	Personal income (lines 4-11)	117,869	119,697	121,331	122,402	124,257	126,050	127,478	422,854	430,289	436,027	440,502	447,509	454,004	458,272
2	Nonfarm personal income	117,427	119,231	120,816	121,862	123,721	125,484	126,917	413,179	419,777	424,782	428,965	435,826	441,803	446,927
3	Farm income (line 17)	442	466	515	539	537	566	561	9,675	10,512	11,244	11,538	11,683	12,201	11,345
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	81,979	83,672	85,000	85,822	86,898	88,322	89,439	302,458	309,035	313,368	316,763	321,147	326,566	329,878
5	Less: Personal contributions for social insurance [1]	5,358	5,453	5,528	5,570	5,657	5,733	5,793	21,241	21,602	21,837	22,009	22,367	22,675	22,922
6	Plus: Adjustment for residence [2]	1,780	1,815	1,840	1,857	1,882	1,922	1,951	–3,410	–3,489	–3,523	–3,581	–3,649	–3,688	–3,724
7	Equals: Net earnings by place of residence	78,401	80,034	81,311	82,109	83,123	84,511	85,597	277,808	283,945	288,008	291,173	295,131	300,204	303,232
8	Plus: Dividends, interest, and rent [3]	21,500	21,613	21,932	22,108	22,593	22,868	23,100	78,896	79,520	80,740	81,442	83,022	83,889	84,627
9	Plus: Transfer payments	17,967	18,051	18,088	18,185	18,541	18,671	18,782	66,151	66,825	67,279	67,888	69,357	69,911	70,414
10	State unemployment insurance benefits	495	490	482	501	511	503	488	1,100	1,047	1,009	1,110	1,129	1,110	1,088
11	Transfers excluding State unemployment insurance benefits	17,472	17,561	17,606	17,683	18,031	18,168	18,294	65,051	65,778	66,270	66,778	68,228	68,801	69,326
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	67,026	68,562	69,771	70,582	71,574	72,800	73,809	236,965	242,223	245,773	248,757	252,466	256,801	260,447
13	Other labor income	8,419	8,511	8,564	8,550	8,572	8,669	8,721	28,264	28,524	28,569	28,576	28,740	28,999	29,195
14	Proprietors' income [4]	6,535	6,599	6,665	6,690	6,751	6,853	6,909	37,230	38,288	39,025	39,429	39,941	40,766	40,235
15	Farm proprietors' income	–70	–62	–31	–24	–33	–11	–22	8,171	8,970	9,666	9,927	10,054	10,552	9,677
16	Nonfarm proprietors' income	6,604	6,661	6,696	6,714	6,785	6,864	6,931	29,059	29,317	29,359	29,502	29,888	30,215	30,559
	Earnings by Industry														
17	Farm	442	466	515	539	537	566	561	9,675	10,512	11,244	11,538	11,683	12,201	11,345
18	Nonfarm	81,538	83,206	84,485	85,283	86,361	87,756	88,878	292,783	298,523	302,123	305,225	309,463	314,365	318,532
19	Private	70,342	71,934	73,056	73,787	74,811	76,131	77,194	248,013	253,349	256,471	259,472	263,562	268,076	271,697
20	Agricultural services, forestry, fishing, and other [5]	471	485	503	492	485	517	535	1,921	1,963	2,007	1,991	2,050	2,127	2,205
21	Mining	118	117	121	119	120	125	124	1,508	1,556	1,527	1,538	1,480	1,560	1,549
22	Construction	5,048	5,146	5,408	5,393	5,464	5,578	5,604	18,541	18,617	18,866	18,698	19,071	19,249	19,359
23	Manufacturing	23,321	23,874	24,100	24,203	24,531	24,965	25,190	58,178	59,474	60,042	60,577	61,506	61,641	62,482
24	Durable goods	14,416	14,881	15,073	15,004	15,314	15,448	15,589	33,995	34,900	35,557	35,648	36,305	36,703	37,201
25	Nondurable goods	8,906	8,993	9,027	9,199	9,217	9,517	9,601	24,183	24,574	24,485	24,929	25,201	24,938	25,281
26	Transportation and public utilities	4,832	4,914	5,072	5,045	5,060	5,100	5,161	22,471	22,858	22,793	22,982	24,423	24,161	24,432
27	Wholesale trade	4,924	5,019	5,104	5,168	5,312	5,339	5,403	21,491	21,836	22,377	22,639	22,639	23,023	23,286
28	Retail trade	7,491	7,583	7,608	7,766	7,890	7,932	8,047	28,384	28,903	29,094	29,589	29,727	30,179	30,572
29	Finance, insurance, and real estate	5,423	5,639	5,695	5,759	5,697	6,028	6,186	21,482	22,342	22,450	22,776	22,207	24,124	24,768
30	Services	18,714	19,158	19,445	19,841	20,251	20,547	20,944	74,036	75,800	77,315	78,682	80,459	82,012	83,044
31	Government and government enterprises	11,195	11,272	11,429	11,496	11,550	11,626	11,683	44,770	45,174	45,652	45,753	45,902	46,290	46,835
32	Federal, civilian	1,228	1,248	1,257	1,273	1,289	1,292	1,290	7,594	7,691	7,690	7,725	7,982	8,009	7,959
33	Military	190	184	181	179	182	182	184	2,568	2,535	2,532	2,515	2,547	2,514	2,512
34	State and local	9,777	9,839	9,991	10,044	10,079	10,151	10,209	34,608	34,949	35,430	35,513	35,373	35,766	36,364

Line	Item	Missouri							Nebraska						
		1996				1997			1996				1997		
		I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]
	Income by Place of Residence														
1	Personal income (lines 4-11)	121,011	122,784	124,035	125,633	128,408	129,378	130,487	36,963	37,686	38,117	38,681	39,335	39,833	40,287
2	Nonfarm personal income	120,221	122,002	123,197	124,799	127,572	128,491	129,620	35,068	35,587	35,943	36,220	36,883	37,273	37,851
3	Farm income (line 17)	790	782	838	834	836	887	867	1,895	2,099	2,174	2,461	2,451	2,560	2,437
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	85,769	87,355	88,123	89,483	91,566	92,027	92,723	27,118	27,774	28,131	28,622	29,127	29,565	29,984
5	Less: Personal contributions for social insurance [1]	5,834	5,928	5,967	6,049	6,214	6,226	6,258	1,927	1,958	1,978	1,989	2,036	2,054	2,090
6	Plus: Adjustment for residence [2]	–3,122	–3,187	–3,176	–3,253	–3,378	–3,311	–3,310	–498	–511	–518	–524	–543	–543	–558
7	Equals: Net earnings by place of residence	76,813	78,240	78,980	80,182	81,974	82,489	83,155	24,692	25,304	25,635	26,109	26,548	26,968	27,336
8	Plus: Dividends, interest, and rent [3]	23,570	23,757	24,155	24,393	24,889	25,175	25,416	6,847	6,879	6,923	6,955	7,053	7,089	7,124
9	Plus: Transfer payments	20,628	20,787	20,900	21,058	21,545	21,714	21,916	5,423	5,503	5,559	5,617	5,734	5,776	5,827
10	State unemployment insurance benefits	297	266	260	275	284	262	291	44	45	44	50	47	41	49
11	Transfers excluding State unemployment insurance benefits	20,331	20,521	20,640	20,782	21,262	21,452	21,625	5,379	5,458	5,515	5,566	5,687	5,735	5,778
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	68,607	70,070	70,790	72,054	73,912	74,327	74,956	20,340	20,773	21,055	21,258	21,725	21,999	22,463
13	Other labor income	8,516	8,592	8,557	8,614	8,756	8,712	8,713	2,343	2,369	2,378	2,376	2,420	2,424	2,461
14	Proprietors' income [4]	8,646	8,693	8,775	8,815	8,898	8,988	9,054	4,435	4,632	4,698	4,988	4,982	5,143	5,060
15	Farm proprietors' income	596	589	647	645	646	694	672	1,647	1,841	1,906	2,183	2,170	2,275	2,149
16	Nonfarm proprietors' income	8,049	8,104	8,128	8,170	8,252	8,294	8,382	2,788	2,791	2,792	2,806	2,811	2,867	2,911
	Earnings by Industry														
17	Farm	790	782	838	834	836	887	867	1,895	2,099	2,174	2,461	2,451	2,560	2,437
18	Nonfarm	84,979	86,573	87,285	88,650	90,730	91,139	91,856	25,223	25,675	25,957	26,161	26,675	27,005	27,547
19	Private	73,125	74,532	75,082	76,339	78,261	78,419	79,017	20,743	21,173	21,408	21,629	22,111	22,362	22,830
20	Agricultural services, forestry, fishing, and other [5]	431	440	447	448	465	484	502	288	293	300	293	302	317	329
21	Mining	237	243	239	241	223	237	233	60	61	60	57	59	62	64
22	Construction	5,504	5,524	5,676	5,717	5,962	5,889	5,978	1,625	1,607	1,655	1,651	1,447	1,501	1,485
23	Manufacturing	17,328	17,428	17,363	17,629	18,269	17,707	17,697	3,829	3,909	3,924	3,985	3,961	4,049	4,167
24	Durable goods	9,766	9,987	9,951	10,086	10,307	10,031	10,017	1,900	1,928	1,958	1,946	2,024	2,053	2,114
25	Nondurable goods	7,562	7,441	7,411	7,543	7,962	7,676	7,680	1,930	1,980	1,966	2,039	1,937	1,996	2,052
26	Transportation and public utilities	7,227	7,489	7,351	7,492	7,807	7,708	7,745	2,305	2,378	2,430	2,445	2,930	2,666	2,738
27	Wholesale trade	5,856	5,963	6,036	6,163	6,225	6,263	6,271	1,705	1,747	1,763	1,786	1,814	1,843	1,904
28	Retail trade	8,135	8,226	8,306	8,470	8,475	8,591	8,676	2,462	2,518	2,542	2,584	2,594	2,615	2,643
29	Finance, insurance, and real estate	6,074	6,325	6,334	6,441	6,427	6,809	7,004	1,924	2,007	2,018	2,011	1,929	2,118	2,177
30	Services	22,333	22,894	23,330	23,738	24,408	24,732	24,910	6,545	6,654	6,716	6,817	7,076	7,191	7,323
31	Government and government enterprises	11,854	12,041	12,202	12,311	12,469	12,720	12,839	4,480	4,502	4,549	4,533	4,564	4,643	4,717
32	Federal, civilian	2,691	2,706	2,684	2,683	2,839	2,880	2,818	610	621	629	633	631	637	641
33	Military	623	622	650	654	662	645	663	398	397	395	392	398	394	387
34	State and local	8,541	8,713	8,869	8,974	8,968	9,195	9,358	3,471	3,483	3,525	3,507	3,534	3,612	3,689

See footnotes at end of table.

and Earnings by Industry, 1996:I–1997:III—Continued

adjusted at annual rates]

Iowa							Kansas							Minnesota							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
62,444	63,330	64,071	64,608	65,608	66,547	66,789	58,546	59,253	59,992	60,546	61,519	62,694	63,322	116,196	118,885	120,959	122,079	123,362	125,624	127,214	1
59,635	60,332	60,911	61,393	62,207	63,156	63,822	57,507	58,184	58,829	59,347	60,336	61,460	62,060	114,621	117,058	119,032	120,228	121,527	123,598	125,391	2
2,808	2,999	3,161	3,215	3,401	3,391	2,967	1,040	1,070	1,163	1,199	1,183	1,234	1,262	1,575	1,827	1,927	1,852	1,835	2,026	1,823	3
43,883	44,600	45,169	45,569	46,175	47,034	47,159	40,048	40,707	41,347	41,804	42,343	43,388	43,855	86,121	88,471	90,066	90,738	91,247	93,265	94,666	4
3,093	3,126	3,153	3,173	3,210	3,270	3,304	2,840	2,878	2,919	2,945	2,994	3,060	3,084	6,130	6,263	6,363	6,398	6,446	6,563	6,664	5
301	310	316	316	343	332	340	1,031	1,054	1,031	1,064	1,117	1,059	1,052	–702	–720	–735	–746	–746	–768	–784	6
41,091	41,783	42,333	42,712	43,308	44,096	44,194	38,240	38,883	39,458	39,923	40,466	41,386	41,822	79,288	81,488	82,968	83,593	84,055	85,934	87,219	7
11,484	11,559	11,679	11,754	11,943	12,030	12,107	11,367	11,350	11,455	11,468	11,719	11,886	12,022	20,504	20,816	21,294	21,599	22,054	22,295	22,502	8
9,868	9,988	10,059	10,142	10,357	10,421	10,487	8,940	9,021	9,078	9,155	9,335	9,422	9,478	16,403	16,581	16,697	16,887	17,252	17,395	17,494	9
182	189	182	188	204	189	183	155	144	139	152	146	159	149	378	361	341	397	401	400	369	10
9,687	9,799	9,878	9,954	10,153	10,232	10,304	8,785	8,877	8,939	9,004	9,189	9,262	9,329	16,025	16,221	16,356	16,490	16,851	16,995	17,125	11
33,007	33,538	33,955	34,316	34,661	35,437	35,930	31,137	31,712	32,276	32,693	33,185	34,048	34,430	69,838	71,704	73,109	73,809	74,244	75,862	77,287	12
4,021	4,042	4,050	4,047	4,046	4,114	4,145	3,801	3,826	3,864	3,863	3,876	3,954	3,966	8,007	8,090	8,112	8,080	8,049	8,167	8,265	13
6,855	7,020	7,164	7,206	7,468	7,483	7,084	5,110	5,168	5,207	5,249	5,281	5,386	5,458	8,276	8,678	8,846	8,849	8,954	9,236	9,115	14
2,535	2,726	2,890	2,948	3,132	3,118	2,691	806	827	910	938	918	966	991	1,210	1,450	1,537	1,449	1,428	1,614	1,406	15
4,320	4,293	4,273	4,258	4,336	4,365	4,393	4,304	4,342	4,297	4,311	4,363	4,420	4,467	7,066	7,228	7,309	7,399	7,526	7,622	7,708	16
2,808	2,999	3,161	3,215	3,401	3,391	2,967	1,040	1,070	1,163	1,199	1,183	1,234	1,262	1,575	1,827	1,927	1,852	1,835	2,026	1,823	17
41,075	41,601	42,008	42,354	42,774	43,643	44,192	39,008	39,637	40,184	40,605	41,160	42,154	42,593	84,546	86,644	88,139	88,886	89,412	91,239	92,843	18
34,482	35,024	35,340	35,671	35,915	36,815	37,322	32,010	32,625	33,157	33,505	34,152	34,965	35,380	73,165	75,105	76,381	77,218	77,908	79,859	81,219	19
348	357	359	362	368	382	395	258	264	270	272	286	288	299	388	398	416	403	410	427	441	20
76	80	80	81	78	82	84	393	400	397	394	403	423	420	443	466	446	458	427	447	439	21
2,854	2,697	2,699	2,619	2,783	2,750	2,699	2,448	2,513	2,431	2,443	2,500	2,583	2,603	4,884	5,010	5,115	5,041	5,182	5,278	5,295	22
9,224	9,417	9,528	9,505	9,594	9,811	10,037	7,413	7,584	7,922	7,952	7,907	8,160	8,208	18,337	19,026	19,147	19,360	19,554	19,625	20,068	23
5,630	5,779	5,900	5,838	5,951	6,092	6,273	4,653	4,794	5,104	5,128	5,081	5,252	5,237	10,674	11,000	11,194	11,222	11,459	11,731	11,983	24
3,593	3,638	3,628	3,667	3,644	3,719	3,764	2,760	2,789	2,818	2,824	2,826	2,908	2,971	7,662	8,027	7,953	8,139	8,095	7,894	8,085	25
2,673	2,693	2,689	2,710	2,753	2,822	2,870	3,222	3,199	3,202	3,164	3,498	3,403	3,429	5,543	5,563	5,592	5,651	5,888	5,982	6,061	26
2,838	2,887	2,956	3,022	3,029	3,110	3,120	2,919	2,950	3,018	3,122	3,156	3,150	3,196	6,822	6,923	7,183	7,128	7,039	7,209	7,333	27
4,078	4,126	4,157	4,214	4,229	4,254	4,329	3,908	4,002	4,018	4,104	4,169	4,259	4,342	7,787	7,979	8,005	8,125	8,157	8,322	8,418	28
3,002	3,151	3,075	3,272	3,113	3,410	3,490	2,355	2,419	2,460	2,465	2,407	2,618	2,688	7,014	7,273	7,382	7,383	7,169	7,918	8,114	29
9,389	9,616	9,795	9,886	9,967	10,193	10,298	9,095	9,295	9,440	9,589	9,827	10,082	10,194	21,947	22,468	23,094	23,669	24,082	24,651	25,050	30
6,592	6,577	6,669	6,683	6,859	6,829	6,871	6,998	7,012	7,026	7,099	7,008	7,189	7,213	11,380	11,538	11,758	11,668	11,503	11,379	11,624	31
828	855	863	864	879	880	887	1,199	1,209	1,203	1,218	1,254	1,240	1,237	1,508	1,534	1,546	1,565	1,602	1,588	1,586	32
125	125	124	124	126	126	127	708	693	678	674	686	685	676	197	194	194	192	194	193	193	33
5,640	5,597	5,682	5,695	5,854	5,822	5,856	5,091	5,109	5,146	5,207	5,068	5,265	5,300	9,676	9,810	10,018	9,911	9,707	9,598	9,845	34

North Dakota							South Dakota							**Southeast**							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
12,842	13,111	13,347	13,338	13,507	13,758	13,933	14,853	15,239	15,505	15,617	15,769	16,170	16,240	1,384,840	1,409,188	1,427,939	1,443,187	1,472,789	1,490,004	1,506,729	1
12,146	12,374	12,512	12,550	12,706	12,927	13,098	13,981	14,241	14,359	14,427	14,594	14,898	15,085	1,373,377	1,395,969	1,413,833	1,429,179	1,458,600	1,474,313	1,492,326	2
696	737	835	788	801	831	835	872	998	1,146	1,190	1,175	1,272	1,155	11,463	13,219	14,106	14,008	14,189	15,691	14,403	3
9,078	9,333	9,524	9,473	9,566	9,782	9,950	10,441	10,797	11,008	11,074	11,123	11,505	11,541	939,995	960,492	973,119	983,826	1,002,686	1,014,841	1,027,262	4
673	688	693	691	698	711	721	744	761	765	764	770	791	800	64,335	65,438	66,176	66,760	68,266	68,792	69,555	5
–267	–277	–280	–280	–283	–290	–295	–153	–157	–160	–159	–158	–166	–168	6,154	5,688	5,877	5,927	5,993	5,690	5,676	6
8,139	8,368	8,550	8,502	8,584	8,782	8,933	9,544	9,879	10,083	10,150	10,195	10,548	10,572	881,813	900,742	912,821	922,993	940,414	951,740	963,383	7
2,379	2,395	2,431	2,451	2,494	2,519	2,539	2,745	2,764	2,802	2,822	2,870	2,896	2,918	250,593	252,982	257,681	260,422	266,010	269,220	271,926	8
2,324	2,348	2,365	2,385	2,429	2,457	2,460	2,564	2,596	2,621	2,645	2,705	2,726	2,751	252,434	255,464	257,437	259,772	266,366	269,045	271,420	9
29	28	28	31	32	43	30	15	14	16	17	17	15	17	3,287	3,188	3,071	3,192	3,236	3,324	3,330	10
2,295	2,320	2,337	2,354	2,397	2,414	2,430	2,548	2,582	2,605	2,628	2,688	2,712	2,733	249,147	252,276	254,367	256,580	263,129	265,721	268,090	11
6,733	6,930	7,022	7,039	7,105	7,256	7,390	7,303	7,497	7,566	7,589	7,632	7,872	7,991	758,080	775,090	786,854	797,106	814,000	823,157	835,152	12
697	712	716	711	710	724	734	879	894	892	885	882	905	911	87,301	88,112	88,345	88,376	89,046	89,576	90,174	13
1,648	1,691	1,785	1,723	1,751	1,802	1,827	2,260	2,406	2,550	2,600	2,608	2,729	2,639	94,614	97,289	97,921	98,344	99,640	102,108	101,935	14
598	636	730	679	691	720	722	778	900	1,045	1,085	1,069	1,164	1,046	8,712	10,447	11,329	11,246	11,395	12,864	11,543	15
1,050	1,055	1,055	1,045	1,060	1,082	1,105	1,481	1,506	1,505	1,515	1,539	1,565	1,592	85,902	86,843	86,591	87,097	88,245	89,245	90,393	16
696	737	835	788	801	831	835	872	998	1,146	1,190	1,175	1,272	1,155	11,463	13,219	14,106	14,008	14,189	15,691	14,403	17
8,383	8,596	8,688	8,685	8,765	8,951	9,116	9,569	9,799	9,862	9,884	9,948	10,234	10,386	928,532	947,273	959,013	969,819	988,497	999,150	1,012,859	18
6,619	6,819	6,902	6,906	6,976	7,125	7,266	7,868	8,071	8,200	8,204	8,238	8,530	8,664	767,111	785,776	795,552	805,367	820,284	831,758	844,100	19
71	72	73	75	75	77	80	136	140	141	139	145	153	159	6,311	6,570	6,710	6,692	6,929	7,135	7,415	20
182	188	187	187	179	196	193	117	118	117	120	111	113	116	8,415	8,621	8,568	8,729	8,565	8,791	8,791	21
610	618	646	595	569	600	633	617	648	645	632	628	647	665	57,397	59,271	59,821	60,815	61,585	61,944	62,337	22
670	696	705	716	741	747	758	1,377	1,413	1,454	1,430	1,478	1,542	1,547	165,787	168,994	169,802	170,735	171,806	172,886	173,714	23
405	424	432	437	459	457	469	966	987	1,018	991	1,024	1,088	1,107	86,651	88,949	89,594	89,626	90,592	91,632	92,211	24
265	273	273	279	283	290	289	410	426	436	438	454	455	440	79,135	80,045	80,208	81,110	81,214	81,253	81,503	25
803	817	815	814	831	847	857	699	720	714	706	717	732	733	68,476	69,224	70,431	69,912	70,900	71,886	73,107	26
720	738	758	757	754	783	796	630	629	663	661	622	666	666	57,976	59,471	60,073	61,152	62,601	62,850	63,740	27
897	915	922	941	945	941	952	1,117	1,137	1,143	1,149	1,159	1,196	1,212	95,524	97,373	98,321	100,209	102,514	102,249	103,737	28
470	491	496	501	483	520	539	643	676	684	703	679	732	756	60,827	63,526	64,355	65,237	64,881	69,577	71,414	29
2,196	2,283	2,299	2,320	2,399	2,414	2,459	2,531	2,590	2,639	2,663	2,700	2,749	2,810	246,400	252,725	257,472	261,886	270,502	274,440	279,846	30
1,763	1,777	1,786	1,780	1,789	1,826	1,850	1,701	1,728	1,662	1,679	1,709	1,704	1,722	161,421	161,497	163,461	164,452	168,213	167,392	168,758	31
337	339	339	340	342	347	350	421	427	427	421	435	437	440	32,360	32,476	32,412	32,569	33,531	33,432	33,294	32
357	350	343	335	337	332	326	161	155	148	145	144	140	140	19,218	19,218	19,282	19,234	19,651	19,568	19,625	33
1,070	1,088	1,105	1,105	1,110	1,147	1,174	1,120	1,147	1,086	1,113	1,131	1,127	1,142	109,842	109,802	111,767	112,650	115,030	114,393	115,840	34

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally

Line	Item	Alabama							Arkansas						
		1996				1997			1996				1997		
		I	II	III	IV	I r	II r	III p	I	II	III	IV	I r	II r	III p
	Income by Place of Residence														
1	Personal income (lines 4-11)	84,122	85,655	86,740	87,568	88,998	89,800	90,587	46,329	47,567	48,005	48,436	48,995	50,187	50,252
2	Nonfarm personal income	83,333	84,791	85,808	86,605	87,947	88,753	89,626	44,864	45,597	46,084	46,402	47,071	47,781	48,229
3	Farm income (line 17)	789	863	931	962	1,050	1,047	961	1,464	1,970	1,921	2,034	1,924	2,406	2,023
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	58,198	59,477	60,236	60,810	61,564	62,035	62,543	32,214	33,353	33,629	33,915	34,095	35,152	35,080
5	Less: Personal contributions for social insurance [1]	4,214	4,288	4,334	4,365	4,427	4,447	4,479	2,197	2,235	2,254	2,260	2,291	2,325	2,340
6	Plus: Adjustment for residence [2]	663	684	698	702	728	740	758	–315	–325	–325	–322	–315	–327	–327
7	Equals: Net earnings by place of residence	54,648	55,873	56,601	57,147	57,865	58,329	58,821	29,702	30,792	31,051	31,332	31,489	32,500	32,412
8	Plus: Dividends, interest, and rent [3]	12,413	12,497	12,725	12,852	13,125	13,296	13,436	6,855	6,903	7,030	7,101	7,244	7,335	7,409
9	Plus: Transfer payments	17,061	17,285	17,414	17,568	18,008	18,176	18,330	9,771	9,871	9,925	10,003	10,262	10,352	10,430
10	State unemployment insurance benefits	229	232	210	211	222	221	220	208	204	190	195	224	223	219
11	Transfers excluding State unemployment insurance benefits	16,832	17,053	17,204	17,357	17,786	17,955	18,110	9,564	9,667	9,735	9,809	10,038	10,129	10,212
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	46,759	47,817	48,488	49,028	49,651	50,056	50,589	24,465	25,032	25,358	25,546	25,852	26,327	26,594
13	Other labor income	5,528	5,613	5,642	5,638	5,634	5,648	5,662	3,008	3,052	3,069	3,061	3,051	3,092	3,099
14	Proprietors' income [4]	5,911	6,048	6,107	6,143	6,279	6,331	6,291	4,741	5,269	5,202	5,308	5,192	5,733	5,387
15	Farm proprietors' income	660	735	804	837	924	919	832	1,258	1,752	1,695	1,804	1,691	2,170	1,784
16	Nonfarm proprietors' income	5,251	5,312	5,302	5,306	5,355	5,412	5,459	3,483	3,517	3,507	3,505	3,501	3,563	3,603
	Earnings by Industry														
17	Farm	789	863	931	962	1,050	1,047	961	1,464	1,970	1,921	2,034	1,924	2,406	2,023
18	Nonfarm	57,409	58,614	59,305	59,847	60,514	60,988	61,582	30,750	31,383	31,708	31,880	32,171	32,746	33,057
19	Private	46,463	47,693	48,271	48,885	49,418	49,848	50,365	25,829	26,422	26,630	26,763	27,032	27,546	27,807
20	Agricultural services, forestry, fishing, and other [5]	362	374	391	387	394	399	417	253	263	260	262	274	280	292
21	Mining	616	635	629	645	625	625	630	160	164	162	161	160	170	168
22	Construction	3,493	3,651	3,747	3,755	3,769	3,812	3,774	1,849	1,934	1,969	1,982	1,850	1,948	1,961
23	Manufacturing	12,867	13,273	13,297	13,400	13,345	13,487	13,492	7,494	7,599	7,611	7,595	7,636	7,715	7,750
24	Durable goods	7,118	7,447	7,458	7,489	7,504	7,583	7,599	4,131	4,256	4,281	4,250	4,244	4,303	4,326
25	Nondurable goods	5,749	5,826	5,839	5,910	5,842	5,904	5,894	3,362	3,343	3,331	3,345	3,392	3,412	3,424
26	Transportation and public utilities	3,997	4,014	4,142	4,047	4,058	4,023	4,086	2,725	2,755	2,780	2,793	2,792	2,848	2,875
27	Wholesale trade	3,295	3,373	3,405	3,463	3,511	3,544	3,597	1,641	1,658	1,689	1,693	1,714	1,759	1,780
28	Retail trade	5,515	5,654	5,684	5,823	5,909	5,937	6,002	3,469	3,564	3,558	3,633	3,809	3,750	3,801
29	Finance, insurance, and real estate	3,201	3,321	3,376	3,358	3,415	3,542	3,634	1,482	1,563	1,590	1,602	1,599	1,695	1,728
30	Services	13,118	13,397	13,601	14,008	14,393	14,478	14,733	6,757	6,923	7,011	7,042	7,198	7,380	7,454
31	Government and government enterprises	10,946	10,921	11,034	10,963	11,095	11,139	11,217	4,921	4,960	5,077	5,118	5,138	5,200	5,250
32	Federal, civilian	2,633	2,593	2,553	2,518	2,571	2,566	2,555	885	886	887	899	936	927	928
33	Military	893	868	873	861	863	855	857	285	283	283	282	290	291	292
34	State and local	7,419	7,460	7,608	7,583	7,661	7,719	7,805	3,750	3,792	3,908	3,937	3,913	3,981	4,030

Line	Item	Louisiana							Mississippi						
		1996				1997			1996				1997		
		I	II	III	IV	I r	II r	III p	I	II	III	IV	I r	II r	III p
	Income by Place of Residence														
1	Personal income (lines 4-11)	83,917	85,273	86,111	86,892	88,374	89,748	90,871	46,721	47,627	48,188	48,402	49,263	50,109	50,571
2	Nonfarm personal income	83,375	84,617	85,377	86,257	87,739	89,059	90,154	46,004	46,775	47,274	47,516	48,348	49,109	49,638
3	Farm income (line 17)	542	656	734	635	634	689	717	718	852	913	886	915	1,000	933
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	56,918	58,100	58,654	59,228	60,024	61,139	62,011	31,416	32,101	32,416	32,405	32,902	33,605	33,898
5	Less: Personal contributions for social insurance [1]	3,682	3,747	3,778	3,816	3,878	3,937	3,982	2,341	2,379	2,399	2,395	2,439	2,481	2,501
6	Plus: Adjustment for residence [2]	–142	–147	–146	–150	–147	–150	–155	1,023	1,045	1,064	1,087	1,112	1,114	1,132
7	Equals: Net earnings by place of residence	53,094	54,206	54,730	55,263	55,999	57,052	57,874	30,098	30,767	31,081	31,097	31,574	32,239	32,529
8	Plus: Dividends, interest, and rent [3]	12,666	12,732	12,925	13,026	13,279	13,434	13,560	6,034	6,079	6,191	6,253	6,375	6,453	6,516
9	Plus: Transfer payments	18,157	18,335	18,455	18,603	19,095	19,263	19,437	10,589	10,781	10,915	11,052	11,313	11,417	11,525
10	State unemployment insurance benefits	142	134	139	146	157	135	135	140	140	134	146	133	127	137
11	Transfers excluding State unemployment insurance benefits	18,015	18,201	18,317	18,456	18,938	19,128	19,302	10,449	10,642	10,782	10,906	11,181	11,289	11,389
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	45,040	46,002	46,489	47,109	47,806	48,711	49,430	24,613	25,129	25,416	25,464	25,898	26,432	26,737
13	Other labor income	5,204	5,253	5,256	5,258	5,275	5,342	5,387	2,977	3,003	2,996	2,960	2,966	3,011	3,025
14	Proprietors' income [4]	6,673	6,845	6,909	6,861	6,944	7,086	7,194	3,826	3,970	4,004	3,981	4,037	4,162	4,136
15	Farm proprietors' income	403	510	582	481	478	531	557	562	688	742	712	739	821	753
16	Nonfarm proprietors' income	6,270	6,335	6,327	6,380	6,466	6,555	6,637	3,264	3,282	3,262	3,269	3,298	3,341	3,383
	Earnings by Industry														
17	Farm	542	656	734	635	634	689	717	718	852	913	886	915	1,000	933
18	Nonfarm	56,376	57,443	57,921	58,593	59,390	60,450	61,294	30,699	31,249	31,502	31,519	31,987	32,606	32,965
19	Private	46,492	47,530	47,967	48,506	49,199	50,140	50,923	24,582	25,132	25,345	25,365	25,734	26,296	26,526
20	Agricultural services, forestry, fishing, and other [5]	311	320	318	329	330	342	355	214	230	231	231	265	263	273
21	Mining	2,662	2,755	2,730	2,736	2,953	2,972	3,025	235	247	251	247	260	286	287
22	Construction	4,077	4,246	4,223	4,231	4,243	4,427	4,454	1,868	1,893	1,886	1,894	1,865	1,913	1,947
23	Manufacturing	8,090	8,195	8,263	8,266	8,299	8,384	8,570	7,056	7,205	7,196	7,087	7,104	7,194	7,207
24	Durable goods	3,131	3,291	3,344	3,318	3,359	3,474	3,627	4,341	4,461	4,474	4,364	4,391	4,457	4,514
25	Nondurable goods	4,960	4,905	4,920	4,948	4,940	4,910	4,943	2,715	2,743	2,722	2,723	2,714	2,737	2,693
26	Transportation and public utilities	4,466	4,475	4,591	4,535	4,624	4,672	4,779	2,159	2,199	2,213	2,203	2,217	2,241	2,256
27	Wholesale trade	3,134	3,218	3,264	3,311	3,325	3,416	3,454	1,455	1,489	1,515	1,508	1,529	1,565	1,583
28	Retail trade	5,369	5,454	5,444	5,582	5,638	5,675	5,733	3,143	3,206	3,223	3,291	3,344	3,366	3,397
29	Finance, insurance, and real estate	2,947	3,080	3,113	3,180	3,091	3,328	3,409	1,413	1,464	1,461	1,474	1,434	1,577	1,588
30	Services	15,435	15,787	16,021	16,336	16,696	16,923	17,144	7,038	7,200	7,369	7,430	7,715	7,890	7,988
31	Government and government enterprises	9,884	9,913	9,954	10,087	10,191	10,310	10,371	6,117	6,117	6,157	6,154	6,253	6,310	6,439
32	Federal, civilian	1,505	1,514	1,530	1,546	1,612	1,594	1,585	1,110	1,091	1,082	1,083	1,128	1,120	1,100
33	Military	824	796	791	789	795	794	805	692	662	670	666	698	689	676
34	State and local	7,556	7,603	7,632	7,752	7,784	7,922	7,981	4,315	4,364	4,405	4,405	4,427	4,501	4,663

See footnotes at end of table.

and Earnings by Industry, 1996:I–1997:III—Continued

adjusted at annual rates]

Florida							Georgia							Kentucky							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
342,159	346,800	351,320	355,118	362,557	366,848	371,547	164,063	168,023	170,891	172,857	176,818	178,647	181,433	75,075	76,525	77,707	78,235	79,899	80,934	81,762	1
340,533	345,003	349,488	353,278	360,681	364,799	369,657	162,411	166,140	168,819	170,657	174,688	176,430	179,247	74,152	75,486	76,350	77,212	78,812	79,670	80,437	2
1,625	1,797	1,832	1,840	1,876	2,049	1,890	1,652	1,882	2,073	2,200	2,130	2,218	2,185	922	1,039	1,357	1,022	1,086	1,263	1,325	3
204,076	206,907	209,327	211,587	215,724	218,424	221,839	121,865	125,459	127,661	129,084	131,988	133,199	135,579	52,235	53,513	54,423	54,775	55,944	56,709	57,312	4
13,964	14,085	14,224	14,337	14,676	14,804	15,013	7,926	8,129	8,258	8,319	8,543	8,584	8,722	3,700	3,774	3,811	3,852	3,943	3,976	4,006	5
498	507	517	524	540	528	530	–170	–194	–206	–205	–222	–218	–237	–315	–322	–320	–352	–370	–371	–386	6
190,610	193,329	195,620	197,773	201,587	204,148	207,356	113,769	117,136	119,197	120,560	123,223	124,397	126,620	48,221	49,417	50,291	50,570	51,630	52,362	52,920	7
87,172	88,311	90,011	91,058	92,963	93,970	94,846	25,867	26,186	26,809	27,179	27,823	28,213	28,536	11,805	11,885	12,083	12,194	12,443	12,594	12,719	8
64,376	65,160	65,689	66,286	68,007	68,729	69,345	24,426	24,701	24,885	25,118	25,772	26,038	26,276	15,049	15,222	15,332	15,470	15,826	15,978	16,122	9
701	683	679	707	721	768	767	284	277	280	307	300	304	303	246	237	222	234	237	249	266	10
63,676	64,477	65,010	65,579	67,286	67,961	68,579	24,142	24,424	24,605	24,811	25,472	25,734	25,973	14,803	14,985	15,110	15,236	15,589	15,729	15,856	11
166,197	168,762	171,304	173,518	177,350	179,537	182,688	98,286	101,312	103,310	104,489	107,145	108,046	110,149	41,635	42,684	43,264	43,911	44,879	45,413	45,907	12
19,285	19,206	19,123	19,064	19,218	19,363	19,566	11,013	11,201	11,276	11,271	11,404	11,432	11,549	5,207	5,277	5,284	5,300	5,356	5,388	5,396	13
18,595	18,938	18,900	19,005	19,156	19,523	19,585	12,567	12,945	13,075	13,324	13,439	13,721	13,881	5,393	5,553	5,875	5,563	5,709	5,908	6,009	14
740	919	965	988	1,015	1,177	1,008	1,426	1,658	1,851	1,982	1,909	1,994	1,959	727	843	1,160	827	888	1,063	1,122	15
17,854	18,019	17,935	18,017	18,141	18,346	18,578	11,141	11,287	11,224	11,343	11,530	11,727	11,922	4,666	4,709	4,714	4,736	4,821	4,845	4,887	16
1,625	1,797	1,832	1,840	1,876	2,049	1,890	1,652	1,882	2,073	2,200	2,130	2,218	2,185	922	1,039	1,357	1,022	1,086	1,263	1,325	17
202,451	205,109	207,495	209,747	213,847	216,375	219,949	120,214	123,576	125,589	126,884	129,858	130,981	133,393	51,313	52,474	53,066	53,752	54,858	55,446	55,987	18
169,752	173,338	175,026	177,265	179,673	183,370	186,743	101,496	104,641	106,414	107,567	110,249	111,327	113,555	42,536	43,558	44,091	44,639	45,578	46,351	46,718	19
2,116	2,204	2,247	2,195	2,278	2,366	2,448	669	704	722	723	743	772	809	353	364	373	373	380	394	408	20
365	358	377	495	330	333	337	341	358	351	351	332	374	374	1,345	1,357	1,345	1,346	1,302	1,368	1,338	21
12,465	12,593	12,727	12,837	12,647	12,810	12,949	7,083	7,322	7,040	7,199	7,243	7,395	7,467	2,986	3,082	3,175	3,191	3,370	3,310	3,294	22
18,682	19,016	18,866	19,023	18,994	19,384	19,590	20,303	21,037	21,377	21,682	21,884	21,679	21,525	11,779	12,024	12,040	12,223	12,430	12,559	12,565	23
11,886	12,027	11,906	11,975	11,958	12,318	12,512	9,256	9,660	9,790	9,922	9,884	9,996	9,877	7,145	7,279	7,346	7,415	7,682	7,715	7,685	24
6,796	6,989	6,960	7,048	7,036	7,066	7,079	11,047	11,377	11,587	11,760	12,001	11,683	11,648	4,634	4,745	4,694	4,808	4,749	4,844	4,880	25
13,782	14,057	14,074	13,895	14,179	14,532	14,786	11,856	11,937	12,200	12,080	12,332	12,405	12,815	3,797	3,938	4,017	3,988	4,048	4,127	4,132	26
13,460	14,021	13,880	14,325	14,366	14,518	14,733	10,390	10,604	10,790	10,996	11,521	11,355	11,585	2,752	2,798	2,869	2,924	2,956	3,042	3,071	27
24,045	24,287	24,541	24,988	25,507	25,285	25,738	11,475	11,782	12,050	12,207	12,361	12,400	12,703	5,282	5,394	5,448	5,534	5,724	5,738	5,773	28
17,860	18,647	18,835	19,071	18,634	20,094	20,647	8,539	8,876	9,055	9,195	9,221	10,052	10,382	2,596	2,701	2,692	2,703	2,751	2,962	3,034	29
66,977	68,156	69,480	70,436	72,738	74,047	75,516	30,840	32,020	32,830	33,134	34,610	34,895	35,897	11,646	11,899	12,132	12,357	12,616	12,850	13,103	30
32,698	31,771	32,469	32,482	34,174	33,005	33,206	18,718	18,936	19,175	19,317	19,609	19,654	19,838	8,777	8,917	8,974	9,113	9,280	9,094	9,269	31
5,298	5,361	5,351	5,394	5,512	5,536	5,541	3,983	4,008	4,009	4,040	4,161	4,147	4,094	1,564	1,574	1,541	1,578	1,567	1,535	1,579	32
2,971	2,965	2,955	2,980	3,137	3,193	3,166	2,171	2,202	2,224	2,249	2,310	2,284	2,306	1,101	1,117	1,127	1,147	1,154	1,138	1,159	33
24,430	23,445	24,162	24,109	25,525	24,275	24,499	12,564	12,726	12,942	13,028	13,138	13,223	13,438	6,112	6,225	6,306	6,388	6,559	6,422	6,531	34

North Carolina							South Carolina							Tennessee							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
158,014	161,859	163,920	166,616	170,544	172,999	174,230	72,080	73,495	74,607	75,377	76,809	77,602	78,662	114,441	116,169	117,626	118,806	121,368	122,635	123,994	1
155,376	158,889	160,815	163,449	167,244	169,342	171,186	71,688	73,077	74,165	74,929	76,347	77,132	78,181	114,140	115,854	117,311	118,492	121,059	122,292	123,658	2
2,638	2,970	3,105	3,167	3,300	3,656	3,044	392	418	442	447	462	470	481	301	315	315	314	309	343	336	3
115,823	119,308	120,679	122,959	125,732	127,580	128,304	50,387	51,548	52,350	52,862	53,725	54,247	55,096	83,927	85,502	86,681	87,604	89,426	90,270	91,299	4
8,151	8,352	8,425	8,563	8,780	8,859	8,929	3,639	3,712	3,766	3,795	3,867	3,894	3,947	5,446	5,537	5,614	5,664	5,799	5,830	5,877	5
–786	–822	–829	–854	–873	–890	–898	689	716	724	743	767	777	787	–1,035	–1,052	–1,078	–1,087	–1,128	–1,136	–1,141	6
106,886	110,134	111,424	113,542	116,079	117,830	118,476	47,438	48,552	49,308	49,810	50,626	51,130	51,936	77,445	78,913	79,990	80,854	82,500	83,304	84,281	7
24,592	24,834	25,377	25,690	26,320	26,702	27,019	10,983	11,056	11,248	11,359	11,623	11,776	11,904	16,259	16,353	16,655	16,823	17,190	17,423	17,613	8
26,537	26,890	27,118	27,385	28,145	28,466	28,735	13,659	13,887	14,051	14,208	14,561	14,696	14,822	20,737	20,903	20,981	21,130	21,679	21,909	22,099	9
421	405	385	391	389	409	402	210	204	200	203	195	188	183	336	332	314	326	335	351	346	10
26,116	26,485	26,734	26,994	27,756	28,057	28,333	13,449	13,683	13,851	14,005	14,366	14,508	14,639	20,401	20,571	20,667	20,804	21,344	21,558	21,753	11
93,046	95,811	97,007	98,989	101,337	102,623	103,786	41,506	42,530	43,276	43,772	44,538	45,016	45,776	65,902	67,281	68,406	69,261	70,807	71,447	72,259	12
10,499	10,690	10,716	10,811	10,932	10,986	11,030	4,804	4,876	4,918	4,918	4,933	4,968	5,002	7,958	8,033	8,087	8,088	8,168	8,197	8,227	13
12,278	12,806	12,956	13,160	13,463	13,971	13,488	4,077	4,141	4,156	4,171	4,254	4,263	4,318	10,067	10,188	10,188	10,256	10,452	10,626	10,814	14
2,264	2,595	2,730	2,793	2,922	3,273	2,657	292	319	344	351	365	371	381	168	181	181	180	174	206	198	15
10,014	10,211	10,226	10,367	10,541	10,697	10,832	3,785	3,822	3,813	3,820	3,889	3,892	3,937	9,899	10,007	10,007	10,076	10,278	10,420	10,616	16
2,638	2,970	3,105	3,167	3,300	3,656	3,044	392	418	442	447	462	470	481	301	315	315	314	309	343	336	17
113,185	116,338	117,574	119,792	122,432	123,923	125,260	49,996	51,130	51,909	52,414	53,263	53,778	54,616	83,626	85,188	86,367	87,290	89,117	89,927	90,963	18
94,178	97,041	98,186	100,044	102,165	103,530	104,822	40,778	41,820	42,407	42,873	43,639	44,133	44,704	72,266	73,699	74,752	75,555	77,302	77,958	78,967	19
661	696	711	729	769	784	818	309	314	323	331	329	348	361	402	414	424	418	432	442	462	20
174	180	179	185	189	193	193	75	77	78	77	76	77	77	266	275	275	286	280	269	275	21
7,155	7,567	7,666	7,997	8,186	8,364	8,382	3,412	3,575	3,689	3,738	3,901	3,730	3,775	5,068	5,207	5,312	5,420	5,467	5,459	5,563	22
28,899	29,568	29,585	29,774	30,361	30,217	30,415	12,882	13,036	13,130	13,153	13,132	13,369	13,419	19,151	19,248	19,505	19,460	19,510	19,654	19,798	23
13,900	14,304	14,352	14,369	15,006	14,820	14,883	5,284	5,391	5,430	5,419	5,459	5,557	5,562	10,842	11,041	11,274	11,130	11,364	11,368	11,451	24
14,999	15,264	15,233	15,405	15,355	15,397	15,532	7,597	7,645	7,699	7,734	7,673	7,812	7,858	8,309	8,207	8,231	8,330	8,147	8,286	8,346	25
7,439	7,462	7,644	7,628	7,668	7,762	7,846	2,855	2,917	2,997	2,976	2,936	2,991	3,028	6,088	6,285	6,380	6,331	6,613	6,690	6,715	26
6,954	7,106	7,196	7,274	7,585	7,685	7,745	2,450	2,505	2,541	2,576	2,676	2,718	2,743	5,367	5,464	5,571	5,600	5,729	5,724	5,783	27
11,070	11,356	11,440	11,699	12,016	12,067	12,084	5,525	5,640	5,661	5,774	5,963	5,953	6,058	8,849	9,015	9,116	9,243	9,568	9,514	9,611	28
7,006	7,274	7,479	7,683	7,746	8,065	8,300	2,602	2,735	2,780	2,828	2,737	3,021	3,092	4,862	5,120	5,218	5,366	5,308	5,638	5,759	29
24,820	25,831	26,286	27,076	27,646	28,393	29,038	10,669	11,022	11,208	11,420	11,890	11,927	12,151	22,212	22,672	22,953	23,432	24,395	24,568	25,002	30
19,007	19,297	19,388	19,748	20,266	20,393	20,438	9,218	9,310	9,501	9,542	9,624	9,644	9,912	11,359	11,488	11,614	11,735	11,815	11,969	11,996	31
2,539	2,580	2,605	2,621	2,704	2,706	2,717	1,182	1,162	1,161	1,159	1,186	1,185	1,186	2,582	2,601	2,597	2,606	2,726	2,723	2,668	32
3,015	3,087	3,112	3,105	3,222	3,238	3,237	1,156	1,169	1,207	1,212	1,200	1,166	1,252	413	397	388	340	268	265	260	33
13,453	13,629	13,671	14,022	14,341	14,450	14,484	6,880	6,978	7,133	7,171	7,238	7,294	7,474	8,364	8,491	8,630	8,790	8,821	8,981	9,067	34

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally

Line	Item	Virginia							West Virginia						
		1996				1997			1996				1997		
		I	II	III	IV	I r	II r	III p	I	II	III	IV	I r	II r	III p
	Income by Place of Residence														
1	Personal income (lines 4-11)	165,259	167,219	169,444	171,277	175,302	176,238	178,236	32,659	32,976	33,381	33,603	33,864	34,258	34,585
2	Nonfarm personal income	164,818	166,747	168,949	170,768	174,793	175,686	177,724	32,681	32,993	33,391	33,612	33,871	34,259	34,589
3	Farm income (line 17)	441	472	494	510	509	552	512	–21	–16	–10	–10	–8	–2	–4
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	112,298	114,406	115,941	117,385	120,391	121,025	122,603	20,637	20,818	21,121	21,213	21,172	21,457	21,698
5	Less: Personal contributions for social insurance [1]	7,521	7,638	7,731	7,810	8,040	8,054	8,144	1,555	1,563	1,582	1,584	1,584	1,602	1,616
6	Plus: Adjustment for residence [2]	5,895	5,427	5,607	5,652	5,668	5,396	5,384	148	172	171	189	234	228	231
7	Equals: Net earnings by place of residence	110,672	112,195	113,817	115,227	118,019	118,367	119,844	19,230	19,428	19,710	19,818	19,822	20,083	20,313
8	Plus: Dividends, interest, and rent [3]	30,899	31,065	31,478	31,698	32,345	32,696	32,996	5,046	5,080	5,148	5,190	5,281	5,329	5,371
9	Plus: Transfer payments	23,688	23,959	24,148	24,353	24,938	25,175	25,396	8,384	8,469	8,524	8,595	8,761	8,846	8,902
10	State unemployment insurance benefits	204	183	174	174	177	184	194	168	157	145	151	148	165	159
11	Transfers excluding State unemployment insurance benefits	23,483	23,776	23,974	24,179	24,761	24,992	25,202	8,216	8,312	8,379	8,444	8,614	8,681	8,743
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	94,046	95,974	97,494	98,883	101,635	102,187	103,666	16,585	16,756	17,041	17,136	17,102	17,362	17,571
13	Other labor income	9,823	9,915	9,971	10,017	10,164	10,172	10,250	1,994	1,991	2,007	1,991	1,947	1,976	1,982
14	Proprietors' income [4]	8,428	8,517	8,475	8,485	8,592	8,666	8,687	2,058	2,070	2,073	2,086	2,123	2,118	2,144
15	Farm proprietors' income	259	289	312	328	325	366	323	–47	–42	–36	–36	–34	–28	–31
16	Nonfarm proprietors' income	8,169	8,227	8,164	8,157	8,267	8,300	8,364	2,106	2,113	2,109	2,122	2,157	2,147	2,175
	Earnings by Industry														
17	Farm	441	472	494	510	509	552	512	–21	–16	–10	–10	–8	–2	–4
18	Nonfarm	111,857	113,934	115,447	116,875	119,882	120,473	122,091	20,658	20,834	21,131	21,223	21,179	21,459	21,701
19	Private	85,964	87,979	89,303	90,699	93,143	93,904	95,423	16,775	16,922	17,158	17,207	17,152	17,354	17,546
20	Agricultural services, forestry, fishing, and other [5]	591	609	634	637	656	664	690	72	77	78	77	80	80	83
21	Mining	630	635	618	657	625	628	623	1,545	1,581	1,573	1,544	1,432	1,495	1,465
22	Construction	6,682	6,909	7,044	7,179	7,601	7,483	7,460	1,258	1,293	1,342	1,391	1,443	1,293	1,311
23	Manufacturing	15,160	15,458	15,520	15,742	15,931	15,896	16,009	3,423	3,336	3,410	3,331	3,179	3,346	3,373
24	Durable goods	7,691	7,915	7,998	8,114	7,976	8,174	8,285	1,926	1,877	1,941	1,860	1,766	1,868	1,891
25	Nondurable goods	7,470	7,543	7,523	7,628	7,955	7,723	7,724	1,497	1,458	1,469	1,471	1,413	1,478	1,483
26	Transportation and public utilities	7,629	7,476	7,696	7,754	7,760	7,906	8,089	1,683	1,709	1,698	1,683	1,674	1,689	1,699
27	Wholesale trade	6,106	6,238	6,337	6,456	6,629	6,462	6,586	972	999	1,016	1,027	1,061	1,062	1,081
28	Retail trade	9,813	10,019	10,141	10,376	10,569	10,469	10,722	1,969	2,001	2,017	2,058	2,106	2,095	2,115
29	Finance, insurance, and real estate	7,506	7,899	7,901	7,914	8,107	8,698	8,921	813	845	854	863	838	903	920
30	Services	31,847	32,737	33,412	33,985	35,266	35,698	36,323	5,038	5,082	5,169	5,233	5,339	5,391	5,498
31	Government and government enterprises	25,892	25,955	26,144	26,177	26,739	26,569	26,668	3,883	3,912	3,973	4,016	4,028	4,104	4,155
32	Federal, civilian	8,239	8,264	8,242	8,257	8,525	8,441	8,372	839	843	854	870	902	952	969
33	Military	5,603	5,577	5,558	5,508	5,619	5,559	5,516	94	93	94	93	97	96	97
34	State and local	12,050	12,114	12,344	12,412	12,595	12,570	12,780	2,950	2,976	3,026	3,053	3,029	3,057	3,089

Line	Item	Oklahoma							Texas						
		1996				1997			1996				1997		
		I	II	III	IV	I r	II r	III p	I	II	III	IV	I r	II r	III p
	Income by Place of Residence														
1	Personal income (lines 4-11)	63,239	64,273	65,003	65,541	67,017	67,547	68,659	415,838	423,301	430,334	435,376	445,924	454,244	460,215
2	Nonfarm personal income	62,873	63,916	64,644	65,184	66,655	67,164	68,268	413,896	421,312	428,349	433,397	443,977	452,203	458,173
3	Farm income (line 17)	366	357	359	356	362	383	391	1,943	1,988	1,984	1,979	1,947	2,040	2,042
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	42,479	43,251	43,615	43,856	44,911	45,188	46,152	310,744	316,987	322,488	326,378	334,307	341,532	346,425
5	Less: Personal contributions for social insurance [1]	3,008	3,056	3,078	3,088	3,177	3,187	3,250	19,564	19,912	20,278	20,475	21,082	21,498	21,749
6	Plus: Adjustment for residence [2]	715	731	742	750	761	779	783	–813	–833	–865	–881	–920	–955	–972
7	Equals: Net earnings by place of residence	40,186	40,927	41,279	41,519	42,495	42,780	43,685	290,367	296,242	301,345	305,021	312,304	319,079	323,705
8	Plus: Dividends, interest, and rent [3]	10,157	10,330	10,613	10,801	10,996	11,121	11,223	62,691	63,491	64,901	65,701	67,089	67,935	68,635
9	Plus: Transfer payments	12,896	13,016	13,111	13,222	13,526	13,646	13,750	62,780	63,568	64,088	64,653	66,531	67,230	67,875
10	State unemployment insurance benefits	127	106	108	117	113	109	102	1,042	1,009	987	967	1,078	1,078	1,085
11	Transfers excluding State unemployment insurance benefits	12,769	12,910	13,003	13,105	13,414	13,536	13,648	61,739	62,558	63,101	63,686	65,452	66,151	66,790
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	32,645	33,359	33,759	34,020	34,950	35,185	36,003	235,129	240,332	245,501	248,797	255,784	261,768	265,711
13	Other labor income	3,953	3,992	3,988	3,966	4,043	4,034	4,112	25,444	25,660	25,910	25,936	26,366	26,819	27,011
14	Proprietors' income [4]	5,881	5,900	5,868	5,871	5,918	5,969	6,037	50,172	50,995	51,077	51,644	52,157	52,945	53,704
15	Farm proprietors' income	210	207	214	215	219	238	244	1,156	1,231	1,253	1,265	1,225	1,310	1,302
16	Nonfarm proprietors' income	5,671	5,693	5,654	5,656	5,699	5,731	5,793	49,016	49,764	49,824	50,379	50,932	51,635	52,401
	Earnings by Industry														
17	Farm	366	357	359	356	362	383	391	1,943	1,988	1,984	1,979	1,947	2,040	2,042
18	Nonfarm	42,113	42,894	43,256	43,500	44,549	44,806	45,761	308,802	314,999	320,504	324,399	332,359	339,491	344,383
19	Private	33,754	34,510	34,730	34,984	35,935	36,246	37,088	263,010	268,596	273,454	277,302	284,566	291,135	295,640
20	Agricultural services, forestry, fishing, and other [5]	245	248	249	245	260	259	269	1,826	1,863	1,884	1,901	1,942	1,997	2,076
21	Mining	2,087	2,132	1,990	2,039	2,093	2,091	2,092	13,104	13,204	13,238	13,333	14,192	13,877	13,934
22	Construction	2,160	2,146	2,122	2,146	2,164	2,123	2,133	19,194	19,776	19,971	20,344	19,913	20,379	20,541
23	Manufacturing	6,726	7,026	7,143	7,109	7,409	7,440	7,831	52,297	52,500	53,488	53,880	54,364	56,024	56,251
24	Durable goods	4,303	4,588	4,651	4,583	4,776	4,810	5,155	28,281	28,216	28,979	29,224	29,459	30,951	30,967
25	Nondurable goods	2,423	2,438	2,492	2,526	2,633	2,630	2,676	24,016	24,284	24,509	24,656	24,904	25,074	25,284
26	Transportation and public utilities	3,612	3,627	3,576	3,530	3,739	3,572	3,664	27,309	27,842	28,065	28,128	29,691	29,637	30,293
27	Wholesale trade	2,157	2,220	2,224	2,252	2,270	2,311	2,342	20,512	21,018	21,405	21,823	22,471	23,077	23,504
28	Retail trade	4,279	4,347	4,404	4,478	4,532	4,567	4,619	28,752	29,362	29,644	30,284	30,732	31,186	31,608
29	Finance, insurance, and real estate	2,243	2,282	2,330	2,320	2,302	2,536	2,595	20,977	21,966	22,052	22,024	22,327	23,752	24,380
30	Services	10,246	10,483	10,692	10,864	11,166	11,347	11,544	79,038	81,065	83,707	85,585	88,934	91,206	93,051
31	Government and government enterprises	8,359	8,384	8,525	8,517	8,614	8,559	8,673	45,792	46,403	47,050	47,097	47,794	48,356	48,743
32	Federal, civilian	1,921	1,944	1,949	1,982	2,043	2,059	2,053	8,061	8,101	8,108	8,095	8,404	8,411	8,364
33	Military	990	995	991	974	967	964	983	4,091	4,109	4,098	4,100	4,196	4,190	4,174
34	State and local	5,448	5,445	5,585	5,560	5,603	5,537	5,637	33,640	34,193	34,844	34,902	35,193	35,755	36,205

See footnotes at end of table.

and Earnings by Industry, 1996:I–1997:III—Continued

adjusted at annual rates]

Southwest							Arizona							New Mexico							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
603,099	613,576	623,327	630,151	645,366	656,488	665,435	92,200	93,851	95,623	96,709	99,123	100,860	102,407	31,823	32,152	32,367	32,526	33,301	33,837	34,154	1
599,858	610,204	619,858	626,743	641,945	652,797	661,779	91,583	93,172	94,873	96,005	98,401	100,033	101,587	31,507	31,804	31,992	32,156	32,913	33,396	33,751	2
3,241	3,372	3,468	3,409	3,421	3,692	3,656	617	678	750	704	723	828	820	316	348	375	369	388	441	403	3
438,507	446,939	454,102	458,976	470,115	479,383	486,666	63,392	64,625	65,881	66,599	68,239	69,586	70,808	21,892	22,076	22,118	22,143	22,658	23,077	23,281	4
28,610	29,077	29,542	29,789	30,657	31,175	31,575	4,436	4,496	4,569	4,606	4,736	4,808	4,881	1,601	1,613	1,616	1,619	1,662	1,682	1,695	5
215	223	213	216	193	186	180	239	246	249	256	258	263	265	74	79	87	91	93	99	103	6
410,112	418,086	424,773	429,404	439,651	448,393	455,271	59,195	60,376	61,560	62,249	63,761	65,040	66,193	20,365	20,541	20,589	20,615	21,090	21,494	21,688	7
94,927	96,183	98,404	99,690	101,849	103,170	104,263	16,945	17,185	17,623	17,868	18,328	18,613	18,849	5,134	5,178	5,267	5,320	5,436	5,500	5,555	8
98,060	99,307	100,150	101,058	103,866	104,926	105,902	16,060	16,290	16,439	16,592	17,034	17,207	17,365	6,324	6,432	6,511	6,591	6,774	6,843	6,911	9
1,416	1,364	1,338	1,329	1,439	1,432	1,432	170	174	168	164	166	165	164	77	75	75	81	82	79	81	10
96,644	97,942	98,812	99,729	102,426	103,494	104,470	15,890	16,116	16,271	16,429	16,868	17,042	17,201	6,247	6,357	6,436	6,510	6,692	6,764	6,830	11
336,629	343,774	350,542	354,878	364,682	372,250	378,263	51,305	52,370	53,512	54,223	55,663	56,719	57,768	17,550	17,713	17,770	17,840	18,285	18,579	18,781	12
36,931	37,195	37,465	37,440	38,064	38,609	38,954	5,576	5,593	5,635	5,625	5,709	5,790	5,858	1,958	1,950	1,933	1,913	1,946	1,966	1,974	13
64,947	65,970	66,095	66,658	67,369	68,523	69,449	6,510	6,663	6,734	6,752	6,866	7,077	7,182	2,384	2,412	2,416	2,391	2,428	2,533	2,527	14
1,920	2,085	2,213	2,171	2,168	2,424	2,374	380	441	512	464	480	582	572	175	207	234	227	244	295	256	15
63,027	63,885	63,882	64,486	65,201	66,099	67,075	6,130	6,222	6,222	6,288	6,387	6,495	6,610	2,209	2,206	2,182	2,164	2,184	2,238	2,271	16
3,241	3,372	3,468	3,409	3,421	3,692	3,656	617	678	750	704	723	828	820	316	348	375	369	388	441	403	17
435,266	443,568	450,634	455,567	466,695	475,691	483,010	62,775	63,947	65,131	65,895	67,516	68,758	69,988	21,577	21,728	21,743	21,773	22,270	22,636	22,877	18
365,392	373,168	379,245	384,168	394,058	402,480	409,298	52,635	53,908	54,915	55,693	56,961	58,226	59,478	15,993	16,153	16,145	16,190	16,596	16,873	17,091	19
2,805	2,874	2,910	2,926	2,984	3,089	3,215	583	611	626	625	619	671	702	152	153	150	155	162	161	168	20
16,947	16,897	16,731	16,831	17,702	17,539	17,609	1,014	801	728	701	652	777	789	742	761	775	757	767	794	794	21
27,650	28,190	28,394	28,909	28,425	29,130	29,402	4,677	4,680	4,751	4,895	4,854	4,995	5,068	1,619	1,587	1,549	1,523	1,494	1,634	1,660	22
69,425	70,216	71,382	71,725	72,982	74,829	75,651	8,684	8,942	9,029	9,040	9,350	9,532	9,737	1,718	1,748	1,722	1,697	1,859	1,833	1,831	23
40,807	41,228	42,066	42,217	43,173	44,745	45,317	6,982	7,174	7,213	7,225	7,564	7,660	7,860	1,242	1,250	1,222	1,186	1,374	1,324	1,334	24
28,618	28,987	29,316	29,508	29,809	30,085	30,334	1,702	1,768	1,815	1,815	1,786	1,872	1,877	476	497	500	511	485	509	497	25
35,948	36,586	36,960	36,896	38,872	38,626	39,461	3,731	3,812	3,997	3,933	4,058	4,067	4,137	1,295	1,306	1,322	1,305	1,384	1,349	1,366	26
27,392	28,100	28,648	29,198	29,972	30,717	31,231	3,833	3,963	4,124	4,210	4,296	4,381	4,427	890	899	895	913	935	948	957	27
42,432	43,357	43,702	44,697	45,368	45,889	46,553	6,985	7,194	7,188	7,433	7,552	7,571	7,719	2,416	2,455	2,466	2,503	2,552	2,565	2,607	28
29,682	30,971	31,190	31,178	31,401	33,395	34,296	5,357	5,600	5,674	5,717	5,671	5,936	6,132	1,105	1,123	1,133	1,116	1,101	1,172	1,189	29
113,111	115,977	119,329	121,809	126,351	129,266	131,881	17,771	18,306	18,799	19,138	19,909	20,295	20,765	6,056	6,123	6,131	6,222	6,342	6,418	6,520	30
69,874	70,400	71,389	71,399	72,637	73,211	73,712	10,140	10,039	10,216	10,202	10,555	10,532	10,510	5,584	5,575	5,598	5,584	5,674	5,764	5,786	31
13,222	13,245	13,222	13,249	13,712	13,708	13,606	1,895	1,857	1,855	1,858	1,909	1,910	1,890	1,346	1,344	1,310	1,315	1,355	1,329	1,300	32
6,432	6,459	6,427	6,407	6,530	6,505	6,490	789	798	799	798	826	822	816	562	556	539	534	539	530	516	33
50,219	50,696	51,740	51,744	52,395	52,997	53,616	7,456	7,383	7,562	7,546	7,819	7,801	7,804	3,675	3,675	3,750	3,735	3,780	3,905	3,970	34

Rocky Mountain							Colorado							Idaho							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
183,459	187,084	190,154	192,566	196,311	199,637	202,462	95,749	97,514	99,191	100,578	102,455	104,393	105,785	23,112	23,581	23,795	23,877	24,354	24,760	25,169	1
181,707	185,184	188,195	190,582	194,404	197,575	200,405	95,148	96,880	98,520	99,909	101,804	103,679	105,082	22,416	22,796	22,999	23,084	23,621	23,971	24,377	2
1,753	1,900	1,959	1,984	1,908	2,062	2,057	601	634	671	668	652	714	704	696	784	796	794	733	789	793	3
132,542	135,748	138,151	140,050	142,488	145,216	147,521	69,743	71,297	72,630	73,792	74,970	76,618	77,723	16,372	16,765	16,875	16,843	17,151	17,460	17,804	4
8,859	9,046	9,206	9,314	9,505	9,648	9,773	4,490	4,579	4,666	4,737	4,825	4,917	4,975	1,134	1,155	1,164	1,161	1,191	1,204	1,225	5
249	255	259	267	277	290	294	66	65	63	61	64	63	64	206	215	225	235	244	256	261	6
123,932	126,956	129,205	131,003	133,260	135,858	138,042	65,319	66,783	68,027	69,117	70,209	71,765	72,812	15,444	15,826	15,936	15,917	16,203	16,512	16,841	7
32,899	33,271	33,982	34,390	35,209	35,692	36,098	17,777	18,015	18,439	18,679	19,132	19,403	19,630	3,999	4,028	4,102	4,144	4,240	4,298	4,346	8
26,628	26,857	26,967	27,173	27,842	28,087	28,322	12,652	12,716	12,725	12,782	13,114	13,225	13,343	3,668	3,727	3,757	3,817	3,911	3,950	3,983	9
465	467	442	471	478	460	455	185	190	179	177	184	167	167	112	110	98	118	115	115	113	10
26,163	26,390	26,525	26,702	27,365	27,627	27,866	12,468	12,526	12,546	12,605	12,930	13,059	13,176	3,556	3,617	3,659	3,699	3,796	3,834	3,870	11
103,942	106,696	109,009	110,780	112,938	115,070	116,981	55,189	56,580	57,868	58,989	60,002	61,356	62,291	12,066	12,319	12,433	12,438	12,741	12,919	13,186	12
11,329	11,482	11,593	11,625	11,718	11,854	11,970	5,772	5,844	5,913	5,949	5,988	6,073	6,124	1,364	1,383	1,377	1,362	1,381	1,391	1,413	13
17,271	17,570	17,549	17,645	17,832	18,291	18,570	8,782	8,873	8,849	8,854	8,980	9,189	9,308	2,941	3,064	3,065	3,043	3,028	3,150	3,205	14
896	1,043	1,100	1,119	1,033	1,177	1,160	342	373	410	405	385	445	431	396	484	495	491	427	479	479	15
16,374	16,527	16,449	16,526	16,799	17,114	17,410	8,440	8,500	8,440	8,449	8,595	8,745	8,877	2,546	2,579	2,570	2,552	2,601	2,671	2,725	16
1,753	1,900	1,959	1,984	1,908	2,062	2,057	601	634	671	668	652	714	704	696	784	796	794	733	789	793	17
130,790	133,848	136,193	138,066	140,580	143,154	145,465	69,141	70,664	71,959	73,124	74,318	75,904	77,019	15,676	15,981	16,079	16,049	16,417	16,671	17,011	18
108,435	111,232	113,414	115,070	117,299	119,635	121,771	58,160	59,611	60,810	61,895	62,935	64,446	65,430	13,018	13,244	13,370	13,292	13,614	13,814	14,119	19
930	961	986	994	1,012	1,057	1,105	446	466	475	479	496	523	548	218	220	229	231	235	240	249	20
3,243	3,233	3,175	3,156	3,342	3,331	3,340	1,363	1,322	1,274	1,250	1,409	1,322	1,324	165	170	169	177	169	177	170	21
10,010	10,295	10,455	10,653	10,928	11,346	11,544	4,992	5,181	5,256	5,271	5,402	5,569	5,576	1,422	1,462	1,479	1,441	1,454	1,541	1,568	22
16,968	17,488	17,688	17,559	17,873	18,050	18,543	8,390	8,611	8,780	8,741	8,916	8,986	9,253	2,997	3,073	2,987	2,904	3,078	3,046	3,187	23
11,560	11,954	12,060	11,965	12,196	12,146	12,553	5,655	5,836	5,928	5,924	6,090	6,084	6,389	2,091	2,160	2,066	1,999	2,130	2,050	2,137	24
5,408	5,534	5,628	5,594	5,677	5,904	5,991	2,735	2,775	2,852	2,817	2,826	2,902	2,864	906	913	921	906	948	996	1,050	25
11,643	11,759	11,989	11,936	12,174	12,065	12,192	6,876	6,857	6,969	6,945	7,044	6,959	7,003	1,076	1,089	1,100	1,090	1,119	1,111	1,143	26
7,451	7,627	7,869	8,051	8,104	8,311	8,439	4,109	4,204	4,347	4,459	4,567	4,653	4,722	881	894	928	936	937	956	971	27
13,631	14,100	14,275	14,545	14,827	15,080	15,293	6,840	7,003	7,161	7,279	7,448	7,595	7,733	1,726	1,762	1,782	1,804	1,838	1,868	1,849	28
9,075	9,487	9,621	9,877	9,657	10,309	10,576	5,282	5,567	5,658	5,878	5,676	6,145	6,306	842	874	861	836	803	849	870	29
35,484	36,282	37,355	38,299	39,382	40,088	40,739	19,862	20,399	20,891	21,593	21,976	22,694	22,963	3,691	3,701	3,835	3,874	3,982	4,026	4,113	30
22,354	22,616	22,778	22,996	23,281	23,519	23,693	10,981	11,052	11,150	11,229	11,383	11,459	11,589	2,659	2,737	2,709	2,757	2,804	2,857	2,892	31
5,131	5,129	5,058	5,041	5,221	5,175	5,134	2,492	2,481	2,455	2,444	2,521	2,491	2,473	520	519	516	518	542	537	536	32
1,857	1,857	1,826	1,813	1,834	1,816	1,827	1,123	1,131	1,104	1,098	1,101	1,084	1,092	160	160	168	170	180	182	183	33
15,366	15,631	15,894	16,142	16,226	16,527	16,733	7,366	7,440	7,591	7,687	7,761	7,883	8,024	1,979	2,058	2,026	2,069	2,082	2,138	2,173	34

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally

Line	Item	Montana							Utah						
		1996				1997			1996				1997		
		I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]
	Income by Place of Residence														
1	Personal income (lines 4-11)	16,566	16,788	17,017	17,213	17,294	17,536	17,660	37,856	38,848	39,697	40,397	41,520	42,153	42,921
2	Nonfarm personal income	16,334	16,548	16,773	16,947	17,026	17,247	17,378	37,685	38,670	39,508	40,210	41,337	41,957	42,726
3	Farm income (line 17)	232	240	244	267	268	289	282	171	178	189	187	183	197	195
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	10,570	10,754	10,929	11,074	11,003	11,189	11,262	29,100	30,016	30,737	31,348	32,268	32,789	33,473
5	Less: Personal contributions for social insurance [1]	848	859	873	878	875	886	888	1,916	1,971	2,017	2,053	2,119	2,146	2,185
6	Plus: Adjustment for residence [2]	–9	–9	–10	–10	–9	–9	–8	3	1	–1	–2	–4	–4	–5
7	Equals: Net earnings by place of residence	9,713	9,885	10,046	10,186	10,119	10,294	10,366	27,187	28,046	28,719	29,293	30,144	30,639	31,283
8	Plus: Dividends, interest, and rent [3]	3,511	3,541	3,596	3,631	3,706	3,746	3,780	5,319	5,392	5,528	5,606	5,744	5,828	5,898
9	Plus: Transfer payments	3,342	3,363	3,374	3,397	3,470	3,496	3,514	5,349	5,409	5,450	5,498	5,632	5,686	5,740
10	State unemployment insurance benefits	64	64	65	70	71	69	61	72	70	68	72	77	79	87
11	Transfers excluding State unemployment insurance benefits	3,278	3,298	3,310	3,327	3,399	3,427	3,453	5,277	5,340	5,382	5,426	5,555	5,607	5,654
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	7,920	8,071	8,234	8,323	8,277	8,410	8,466	23,498	24,324	25,002	25,554	26,345	26,768	27,351
13	Other labor income	930	933	939	937	921	931	928	2,709	2,757	2,796	2,814	2,860	2,891	2,931
14	Proprietors' income [4]	1,720	1,750	1,756	1,815	1,805	1,848	1,868	2,893	2,935	2,940	2,980	3,063	3,130	3,191
15	Farm proprietors' income	95	103	107	129	129	148	139	82	88	100	97	92	105	102
16	Nonfarm proprietors' income	1,625	1,647	1,650	1,686	1,676	1,700	1,729	2,811	2,846	2,840	2,883	2,970	3,026	3,089
	Earnings by Industry														
17	Farm	232	240	244	267	268	289	282	171	178	189	187	183	197	195
18	Nonfarm	10,338	10,514	10,686	10,808	10,734	10,899	10,980	28,929	29,838	30,548	31,161	32,084	32,592	33,278
19	Private	8,189	8,351	8,496	8,590	8,573	8,691	8,797	23,965	24,778	25,439	25,983	26,772	27,224	27,863
20	Agricultural services, forestry, fishing, and other [5]	100	101	104	104	106	108	112	113	118	122	127	119	129	137
21	Mining	287	282	302	287	285	294	301	412	430	412	417	416	441	446
22	Construction	770	792	796	876	786	801	827	2,312	2,337	2,379	2,504	2,754	2,863	2,982
23	Manufacturing	801	841	853	839	827	866	853	4,397	4,569	4,673	4,684	4,660	4,748	4,830
24	Durable goods	505	535	545	534	519	552	552	3,157	3,262	3,356	3,350	3,300	3,297	3,307
25	Nondurable goods	296	305	308	305	308	314	301	1,240	1,307	1,317	1,334	1,360	1,452	1,523
26	Transportation and public utilities	912	911	915	910	967	938	938	2,158	2,223	2,327	2,331	2,367	2,379	2,428
27	Wholesale trade	555	569	581	589	570	586	591	1,678	1,726	1,772	1,825	1,782	1,857	1,890
28	Retail trade	1,327	1,349	1,369	1,373	1,380	1,399	1,420	3,037	3,274	3,248	3,355	3,425	3,474	3,529
29	Finance, insurance, and real estate	580	601	608	616	583	623	638	2,066	2,133	2,170	2,232	2,247	2,363	2,423
30	Services	2,855	2,906	2,968	2,996	3,068	3,075	3,117	7,792	7,968	8,337	8,508	9,000	8,970	9,198
31	Government and government enterprises	2,150	2,163	2,189	2,217	2,162	2,209	2,183	4,964	5,060	5,109	5,178	5,313	5,367	5,415
32	Federal, civilian	524	536	524	524	549	543	531	1,300	1,299	1,276	1,273	1,315	1,309	1,296
33	Military	172	167	160	153	152	151	153	263	261	259	260	266	263	263
34	State and local	1,454	1,460	1,505	1,540	1,461	1,514	1,500	3,401	3,501	3,574	3,645	3,731	3,795	3,855

Line	Item	California							Hawaii						
		1996				1997			1996				1997		
		I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]
	Income by Place of Residence														
1	Personal income (lines 4-11)	790,291	803,573	812,716	825,321	840,004	855,514	866,436	29,902	30,067	30,150	30,169	30,549	30,837	31,095
2	Nonfarm personal income	783,583	796,296	804,963	817,380	832,191	846,977	858,139	29,718	29,884	29,966	29,984	30,363	30,648	30,904
3	Farm income (line 17)	6,708	7,276	7,753	7,941	7,813	8,536	8,297	183	183	183	185	187	189	191
	Derivation of Personal Income														
4	Earnings by place of work (lines 12-16 or 17-34)	556,568	567,684	573,291	583,771	593,575	607,095	616,106	21,102	21,276	21,309	21,285	21,461	21,644	21,817
5	Less: Personal contributions for social insurance [1]	38,048	38,619	38,892	39,506	40,294	41,102	41,637	1,360	1,368	1,370	1,366	1,382	1,390	1,398
6	Plus: Adjustment for residence [2]	–709	–729	–723	–753	–763	–804	–820	0	0	0	0	0	0	0
7	Equals: Net earnings by place of residence	517,811	528,335	533,676	543,512	552,518	565,189	573,649	19,742	19,908	19,938	19,919	20,079	20,254	20,419
8	Plus: Dividends, interest, and rent [3]	148,811	150,051	152,873	154,353	157,259	159,046	160,483	5,298	5,287	5,339	5,361	5,464	5,525	5,575
9	Plus: Transfer payments	123,669	125,186	126,167	127,456	130,227	131,279	132,304	4,862	4,872	4,872	4,889	5,007	5,058	5,101
10	State unemployment insurance benefits	3,106	2,959	2,770	2,939	2,875	2,804	2,803	185	176	171	168	168	173	172
11	Transfers excluding State unemployment insurance benefits	120,564	122,227	123,398	124,517	127,352	128,474	129,500	4,677	4,696	4,701	4,721	4,839	4,886	4,928
	Earnings by Place of Work														
	Components of earnings:														
12	Wage and salary disbursements	429,079	438,181	443,302	452,369	460,693	471,626	479,367	16,814	16,978	17,051	17,052	17,223	17,391	17,548
13	Other labor income	47,777	48,226	48,161	48,645	48,997	49,907	50,387	1,815	1,814	1,802	1,783	1,775	1,784	1,788
14	Proprietors' income [4]	79,712	81,277	81,828	82,757	83,884	85,563	86,351	2,472	2,484	2,456	2,450	2,462	2,469	2,481
15	Farm proprietors' income	2,933	3,404	3,780	3,857	3,682	4,356	4,069	1	2	2	2	2	2	1
16	Nonfarm proprietors' income	76,779	77,873	78,048	78,899	80,202	81,206	82,282	2,471	2,483	2,454	2,448	2,461	2,467	2,480
	Earnings by Industry														
17	Farm	6,708	7,276	7,753	7,941	7,813	8,536	8,297	183	183	183	185	187	189	191
18	Nonfarm	549,861	560,407	565,538	575,830	585,761	598,559	607,809	20,918	21,093	21,125	21,100	21,274	21,455	21,626
19	Private	466,921	476,056	479,722	489,138	497,709	510,842	519,477	15,644	15,775	15,792	15,757	15,854	16,005	16,095
20	Agricultural services, forestry, fishing, and other [5]	6,003	6,145	6,069	6,071	6,348	6,630	6,834	143	146	143	137	141	142	145
21	Mining	2,125	2,082	2,034	2,013	2,144	2,118	2,108	20	19	19	17	16	17	17
22	Construction	27,700	27,928	28,010	28,533	30,026	30,847	31,489	1,501	1,471	1,462	1,404	1,402	1,366	1,339
23	Manufacturing	86,649	88,831	88,603	91,297	92,407	94,518	96,056	788	792	791	800	787	799	773
24	Durable goods	59,845	61,229	60,838	63,097	64,247	65,583	66,758	215	202	204	201	204	194	189
25	Nondurable goods	26,803	27,602	27,765	28,199	28,160	28,935	29,297	573	591	587	598	583	606	584
26	Transportation and public utilities	34,513	35,272	35,494	35,563	35,900	36,846	37,353	1,724	1,754	1,747	1,757	1,793	1,787	1,822
27	Wholesale trade	34,382	35,201	35,239	36,043	36,531	37,227	37,773	785	791	796	792	771	801	813
28	Retail trade	50,552	51,422	51,523	52,725	53,354	55,094	55,711	2,624	2,617	2,608	2,633	2,650	2,655	2,661
29	Finance, insurance, and real estate	44,530	45,762	45,751	46,197	47,041	48,968	50,062	1,720	1,782	1,768	1,759	1,690	1,813	1,845
30	Services	180,468	183,413	186,999	190,696	193,959	198,594	202,090	6,339	6,403	6,460	6,459	6,603	6,624	6,681
31	Government and government enterprises	82,939	84,351	85,816	86,692	88,052	87,717	88,332	5,274	5,318	5,333	5,343	5,420	5,450	5,531
32	Federal, civilian	13,060	13,032	12,901	12,879	13,101	13,121	13,101	1,216	1,221	1,224	1,223	1,253	1,260	1,260
33	Military	6,267	6,192	6,115	6,056	6,098	5,984	5,949	1,585	1,583	1,585	1,582	1,639	1,633	1,622
34	State and local	63,612	65,127	66,800	67,757	68,853	68,612	69,282	2,474	2,514	2,523	2,538	2,529	2,557	2,649

[p] Preliminary.
[r] Revised.

1. Personal contributions for social insurance are included in earnings by type and industry but excluded from personal income.

2. The adjustment for residence is the net inflow of the earnings of interarea commuters. For the United States, it consists of adjustments for border workers and for certain temporary and migratory workers: Wage and salary disbursements to U.S. residents commuting or working temporarily outside U.S. borders less wage and salary disbursements to foreign residents commuting or working temporarily inside U.S borders.

3. Includes the capital consumption adjustment for rental income of persons.

and Earnings by Industry, 1996:I–1997:III—Continued

adjusted at annual rates]

Wyoming							Far West							Alaska							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
10,177	10,354	10,453	10,501	10,687	10,795	10,926	1,082,884	1,101,474	1,115,412	1,131,570	1,153,406	1,175,334	1,190,893	14,731	14,789	14,826	14,894	15,055	15,384	15,574	1
10,124	10,289	10,394	10,433	10,616	10,722	10,843	1,073,678	1,091,523	1,104,822	1,120,756	1,142,802	1,163,806	1,179,668	14,722	14,780	14,817	14,885	15,046	15,374	15,564	2
52	64	59	68	71	73	83	9,205	9,951	10,590	10,814	10,604	11,528	11,225	8	9	9	9	9	10	9	3
6,758	6,916	6,979	6,992	7,097	7,160	7,259	764,309	780,104	789,422	802,661	817,584	836,688	849,627	11,611	11,597	11,567	11,568	11,603	11,903	12,081	4
472	482	486	485	494	496	501	52,308	53,160	53,678	54,446	55,652	56,813	57,586	781	781	782	782	786	804	814	5
–17	–18	–18	–17	–18	–17	–17	–1,975	–2,032	–2,057	–2,111	–2,154	–2,242	–2,286	–760	–758	–756	–757	–757	–779	–791	6
6,268	6,416	6,476	6,491	6,585	6,647	6,741	710,026	724,912	733,687	746,104	759,778	777,633	789,755	10,069	10,058	10,029	10,030	10,060	10,320	10,476	7
2,292	2,295	2,318	2,331	2,387	2,417	2,444	202,447	204,230	208,195	210,319	214,517	217,085	219,170	2,008	2,031	2,080	2,116	2,167	2,195	2,219	8
1,616	1,643	1,660	1,679	1,715	1,731	1,742	170,411	172,332	173,530	175,148	179,111	180,617	181,968	2,653	2,700	2,717	2,749	2,828	2,868	2,878	9
32	33	32	34	31	31	28	4,871	4,665	4,397	4,554	4,549	4,484	4,400	105	105	88	90	104	117	104	10
1,585	1,610	1,628	1,645	1,684	1,700	1,714	165,540	167,667	169,133	170,593	174,562	176,132	177,568	2,548	2,595	2,629	2,659	2,725	2,751	2,775	11
5,269	5,403	5,472	5,476	5,574	5,617	5,688	593,734	606,923	615,490	627,063	639,949	655,588	666,725	9,278	9,264	9,250	9,259	9,291	9,542	9,692	12
554	565	568	564	568	569	572	65,058	65,699	65,768	66,291	66,892	68,169	68,871	1,024	1,012	1,000	993	983	1,010	1,018	13
934	948	939	952	956	974	999	105,516	107,483	108,164	109,306	110,743	112,932	114,032	1,308	1,321	1,316	1,317	1,328	1,352	1,370	14
–18	–6	–11	–3	–1	0	9	3,999	4,615	5,119	5,195	4,920	5,777	5,406	4	5	5	5	5	6	5	15
952	954	950	955	957	974	989	101,518	102,868	103,045	104,111	105,823	107,155	108,626	1,304	1,317	1,311	1,312	1,323	1,346	1,365	16
52	64	59	68	71	73	83	9,205	9,951	10,590	10,814	10,604	11,528	11,225	8	9	9	9	9	10	9	17
6,705	6,852	6,920	6,924	7,027	7,087	7,176	755,103	770,153	778,832	791,847	806,981	825,160	838,403	11,603	11,589	11,558	11,559	11,594	11,893	12,072	18
5,104	5,248	5,300	5,309	5,406	5,460	5,563	635,204	648,458	655,393	667,428	680,563	698,775	711,053	8,095	8,103	8,110	8,123	8,116	8,389	8,541	19
53	56	56	53	56	57	59	8,149	8,453	8,462	8,503	8,774	9,231	9,517	226	227	230	231	245	262	271	20
1,016	1,029	1,018	1,025	1,062	1,097	1,099	4,164	4,084	4,029	4,019	4,045	4,129	4,157	958	897	861	850	816	876	921	21
513	523	546	562	533	572	591	43,387	43,779	44,177	45,168	46,969	47,819	48,672	859	909	891	887	860	899	907	22
384	395	395	391	392	403	419	114,874	117,878	118,241	121,359	123,172	126,215	128,571	608	621	591	602	602	619	592	23
153	160	165	158	157	163	167	80,182	82,205	82,438	84,995	86,895	89,057	90,927	193	189	174	168	183	178	177	24
230	235	230	232	235	240	252	34,692	35,673	35,803	36,364	36,277	37,158	37,644	414	432	417	434	419	440	415	25
621	679	677	659	676	677	681	49,093	49,970	50,225	50,167	51,310	52,243	52,962	1,189	1,113	1,141	1,140	1,157	1,181	1,200	26
229	235	242	242	247	258	265	46,214	47,323	47,940	48,786	49,378	50,475	51,239	341	342	347	351	341	351	357	27
700	712	717	733	736	745	762	71,705	73,027	73,342	75,066	75,965	78,021	79,042	1,105	1,125	1,136	1,126	1,130	1,154	1,188	28
305	312	324	316	348	328	338	57,773	59,615	59,652	60,210	60,839	63,883	65,324	440	453	461	463	436	480	496	29
1,284	1,308	1,324	1,329	1,356	1,323	1,347	239,844	244,328	249,325	254,150	260,113	266,759	271,569	2,369	2,415	2,454	2,473	2,530	2,568	2,608	30
1,601	1,604	1,621	1,615	1,620	1,627	1,614	119,900	121,695	123,439	124,419	126,418	126,385	127,349	3,508	3,486	3,448	3,437	3,477	3,505	3,531	31
295	294	288	282	293	294	297	20,039	20,056	19,896	19,909	20,353	20,366	20,333	774	773	761	755	783	786	786	32
140	137	135	132	136	136	135	10,912	10,775	10,698	10,600	10,864	10,736	10,667	672	642	638	630	634	618	617	33
1,166	1,173	1,197	1,200	1,191	1,197	1,181	88,948	90,864	92,845	93,910	95,201	95,284	96,349	2,061	2,071	2,049	2,052	2,061	2,101	2,128	34

Nevada							Oregon							Washington							Line
1996				1997			1996				1997			1996				1997			
I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	I	II	III	IV	I[r]	II[r]	III[p]	
40,255	41,286	42,207	43,050	44,032	44,799	45,490	71,934	73,336	74,683	75,735	77,505	79,098	80,046	135,771	138,424	140,830	142,401	146,261	149,703	152,252	1
40,205	41,235	42,151	42,996	43,979	44,743	45,434	71,240	72,610	73,920	74,951	76,727	78,280	79,228	134,209	136,718	139,004	140,560	144,497	147,784	150,400	2
50	51	56	54	53	56	57	694	727	763	784	778	818	818	1,562	1,706	1,826	1,841	1,764	1,919	1,852	3
29,671	30,534	31,167	31,837	32,484	33,052	33,594	51,065	52,327	53,428	54,301	55,589	57,008	57,742	94,291	96,687	98,660	99,900	102,872	105,986	108,287	4
1,756	1,803	1,839	1,874	1,918	1,947	1,973	3,639	3,717	3,793	3,845	3,947	4,038	4,077	6,724	6,871	7,001	7,074	7,326	7,531	7,687	5
–586	–607	–625	–639	–654	–664	–676	–1,310	–1,352	–1,390	–1,420	–1,460	–1,498	–1,505	1,391	1,415	1,438	1,458	1,480	1,503	1,507	6
27,329	28,124	28,702	29,324	29,912	30,441	30,945	46,116	47,257	48,245	49,036	50,183	51,472	52,160	88,958	91,231	93,097	94,283	97,026	99,958	102,106	7
7,350	7,494	7,759	7,907	8,127	8,279	8,402	13,876	14,048	14,364	14,546	14,875	15,074	15,239	25,104	25,318	25,779	26,036	26,625	26,966	27,252	8
5,576	5,668	5,745	5,819	5,993	6,079	6,143	11,942	12,032	12,074	12,154	12,447	12,553	12,647	21,709	21,875	21,954	22,082	22,609	22,779	22,894	9
138	130	135	141	156	179	186	421	422	414	422	428	421	411	916	874	820	795	819	790	723	10
5,437	5,538	5,611	5,678	5,837	5,900	5,957	11,521	11,610	11,660	11,732	12,019	12,132	12,236	20,793	21,001	21,134	21,287	21,790	21,989	22,171	11
24,120	24,889	25,467	26,041	26,622	27,117	27,576	39,932	41,044	42,073	42,838	43,909	45,092	45,676	74,511	76,567	78,346	79,505	82,210	84,820	86,865	12
2,262	2,298	2,322	2,343	2,359	2,393	2,415	4,470	4,532	4,583	4,599	4,687	4,781	4,801	7,708	7,817	7,899	7,928	8,090	8,294	8,461	13
3,289	3,348	3,378	3,453	3,503	3,542	3,603	6,663	6,750	6,772	6,863	6,994	7,134	7,265	12,072	12,303	12,415	12,467	12,572	12,872	12,961	14
12	12	17	15	14	16	16	229	250	273	281	269	303	297	819	943	1,042	1,036	949	1,094	1,017	15
3,278	3,335	3,361	3,438	3,490	3,526	3,587	6,434	6,501	6,499	6,583	6,725	6,831	6,968	11,252	11,360	11,372	11,432	11,623	11,779	11,943	16
50	51	56	54	53	56	57	694	727	763	784	778	818	818	1,562	1,706	1,826	1,841	1,764	1,919	1,852	17
29,621	30,483	31,111	31,782	32,431	32,996	33,538	50,371	51,600	52,665	53,517	54,812	56,189	56,924	92,729	94,981	96,834	98,058	101,109	104,067	106,434	18
25,750	26,534	27,125	27,709	28,286	28,801	29,307	42,842	43,973	44,914	45,687	46,937	48,220	48,904	75,952	78,016	79,730	81,014	83,660	86,518	88,730	19
172	181	186	187	192	193	204	548	588	626	635	640	672	700	1,056	1,167	1,209	1,243	1,207	1,332	1,364	20
800	812	831	862	797	827	822	75	82	81	80	76	84	87	186	191	204	195	196	206	203	21
3,323	3,328	3,522	3,817	3,834	3,744	3,787	3,954	3,956	3,917	4,050	4,136	4,171	4,294	6,050	6,188	6,376	6,476	6,711	6,792	6,855	22
1,373	1,495	1,486	1,503	1,517	1,534	1,522	9,783	10,060	10,250	10,238	10,897	11,142	11,144	15,674	16,078	16,520	16,920	16,962	17,603	18,484	23
898	969	984	987	1,003	1,007	995	7,526	7,805	7,962	7,928	8,599	8,833	8,814	11,504	11,811	12,277	12,613	12,659	13,262	13,993	24
475	525	502	516	514	526	527	2,258	2,255	2,288	2,310	2,298	2,309	2,329	4,169	4,267	4,243	4,307	4,303	4,341	4,491	25
1,723	1,762	1,872	1,799	1,825	1,937	1,984	3,277	3,301	3,380	3,374	3,512	3,498	3,515	6,666	6,768	6,592	6,534	7,122	6,993	7,088	26
1,250	1,280	1,330	1,349	1,373	1,428	1,460	3,624	3,734	3,956	3,958	4,043	4,185	4,224	5,832	5,976	6,272	6,293	6,320	6,484	6,614	27
2,827	2,952	3,008	3,112	3,171	3,200	3,273	5,487	5,614	5,707	5,960	5,980	6,084	6,184	9,110	9,297	9,361	9,510	9,679	9,833	10,025	28
2,083	2,185	2,164	2,171	2,105	2,263	2,329	3,218	3,416	3,453	3,520	3,451	3,831	3,922	5,782	6,016	6,055	6,100	6,116	6,528	6,670	29
12,197	12,540	12,726	12,908	13,473	13,673	13,927	12,874	13,222	13,544	13,871	14,201	14,553	14,835	25,595	26,335	27,141	27,743	29,347	30,746	31,428	30
3,871	3,949	3,986	4,073	4,145	4,195	4,231	7,530	7,627	7,751	7,830	7,875	7,969	8,020	16,777	16,965	17,104	17,044	17,449	17,550	17,704	31
621	629	634	639	674	675	679	1,335	1,338	1,315	1,348	1,404	1,401	1,392	3,034	3,064	3,060	3,066	3,138	3,123	3,115	32
294	289	289	289	294	293	293	149	141	142	141	142	142	144	1,945	1,928	1,929	1,902	2,057	2,065	2,043	33
2,956	3,031	3,063	3,146	3,178	3,226	3,259	6,045	6,148	6,294	6,341	6,328	6,426	6,484	11,799	11,973	12,115	12,076	12,253	12,361	12,546	34

4. Includes the inventory valuation and capital consumption adjustments.

5. "Other" consists of the wage and salary disbursements received by U.S. residents employed by international organizations and foreign embassies and consulates in the U.S.

NOTE.—The personal income level shown for the United States is derived as the sum of the State estimates; it differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

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 January 30, 1998 and include the "advance" estimates for the fourth quarter of 1997 and for the year 1997.

The selected set of NIPA tables shown in this section presents quarterly estimates, which are updated monthly. In most tables, the annual estimates are also shown. Most of the "annual only" NIPA tables were presented in the August 1997 SURVEY OF CURRENT BUSINESS; tables 8.20–8.26 were presented in the September 1997 SURVEY; and the remaining "annual only" tables—tables 3.15–3.20 and 9.1–9.6—were presented in the October 1997 SURVEY.

The selected NIPA tables are available on printouts or diskettes from BEA. To order NIPA subscription products using Visa or MasterCard, call the BEA Order Desk at 1–800–704–0415 (outside the United States, 202–606–9666).

The news release on gross domestic product (GDP) is available at the time of release, and the selected NIPA tables are available later that day, on STAT-USA's Economic Bulletin Board and Internet services; for information, call STAT-USA on 202–482–1986. In addition, the GDP news release is available the afternoon of the day of the release, and the selected NIPA tables are available about two weeks later (when the SURVEY is sent to the printer), on BEA's Internet site <http://www.bea.doc.gov>.

1. National Product and Income

Table 1.1.—Gross Domestic Product

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product	**7,636.0**	**8,083.4**	**7,676.0**	**7,792.9**	**7,933.6**	**8,034.3**	**8,124.3**	**8,241.5**
Personal consumption expenditures	**5,207.6**	**5,488.6**	**5,227.4**	**5,308.1**	**5,405.7**	**5,432.1**	**5,527.4**	**5,589.3**
Durable goods	634.5	659.4	634.5	638.2	658.4	644.5	667.3	667.6
Nondurable goods	1,534.7	1,592.7	1,538.3	1,560.1	1,587.4	1,578.9	1,600.8	1,603.9
Services	3,038.4	3,236.5	3,054.6	3,109.8	3,159.9	3,208.7	3,259.3	3,317.9
Gross private domestic investment	**1,116.5**	**1,237.6**	**1,149.2**	**1,151.1**	**1,193.6**	**1,242.0**	**1,250.2**	**1,264.5**
Fixed investment	1,090.7	1,173.0	1,112.0	1,119.2	1,127.5	1,160.8	1,201.3	1,202.4
Nonresidential	781.4	845.4	798.6	807.2	811.3	836.3	872.0	862.3
Structures	215.2	230.2	217.7	227.0	227.4	226.8	232.9	233.7
Producers' durable equipment	566.2	615.2	580.9	580.2	583.9	609.5	639.1	628.5
Residential	309.2	327.5	313.5	312.0	316.2	324.6	329.3	340.1
Change in business inventories	25.9	64.6	37.1	31.9	66.1	81.1	48.9	62.1
Net exports of goods and services	**–94.8**	**–96.7**	**–114.0**	**–88.6**	**–98.8**	**–88.7**	**–111.3**	**–87.9**
Exports	870.9	958.8	863.7	904.6	922.2	960.3	965.8	986.9
Goods	617.5	687.1	609.7	640.5	656.2	690.0	691.1	711.1
Services	253.3	271.7	254.0	264.2	266.0	270.3	274.8	275.8
Imports	965.7	1,055.5	977.6	993.2	1,021.0	1,049.0	1,077.1	1,074.8
Goods	809.0	885.4	820.2	834.6	855.8	880.1	905.6	900.0
Services	156.7	170.1	157.5	158.6	165.2	168.9	171.6	174.8
Government consumption expenditures and gross investment	**1,406.7**	**1,453.9**	**1,413.5**	**1,422.3**	**1,433.1**	**1,449.0**	**1,457.9**	**1,475.6**
Federal	520.0	524.8	521.6	517.6	516.1	526.1	525.7	531.1
National defense	352.8	350.8	354.8	350.6	343.3	350.6	352.1	357.1
Nondefense	167.3	174.0	166.8	167.0	172.8	175.5	173.6	174.0
State and local	886.7	929.1	891.9	904.7	917.0	923.0	932.3	944.4

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 (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product	**6,928.4**	**7,191.4**	**6,943.8**	**7,017.4**	**7,101.6**	**7,159.6**	**7,214.0**	**7,290.3**
Personal consumption expenditures	**4,714.1**	**4,869.7**	**4,718.2**	**4,756.4**	**4,818.1**	**4,829.4**	**4,896.2**	**4,935.0**
Durable goods	611.1	645.8	611.9	617.1	637.8	629.0	656.1	660.3
Nondurable goods	1,432.3	1,459.3	1,433.9	1,441.2	1,457.8	1,450.0	1,465.5	1,464.1
Services	2,671.0	2,765.2	2,672.8	2,698.2	2,723.9	2,749.8	2,776.1	2,811.0
Gross private domestic investment	**1,069.1**	**1,192.2**	**1,100.3**	**1,104.8**	**1,149.2**	**1,197.1**	**1,204.6**	**1,217.9**
Fixed investment	1,041.7	1,122.3	1,060.9	1,068.7	1,079.0	1,111.4	1,149.3	1,149.6
Nonresidential	771.7	846.7	789.3	800.8	808.9	837.0	874.5	866.5
Structures	188.7	195.4	190.0	196.9	195.9	193.5	196.7	195.3
Producers' durable equipment	586.0	657.4	602.9	606.7	616.6	649.3	685.3	678.5
Residential	272.1	279.7	274.1	271.1	273.3	278.2	280.1	287.1
Change in business inventories	25.0	62.2	37.9	32.9	63.7	77.6	47.5	59.9
Net exports of goods and services	**–114.4**	**–142.1**	**–138.9**	**–105.6**	**–126.3**	**–136.6**	**–164.1**	**–141.4**
Exports	857.0	964.4	851.4	901.1	922.7	962.5	973.0	999.3
Goods	628.4	725.8	623.0	666.2	686.2	725.8	731.8	759.4
Services	229.9	242.5	229.4	236.8	238.9	240.8	245.0	245.1
Imports	971.5	1,106.5	990.2	1,006.6	1,048.9	1,099.1	1,137.1	1,140.8
Goods	823.1	944.1	841.7	857.5	891.3	938.4	972.7	973.9
Services	149.0	163.5	149.3	150.0	158.4	161.8	165.8	168.1
Government consumption expenditures and gross investment	**1,257.9**	**1,270.6**	**1,261.5**	**1,261.8**	**1,260.5**	**1,270.1**	**1,273.4**	**1,278.5**
Federal	464.2	457.8	465.7	459.6	452.8	460.1	458.8	459.5
National defense	317.8	309.0	319.4	313.6	303.9	309.4	310.3	312.6
Nondefense	146.1	148.3	146.0	145.7	148.5	150.2	148.0	146.6
State and local	793.7	812.9	795.9	802.3	807.7	810.1	814.7	819.0
Residual	–1.6	–4.5	–2.4	–3.8	–2.9	–3.9	–4.6	–6.6

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

Table 1.3.—Gross Domestic Product by Major Type of Product

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product	**7,636.0**	**8,083.4**	**7,676.0**	**7,792.9**	**7,933.6**	**8,034.3**	**8,124.3**	**8,241.5**
Final sales of domestic product	7,610.2	8,018.8	7,638.9	7,761.0	7,867.4	7,953.2	8,075.3	8,179.3
Change in business inventories	25.9	64.6	37.1	31.9	66.1	81.1	48.9	62.1
Goods	**2,785.2**	**2,945.1**	**2,797.8**	**2,826.9**	**2,904.6**	**2,936.0**	**2,952.1**	**2,987.9**
Final sales	2,759.3	2,880.6	2,760.7	2,795.0	2,838.4	2,854.9	2,903.2	2,925.7
Change in business inventories	25.9	64.6	37.1	31.9	66.1	81.1	48.9	62.1
Durable goods	1,228.9	1,315.7	1,249.5	1,232.4	1,279.8	1,322.1	1,323.9	1,336.9
Final sales	1,212.0	1,284.9	1,216.3	1,233.5	1,248.0	1,275.3	1,305.3	1,310.9
Change in business inventories	16.9	30.8	33.3	–1.1	31.8	46.8	18.6	25.9
Nondurable goods	1,556.3	1,629.5	1,548.3	1,594.5	1,624.7	1,613.9	1,628.2	1,651.0
Final sales	1,547.3	1,595.7	1,544.4	1,561.5	1,590.4	1,579.6	1,597.9	1,614.8
Change in business inventories	9.0	33.8	3.9	33.0	34.3	34.4	30.3	36.2
Services	**4,187.3**	**4,432.8**	**4,208.1**	**4,282.7**	**4,338.2**	**4,400.1**	**4,462.3**	**4,530.4**
Structures	**663.6**	**705.5**	**670.1**	**683.3**	**690.8**	**698.2**	**709.8**	**723.2**
Addenda:								
Motor vehicle output	271.4	284.5	278.7	267.2	281.4	270.4	287.4	298.8
Gross domestic product less motor vehicle output	7,364.7	7,798.9	7,397.3	7,525.8	7,652.2	7,764.0	7,836.9	7,942.7

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

Table 1.4.—Real Gross Domestic Product by Major Type of Product

[Billions of chained (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product	**6,928.4**	**7,191.4**	**6,943.8**	**7,017.4**	**7,101.6**	**7,159.6**	**7,214.0**	**7,290.3**
Final sales of domestic product	6,901.0	7,124.2	6,905.0	6,981.7	7,034.1	7,077.7	7,160.3	7,224.6
Change in business inventories	25.0	62.2	37.9	32.9	63.7	77.6	47.5	59.9
Residual	2.4	5.0	.9	2.8	3.8	4.3	6.2	5.8
Goods	**2,662.6**	**2,808.6**	**2,673.1**	**2,704.1**	**2,769.3**	**2,796.7**	**2,815.4**	**2,852.9**
Final sales	2,635.5	2,739.4	2,634.0	2,668.4	2,699.6	2,711.8	2,760.7	2,785.3
Change in business inventories	25.0	62.2	37.9	32.9	63.7	77.6	47.5	59.9
Durable goods	1,222.1	1,325.2	1,244.0	1,228.5	1,277.0	1,327.5	1,338.4	1,357.8
Final sales	1,205.8	1,295.0	1,211.4	1,230.1	1,245.8	1,281.4	1,320.4	1,332.3
Change in business inventories	15.9	28.9	31.3	–.9	29.9	43.8	17.5	24.5
Nondurable goods	1,443.7	1,489.8	1,433.5	1,477.9	1,496.1	1,476.2	1,484.3	1,502.6
Final sales	1,433.2	1,451.6	1,426.5	1,442.6	1,458.3	1,437.5	1,449.0	1,461.8
Change in business inventories	9.1	33.3	6.6	33.8	33.8	33.8	30.1	35.4
Services	**3,686.6**	**3,790.5**	**3,689.0**	**3,723.9**	**3,743.9**	**3,774.4**	**3,804.8**	**3,839.0**
Structures	**582.2**	**599.4**	**585.0**	**592.9**	**595.1**	**595.7**	**600.7**	**606.3**
Residual	–4.4	–7.3	–6.0	–5.0	–5.2	–7.0	–8.5	–9.0
Addenda:								
Motor vehicle output	241.3	252.2	246.8	236.5	247.5	240.6	254.0	266.8
Gross domestic product less motor vehicle output	6,687.1	6,939.2	6,696.8	6,781.0	6,854.1	6,919.1	6,960.1	7,023.6

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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 following change in business inventories is the difference between gross domestic product and the sum of final sales of domestic product and of change in business inventories; the residual line following structures is the difference between gross domestic product and the sum of the detailed lines of goods, of services, and of structures.

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

Table 1.5.—Relation of Gross Domestic Product, Gross Domestic Purchases, and Final Sales to Domestic Purchasers

[Billions of dollars]

Gross domestic product	**7,636.0**	**8,083.4**	**7,676.0**	**7,792.9**	**7,933.6**	**8,034.3**	**8,124.3**	**8,241.5**
Less: Exports of goods and services	870.9	958.8	863.7	904.6	922.2	960.3	965.8	986.9
Plus: Imports of goods and services	965.7	1,055.5	977.6	993.2	1,021.0	1,049.0	1,077.1	1,074.8
Equals: Gross domestic purchases	**7,730.9**	**8,180.1**	**7,790.0**	**7,881.5**	**8,032.4**	**8,123.1**	**8,235.6**	**8,329.4**
Less: Change in business inventories	25.9	64.6	37.1	31.9	66.1	81.1	48.9	62.1
Equals: Final sales to domestic purchasers	**7,705.0**	**8,115.5**	**7,752.8**	**7,849.6**	**7,966.3**	**8,042.0**	**8,186.6**	**8,267.3**

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

Table 1.6.—Relation of Real Gross Domestic Product, Real Gross Domestic Purchases, and Real Final Sales to Domestic Purchasers

[Billions of chained (1992) dollars]

Gross domestic product	**6,928.4**	**7,191.4**	**6,943.8**	**7,017.4**	**7,101.6**	**7,159.6**	**7,214.0**	**7,290.3**
Less: Exports of goods and services	857.0	964.4	851.4	901.1	922.7	962.5	973.0	999.3
Plus: Imports of goods and services	971.5	1,106.5	990.2	1,006.6	1,048.9	1,099.1	1,137.1	1,140.8
Equals: Gross domestic purchases	**7,037.7**	**7,323.4**	**7,075.3**	**7,118.4**	**7,220.9**	**7,286.9**	**7,364.6**	**7,421.2**
Less: Change in business inventories	25.0	62.2	37.9	32.9	63.7	77.6	47.5	59.9
Equals: Final sales to domestic purchasers	**7,010.2**	**7,256.0**	**7,036.4**	**7,082.7**	**7,153.1**	**7,204.7**	**7,310.9**	**7,355.4**

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

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

Table 1.7.—Gross Domestic Product by Sector

[Billions of dollars]

Gross domestic product	**7,636.0**	**8,083.4**	**7,676.0**	**7,792.9**	**7,933.6**	**8,034.3**	**8,124.3**	**8,241.5**
Business [1]	**6,401.0**	**6,797.4**	**6,434.2**	**6,543.1**	**6,666.5**	**6,755.0**	**6,831.8**	**6,936.2**
Nonfarm [1]	6,311.6	6,702.6	6,341.7	6,450.0	6,573.1	6,657.9	6,736.8	6,842.5
Nonfarm less housing	5,652.8	6,013.2	5,677.3	5,777.1	5,892.5	5,971.0	6,044.2	6,145.2
Housing	658.8	689.4	664.4	673.0	680.6	686.8	692.7	697.3
Farm	89.4	94.8	92.5	93.0	93.4	97.1	95.0	93.7
Households and institutions	**346.0**	**366.3**	**347.9**	**352.0**	**357.7**	**363.6**	**369.3**	**374.7**
Private households	11.5	11.4	11.4	11.1	11.1	11.3	11.4	11.6
Nonprofit institutions	334.6	355.0	336.6	341.0	346.6	352.3	357.9	363.1
General government [2]	**889.0**	**919.7**	**893.9**	**897.8**	**909.4**	**915.8**	**923.2**	**930.5**
Federal	281.4	285.9	282.1	281.1	286.2	286.2	286.1	285.4
State and local	607.6	633.8	611.8	616.7	623.3	629.6	637.1	645.1

1. Gross domestic business product equals gross domestic product less gross product of households and institutions and of general government. Nonfarm product equals gross domestic business product less gross farm product.
2. Equals compensation of general government employees plus general government consumption of fixed capital as shown in table 3.7.

Table 1.8.—Real Gross Domestic Product by Sector

[Billions of chained (1992) dollars]

Gross domestic product	**6,928.4**	**7,191.4**	**6,943.8**	**7,017.4**	**7,101.6**	**7,159.6**	**7,214.0**	**7,290.3**
Business [1]	**5,842.9**	**6,094.4**	**5,854.9**	**5,928.5**	**6,009.6**	**6,064.4**	**6,114.4**	**6,189.3**
Nonfarm [1]	5,766.8	6,013.7	5,779.8	5,853.3	5,929.7	5,983.2	6,034.0	6,108.0
Nonfarm less housing	5,181.4	5,419.2	5,191.3	5,261.3	5,335.3	5,388.2	5,439.2	5,514.2
Housing	585.7	595.3	588.7	592.3	594.9	595.6	595.7	595.1
Farm	75.5	79.9	74.6	74.7	79.0	80.4	79.6	80.5
Households and institutions	**311.2**	**320.6**	**312.5**	**314.4**	**316.9**	**319.2**	**321.7**	**324.6**
Private households	10.1	9.6	10.0	9.6	9.6	9.6	9.7	9.7
Nonprofit institutions	301.1	311.0	302.5	304.8	307.4	309.6	312.1	314.9
General government [2]	**775.9**	**779.4**	**778.1**	**776.6**	**777.7**	**778.8**	**781.1**	**780.1**
Federal	240.9	236.1	241.3	238.9	238.2	237.1	236.3	232.7
State and local	535.2	543.8	537.0	537.9	539.9	542.1	545.2	547.9
Residual	–1.5	–3.5	–1.6	–2.1	–2.7	–3.0	–3.8	–4.7

1. Gross domestic business product equals gross domestic product less gross product of households and institutions and of general government. Nonfarm product equals gross domestic business product less gross farm product.
2. Equals compensation of general government employees plus general government consumption of fixed capital as shown in table 3.8.

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

Table 1.9.—Relation of Gross Domestic Product, Gross National Product, Net National Product, National Income, and Personal Income

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product	**7,636.0**	**8,083.4**	**7,676.0**	**7,792.9**	**7,933.6**	**8,034.3**	**8,124.3**	**8,241.5**
Plus: Receipts of factor income from the rest of the world	234.3		235.4	248.8	248.2	261.6	269.4	
Less: Payments of factor income to the rest of the world	232.6		242.3	245.6	262.5	282.3	290.1	
Equals: Gross national product	**7,637.7**		**7,669.1**	**7,796.1**	**7,919.2**	**8,013.6**	**8,103.5**	
Less: Consumption of fixed capital	830.1	868.0	835.4	845.6	855.0	863.0	871.6	882.5
Private	682.7	717.0	687.7	697.2	705.4	712.3	720.3	729.8
Capital consumption allowances	709.9	750.4	715.4	725.3	736.6	745.9	754.3	764.8
Less: Capital consumption adjustment	27.1	33.5	27.8	28.1	31.2	33.6	34.0	35.0
Government	147.4	151.1	147.8	148.4	149.6	150.6	151.3	152.7
General government	125.1	127.8	125.4	125.8	126.8	127.4	128.0	129.0
Government enterprises	22.3	23.3	22.4	22.6	22.9	23.3	23.4	23.6
Equals: Net national product	**6,807.6**		**6,833.6**	**6,950.4**	**7,064.2**	**7,150.7**	**7,231.9**	
Less: Indirect business tax and nontax liability	604.8	619.5	600.9	625.3	610.2	616.2	625.4	626.2
Business transfer payments	33.6	35.4	33.8	34.2	34.4	35.0	35.9	36.2
Statistical discrepancy	–59.9		–79.5	–59.5	–64.3	–73.5	–103.2	
Plus: Subsidies less current surplus of government enterprises	25.4	26.1	24.9	26.0	26.1	26.0	25.8	26.4
Equals: National income	**6,254.5**		**6,303.3**	**6,376.5**	**6,510.0**	**6,599.0**	**6,699.6**	
Less: Corporate profits with inventory valuation and capital consumption adjustments	735.9		739.6	747.8	779.6	795.1	827.3	
Net interest	425.1		430.9	430.6	440.5	448.1	451.8	
Contributions for social insurance	692.0	732.0	696.8	705.1	719.5	726.9	735.0	746.6
Wage accruals less disbursements	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.2
Plus: Personal interest income	735.7	768.8	742.7	749.8	757.2	766.1	772.6	779.1
Personal dividend income	291.2	321.5	292.0	295.2	312.5	318.3	324.5	330.7
Government transfer payments to persons	1,042.0	1,094.1	1,046.3	1,055.1	1,080.5	1,090.0	1,098.4	1,107.3
Business transfer payments to persons	26.0	27.1	26.1	26.4	26.7	26.9	27.2	27.5
Equals: Personal income	**6,495.2**	**6,874.4**	**6,541.9**	**6,618.4**	**6,746.2**	**6,829.1**	**6,906.9**	**7,015.4**
Addenda:								
Gross domestic income	7,695.9		7,755.5	7,852.4	7,997.9	8,107.9	8,227.4	
Gross national income	7,697.6		7,748.5	7,855.5	7,983.6	8,087.2	8,206.7	
Net domestic product	6,805.9	7,215.4	6,840.6	6,947.3	7,078.5	7,171.4	7,252.6	7,359.0

Table 1.10.—Relation of Real Gross Domestic Product, Real Gross National Product, and Real Net National Product

[Billions of chained (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product	**6,928.4**	**7,191.4**	**6,943.8**	**7,017.4**	**7,101.6**	**7,159.6**	**7,214.0**	**7,290.3**
Plus: Receipts of factor income from the rest of the world	214.2		214.8	226.0	224.6	236.3	242.5	
Less: Payments of factor income to the rest of the world	210.2		218.1	219.8	234.0	250.8	256.9	
Equals: Gross national product	**6,932.0**		**6,940.2**	**7,023.1**	**7,091.8**	**7,144.4**	**7,198.8**	
Less: Consumption of fixed capital	776.4	807.3	779.8	786.7	797.3	806.5	816.0	809.5
Private	642.4	672.2	645.7	652.2	662.6	671.5	680.8	674.0
Government	134.2	135.4	134.3	134.6	135.0	135.3	135.6	135.8
General government	114.1	114.9	114.2	114.4	114.6	114.8	115.0	115.1
Government enterprises	20.0	20.5	20.1	20.2	20.3	20.4	20.6	20.7
Equals: Net national product	**6,155.6**		**6,160.4**	**6,236.4**	**6,294.5**	**6,338.2**	**6,383.3**	
Addenda:								
Gross domestic income [1]	6,982.7		7,015.7	7,070.9	7,159.2	7,225.2	7,305.6	
Gross national income [2]	6,986.3		7,012.1	7,076.7	7,149.4	7,210.0	7,290.5	
Net domestic product	6,151.9	6,384.1	6,164.0	6,230.7	6,304.4	6,353.3	6,398.3	6,480.3

1. Gross domestic income deflated by the implicit price deflator for gross domestic product.
2. Gross national income deflated by the implicit price deflator for gross national product.

NOTE.—Except as noted in footnotes 1 and 2, chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

Table 1.11.—Command-Basis Real Gross National Product

[Billions of chained (1992) dollars]

Gross national product	**6,932.0**		**6,940.2**	**7,023.1**	**7,091.8**	**7,144.4**	**7,198.8**	
Less: Exports of goods and services and receipts of factor income from the rest of the world	1,071.7		1,066.8	1,127.6	1,147.3	1,198.9	1,216.0	
Plus: Command-basis exports of goods and services and receipts of factor income [1]	1,091.1		1,090.2	1,143.4	1,171.9	1,241.7	1,261.9	
Equals: Command-basis gross national product	**6,951.4**		**6,963.6**	**7,038.9**	**7,116.4**	**7,187.2**	**7,244.8**	
Addendum:								
Terms of trade [2]	101.8		102.2	101.4	102.1	103.6	103.8	

1. Exports of goods and services and receipts of factor income deflated by the implicit price deflator for imports of goods and services and payments of factor income.
2. Ratio of the implicit price deflator for exports of goods and services and receipts of factor income to the corresponding implicit price deflator for imports with the decimal point shifted two places to the right.

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

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

Table 1.14.—National Income by Type of Income

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
National income	**6,254.5**		**6,303.3**	**6,376.5**	**6,510.0**	**6,599.0**	**6,699.6**	
Compensation of employees	**4,426.9**	**4,703.4**	**4,461.0**	**4,520.7**	**4,606.3**	**4,663.4**	**4,725.2**	**4,818.6**
Wage and salary accruals	3,633.6	3,878.4	3,664.0	3,718.0	3,792.7	3,842.7	3,897.3	3,980.8
Government	642.6	665.4	645.5	648.9	657.8	662.0	667.7	674.2
Other	2,991.0	3,213.0	3,018.4	3,069.0	3,134.9	3,180.8	3,229.6	3,306.7
Supplements to wages and salaries	793.3	825.0	797.0	802.7	813.6	820.7	827.9	837.7
Employer contributions for social insurance	385.7	408.4	388.6	393.6	401.3	405.6	410.2	416.4
Other labor income	407.6	416.6	408.4	409.1	412.3	415.1	417.7	421.4
Proprietors' income with inventory valuation and capital consumption adjustments	**520.3**	**544.7**	**523.8**	**528.3**	**534.6**	**543.6**	**547.2**	**553.3**
Farm	37.2	40.9	40.1	40.4	40.2	43.6	40.9	39.0
Proprietors' income with inventory valuation adjustment	45.0	48.5	47.9	48.1	47.9	51.2	48.5	46.4
Capital consumption adjustment	–7.8	–7.6	–7.8	–7.8	–7.7	–7.6	–7.5	–7.5
Nonfarm	483.1	503.8	483.7	487.9	494.4	500.0	506.3	514.4
Proprietors' income	455.3	474.6	456.1	460.0	466.3	470.8	477.0	484.3
Inventory valuation adjustment	–.2	.3	–.1	.3	–.1	.6	.2	.4
Capital consumption adjustment	28.0	28.9	27.8	27.5	28.1	28.7	29.1	29.7
Rental income of persons with capital consumption adjustment	**146.3**	**148.1**	**148.0**	**149.2**	**149.0**	**148.7**	**148.0**	**146.6**
Rental income of persons	193.3	197.6	195.5	197.3	197.9	197.6	197.7	197.0
Capital consumption adjustment	–47.0	–49.5	–47.5	–48.1	–48.9	–48.9	–49.7	–50.4
Corporate profits with inventory valuation and capital consumption adjustments	**735.9**		**739.6**	**747.8**	**779.6**	**795.1**	**827.3**	
Corporate profits with inventory valuation adjustment	674.1		676.4	683.4	711.9	725.7	757.1	
Profits before tax	676.6		679.1	680.0	708.4	719.8	753.4	
Profits tax liability	229.0		231.6	226.0	241.2	244.5	258.2	
Profits after tax	447.6		447.5	454.0	467.2	475.3	495.2	
Dividends	304.8	336.1	305.7	309.1	326.8	333.0	339.1	345.6
Undistributed profits	142.8		141.8	144.9	140.3	142.3	156.1	
Inventory valuation adjustment	–2.5	4.9	–2.7	3.3	3.5	5.9	3.6	6.5
Capital consumption adjustment	61.8	69.7	63.2	64.4	67.7	69.4	70.3	71.3
Net interest	**425.1**		**430.9**	**430.6**	**440.5**	**448.1**	**451.8**	
Addenda:								
Corporate profits after tax with inventory valuation and capital consumption adjustments	506.9		508.0	521.8	538.4	550.6	569.1	
Net cash flow with inventory valuation and capital consumption adjustments	654.3		657.8	674.6	678.9	690.2	707.9	
Undistributed profits with inventory valuation and capital consumption adjustments	202.1		202.3	212.6	211.5	217.6	230.0	
Consumption of fixed capital	452.3	475.7	455.5	462.0	467.4	472.6	478.0	484.8
Less: Inventory valuation adjustment	–2.5	4.9	–2.7	3.3	3.5	5.9	3.6	6.5
Equals: Net cash flow	656.8		660.5	671.3	675.5	684.4	704.3	

Table 1.16.—Gross Domestic Product of Corporate Business in Current Dollars and Gross Domestic Product of Nonfinancial Corporate Business in Current and Chained Dollars

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
	Billions of dollars							
Gross domestic product of corporate business	**4,624.9**		**4,661.0**	**4,733.2**	**4,824.8**	**4,897.2**	**4,989.2**	
Consumption of fixed capital	452.3	475.7	455.5	462.0	467.4	472.6	478.0	484.8
Net domestic product	4,172.6		4,205.5	4,271.2	4,357.4	4,424.6	4,511.3	
Indirect business tax and nontax liability plus business transfer payments less subsidies	463.9	476.5	460.9	485.0	465.9	474.4	483.1	482.5
Domestic income	3,708.7		3,744.6	3,786.2	3,891.5	3,950.2	4,028.2	
Compensation of employees	2,926.7	3,127.0	2,951.4	2,997.9	3,056.5	3,098.2	3,142.3	3,211.1
Wage and salary accruals	2,433.5	2,614.2	2,456.3	2,500.7	2,550.7	2,588.0	2,627.6	2,690.3
Supplements to wages and salaries	493.2	512.9	495.1	497.3	505.8	510.2	514.7	520.8
Corporate profits with inventory valuation and capital consumption adjustments	640.0		647.8	640.3	682.2	694.4	727.5	
Profits before tax	580.7		587.4	572.5	611.0	619.1	653.5	
Profits tax liability	229.0		231.6	226.0	241.2	244.5	258.2	
Profits after tax	351.6		355.7	346.5	369.8	374.5	395.3	
Dividends	270.8		265.6	281.6	292.7	293.6	292.0	
Undistributed profits	80.8		90.1	64.9	77.1	80.9	103.3	
Inventory valuation adjustment	–2.5	4.9	–2.7	3.3	3.5	5.9	3.6	6.5
Capital consumption adjustment	61.8	69.7	63.2	64.4	67.7	69.4	70.3	71.3
Net interest	142.1		145.4	148.0	152.8	157.6	158.4	
Gross domestic product of financial corporate business	**492.5**		**495.2**	**513.2**	**525.1**	**536.1**	**543.0**	
Gross domestic product of nonfinancial corporate business	**4,132.4**		**4,165.8**	**4,220.1**	**4,299.7**	**4,361.1**	**4,446.3**	
Consumption of fixed capital	393.4	413.3	396.2	401.8	406.3	410.7	415.3	421.0
Net domestic product	3,739.0		3,769.7	3,818.3	3,893.4	3,950.4	4,031.0	
Indirect business tax and nontax liability plus business transfer payments less subsidies	421.8	439.7	423.7	430.0	432.2	437.0	445.3	444.4
Domestic income	3,317.2		3,345.9	3,388.3	3,461.2	3,513.3	3,585.7	
Compensation of employees	2,682.9	2,866.5	2,704.7	2,745.3	2,801.9	2,840.1	2,880.6	2,943.6
Wage and salary accruals	2,228.6	2,394.0	2,248.7	2,287.5	2,335.8	2,370.0	2,406.3	2,463.7
Supplements to wages and salaries	454.4	472.5	456.0	457.8	466.0	470.1	474.2	479.8
Corporate profits with inventory valuation and capital consumption adjustments	545.8		553.3	561.7	575.4	586.7	618.2	
Profits before tax	477.2		483.4	484.4	494.5	501.5	534.2	
Profits tax liability	154.8		156.8	159.0	159.4	161.8	174.1	
Profits after tax	322.4		326.6	325.5	335.1	339.8	360.1	
Dividends	196.4		191.8	199.4	207.0	208.1	207.7	
Undistributed profits	126.0		134.8	126.1	128.2	131.7	152.4	
Inventory valuation adjustment	–2.5	4.9	–2.7	3.3	3.5	5.9	3.6	6.5
Capital consumption adjustment	71.1	79.7	72.6	74.0	77.4	79.3	80.4	81.6
Net interest	88.5		88.0	81.3	83.9	86.6	87.0	
	Billions of chained (1992) dollars							
Gross domestic product of nonfinancial corporate business [1]	**3,887.8**		**3,913.7**	**3,963.5**	**4,022.2**	**4,068.9**	**4,146.5**	
Consumption of fixed capital [2]	374.4	402.7	376.6	381.7	396.0	402.2	408.2	404.2
Net domestic product [3]	3,513.5		3,537.1	3,581.8	3,626.2	3,666.7	3,738.3	

1. Chained-dollar gross domestic product of nonfinancial corporate business equals the current-dollar product deflated by the implicit price deflator for goods and structures in gross domestic product.
2. Chained-dollar consumption of fixed capital of nonfinancial corporate business is calculated as the product of the chain-type quantity index and the 1992 current-dollar value of the corresponding series, divided by 100.
3. Chained-dollar net domestic product of nonfinancial corporate business is the difference between the gross product and the consumption of fixed capital.

2. Personal Income and Outlays

Table 2.1.—Personal Income and Its Disposition

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Personal income	**6,495.2**	**6,874.4**	**6,541.9**	**6,618.4**	**6,746.2**	**6,829.1**	**6,906.9**	**7,015.4**
Wage and salary disbursements	**3,632.5**	**3,877.2**	**3,662.8**	**3,716.9**	**3,791.5**	**3,841.6**	**3,896.1**	**3,979.7**
Private industries	2,989.9	3,211.8	3,017.3	3,067.9	3,133.7	3,179.6	3,228.4	3,305.5
Goods-producing industries	909.1	960.1	917.2	927.8	942.9	952.8	961.4	983.5
Manufacturing	674.7	705.9	680.1	685.6	694.1	700.3	706.0	723.1
Distributive industries	823.3	876.0	829.0	840.6	856.8	867.0	880.8	899.6
Service industries	1,257.5	1,375.6	1,271.1	1,299.5	1,334.1	1,359.8	1,386.3	1,422.4
Government	642.6	665.4	645.5	648.9	657.8	662.0	667.7	674.2
Other labor income	**407.6**	**416.6**	**408.4**	**409.1**	**412.3**	**415.1**	**417.7**	**421.4**
Proprietors' income with inventory valuation and capital consumption adjustments	**520.3**	**544.7**	**523.8**	**528.3**	**534.6**	**543.6**	**547.2**	**553.3**
Farm	37.2	40.9	40.1	40.4	40.2	43.6	40.9	39.0
Nonfarm	483.1	503.8	483.7	487.9	494.4	500.0	506.3	514.4
Rental income of persons with capital consumption adjustment	**146.3**	**148.1**	**148.0**	**149.2**	**149.0**	**148.7**	**148.0**	**146.6**
Personal dividend income	**291.2**	**321.5**	**292.0**	**295.2**	**312.5**	**318.3**	**324.5**	**330.7**
Personal interest income	**735.7**	**768.8**	**742.7**	**749.8**	**757.2**	**766.1**	**772.6**	**779.1**
Transfer payments to persons	**1,068.0**	**1,121.1**	**1,072.4**	**1,081.5**	**1,107.2**	**1,117.0**	**1,125.7**	**1,134.8**
Old-age, survivors, disability, and health insurance benefits	537.6	566.7	540.0	545.6	558.9	564.4	569.4	574.1
Government unemployment insurance benefits	22.0	21.8	21.3	21.6	22.1	21.9	21.6	21.5
Veterans benefits	21.6	22.4	21.7	21.4	22.4	22.4	22.5	22.3
Government employees retirement benefits	142.5	153.4	143.7	145.9	150.4	152.7	154.2	156.3
Other transfer payments	344.2	356.9	345.7	347.0	353.5	355.6	358.0	360.5
Family assistance [1]	21.7	18.8	21.6	20.7	19.7	19.0	18.2	18.1
Other	322.5	338.2	324.2	326.2	333.8	336.6	339.8	342.5
Less: Personal contributions for social insurance	**306.3**	**323.6**	**308.2**	**311.5**	**318.2**	**321.3**	**324.8**	**330.2**
Less: Personal tax and nontax payments	**886.9**	**987.9**	**897.3**	**922.6**	**955.7**	**979.2**	**998.0**	**1,018.5**
Equals: Disposable personal income	**5,608.3**	**5,886.6**	**5,644.6**	**5,695.8**	**5,790.5**	**5,849.9**	**5,908.9**	**5,996.9**
Less: Personal outlays	**5,368.8**	**5,661.0**	**5,390.6**	**5,475.4**	**5,574.6**	**5,602.8**	**5,700.8**	**5,765.8**
Personal consumption expenditures	5,207.6	5,488.6	5,227.4	5,308.1	5,405.7	5,432.1	5,527.4	5,589.3
Interest paid by persons	145.2	154.5	147.4	150.5	151.9	153.1	155.1	157.9
Personal transfer payments to the rest of the world (net)	15.9	17.9	15.9	16.7	17.0	17.6	18.2	18.5
Equals: Personal saving	**239.6**	**225.6**	**254.0**	**220.4**	**215.9**	**247.0**	**208.2**	**231.1**
Addenda:								
Disposable personal income:								
Total, billions of chained (1992) dollars [2]	5,076.9	5,222.7	5,094.8	5,103.8	5,161.1	5,200.9	5,234.1	5,294.8
Per capita:								
Current dollars	21,117	21,976	21,229	21,373	21,689	21,865	22,034	22,312
Chained (1992) dollars	19,116	19,497	19,161	19,152	19,331	19,439	19,518	19,700
Population (mid-period, millions)	265.6	267.9	265.9	266.5	267.0	267.5	268.2	268.8
Personal saving as a percentage of disposable personal income	**4.3**	**3.8**	**4.5**	**3.9**	**3.7**	**4.2**	**3.5**	**3.9**

1. Consists of aid to families with dependent children and, beginning with 1996, assistance programs operating under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996.
2. Equals disposable personal income deflated by the implicit price deflator for personal consumption expenditures.

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

Table 2.2.—Personal Consumption Expenditures by Major Type of Product

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Personal consumption expenditures	**5,207.6**	**5,488.6**	**5,227.4**	**5,308.1**	**5,405.7**	**5,432.1**	**5,527.4**	**5,589.3**
Durable goods	**634.5**	**659.4**	**634.5**	**638.2**	**658.4**	**644.5**	**667.3**	**667.6**
Motor vehicles and parts	261.3	262.9	260.0	258.9	265.7	252.7	268.7	264.6
Furniture and household equipment	252.6	267.6	254.2	255.9	263.8	265.4	269.9	271.5
Other	120.6	128.9	120.3	123.4	128.9	126.5	128.8	131.5
Nondurable goods	**1,534.7**	**1,592.7**	**1,538.3**	**1,560.1**	**1,587.4**	**1,578.9**	**1,600.8**	**1,603.9**
Food	756.1	776.4	757.4	766.6	775.5	771.4	779.3	779.5
Clothing and shoes	264.3	277.6	265.7	266.2	275.2	274.8	280.5	279.8
Gasoline and oil	122.6	124.6	121.4	126.0	128.5	121.6	123.5	124.6
Fuel oil and coal	11.6	10.9	11.2	12.0	11.0	11.0	10.9	10.7
Other	380.1	403.3	382.7	389.3	397.1	400.0	406.5	409.4
Services	**3,038.4**	**3,236.5**	**3,054.6**	**3,109.8**	**3,159.9**	**3,208.7**	**3,259.3**	**3,317.9**
Housing	787.2	826.4	791.8	800.7	810.5	821.2	831.9	842.2
Household operation	315.9	328.7	313.4	321.8	320.8	326.7	328.8	338.6
Electricity and gas	125.3	127.2	122.8	126.8	124.9	127.2	125.2	131.5
Other household operation	190.6	201.5	190.6	195.0	195.9	199.5	203.6	207.1
Transportation	218.4	236.3	219.7	224.8	228.9	233.4	238.5	244.3
Medical care	808.1	855.0	811.9	826.9	841.0	849.6	859.7	869.7
Other	908.9	990.1	917.8	935.6	958.8	977.9	1,000.4	1,023.2

Table 2.3.—Real Personal Consumption Expenditures by Major Type of Product

[Billions of chained (1992) dollars]

Personal consumption expenditures	**4,714.1**	**4,869.7**	**4,718.2**	**4,756.4**	**4,818.1**	**4,829.4**	**4,896.2**	**4,935.0**
Durable goods	**611.1**	**645.8**	**611.9**	**617.1**	**637.8**	**629.0**	**656.1**	**660.3**
Motor vehicles and parts	231.3	232.8	229.7	228.0	233.4	223.1	238.7	236.0
Furniture and household equipment	269.5	296.7	272.3	276.8	287.4	292.3	301.1	305.9
Other	113.3	121.8	113.2	116.3	121.4	119.7	121.7	124.5
Nondurable goods	**1,432.3**	**1,459.3**	**1,433.9**	**1,441.2**	**1,457.8**	**1,450.0**	**1,465.5**	**1,464.1**
Food	689.7	689.9	687.3	689.0	694.6	688.2	689.5	687.3
Clothing and shoes	267.7	278.2	270.8	270.0	277.1	273.8	281.3	280.6
Gasoline and oil	114.1	115.9	114.1	114.8	114.7	116.1	116.2	116.7
Fuel oil and coal	10.6	10.0	10.6	10.3	9.4	10.1	10.4	10.1
Other	351.2	367.1	352.5	358.3	363.7	363.4	370.0	371.4
Services	**2,671.0**	**2,765.2**	**2,672.8**	**2,698.2**	**2,723.9**	**2,749.8**	**2,776.1**	**2,811.0**
Housing	700.2	713.8	701.7	704.8	708.3	712.0	715.6	719.2
Household operation	289.6	295.3	285.8	291.7	288.0	294.2	295.7	303.1
Electricity and gas	117.8	116.9	114.8	117.7	113.8	117.8	115.7	120.3
Other household operation	171.7	178.1	170.9	173.9	174.0	176.2	179.7	182.6
Transportation	194.6	202.7	195.4	197.0	199.3	200.9	203.9	206.6
Medical care	688.1	711.8	689.8	697.1	704.4	708.8	714.2	719.6
Other	799.4	842.3	800.8	808.4	824.3	834.5	847.1	863.3
Residual	–5.1	–8.3	–5.7	–6.0	–7.7	–7.5	–8.9	–9.1

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

3. Government Receipts, Current Expenditures, and Gross Investment

Table 3.1.—Government Receipts and Current Expenditures

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Receipts	**2,412.7**	.....	**2,426.7**	**2,479.0**	**2,526.6**	**2,566.8**	**2,616.7**	.....
Personal tax and nontax receipts	886.9	987.9	897.3	922.6	955.7	979.2	998.0	1,018.5
Corporate profits tax accruals	229.0	.....	231.6	226.0	241.2	244.5	258.2	.....
Indirect business tax and nontax accruals	604.8	619.5	600.9	625.3	610.2	616.2	625.4	626.2
Contributions for social insurance	692.0	732.0	696.8	705.1	719.5	726.9	735.0	746.6
Current expenditures	**2,417.8**	**2,510.9**	**2,423.6**	**2,455.8**	**2,477.4**	**2,498.7**	**2,516.1**	**2,551.5**
Consumption expenditures	1,182.4	1,227.0	1,189.8	1,197.0	1,209.7	1,221.6	1,230.8	1,245.9
Transfer payments (net)	1,058.3	1,107.3	1,058.2	1,078.0	1,091.0	1,100.8	1,108.5	1,129.0
To persons	1,042.0	1,094.1	1,046.3	1,055.1	1,080.5	1,090.0	1,098.4	1,107.3
To the rest of the world (net)	16.3	13.2	11.9	22.9	10.5	10.8	10.0	21.7
Net interest paid	165.4	165.1	164.4	168.8	164.9	164.9	165.6	165.2
Interest paid	317.7	319.2	318.1	320.7	317.9	319.1	319.7	320.0
To persons and business	246.4	.....	244.1	241.3	233.3	227.9	225.9	.....
To the rest of the world	71.3	.....	74.0	79.4	84.6	91.2	93.9	.....
Less: Interest received by government	152.3	154.0	153.7	152.0	153.0	154.1	154.1	154.8
Less: Dividends received by government	13.6	14.6	13.7	14.0	14.3	14.7	14.7	14.9
Subsidies less current surplus of government enterprises	25.4	26.1	24.9	26.0	26.1	26.0	25.8	26.4
Subsidies	33.5	34.5	33.5	33.7	34.1	34.6	34.7	34.5
Less: Current surplus of government enterprises	8.1	8.4	8.5	7.7	8.0	8.6	8.8	8.1
Less: Wage accruals less disbursements	0	0	0	0	0	0	0	0
Current surplus or deficit (–), national income and product accounts	**–5.1**	.....	**3.1**	**23.2**	**49.2**	**68.1**	**100.6**	.....
Social insurance funds	126.6	135.0	129.7	132.0	129.9	132.0	135.8	142.5
Other	–131.7	.....	–126.6	–108.8	–80.7	–63.9	–35.1	.....

Table 3.2.—Federal Government Receipts and Current Expenditures

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Receipts	**1,587.6**		**1,598.6**	**1,641.6**	**1,675.3**	**1,709.3**	**1,741.8**	
Personal tax and nontax receipts	686.7	773.6	695.7	717.5	746.9	767.9	781.9	797.6
Income taxes	666.8	750.3	674.8	697.2	725.0	744.1	758.5	773.4
Estate and gift taxes	17.5	20.6	18.4	17.7	19.3	21.1	20.7	21.4
Nontaxes	2.5	2.7	2.5	2.6	2.6	2.6	2.7	2.7
Corporate profits tax accruals	194.5		196.7	192.0	204.9	207.7	219.3	
Federal Reserve banks	20.1		20.1	20.4	20.9	21.2	21.7	
Other	174.4		176.6	171.7	184.0	186.5	197.7	
Indirect business tax and nontax accruals	95.8	91.3	91.5	110.2	88.2	92.2	92.4	92.5
Excise taxes	56.4	58.9	55.7	59.6	56.5	59.0	59.0	61.1
Customs duties	19.2	19.7	20.2	16.8	18.6	20.5	20.9	19.0
Nontaxes	20.2	12.7	15.5	33.7	13.2	12.7	12.6	12.5
Contributions for social insurance	610.5	645.8	614.8	622.0	635.3	641.5	648.2	658.2
Current expenditures	**1,698.1**	**1,751.9**	**1,698.2**	**1,718.8**	**1,730.8**	**1,746.0**	**1,752.6**	**1,778.3**
Consumption expenditures	451.5	464.1	454.0	453.6	458.0	464.2	464.7	469.4
Transfer payments (net)	763.5	795.5	761.5	777.3	785.9	791.4	794.5	810.3
To persons	747.2	782.3	749.7	754.4	775.5	780.5	784.5	788.6
To the rest of the world (net)	16.3	13.2	11.9	22.9	10.5	10.8	10.0	21.7
Grants-in-aid to State and local governments	218.3	223.8	218.7	217.5	219.6	222.5	224.2	228.8
Net interest paid	227.1	230.4	226.6	231.8	228.9	229.8	231.2	231.5
Interest paid	253.1	254.5	253.4	256.1	253.2	254.4	255.1	255.4
To persons and business	181.8		179.5	176.7	168.7	163.3	161.2	
To the rest of the world	71.3		74.0	79.4	84.6	91.2	93.9	
Less: Interest received by government	26.0	24.2	26.9	24.3	24.4	24.6	23.9	23.8
Subsidies less current surplus of government enterprises	37.7	38.2	37.4	38.5	38.4	38.1	37.9	38.3
Subsidies	33.1	34.1	33.1	33.4	33.8	34.3	34.3	34.1
Less: Current surplus of government enterprises	–4.6	–4.1	–4.2	–5.1	–4.7	–3.9	–3.6	–4.2
Less: Wage accruals less disbursements	0	0	0	0	0	0	0	0
Current surplus or deficit (–), national income and product accounts	**–110.5**		**–99.5**	**–77.1**	**–55.5**	**–36.8**	**–10.8**	
Social insurance funds	55.3	63.6	58.2	60.6	58.7	60.4	64.4	70.9
Other	–165.8		–157.8	–137.7	–114.2	–97.2	–75.2	

Table 3.3.—State and Local Government Receipts and Current Expenditures

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Receipts	**1,043.4**		**1,046.7**	**1,054.9**	**1,070.9**	**1,080.0**	**1,099.1**	
Personal tax and nontax receipts	200.2	214.3	201.7	205.1	208.7	211.3	216.1	220.9
Income taxes	149.1	159.8	150.3	153.1	155.7	157.4	161.2	165.1
Nontaxes	28.8	31.0	29.1	29.6	30.1	30.7	31.3	31.8
Other	22.3	23.5	22.3	22.5	22.9	23.3	23.7	24.0
Corporate profits tax accruals	34.5		34.9	34.0	36.4	36.8	38.9	
Indirect business tax and nontax accruals	508.9	528.2	509.4	515.1	522.0	524.0	533.0	533.7
Sales taxes	249.8	257.4	249.6	251.9	256.2	255.6	258.4	259.5
Property taxes	202.3	208.7	203.0	204.7	206.2	207.8	209.4	211.5
Other	56.8	62.0	56.8	58.5	59.6	60.6	65.2	62.7
Contributions for social insurance	81.4	86.2	82.0	83.1	84.2	85.4	86.8	88.3
Federal grants-in-aid	218.3	223.8	218.7	217.5	219.6	222.5	224.2	228.8
Current expenditures	**938.0**	**982.7**	**944.2**	**954.5**	**966.1**	**975.1**	**987.7**	**1,001.9**
Consumption expenditures	730.9	762.9	735.9	743.3	751.7	757.4	766.1	776.5
Transfer payments to persons	294.8	311.8	296.6	300.6	305.1	309.5	314.0	318.7
Net interest paid	–61.7	–65.2	–62.2	–63.0	–64.0	–64.9	–65.6	–66.4
Interest paid	64.6	64.6	64.6	64.7	64.6	64.6	64.6	64.7
Less: Interest received by government	126.3	129.9	126.8	127.7	128.6	129.5	130.3	131.0
Less: Dividends received by government	13.6	14.6	13.7	14.0	14.3	14.7	14.7	14.9
Subsidies less current surplus of government enterprises	–12.3	–12.1	–12.4	–12.5	–12.3	–12.2	–12.1	–12.0
Subsidies	.3	.3	.3	.3	.3	.3	.3	.3
Less: Current surplus of government enterprises	12.7	12.5	12.8	12.8	12.7	12.5	12.4	12.3
Less: Wage accruals less disbursements	0	0	0	0	0	0	0	0
Current surplus or deficit (–), national income and product accounts	**105.3**		**102.6**	**100.4**	**104.7**	**104.9**	**111.4**	
Social insurance funds	71.3	71.4	71.5	71.4	71.3	71.6	71.4	71.5
Other	34.1		31.1	28.9	33.5	33.3	40.0	

Table 3.7.—Government Consumption Expenditures and Gross Investment by Type

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Government consumption expenditures and gross investment [1]	**1,406.7**	**1,453.9**	**1,413.5**	**1,422.3**	**1,433.1**	**1,449.0**	**1,457.9**	**1,475.6**
Federal	**520.0**	**524.8**	**521.6**	**517.6**	**516.1**	**526.1**	**525.7**	**531.1**
National defense	**352.8**	**350.8**	**354.8**	**350.6**	**343.3**	**350.6**	**352.1**	**357.1**
Consumption expenditures	305.7	311.2	309.3	307.6	306.4	311.3	311.6	315.5
Durable goods [2]	22.3	21.4	24.7	20.6	20.6	21.9	20.5	22.6
Nondurable goods	7.9	7.2	8.5	7.2	7.6	6.8	7.2	7.1
Services	275.6	282.7	276.1	279.8	278.2	282.7	283.9	285.9
Compensation of general government employees, except force-account construction [3]	135.2	135.9	135.9	134.7	136.8	136.1	135.8	134.9
Consumption of general government fixed capital [4]	57.3	57.0	57.2	57.1	57.1	57.0	56.9	57.0
Other services	83.0	89.8	83.0	87.9	84.3	89.6	91.2	94.0
Gross investment	47.0	39.6	45.5	42.9	37.0	39.3	40.5	41.6
Structures	6.8	6.3	6.6	6.6	6.3	6.2	6.2	6.4
Equipment	40.2	33.3	38.8	36.3	30.7	33.1	34.3	35.2
Nondefense	**167.3**	**174.0**	**166.8**	**167.0**	**172.8**	**175.5**	**173.6**	**174.0**
Consumption expenditures	145.7	152.9	144.6	146.0	151.7	152.9	153.1	153.8
Durable goods [2]	.9	.7	.7	.5	.9	.8	.6	.6
Nondurable goods	5.7	6.8	5.2	5.6	6.6	6.7	6.6	7.2
Commodity Credit Corporation inventory change	–.4	–.1	–.5	–.3	0	–.2	–.2	–.2
Other nondurables	6.1	6.9	5.8	5.9	6.6	6.8	6.8	7.4
Services	139.2	145.4	138.7	139.9	144.2	145.5	145.9	146.1
Compensation of general government employees, except force-account construction [3]	77.5	81.2	77.6	77.8	80.6	81.4	81.4	81.4
Consumption of general government fixed capital [4]	11.2	11.8	11.3	11.4	11.5	11.7	11.8	12.0
Other services	50.4	52.5	49.8	50.7	52.0	52.5	52.7	52.7
Gross investment	21.5	21.1	22.1	21.0	21.1	22.6	20.5	20.2
Structures	11.3	10.8	11.3	11.4	11.2	10.5	10.9	10.6
Equipment	10.2	10.3	10.9	9.6	9.9	12.0	9.6	9.6
State and local	**886.7**	**929.1**	**891.9**	**904.7**	**917.0**	**923.0**	**932.3**	**944.4**
Consumption expenditures	730.9	762.9	735.9	743.3	751.7	757.4	766.1	776.5
Durable goods [2]	15.3	15.8	15.4	15.5	15.6	15.7	15.9	16.1
Nondurable goods	78.2	80.5	78.3	80.3	81.0	79.9	80.3	80.8
Services	637.5	666.6	642.2	647.6	655.1	661.8	669.9	679.6
Compensation of general government employees, except force-account construction [3]	547.2	570.6	551.1	555.4	561.1	566.7	573.7	580.9
Consumption of general government fixed capital [4]	56.6	59.0	56.8	57.3	58.1	58.7	59.2	60.0
Other services	33.7	37.0	34.3	34.9	36.0	36.3	37.0	38.7
Gross investment	155.7	166.2	156.0	161.4	165.2	165.6	166.2	167.9
Structures	128.5	138.6	128.6	133.9	137.7	138.0	138.5	140.3
Equipment	27.3	27.6	27.4	27.4	27.5	27.6	27.7	27.6
Addenda:								
Compensation of general government employees [3]	763.9	791.9	768.5	772.0	782.7	788.4	795.2	801.5
Federal	212.8	217.2	213.5	212.6	217.5	217.5	217.3	216.4
State and local	551.0	574.8	555.0	559.4	565.2	570.9	577.9	585.1

1. Gross government investment consists of general government and government enterprise expenditures for fixed assets; inventory investment is included in government consumption expenditures.

2. Consumption expenditures for durable goods excludes expenditures classified as investment, except for goods transferred to foreign countries by the Federal Government.

3. Compensation of government employees engaged in new force-account construction and related expenditures for goods and services are classified as investment in structures. The compensation of all general government employees is shown in the addenda.

4. Consumption of fixed capital, or depreciation, is included in government consumption expenditures as a partial measure of the value of the services of general government fixed assets; use of depreciation assumes a zero net return on these assets.

Table 3.8.—Real Government Consumption Expenditures and Real Gross Investment by Type

[Billions of chained (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Government consumption expenditures and gross investment [1]	**1,257.9**	**1,270.6**	**1,261.5**	**1,261.8**	**1,260.5**	**1,270.1**	**1,273.4**	**1,278.5**
Federal	**464.2**	**457.8**	**465.7**	**459.6**	**452.8**	**460.1**	**458.8**	**459.5**
National defense	**317.8**	**309.0**	**319.4**	**313.6**	**303.9**	**309.4**	**310.3**	**312.6**
Consumption expenditures	275.5	273.2	278.1	274.4	270.3	273.9	273.6	274.8
Durable goods [2]	21.8	20.8	24.1	20.2	20.0	21.2	19.9	21.9
Nondurable goods	7.2	6.6	7.8	6.2	6.6	6.3	6.9	6.7
Services	246.5	245.7	246.3	247.8	243.5	246.3	246.6	246.2
Compensation of general government employees, except force-account construction [3]	117.2	112.9	117.2	115.4	114.5	113.3	113.0	111.1
Consumption of general government fixed capital [4]	51.4	50.4	51.3	51.0	50.8	50.5	50.3	50.0
Other services	78.0	82.8	77.9	81.6	78.4	83.0	83.9	85.8
Gross investment	42.3	35.9	41.4	39.2	33.5	35.4	36.7	37.8
Structures	5.6	5.0	5.4	5.4	5.0	4.9	4.9	5.0
Equipment	36.5	30.7	35.8	33.7	28.2	30.3	31.7	32.6
Nondefense	**146.1**	**148.3**	**146.0**	**145.7**	**148.5**	**150.2**	**148.0**	**146.6**
Consumption expenditures	125.3	127.6	124.6	125.1	127.7	128.2	127.8	126.6
Durable goods [2]	1.1	1.1	1.1	.9	1.2	1.2	1.0	1.0
Nondurable goods	5.1	6.1	4.7	5.1	6.0	6.0	5.9	6.4
Commodity Credit Corporation inventory change	–.2	–.1	–.4	–.2	0	–.2	–.2	–.2
Other nondurables	5.4	6.2	5.1	5.3	6.0	6.1	6.1	6.6
Services	119.1	120.5	118.9	119.1	120.6	121.1	120.9	119.3
Compensation of general government employees, except force-account construction [3]	61.3	61.3	61.7	61.4	61.6	61.9	61.5	60.1
Consumption of general government fixed capital [4]	10.8	11.3	10.8	11.0	11.1	11.2	11.3	11.5
Other services	47.4	48.5	46.7	47.2	48.3	48.6	48.7	48.5
Gross investment	21.0	20.8	21.6	20.6	20.8	22.2	20.3	20.0
Structures	10.0	9.3	10.0	10.0	9.8	9.1	9.3	9.0
Equipment	11.1	11.9	11.9	10.7	11.3	13.8	11.2	11.3
State and local	**793.7**	**812.9**	**795.9**	**802.3**	**807.7**	**810.1**	**814.7**	**819.0**
Consumption expenditures	653.6	666.7	655.7	657.8	661.1	664.3	668.6	672.6
Durable goods [2]	14.4	14.8	14.5	14.6	14.7	14.8	14.9	15.0
Nondurable goods	71.5	74.1	71.8	72.5	73.2	73.8	74.4	75.1
Services	567.9	577.9	569.6	570.9	573.5	576.0	579.5	582.8
Compensation of general government employees, except force-account construction [3]	479.9	487.0	481.5	482.0	483.5	485.4	488.2	490.6
Consumption of general government fixed capital [4]	52.0	53.4	52.2	52.6	52.9	53.2	53.5	53.8
Other services	37.4	39.4	37.3	37.9	38.8	39.0	39.6	40.2
Gross investment	140.1	146.2	140.1	144.5	146.6	145.8	146.1	146.4
Structures	112.8	117.5	112.6	116.6	118.4	117.2	117.2	117.4
Equipment	27.4	28.8	27.6	28.0	28.3	28.6	29.1	29.2
Residual	–2.1	–3.1	–2.4	–2.2	–2.1	–3.1	–3.0	–3.7
Addenda:								
Compensation of general government employees [3]	661.9	664.6	664.0	662.3	663.2	664.1	666.2	665.1
Federal	178.9	174.7	179.4	177.2	176.5	175.6	175.0	171.6
State and local	483.2	490.5	484.9	485.4	487.1	489.0	491.7	494.2

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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, excluding the lines in the addenda.

See footnotes to table 3.7.

Table 3.10.—National Defense Consumption Expenditures and Gross Investment

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
National defense consumption expenditures and gross investment [1]	**352.8**	**350.8**	**354.8**	**350.6**	**343.3**	**350.6**	**352.1**	**357.1**
Consumption expenditures	**305.7**	**311.2**	**309.3**	**307.6**	**306.4**	**311.3**	**311.6**	**315.5**
Durable goods [2]	**22.3**	**21.4**	**24.7**	**20.6**	**20.6**	**21.9**	**20.5**	**22.6**
Aircraft	9.7	9.8	10.6	9.2	9.2	10.1	9.2	10.8
Missiles	3.2	3.0	3.8	2.8	2.8	3.1	3.2	3.1
Ships	.9	.7	1.3	.6	.7	.7	.7	.6
Vehicles	1.0	.9	1.1	.9	1.2	.9	.8	.8
Electronics	2.6	2.5	2.9	2.3	2.5	2.6	2.6	2.4
Other durable goods	5.0	4.4	5.0	4.8	4.1	4.4	4.0	4.8
Nondurable goods	**7.9**	**7.2**	**8.5**	**7.2**	**7.6**	**6.8**	**7.2**	**7.1**
Petroleum products	3.4	2.9	4.1	3.0	3.1	3.0	3.0	2.5
Ammunition	1.1	1.3	1.1	.7	1.5	1.1	1.1	1.5
Other nondurable goods	3.4	3.0	3.3	3.6	3.0	2.7	3.2	3.1
Services	**275.6**	**282.7**	**276.1**	**279.8**	**278.2**	**282.7**	**283.9**	**285.9**
Compensation of general government employees, except force-account construction [3]	135.2	135.9	135.9	134.7	136.8	136.1	135.8	134.9
Military	85.8	86.7	86.3	86.2	87.1	86.7	86.8	86.3
Civilian	49.4	49.1	49.5	48.5	49.7	49.4	49.0	48.6
Consumption of general government fixed capital [4]	57.3	57.0	57.2	57.1	57.1	57.0	56.9	57.0
Other services	83.0	89.8	83.0	87.9	84.3	89.6	91.2	94.0
Research and development	23.5	27.4	24.2	26.2	25.8	27.5	25.9	30.4
Installation support	27.4	26.8	28.3	26.4	25.9	26.7	27.9	26.5
Weapons support	6.3	6.8	5.4	8.0	5.9	6.9	7.7	6.7
Personnel support	19.0	22.3	18.8	20.5	20.2	22.4	23.3	23.3
Transportation of material	4.7	4.4	4.7	4.7	4.5	4.2	4.1	4.6
Travel of persons	4.3	3.8	4.2	4.1	3.9	3.9	3.7	3.6
Other	–2.1	–1.6	–2.6	–1.9	–1.8	–2.0	–1.5	–1.1
Gross investment	**47.0**	**39.6**	**45.5**	**42.9**	**37.0**	**39.3**	**40.5**	**41.6**
Structures	**6.8**	**6.3**	**6.6**	**6.6**	**6.3**	**6.2**	**6.2**	**6.4**
Equipment	**40.2**	**33.3**	**38.8**	**36.3**	**30.7**	**33.1**	**34.3**	**35.2**
Aircraft	9.3	5.8	7.6	5.9	4.7	4.0	6.8	7.5
Missiles	4.1	3.1	4.3	3.7	2.9	3.4	2.9	3.1
Ships	6.8	6.1	6.6	6.3	5.6	6.7	6.4	5.8
Vehicles	.9	1.2	.9	.8	1.0	1.3	1.3	1.2
Electronics	3.6	3.2	4.0	3.2	3.3	3.4	3.3	3.0
Other equipment	15.5	13.9	15.5	16.3	13.2	14.3	13.5	14.7
Addendum:								
Compensation of general government employees [3]	135.2	135.9	135.9	134.7	136.8	136.1	135.8	134.9

1. Gross government investment consists of general government and government enterprise expenditures for fixed assets; inventory investment is included in government consumption expenditures.

2. Consumption expenditures for durable goods excludes expenditures classified as investment, except for goods transferred to foreign countries.

3. Compensation of government employees engaged in new force-account construction and related expenditures for goods and services are classified as investment in structures. The compensation of all general government employees is shown in the addendum.

4. Consumption of fixed capital, or depreciation, is included in government consumption expenditures as a partial measure of the value of the services of general government fixed assets; use of depreciation assumes a zero net return on these assets.

Table 3.11.—Real National Defense Consumption Expenditures and Real Gross Investment

[Billions of chained (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
National defense consumption expenditures and gross investment [1]	**317.8**	**309.0**	**319.4**	**313.6**	**303.9**	**309.4**	**310.3**	**312.6**
Consumption expenditures	**275.5**	**273.2**	**278.1**	**274.4**	**270.3**	**273.9**	**273.6**	**274.8**
Durable goods [2]	**21.8**	**20.8**	**24.1**	**20.2**	**20.0**	**21.2**	**19.9**	**21.9**
Aircraft	9.3	9.6	10.2	8.9	8.9	9.8	8.9	10.6
Missiles	3.4	3.1	4.0	3.1	2.9	3.1	3.2	3.1
Ships	.8	.7	1.2	.5	.7	.7	.7	.6
Vehicles	.9	.9	1.1	.9	1.2	.9	.7	.8
Electronics	2.7	2.7	3.0	2.4	2.6	2.8	2.8	2.5
Other durable goods	4.6	4.0	4.6	4.4	3.8	4.0	3.7	4.4
Nondurable goods	**7.2**	**6.6**	**7.8**	**6.2**	**6.6**	**6.3**	**6.9**	**6.7**
Petroleum products	3.1	2.8	3.7	2.4	2.6	2.9	3.1	2.4
Ammunition	1.0	1.1	1.0	.6	1.3	.9	.9	1.3
Other nondurable goods	3.2	2.8	3.1	3.4	2.8	2.6	3.0	3.0
Services	**246.5**	**245.7**	**246.3**	**247.8**	**243.5**	**246.3**	**246.6**	**246.2**
Compensation of general government employees, except force-account construction [3]	117.2	112.9	117.2	115.4	114.5	113.3	113.0	111.1
Military	76.9	74.9	76.7	76.1	75.5	74.8	74.9	74.5
Civilian	40.4	38.2	40.6	39.4	39.0	38.6	38.2	36.8
Consumption of general government fixed capital [4]	51.4	50.4	51.3	51.0	50.8	50.5	50.3	50.0
Other services	78.0	82.8	77.9	81.6	78.4	83.0	83.9	85.8
Research and development	23.5	27.0	24.3	26.0	25.7	27.1	25.4	29.6
Installation support	24.9	24.2	25.6	23.8	23.5	24.2	25.2	23.7
Weapons support	5.7	6.0	4.9	7.1	5.2	6.1	6.7	5.8
Personnel support	17.2	19.5	17.0	18.1	17.7	19.8	20.5	20.1
Transportation of material	4.7	4.3	4.6	4.6	4.4	4.1	4.0	4.6
Travel of persons	4.1	3.5	4.0	3.8	3.6	3.6	3.4	3.3
Other	–1.9	–1.4	–2.3	–1.6	–1.6	–1.7	–1.3	–1.0
Gross investment	**42.3**	**35.9**	**41.4**	**39.2**	**33.5**	**35.4**	**36.7**	**37.8**
Structures	**5.6**	**5.0**	**5.4**	**5.4**	**5.0**	**4.9**	**4.9**	**5.0**
Equipment	**36.5**	**30.7**	**35.8**	**33.7**	**28.2**	**30.3**	**31.7**	**32.6**
Aircraft	7.1	4.9	6.4	5.0	4.0	3.3	5.9	6.6
Missiles	4.4	3.0	4.5	4.0	2.9	3.4	2.9	3.0
Ships	6.1	5.4	5.9	5.6	4.9	5.9	5.6	5.1
Vehicles	.8	1.0	.7	.7	.9	1.1	1.1	1.0
Electronics	4.4	4.4	5.0	4.2	4.3	4.6	4.5	4.1
Other equipment	14.1	12.4	13.9	14.7	11.8	12.7	12.0	13.1
Residual	–.6	–1.4	–1.0	–.9	–.5	–1.3	–.9	–1.4
Addendum:								
Compensation of general government employees [3]	117.2	112.9	117.2	115.4	114.5	113.3	113.0	111.1

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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, excluding the line in the addendum.

See footnotes to table 3.10.

4. Foreign Transactions

Table 4.1.—Foreign Transactions in the National Income and Product Accounts

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Receipts from the rest of the world	**1,105.1**		**1,099.0**	**1,153.4**	**1,170.4**	**1,221.9**	**1,235.2**	
Exports of goods and services	870.9	958.8	863.7	904.6	922.2	960.3	965.8	986.9
Goods [1]	617.5	687.1	609.7	640.5	656.2	690.0	691.1	711.1
Durable	421.2	481.7	415.8	438.8	455.9	486.3	485.6	499.1
Nondurable	196.3	205.4	193.9	201.6	200.3	203.7	205.4	212.0
Services [1]	253.3	271.7	254.0	264.2	266.0	270.3	274.8	275.8
Receipts of factor income	234.3		235.4	248.8	248.2	261.6	269.4	
Capital grants received by the United States (net)	0	0	0	0	0	0	0	0
Payments to the rest of the world	**1,105.1**		**1,099.0**	**1,153.4**	**1,170.4**	**1,221.9**	**1,235.2**	
Imports of goods and services	965.7	1,055.5	977.6	993.2	1,021.0	1,049.0	1,077.1	1,074.8
Goods [1]	809.0	885.4	820.2	834.6	855.8	880.1	905.6	900.0
Durable	533.6	588.5	540.3	541.3	563.4	583.8	603.2	603.9
Nondurable	275.5	296.8	279.8	293.3	292.5	296.3	302.4	296.2
Services [1]	156.7	170.1	157.5	158.6	165.2	168.9	171.6	174.8
Payments of factor income	232.6		242.3	245.6	262.5	282.3	290.1	
Transfer payments (net)	39.8	39.4	35.4	47.4	35.2	36.5	36.9	48.9
From persons (net)	15.9	17.9	15.9	16.7	17.0	17.6	18.2	18.5
From government (net)	16.3	13.2	11.9	22.9	10.5	10.8	10.0	21.7
From business	7.6	8.3	7.7	7.8	7.7	8.1	8.7	8.7
Net foreign investment	–132.9		–156.4	–132.9	–148.4	–146.0	–168.9	

1. Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services. Beginning with 1986, repairs and alterations of equipment were reclassified from goods to services.

Table 4.2.—Real Exports and Imports of Goods and Services and Receipts and Payments of Factor Income

[Billions of chained (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Exports of goods and services	**857.0**	**964.4**	**851.4**	**901.1**	**922.7**	**962.5**	**973.0**	**999.3**
Goods [1]	628.4	725.8	623.0	666.2	686.2	725.8	731.8	759.4
Durable	463.3	553.4	460.8	494.0	517.0	555.8	559.8	580.9
Nondurable	169.1	181.1	166.4	177.0	176.0	179.2	181.1	188.0
Services [1]	229.9	242.5	229.4	236.8	238.9	240.8	245.0	245.1
Receipts of factor income	**214.2**		**214.8**	**226.0**	**224.6**	**236.3**	**242.5**	
Imports of goods and services	**971.5**	**1,106.5**	**990.2**	**1,006.6**	**1,048.9**	**1,099.1**	**1,137.1**	**1,140.8**
Goods [1]	823.1	944.1	841.7	857.5	891.3	938.4	972.7	973.9
Durable	569.9	669.4	582.6	596.6	630.8	660.7	688.5	697.5
Nondurable	253.5	277.8	259.4	261.6	263.3	280.1	287.2	280.8
Services [1]	149.0	163.5	149.3	150.0	158.4	161.8	165.8	168.1
Payments of factor income	**210.2**		**218.1**	**219.8**	**234.0**	**250.8**	**256.9**	

1. Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services. Beginning with 1986, repairs and alterations of equipment are reclassified from goods to services.

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

Table 4.3.—Exports and Imports of Goods and Services by Type of Product

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Exports of goods and services	**870.9**	**958.8**	**863.7**	**904.6**	**922.2**	**960.3**	**965.8**	**986.9**
Exports of goods [1]	**617.5**	**687.1**	**609.7**	**640.5**	**656.2**	**690.0**	**691.1**	**711.1**
Foods, feeds, and beverages	55.5	51.3	55.1	55.8	51.1	48.6	49.6	55.9
Industrial supplies and materials	141.0	152.7	139.5	145.9	147.4	154.0	155.3	154.2
Durable goods	51.0	55.2	51.0	51.9	53.2	55.7	55.5	56.5
Nondurable goods	90.1	97.5	88.5	94.0	94.3	98.3	99.8	97.7
Capital goods, except automotive	253.1	293.5	246.8	265.3	275.9	296.9	298.4	302.9
Civilian aircraft, engines, and parts	30.8	40.7	26.8	36.7	39.6	45.5	36.3	41.4
Computers, peripherals, and parts	43.7	49.6	43.5	43.3	46.3	50.1	52.6	49.5
Other	178.6	203.2	176.5	185.2	190.0	201.3	209.5	212.0
Automotive vehicles, engines, and parts	65.0	74.6	66.2	67.0	70.9	73.4	73.1	81.0
Consumer goods, except automotive	70.1	77.7	69.4	72.9	75.3	78.9	77.0	79.6
Durable goods	35.8	39.8	35.5	37.8	38.1	41.2	39.8	40.0
Nondurable goods	34.3	37.9	33.9	35.1	37.2	37.7	37.2	39.6
Other	32.7	37.2	32.7	33.5	35.6	38.2	37.7	37.5
Durable goods	16.3	18.6	16.3	16.8	17.8	19.1	18.8	18.7
Nondurable goods	16.3	18.6	16.3	16.8	17.8	19.1	18.8	18.7
Exports of services [1]	**253.3**	**271.7**	**254.0**	**264.2**	**266.0**	**270.3**	**274.8**	**275.8**
Transfers under U.S. military agency sales contracts	13.5	13.7	12.8	14.9	12.3	14.0	14.2	14.3
Travel	69.9	73.6	70.6	72.7	74.5	72.6	74.1	73.2
Passenger fares	20.6	21.3	20.9	21.1	21.3	21.2	21.5	21.2
Other transportation	27.2	29.1	26.9	28.6	28.2	28.8	29.2	30.0
Royalties and license fees	30.0	31.6	30.0	30.8	30.9	31.9	31.8	31.8
Other private services	72.2	81.0	72.4	75.2	77.7	80.2	82.5	83.5
Other	19.9	21.5	20.4	20.8	21.0	21.5	21.6	21.8
Imports of goods and services	**965.7**	**1,055.5**	**977.6**	**993.2**	**1,021.0**	**1,049.0**	**1,077.1**	**1,074.8**
Imports of goods [1]	**809.0**	**885.4**	**820.2**	**834.6**	**855.8**	**880.1**	**905.6**	**900.0**
Foods, feeds, and beverages	35.7	39.4	35.8	36.7	38.0	40.0	40.5	39.1
Industrial supplies and materials, except petroleum and products	125.2	134.8	127.1	128.7	130.7	134.3	137.6	136.5
Durable goods	63.1	69.1	64.7	64.9	65.7	69.4	70.3	70.8
Nondurable goods	62.1	65.7	62.4	63.8	65.0	64.9	67.3	65.6
Petroleum and products	72.7	70.8	76.2	82.2	76.7	71.0	70.4	65.2
Capital goods, except automotive	229.0	253.2	227.4	231.4	237.3	251.7	262.5	261.4
Civilian aircraft, engines, and parts	12.7	16.4	13.0	14.0	13.6	15.5	19.0	17.6
Computers, peripherals, and parts	61.5	69.9	61.7	62.8	65.5	70.5	73.6	70.0
Other	154.9	166.9	152.7	154.6	158.2	165.6	169.9	173.8
Automotive vehicles, engines, and parts	128.9	141.4	133.7	128.9	142.2	138.3	143.7	141.2
Consumer goods, except automotive	171.0	192.3	173.2	179.4	181.2	192.0	195.1	201.0
Durable goods	89.3	98.2	91.2	92.4	93.2	98.0	98.8	102.6
Nondurable goods	81.7	94.2	82.0	87.0	88.0	94.1	96.3	98.4
Other	46.4	53.5	46.7	47.2	49.6	52.8	55.8	55.7
Durable goods	23.2	26.7	23.4	23.6	24.8	26.4	27.9	27.9
Nondurable goods	23.2	26.7	23.4	23.6	24.8	26.4	27.9	27.9
Imports of services [1]	**156.7**	**170.1**	**157.5**	**158.6**	**165.2**	**168.9**	**171.6**	**174.8**
Direct defense expenditures	10.9	11.4	11.1	10.9	11.2	11.4	11.5	11.5
Travel	48.7	53.3	47.7	49.0	52.3	52.6	53.0	55.2
Passenger fares	15.8	17.5	15.7	16.2	17.1	17.2	17.6	18.2
Other transportation	28.5	29.9	28.9	28.7	29.3	30.0	29.9	30.3
Royalties and license fees	7.3	8.5	8.6	7.1	7.6	8.4	8.8	9.1
Other private services	38.9	42.7	38.9	40.0	40.9	42.4	43.9	43.7
Other	6.6	6.9	6.7	6.8	6.8	6.8	6.9	6.9
Addenda:								
Exports of agricultural goods [2]	61.5	58.5	60.4	61.8	57.3	56.4	58.1	62.1
Exports of nonagricultural goods	556.0	628.6	549.3	578.7	598.9	633.5	632.9	649.0
Imports of nonpetroleum goods	736.3	814.6	743.9	752.4	779.1	809.1	835.2	834.9

1. Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services. Beginning with 1986, repairs and alterations of equipment are reclassified from goods to services.

2. Includes parts of foods, feeds, and beverages; of nondurable industrial supplies and materials; and of nondurable nonautomotive consumer goods.

Table 4.4.—Real Exports and Imports of Goods and Services by Type of Product

[Billions of chained (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Exports of goods and services	**857.0**	**964.4**	**851.4**	**901.1**	**922.7**	**962.5**	**973.0**	**999.3**
Exports of goods [1]	**628.4**	**725.8**	**623.0**	**666.2**	**686.2**	**725.8**	**731.8**	**759.4**
Foods, feeds, and beverages	44.0	44.0	42.8	47.2	43.2	40.9	42.7	49.2
Industrial supplies and materials	121.9	132.4	121.3	126.6	127.6	133.5	134.3	134.3
Durable goods	44.8	48.9	45.4	46.3	46.9	49.1	48.9	50.7
Nondurable goods	77.1	83.6	76.0	80.4	80.8	84.5	85.4	83.7
Capital goods, except automotive	310.4	387.0	305.8	337.2	356.1	388.7	396.0	407.2
Civilian aircraft, engines, and parts	27.0	34.4	23.3	31.8	33.7	38.7	30.6	34.8
Computers, peripherals, and parts	97.2	146.6	100.3	106.8	122.3	142.5	160.7	160.7
Other	203.3	241.6	202.4	217.2	224.7	238.7	249.4	253.4
Automotive vehicles, engines, and parts	62.4	71.0	63.5	64.1	67.6	69.8	69.5	77.0
Consumer goods, except automotive	67.3	74.0	66.5	69.8	71.8	75.2	73.2	75.5
Durable goods	34.9	38.3	34.5	36.8	36.8	39.7	38.4	38.5
Nondurable goods	32.4	35.6	32.0	33.0	35.0	35.5	34.8	37.0
Other	31.5	36.9	31.6	33.0	35.1	37.8	37.5	37.2
Durable goods	15.8	18.5	15.8	16.5	17.6	18.9	18.7	18.6
Nondurable goods	15.8	18.5	15.8	16.5	17.6	18.9	18.7	18.6
Exports of services [1]	**229.9**	**242.5**	**229.4**	**236.8**	**238.9**	**240.8**	**245.0**	**245.1**
Transfers under U.S. military agency sales contracts	12.2	12.4	11.6	13.5	11.1	12.6	12.8	12.9
Travel	62.6	64.0	62.9	64.4	65.3	63.4	64.6	62.8
Passenger fares	18.7	20.1	19.1	18.8	20.7	19.4	19.9	20.3
Other transportation	25.8	27.5	25.4	26.7	26.5	27.2	27.8	28.6
Royalties and license fees	27.4	28.5	27.3	28.0	28.0	28.8	28.6	28.5
Other private services	67.0	74.1	67.0	69.3	71.4	73.5	75.4	76.1
Other	16.3	16.4	16.2	16.2	16.3	16.3	16.4	16.5
Residual	–27.7	–59.6	–29.9	–32.4	–42.8	–55.9	–70.3	–68.6
Imports of goods and services	**971.5**	**1,106.5**	**990.2**	**1,006.6**	**1,048.9**	**1,099.1**	**1,137.1**	**1,140.8**
Imports of goods [1]	**823.1**	**944.1**	**841.7**	**857.5**	**891.3**	**938.4**	**972.7**	**973.9**
Foods, feeds, and beverages	32.3	35.2	32.5	33.2	34.2	35.3	36.2	35.1
Industrial supplies and materials, except petroleum and products	114.2	122.9	116.9	117.7	118.3	123.3	125.5	124.4
Durable goods	57.3	61.6	58.8	59.1	59.1	61.7	62.2	63.6
Nondurable goods	56.8	61.2	58.1	58.5	59.2	61.6	63.2	60.7
Petroleum and products	63.8	65.9	67.5	64.0	62.2	68.1	69.2	64.3
Capital goods, except automotive	294.5	376.0	298.6	319.6	340.3	369.4	393.4	401.0
Civilian aircraft, engines, and parts	11.2	13.9	11.4	12.2	11.7	13.2	16.1	14.8
Computers, peripherals, and parts	118.3	169.8	121.5	130.2	144.4	165.2	183.7	186.0
Other	177.6	216.7	179.1	191.8	202.8	214.5	221.2	228.6
Automotive vehicles, engines, and parts	118.8	130.0	123.1	118.7	131.0	127.6	132.0	129.3
Consumer goods, except automotive	165.3	188.0	167.6	173.9	176.5	187.6	191.0	197.2
Durable goods	86.6	97.3	88.6	90.0	91.5	97.0	98.2	102.5
Nondurable goods	78.7	90.7	78.9	83.9	84.9	90.5	92.7	94.7
Other	43.2	50.2	43.6	44.0	46.4	49.6	52.4	52.6
Durable goods	21.6	25.1	21.8	22.0	23.2	24.8	26.2	26.3
Nondurable goods	21.6	25.1	21.8	22.0	23.2	24.8	26.2	26.3
Imports of services [1]	**149.0**	**163.5**	**149.3**	**150.0**	**158.4**	**161.8**	**165.8**	**168.1**
Direct defense expenditures	10.1	11.4	10.3	10.0	11.0	11.2	11.7	11.5
Travel	44.6	50.4	43.0	44.7	49.1	49.9	50.6	51.9
Passenger fares	14.9	15.7	15.0	15.1	15.7	15.3	15.6	16.2
Other transportation	27.6	29.0	28.0	27.4	28.1	28.9	29.1	29.8
Royalties and license fees	6.7	7.6	7.8	6.4	6.9	7.6	7.9	8.1
Other private services	39.2	43.3	39.3	40.3	41.4	42.9	44.7	44.3
Other	6.0	6.3	6.1	6.2	6.3	6.3	6.3	6.3
Residual	–22.2	–49.7	–22.4	–29.1	–37.0	–47.3	–55.9	–59.5
Addenda:								
Exports of agricultural goods [2]	48.6	49.5	46.8	51.7	47.7	47.2	49.5	53.6
Exports of nonagricultural goods	581.3	679.9	578.1	616.0	641.6	682.8	686.1	709.0
Imports of nonpetroleum goods	757.8	878.5	772.3	792.7	829.7	870.3	903.7	910.3

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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 following the detail for exports is the difference between the aggregate "exports of goods and services" and the sum of the detailed lines for exports of goods and export of services. The residual line following the detail for imports is the difference between the aggregate "imports of goods and services" and the detailed lines for imports of goods and imports of services.

See footnotes to table 4.3.

5. Saving and Investment

Table 5.1.—Gross Saving and Investment

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Gross saving	**1,267.8**		**1,295.9**	**1,303.0**	**1,332.9**	**1,396.9**	**1,411.6**	
Gross private saving	**1,125.5**		**1,145.1**	**1,131.4**	**1,134.0**	**1,178.1**	**1,159.6**	
Personal saving	239.6	225.6	254.0	220.4	215.9	247.0	208.2	231.1
Undistributed corporate profits with inventory valuation and capital consumption adjustments	202.1		202.3	212.6	211.5	217.6	230.0	
Undistributed profits	142.8		141.8	144.9	140.3	142.3	156.1	
Inventory valuation adjustment	–2.5	4.9	–2.7	3.3	3.5	5.9	3.6	6.5
Capital consumption adjustment	61.8	69.7	63.2	64.4	67.7	69.4	70.3	71.3
Corporate consumption of fixed capital	452.3	475.7	455.5	462.0	467.4	472.6	478.0	484.8
Noncorporate consumption of fixed capital	230.5	241.3	232.2	235.2	238.0	239.7	242.4	245.1
Wage accruals less disbursements	1.1	1.2	1.1	1.1	1.2	1.2	1.2	1.2
Gross government saving	**142.3**		**150.8**	**171.6**	**198.9**	**218.8**	**251.9**	
Federal	–39.2		–28.3	–5.9	15.9	34.7	60.8	
Consumption of fixed capital	71.2	71.6	71.2	71.3	71.4	71.5	71.6	71.9
Current surplus or deficit (–), national income and product accounts	–110.5		–99.5	–77.1	–55.5	–36.8	–10.8	
State and local	181.5		179.1	177.5	182.9	184.1	191.1	
Consumption of fixed capital	76.2	79.5	76.5	77.2	78.2	79.2	79.7	80.8
Current surplus or deficit (–), national income and product accounts	105.3		102.6	100.4	104.7	104.9	111.4	
Capital grants received by the United States (net)	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Gross investment	**1,207.9**		**1,216.4**	**1,243.5**	**1,268.6**	**1,323.4**	**1,308.4**	
Gross private domestic investment	1,116.5	1,237.6	1,149.2	1,151.1	1,193.6	1,242.0	1,250.2	1,264.5
Gross government investment	224.3	226.9	223.6	225.3	223.3	227.4	227.1	229.7
Net foreign investment	–132.9		–156.4	–132.9	–148.4	–146.0	–168.9	
Statistical discrepancy	**–59.9**		**–79.5**	**–59.5**	**–64.3**	**–73.5**	**–103.2**	
Addendum:								
Gross saving as a percentage of gross national product	16.6		16.9	16.7	16.8	17.4	17.4	

Table 5.4.—Private Fixed Investment by Type

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Private fixed investment	**1,090.7**	**1,173.0**	**1,112.0**	**1,119.2**	**1,127.5**	**1,160.8**	**1,201.3**	**1,202.4**
Nonresidential	**781.4**	**845.4**	**798.6**	**807.2**	**811.3**	**836.3**	**872.0**	**862.3**
Structures	**215.2**	**230.2**	**217.7**	**227.0**	**227.4**	**226.8**	**232.9**	**233.7**
Nonresidential buildings, including farm	159.8	175.3	162.5	171.2	174.0	172.1	177.5	177.6
Utilities	33.3	33.0	32.7	34.1	32.0	33.7	33.2	33.1
Mining exploration, shafts, and wells	16.1	16.2	16.5	16.0	16.1	15.6	16.2	16.8
Other structures	6.2	5.8	6.0	5.8	5.3	5.5	5.9	6.4
Producers' durable equipment	**566.2**	**615.2**	**580.9**	**580.2**	**583.9**	**609.5**	**639.1**	**628.5**
Information processing and related equipment	195.1	211.7	201.1	200.3	202.8	208.4	219.5	216.0
Computers and peripheral equipment [1]	78.7	85.1	80.9	81.0	81.8	84.5	88.1	86.0
Other	116.3	126.6	120.3	119.3	121.0	123.9	131.3	130.0
Industrial equipment	127.5	134.4	128.2	127.9	127.7	134.9	137.5	137.3
Transportation and related equipment	134.5	150.0	140.0	140.1	137.7	147.1	159.9	155.3
Other	109.1	119.2	111.5	111.9	115.7	119.1	122.2	120.0
Residential	**309.2**	**327.5**	**313.5**	**312.0**	**316.2**	**324.6**	**329.3**	**340.1**
Structures	**301.7**	**319.6**	**305.9**	**304.4**	**308.3**	**316.7**	**321.4**	**332.2**
Single family	159.1	163.9	162.2	160.6	161.0	162.5	163.1	169.0
Multifamily	20.3	22.8	19.2	20.1	21.9	23.0	22.3	24.1
Other structures	122.3	132.9	124.5	123.7	125.3	131.2	135.9	139.1
Producers' durable equipment	**7.5**	**7.9**	**7.5**	**7.6**	**7.9**	**7.9**	**8.0**	**8.0**

1. Includes new computers and peripheral equipment only.

Table 5.5.—Real Private Fixed Investment by Type

[Billions of chained (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Private fixed investment	**1,041.7**	**1,122.3**	**1,060.9**	**1,068.7**	**1,079.0**	**1,111.4**	**1,149.3**	**1,149.6**
Nonresidential	**771.7**	**846.7**	**789.3**	**800.8**	**808.9**	**837.0**	**874.5**	**866.5**
Structures	**188.7**	**195.4**	**190.0**	**196.9**	**195.9**	**193.5**	**196.7**	**195.3**
Nonresidential buildings, including farm	140.0	148.9	141.7	148.4	150.1	147.1	150.1	148.4
Utilities	29.3	28.0	28.7	29.5	27.5	28.7	28.0	27.8
Mining exploration, shafts, and wells	13.9	13.4	14.1	13.8	13.6	13.0	13.4	13.6
Other structures	5.5	4.9	5.4	5.1	4.6	4.7	5.1	5.4
Producers' durable equipment	**586.0**	**657.4**	**602.9**	**606.7**	**616.6**	**649.3**	**685.3**	**678.5**
Information processing and related equipment	253.1	305.2	264.3	270.4	281.4	296.9	320.5	322.1
Computers and peripheral equipment [1]	160.8	224.7	170.0	182.4	195.8	216.1	240.5	246.6
Other	116.3	126.9	120.3	119.3	121.5	124.4	131.5	130.4
Industrial equipment	117.0	122.8	117.6	116.9	116.8	123.5	125.6	125.1
Transportation and related equipment	125.0	138.3	129.5	129.7	127.5	136.0	146.8	143.0
Other	100.8	109.2	102.8	102.5	106.1	109.1	112.1	109.7
Residential	**272.1**	**279.7**	**274.1**	**271.1**	**273.3**	**278.2**	**280.1**	**287.1**
Structures	**265.0**	**272.2**	**266.9**	**263.9**	**265.9**	**270.8**	**272.6**	**279.5**
Single family	136.6	136.9	138.3	136.2	136.2	136.5	135.7	139.1
Multifamily	18.6	20.1	17.5	18.0	19.6	20.4	19.6	20.9
Other structures	110.2	115.7	111.5	110.0	110.5	114.4	117.9	120.1
Producers' durable equipment	**7.1**	**7.5**	**7.2**	**7.2**	**7.4**	**7.5**	**7.6**	**7.6**
Residual	–39.4	–75.0	–43.7	–50.3	–58.2	–70.0	–84.6	–88.1

1. Includes new computers and peripheral equipment only.

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

Table 5.10.—Change in Business Inventories by Industry

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Change in business inventories	**25.9**	**64.6**	**37.1**	**31.9**	**66.1**	**81.1**	**48.9**	**62.1**
Farm	2.9	6.8	5.8	3.2	3.9	6.2	8.1	9.1
Nonfarm	23.0	57.8	31.3	28.7	62.2	74.9	40.9	53.0
Change in book value	28.2	47.3	33.8	32.6	44.5	57.5	38.2	49.1
Inventory valuation adjustment	–5.1	10.4	–2.4	–3.9	17.7	17.4	2.6	3.9
Manufacturing	10.6	22.8	15.3	13.3	22.3	30.9	15.8	22.4
Durable goods	10.2	13.4	14.4	6.8	12.9	19.1	10.3	11.3
Nondurable goods	.4	9.4	.9	6.4	9.3	11.8	5.5	11.1
Wholesale trade	3.3	20.3	–7.7	10.1	24.3	26.0	15.8	15.0
Durable goods	2.5	11.2	4.7	–5.5	15.4	23.5	4.0	1.8
Nondurable goods	.8	9.1	–12.4	15.6	8.9	2.4	11.8	13.2
Merchant wholesalers	2.4	16.4	–8.0	11.7	18.9	18.4	15.1	13.2
Durable goods	1.9	9.3	4.2	–3.2	12.3	18.6	4.3	2.0
Nondurable goods	.5	7.1	–12.1	14.8	6.6	–.2	10.9	11.2
Nonmerchant wholesalers	.9	3.9	.3	–1.6	5.4	7.6	.7	1.8
Durable goods	.6	1.9	.6	–2.3	3.1	4.9	–.3	–.2
Nondurable goods	.3	2.0	–.3	.8	2.3	2.7	1.0	2.0
Retail trade	4.1	5.3	21.2	1.1	.6	8.3	3.0	9.4
Durable goods	1.9	4.3	14.6	–3.3	1.4	2.4	1.7	11.8
Motor vehicle dealers	–1.6	.2	11.9	–5.3	–2.9	–4.0	–.6	8.4
Other	3.5	4.1	2.7	2.0	4.2	6.4	2.3	3.5
Nondurable goods	2.3	1.0	6.6	4.4	–.8	5.9	1.3	–2.4
Other	5.0	9.4	2.5	4.3	15.2	9.8	6.3	6.2
Durable goods	2.3	1.9	–.5	.8	2.1	1.8	2.6	1.0
Nondurable goods	2.6	7.5	2.9	3.4	13.0	8.0	3.7	5.2

NOTE.—Estimates for nonfarm industries other than manufacturing and trade for 1986 and earlier periods are based on the 1972 Standard Industrial Classification (SIC). Manufacturing estimates for 1981 and earlier periods and trade estimates for 1966 and and earlier periods are based on the 1972 SIC; later estimates for these industries are based on the 1987 SIC. The resulting discontinuities are small.

Table 5.11.—Real Change in Business Inventories by Industry

[Billions of chained (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Change in business inventories	**25.0**	**62.2**	**37.9**	**32.9**	**63.7**	**77.6**	**47.5**	**59.9**
Farm	2.6	8.2	6.5	6.4	5.3	7.5	9.5	10.5
Nonfarm	22.5	54.1	31.6	26.5	58.3	70.1	38.3	49.7
Manufacturing	9.9	21.4	14.3	12.3	20.9	29.0	14.8	21.1
Durable goods	9.7	12.8	13.8	6.6	12.3	18.2	9.9	10.8
Nondurable goods	.4	8.6	.8	5.7	8.5	10.8	5.0	10.2
Wholesale trade	4.0	19.1	–5.0	9.4	22.9	24.6	14.9	14.1
Durable goods	2.4	10.8	4.5	–5.2	14.8	22.7	3.8	1.7
Nondurable goods	1.6	8.3	–9.0	13.9	8.1	2.3	10.8	12.0
Merchant wholesalers	3.2	15.5	–5.2	10.9	17.8	17.5	14.3	12.3
Durable goods	1.8	9.0	3.9	–3.0	11.8	17.9	4.1	1.9
Nondurable goods	1.3	6.5	–8.7	13.3	6.0	–.1	9.9	10.1
Nonmerchant wholesalers	.8	3.7	.3	–1.5	5.1	7.2	.6	1.8
Durable goods	.6	1.8	.5	–2.3	3.0	4.8	–.3	–.2
Nondurable goods	.3	1.8	–.2	.6	2.1	2.5	.9	1.9
Retail trade	4.0	5.0	20.0	.9	.6	7.7	2.8	8.9
Durable goods	1.7	3.9	13.3	–3.0	1.2	2.0	1.5	10.8
Motor vehicle dealers	–1.4	.2	10.6	–4.7	–2.5	–3.7	–.6	7.5
Other	3.3	3.8	2.5	1.8	3.9	5.9	2.1	3.2
Nondurable goods	2.3	1.0	6.5	4.1	–.7	5.8	1.3	–2.3
Other	4.5	8.5	2.3	3.9	13.7	8.9	5.7	5.7
Durable goods	2.1	1.6	–.4	.7	1.8	1.5	2.3	.9
Nondurable goods	2.4	7.0	2.8	3.2	12.0	7.5	3.4	4.9
Residual	–.4	–.1	–.7	.5	.2	–1.0	0	.5

NOTE.—Chained (1992) dollar series for real change in business inventories are calculated as the period-to-period change in chained-dollar end-of-period inventories. Quarterly changes in end-of-period inventories are stated at annual rates. 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.

See note to table 5.10.

Table 5.12.—Inventories and Domestic Final Sales of Business by Industry

[Billions of dollars]

	Seasonally adjusted quarterly totals					
	1996		1997			
	III	IV	I	II	III	IV
Inventories [1]	**1,287.1**	**1,294.5**	**1,306.1**	**1,318.1**	**1,334.1**	**1,342.2**
Farm	106.0	102.6	107.2	107.7	109.1	108.9
Nonfarm	1,181.2	1,191.9	1,198.9	1,210.4	1,225.0	1,233.3
Durable goods	675.6	675.2	684.4	693.2	697.0	702.2
Nondurable goods	505.5	516.7	514.5	517.2	528.0	531.1
Manufacturing	436.3	440.3	443.3	448.0	453.5	458.3
Durable goods	271.4	273.7	277.0	280.7	283.2	286.2
Nondurable goods	164.9	166.6	166.3	167.3	170.3	172.1
Wholesale trade	300.3	300.8	306.2	310.8	316.1	318.0
Durable goods	186.6	184.9	188.7	194.4	195.0	194.8
Nondurable goods	113.6	116.0	117.5	116.4	121.2	123.2
Merchant wholesalers	257.9	258.6	263.4	266.6	271.4	273.2
Durable goods	161.9	160.7	163.9	168.4	169.0	169.0
Nondurable goods	96.0	97.9	99.5	98.2	102.4	104.3
Nonmerchant wholesalers	42.4	42.3	42.8	44.2	44.7	44.7
Durable goods	24.8	24.1	24.9	26.1	25.9	25.8
Nondurable goods	17.6	18.1	17.9	18.2	18.8	19.0
Retail trade	312.5	313.0	313.3	313.2	314.7	316.2
Durable goods	168.8	167.7	168.7	167.7	168.0	170.3
Motor vehicle dealers	85.5	83.9	83.6	80.9	80.7	82.3
Other	83.3	83.9	85.1	86.7	87.3	88.0
Nondurable goods	143.6	145.3	144.6	145.6	146.7	145.9
Other	132.1	137.7	136.1	138.3	140.7	140.8
Durable goods	48.7	48.9	50.0	50.5	50.8	51.0
Nondurable goods	83.4	88.8	86.2	87.9	89.9	89.8
Final sales of domestic business [2]	**533.1**	**542.6**	**550.0**	**556.2**	**565.2**	**572.8**
Final sales of goods and structures of domestic business [2]	**285.9**	**289.9**	**294.1**	**296.1**	**301.1**	**304.1**
Ratio of inventories to final sales of domestic business						
Inventories to final sales	2.41	2.39	2.37	2.37	2.36	2.34
Nonfarm inventories to final sales	2.22	2.20	2.18	2.18	2.17	2.15
Nonfarm inventories to final sales of goods and structures	4.13	4.11	4.08	4.09	4.07	4.06

1. Inventories are as of the end of the quarter. The quarter-to-quarter change in inventories calculated from current-dollar inventories in this table is not the current-dollar change in business inventories (CBI) component of GDP. The former is the difference between two inventory stocks, each valued at their respective end-of-quarter prices. The latter is the change in the physical volume of inventories valued at average prices of the quarter. In addition, changes calculated from this table are at quarterly rates; whereas, CBI is stated at annual rates.

2. Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and of general government and includes a small amount of final sales by farm.

Table 5.13.—Real Inventories and Real Domestic Final Sales of Business by Industry

[Billions of chained (1992) dollars]

	Seasonally adjusted quarterly totals					
	1996		1997			
	III	IV	I	II	III	IV
Inventories [1]	**1,200.7**	**1,208.9**	**1,224.8**	**1,244.2**	**1,256.1**	**1,271.1**
Farm	100.9	102.5	103.8	105.7	108.0	110.7
Nonfarm	1,099.3	1,105.9	1,120.5	1,138.0	1,147.6	1,160.0
Durable goods	634.3	634.0	641.5	652.5	656.8	662.9
Nondurable goods	464.9	471.7	478.8	485.4	490.6	496.9
Manufacturing	406.6	409.7	414.9	422.1	425.8	431.1
Durable goods	259.3	260.9	264.0	268.6	271.0	273.7
Nondurable goods	147.5	148.9	151.1	153.8	155.0	157.5
Wholesale trade	280.1	282.4	288.1	294.3	298.0	301.6
Durable goods	179.2	177.9	181.6	187.3	188.3	188.7
Nondurable goods	101.1	104.6	106.6	107.2	109.9	112.9
Merchant wholesalers	240.1	242.8	247.3	251.7	255.2	258.3
Durable goods	155.1	154.3	157.3	161.8	162.8	163.3
Nondurable goods	85.3	88.6	90.1	90.1	92.6	95.1
Nonmerchant wholesalers	39.9	39.5	40.8	42.6	42.8	43.2
Durable goods	24.2	23.6	24.3	25.5	25.5	25.4
Nondurable goods	15.8	16.0	16.5	17.1	17.3	17.8
Retail trade	292.4	292.7	292.8	294.7	295.4	297.6
Durable goods	153.2	152.4	152.7	153.2	153.6	156.3
Motor vehicle dealers	75.7	74.5	73.9	73.0	72.8	74.7
Other	77.5	78.0	79.0	80.4	81.0	81.8
Nondurable goods	138.9	140.0	139.8	141.2	141.5	141.0
Other	120.1	121.1	124.5	126.7	128.2	129.6
Durable goods	42.3	42.5	42.9	43.3	43.9	44.1
Nondurable goods	77.7	78.4	81.4	83.3	84.2	85.4
Residual	.5	.7	.7	.4	.5	.6
Final sales of domestic business [2]	**484.7**	**491.1**	**495.1**	**498.5**	**505.0**	**510.3**
Final sales of goods and structures of domestic business [2]	**268.2**	**271.8**	**274.5**	**275.6**	**280.0**	**282.5**
Ratio of inventories to final sales of domestic business						
Inventories to final sales	2.48	2.46	2.47	2.50	2.49	2.49
Nonfarm inventories to final sales	2.27	2.25	2.26	2.28	2.27	2.27
Nonfarm inventories to final sales of goods and structures	4.10	4.07	4.08	4.13	4.10	4.11

1. Inventories are as of the end of the quarter. Quarter-to-quarter changes calculated from this table are at quarterly rates, whereas, the change in the business inventories component of GDP is stated at annual rates.

2. Quarterly totals at monthly rates. Final sales of domestic business equals final sales of domestic product less gross product of households and institutions and of general government and includes a small amount of final sales by farm.

NOTE.—Chained (1992) dollar inventory series are calculated as the product of the chain-type quantity index and the average of the end-of-year fixed-weighted inventories for 1991 and 1992, divided by 100. Chained (1992) dollar final sales series are calculated as the product of the chain-type index and the 1992 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 for inventories.

6. Income and Employment by Industry

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

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
National income without capital consumption adjustment	**6,219.6**		**6,267.7**	**6,340.4**	**6,470.8**	**6,557.3**	**6,657.5**	
Domestic industries	**6,217.9**		**6,274.7**	**6,337.3**	**6,485.1**	**6,578.0**	**6,678.2**	
Private industries	**5,362.6**		**5,415.0**	**5,472.0**	**5,608.9**	**5,696.1**	**5,788.8**	
Agriculture, forestry, and fishing	105.6		109.0	109.6	110.8	115.5	114.1	
Mining	46.9		46.9	45.0	48.2	49.2	48.0	
Construction	285.2		286.9	291.4	298.2	302.2	307.4	
Manufacturing	1,110.1		1,120.8	1,122.1	1,134.6	1,160.5	1,187.8	
Durable goods	634.5		642.7	639.4	651.0	669.7	691.2	
Nondurable goods	475.6		478.1	482.8	483.6	490.8	496.6	
Transportation and public utilities	456.7		459.3	457.3	467.1	471.5	477.2	
Transportation	191.0		194.6	192.3	199.6	203.0	207.6	
Communications	135.0		137.0	133.1	135.5	135.2	139.0	
Electric, gas, and sanitary services	130.8		127.7	131.9	132.0	133.3	130.6	
Wholesale trade	349.1		350.6	364.8	372.4	379.3	388.7	
Retail trade	503.7		506.8	512.3	527.7	533.0	542.6	
Finance, insurance, and real estate	1,095.3		1,111.5	1,116.5	1,168.9	1,185.0	1,199.2	
Services	1,410.1		1,423.2	1,452.9	1,481.1	1,500.1	1,523.7	
Government	**855.3**		**859.7**	**865.2**	**876.2**	**881.9**	**889.4**	
Rest of the world	**1.7**		**–7.0**	**3.1**	**–14.3**	**–20.7**	**–20.7**	

Table 6.16C.—Corporate Profits by Industry

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Corporate profits with inventory valuation and capital consumption adjustments	**735.9**		**739.6**	**747.8**	**779.6**	**795.1**	**827.3**	
Domestic industries	**640.0**		**647.8**	**640.3**	**682.2**	**694.4**	**727.5**	
Financial	94.2		94.6	78.5	106.8	107.7	109.3	
Nonfinancial	545.8		553.3	561.7	575.4	586.7	618.2	
Rest of the world	**95.9**		**91.8**	**107.5**	**97.4**	**100.8**	**99.9**	
Receipts from the rest of the world	132.7		133.4	142.6	139.9	148.3	150.5	
Less: Payments to the rest of the world	36.7		41.6	35.0	42.5	47.5	50.6	
Corporate profits with inventory valuation adjustment	**674.1**		**676.4**	**683.4**	**711.9**	**725.7**	**757.1**	
Domestic industries	**578.2**		**584.6**	**575.8**	**614.5**	**624.9**	**657.2**	
Financial	103.5		104.0	88.1	116.5	117.5	119.4	
Federal Reserve banks	22.0		22.0	22.3	22.8	23.2	23.7	
Other	81.5		82.0	65.8	93.7	94.3	95.7	
Nonfinancial	474.7		480.7	487.8	498.0	507.4	537.8	
Manufacturing	205.5		210.5	209.7	208.2	221.0	240.4	
Durable goods	99.0		102.9	99.7	101.3	111.8	128.1	
Primary metal industries	5.6		7.0	5.1	3.9	5.6	7.6	
Fabricated metal products	17.1		18.0	18.1	17.4	18.4	20.8	
Industrial machinery and equipment	25.8		25.6	24.6	24.0	27.8	32.5	
Electronic and other electric equipment	23.9		25.2	29.6	31.4	33.3	36.7	
Motor vehicles and equipment	–3.2		–1.5	–8.3	–1.3	–3.5	.4	
Other	29.8		28.6	30.6	25.9	30.2	30.0	
Nondurable goods	106.5		107.7	109.9	106.9	109.2	112.3	
Food and kindred products	28.5		28.8	34.2	28.0	28.2	29.1	
Chemicals and allied products	31.2		31.5	28.9	28.8	29.9	30.0	
Petroleum and coal products	10.0		10.0	11.9	12.4	10.3	12.4	
Other	36.8		37.3	34.9	37.7	40.8	40.9	
Transportation and public utilities	91.7		91.2	90.5	91.5	89.6	90.0	
Transportation	11.7		13.0	11.4	14.9	16.4	16.9	
Communications	36.0		37.6	34.8	33.8	30.8	33.4	
Electric, gas, and sanitary services	44.0		40.6	44.3	42.8	42.4	39.8	
Wholesale trade	38.3		37.7	47.4	49.0	49.5	54.1	
Retail trade	48.9		50.6	48.3	55.1	54.9	57.9	
Other	90.3		90.6	91.9	94.2	92.4	95.3	
Rest of the world	**95.9**		**91.8**	**107.5**	**97.4**	**100.8**	**99.9**	

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

7. Quantity and Price Indexes

Table 7.1.—Quantity and Price Indexes for Gross Domestic Product

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product:								
Current dollars	122.29	129.45	122.93	124.80	127.05	128.66	130.10	131.98
Chain-type quantity index	110.95	115.17	111.20	112.38	113.73	114.66	115.53	116.75
Chain-type price index	110.22	112.46	110.59	111.10	111.78	112.27	112.67	113.10
Implicit price deflator	110.21	112.40	110.54	111.05	111.71	112.22	112.62	113.05
Personal consumption expenditures:								
Current dollars	123.41	130.07	123.88	125.79	128.10	128.73	130.99	132.46
Chain-type quantity index	111.71	115.40	111.81	112.72	114.18	114.45	116.03	116.95
Chain-type price index	110.47	112.72	110.80	111.61	112.21	112.49	112.91	113.27
Implicit price deflator	110.47	112.71	110.79	111.60	112.20	112.48	112.89	113.26
Durable goods:								
Current dollars	129.88	134.99	129.87	130.64	134.77	131.92	136.60	136.65
Chain-type quantity index	125.09	132.19	125.25	126.32	130.55	128.75	134.31	135.16
Chain-type price index	103.83	102.16	103.72	103.45	103.27	102.50	101.74	101.14
Implicit price deflator	103.83	102.11	103.69	103.41	103.24	102.46	101.71	101.10
Nondurable goods:								
Current dollars	116.11	120.49	116.38	118.03	120.09	119.45	121.10	121.34
Chain-type quantity index	108.36	110.40	108.48	109.03	110.29	109.70	110.87	110.76
Chain-type price index	107.15	109.15	107.29	108.26	108.90	108.89	109.24	109.56
Implicit price deflator	107.15	109.14	107.28	108.25	108.89	108.88	109.23	109.55
Services:								
Current dollars	126.10	134.32	126.78	129.07	131.15	133.17	135.27	137.70
Chain-type quantity index	110.86	114.77	110.93	111.99	113.05	114.13	115.22	116.67
Chain-type price index	113.76	117.04	114.29	115.26	116.02	116.70	117.42	118.04
Implicit price deflator	113.76	117.04	114.28	115.25	116.01	116.69	117.41	118.03
Gross private domestic investment:								
Current dollars	141.26	156.57	145.38	145.63	151.01	157.12	158.17	159.98
Chain-type quantity index	135.26	150.83	139.21	139.77	145.39	151.45	152.40	154.08
Chain-type price index	104.50	104.14	104.63	104.50	104.23	104.07	104.11	104.16
Implicit price deflator	104.43	103.80	104.44	104.19	103.86	103.75	103.78	103.83
Fixed investment:								
Current dollars	139.22	149.73	141.94	142.86	143.91	148.17	153.34	153.48
Chain-type quantity index	132.97	143.26	135.42	136.41	137.73	141.86	146.70	146.74
Chain-type price index	104.70	104.54	104.85	104.75	104.52	104.47	104.55	104.62
Implicit price deflator	104.70	104.51	104.82	104.73	104.49	104.45	104.52	104.59
Nonresidential:								
Current dollars	140.07	151.55	143.15	144.69	145.43	149.90	156.30	154.56
Chain-type quantity index	138.33	151.78	141.48	143.54	145.00	150.03	156.75	155.33
Chain-type price index	101.26	99.88	101.21	100.82	100.31	99.93	99.73	99.53
Implicit price deflator	101.26	99.85	101.18	100.80	100.29	99.91	99.71	99.51
Structures:								
Current dollars	127.22	136.07	128.66	134.16	134.40	134.05	137.65	138.16
Chain-type quantity index	111.51	115.47	112.32	116.40	115.79	114.39	116.26	115.45
Chain-type price index	114.09	117.87	114.58	115.30	116.11	117.23	118.44	119.71
Implicit price deflator	114.09	117.83	114.55	115.26	116.07	117.19	118.40	119.67
Producers' durable equipment:								
Current dollars	145.67	158.29	149.45	149.27	150.23	156.80	164.42	161.70
Chain-type quantity index	150.77	169.14	155.10	156.09	158.63	167.05	176.32	174.57
Chain-type price index	96.62	93.63	96.38	95.65	94.72	93.88	93.27	92.64
Implicit price deflator	96.62	93.58	96.36	95.63	94.70	93.86	93.25	92.63
Residential:								
Current dollars	137.10	145.22	138.97	138.33	140.16	143.90	146.01	150.80
Chain-type quantity index	120.64	124.00	121.51	120.18	121.17	123.36	124.19	127.29
Chain-type price index	113.64	117.09	114.37	115.10	115.68	116.65	117.57	118.47
Implicit price deflator	113.64	117.11	114.36	115.10	115.68	116.65	117.56	118.46
Exports of goods and services:								
Current dollars	136.19	149.95	135.07	141.48	144.22	150.18	151.05	154.34
Chain-type quantity index	134.03	150.82	133.15	140.92	144.30	150.53	152.17	156.29
Chain-type price index	101.61	99.39	101.47	100.35	99.90	99.72	99.21	98.71
Implicit price deflator	101.61	99.42	101.44	100.39	99.95	99.77	99.26	98.76
Exports of goods:								
Current dollars	137.63	153.14	135.89	142.75	146.26	153.78	154.02	158.49
Chain-type quantity index	140.05	161.77	138.85	148.48	152.94	161.76	163.11	169.26
Chain-type price index	98.27	94.61	97.89	96.06	95.55	94.99	94.35	93.56
Implicit price deflator	98.27	94.67	97.86	96.14	95.63	95.07	94.43	93.64
Exports of services:								
Current dollars	132.81	142.44	133.14	138.49	139.43	141.70	144.05	144.60
Chain-type quantity index	120.51	127.12	120.28	124.14	125.27	126.25	128.46	128.51
Chain-type price index	110.21	112.04	110.70	111.55	111.29	112.23	112.12	112.50
Implicit price deflator	110.21	112.05	110.70	111.56	111.30	112.24	112.14	112.51
Imports of goods and services:								
Current dollars	144.36	157.78	146.14	148.47	152.63	156.81	161.02	160.67
Chain-type quantity index	145.22	165.40	148.03	150.48	156.80	164.30	169.98	170.53
Chain-type price index	99.41	95.52	98.76	98.75	97.42	95.52	94.81	94.30
Implicit price deflator	99.40	95.39	98.73	98.66	97.34	95.44	94.73	94.22
Imports of goods:								
Current dollars	148.49	162.50	150.53	153.18	157.07	161.53	166.21	165.18
Chain-type quantity index	151.06	173.27	154.49	157.37	163.58	172.24	178.53	178.74
Chain-type price index	98.30	93.91	97.47	97.42	96.11	93.87	93.18	92.50
Implicit price deflator	98.29	93.78	97.44	97.34	96.02	93.78	93.10	92.42
Imports of services:								
Current dollars	126.23	137.08	126.89	127.76	133.13	136.09	138.23	140.87
Chain-type quantity index	120.06	131.77	120.29	120.90	127.64	130.41	133.58	135.44
Chain-type price index	105.13	104.05	105.50	105.69	104.31	104.37	103.49	104.02
Implicit price deflator	105.13	104.03	105.49	105.68	104.30	104.36	103.48	104.01
Government consumption expenditures and gross investment:								
Current dollars	111.31	115.05	111.84	112.54	113.40	114.66	115.37	116.76
Chain-type quantity index	99.54	100.54	99.83	99.85	99.74	100.50	100.77	101.17
Chain-type price index	111.83	114.47	112.07	112.76	113.74	114.14	114.54	115.47
Implicit price deflator	111.83	114.42	112.04	112.71	113.69	114.09	114.49	115.41
Federal:								
Current dollars	98.49	99.39	98.79	98.03	97.75	99.64	99.56	100.60
Chain-type quantity index	87.92	86.71	88.21	87.04	85.76	87.14	86.89	87.04
Chain-type price index	112.03	114.74	112.05	112.74	114.10	114.46	114.71	115.71
Implicit price deflator	112.02	114.62	111.99	112.62	113.98	114.34	114.58	115.58
National defense:								
Current dollars	93.87	93.35	94.41	93.29	91.37	93.29	93.70	95.03
Chain-type quantity index	84.56	82.24	85.00	83.44	80.86	82.33	82.58	83.18
Chain-type price index	111.02	113.66	111.16	111.94	113.14	113.46	113.62	114.41
Implicit price deflator	111.02	113.51	111.07	111.80	112.99	113.31	113.47	114.26
Nondefense:								
Current dollars	109.90	114.30	109.58	109.72	113.52	115.31	114.04	114.33
Chain-type quantity index	96.01	97.46	95.93	95.69	97.54	98.71	97.27	96.33
Chain-type price index	114.47	117.35	114.25	114.72	116.44	116.87	117.30	118.76
Implicit price deflator	114.47	117.28	114.23	114.66	116.39	116.82	117.24	118.69
State and local:								
Current dollars	120.51	126.28	121.22	122.96	124.63	125.44	126.70	128.36
Chain-type quantity index	107.88	110.48	108.17	109.04	109.78	110.10	110.73	111.31
Chain-type price index	111.71	114.32	112.07	112.77	113.54	113.95	114.44	115.33
Implicit price deflator	111.71	114.31	112.07	112.76	113.52	113.94	114.43	115.32

NOTE.—Chain-type quantity and price indexes are calculated from weighted averages of the detailed output and prices used to prepare each aggregate and component. Implicit price deflators are weighted averages of the detailed price indexes used to prepare each aggregate and component and are calculated as the ratio of current- to chained-dollar output multiplied by 100.

Percent change from preceding period for 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.)

Table 7.2.—Quantity and Price Indexes for Gross Domestic Product, Final Sales, and Purchases

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product:								
Current dollars	122.29	129.45	122.93	124.80	127.05	128.66	130.10	131.98
Chain-type quantity index	110.95	115.17	111.20	112.38	113.73	114.66	115.53	116.75
Chain-type price index	110.22	112.46	110.59	111.10	111.78	112.27	112.67	113.10
Implicit price deflator	110.21	112.40	110.54	111.05	111.71	112.22	112.62	113.05
Final sales of domestic product:								
Current dollars	122.01	128.56	122.47	124.43	126.13	127.51	129.47	131.13
Chain-type quantity index	110.64	114.22	110.70	111.93	112.77	113.47	114.80	115.83
Chain-type price index	110.28	112.56	110.65	111.17	111.85	112.37	112.78	113.22
Implicit price deflator	110.28	112.56	110.63	111.16	111.85	112.37	112.78	113.22
Gross domestic purchases:								
Current dollars	123.22	130.38	124.16	125.62	128.03	129.47	131.27	132.76
Chain-type quantity index	112.17	116.73	112.77	113.46	115.09	116.14	117.38	118.29
Chain-type price index	109.86	111.77	110.15	110.79	111.32	111.55	111.90	112.31
Implicit price deflator	109.85	111.70	110.10	110.72	111.24	111.48	111.83	112.24
Final sales to domestic purchasers:								
Current dollars	122.95	129.50	123.71	125.25	127.11	128.32	130.63	131.92
Chain-type quantity index	111.86	115.78	112.28	113.02	114.14	114.96	116.66	117.37
Chain-type price index	109.91	111.87	110.20	110.85	111.39	111.65	112.00	112.42
Implicit price deflator	109.91	111.85	110.18	110.83	111.37	111.62	111.98	112.40
Addenda:								
Chain-type price indexes for gross domestic purchases:								
Food	109.42	112.21	109.98	111.02	111.35	111.79	112.67	113.02
Energy	107.01	107.44	106.72	109.23	110.89	105.91	106.16	106.79
Gross domestic purchases less food and energy	110.06	111.94	110.34	110.86	111.36	111.81	112.10	112.51

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

Table 7.3.—Quantity and Price Indexes for Gross National Product and Command-Basis Gross National Product

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted					
			1996		1997			
			III	IV	I	II	III	IV
Gross national product:								
Current dollars	122.10	.....	122.60	124.63	126.60	128.10	129.54	.....
Chain-type quantity index	110.81	.....	110.95	112.27	113.37	114.21	115.08	.....
Chain-type price index	110.19	.....	110.55	111.06	111.73	112.22	112.62	.....
Implicit price deflator	110.18	.....	110.50	111.01	111.67	112.17	112.57	.....
Less: Exports of goods and services and receipts of factor income:								
Chain-type quantity index	137.88	.....	137.24	145.06	147.60	154.24	156.43	.....
Plus: Command-basis exports of goods and services and receipts of factor income:								
Chain-type quantity index	140.35	.....	140.23	147.07	150.74	159.72	162.32	.....
Equals: Command-basis gross national product:								
Chain-type quantity index	111.12	.....	111.32	112.52	113.76	114.89	115.81	.....

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

Table 7.4.—Chain-Type Quantity and Price Indexes for Personal Consumption Expenditures by Major Type of Product

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted					
			1996		1997			
			III	IV	I	II	III	IV
Chain-type quantity indexes								
Personal consumption expenditures	**111.71**	**115.40**	**111.81**	**112.72**	**114.18**	**114.45**	**116.03**	**116.95**
Durable goods	**125.09**	**132.19**	**125.25**	**126.32**	**130.55**	**128.75**	**134.31**	**135.16**
Motor vehicles and parts	111.82	112.53	111.06	110.19	112.83	107.82	115.39	114.08
Furniture and household equipment	142.35	156.67	143.80	146.18	151.75	154.35	159.01	161.56
Other	122.72	131.97	122.66	125.98	131.48	129.70	131.81	134.87
Nondurable goods	**108.36**	**110.40**	**108.48**	**109.03**	**110.29**	**109.70**	**110.87**	**110.76**
Food	104.51	104.54	104.14	104.39	105.25	104.28	104.48	104.14
Clothing and shoes	118.70	123.36	120.09	119.73	122.88	121.39	124.74	124.44
Gasoline and oil	107.02	108.76	107.01	107.69	107.56	108.95	109.05	109.46
Fuel oil and coal	97.19	91.78	96.86	94.75	86.25	92.53	95.48	92.85
Other	110.16	115.15	110.55	112.37	114.07	113.98	116.06	116.50
Services	**110.86**	**114.77**	**110.93**	**111.99**	**113.05**	**114.13**	**115.22**	**116.67**
Housing	108.25	110.36	108.48	108.97	109.52	110.09	110.64	111.19
Household operation	116.65	118.94	115.15	117.51	116.02	118.51	119.14	122.10
Electricity and gas	110.55	109.71	107.74	110.47	106.82	110.55	108.60	112.86
Other household operation	121.17	125.73	120.61	122.71	122.79	124.38	126.86	128.90
Transportation	123.11	128.24	123.64	124.64	126.10	127.14	129.02	130.71
Medical care	106.42	110.07	106.67	107.81	108.93	109.61	110.45	111.29
Other	112.64	118.69	112.84	113.91	116.15	117.59	119.36	121.64
Chain-type price indexes								
Personal consumption expenditures	**110.47**	**112.72**	**110.80**	**111.61**	**112.21**	**112.49**	**112.91**	**113.27**
Durable goods	**103.83**	**102.16**	**103.72**	**103.45**	**103.27**	**102.50**	**101.74**	**101.14**
Motor vehicles and parts	112.95	112.94	113.15	113.55	113.84	113.26	112.55	112.11
Furniture and household equipment	93.71	90.29	93.38	92.50	91.84	90.84	89.67	88.80
Other	106.48	105.83	106.26	106.14	106.22	105.64	105.85	105.60
Nondurable goods	**107.15**	**109.15**	**107.29**	**108.26**	**108.90**	**108.89**	**109.24**	**109.56**
Food	109.63	112.54	110.20	111.27	111.65	112.09	113.02	113.41
Clothing and shoes	98.75	99.76	98.08	98.56	99.29	100.37	99.68	99.69
Gasoline and oil	107.44	107.50	106.47	109.83	112.13	104.77	106.31	106.80
Fuel oil and coal	108.92	108.72	105.69	116.17	116.49	108.78	104.55	105.08
Other	108.22	109.84	108.57	108.67	109.21	110.08	109.87	110.22
Services	**113.76**	**117.04**	**114.29**	**115.26**	**116.02**	**116.70**	**117.42**	**118.04**
Housing	112.43	115.78	112.85	113.60	114.42	115.34	116.25	117.11
Household operation	109.08	111.32	109.63	110.32	111.37	111.05	111.17	111.69
Electricity and gas	106.35	108.77	106.92	107.73	109.66	107.98	108.16	109.28
Other household operation	111.01	113.14	111.55	112.16	112.63	113.21	113.28	113.42
Transportation	112.22	116.56	112.43	114.15	114.88	116.14	116.98	118.25
Medical care	117.43	120.13	117.72	118.62	119.41	119.88	120.38	120.87
Other	113.69	117.55	114.63	115.76	116.33	117.20	118.12	118.55
Addenda:								
Price indexes for personal consumption expenditures:								
Food	109.63	112.54	110.20	111.27	111.65	112.09	113.02	113.41
Energy [1]	106.96	108.15	106.63	109.07	111.11	106.47	107.11	107.91
Personal consumption expenditures less food and energy	110.88	113.07	111.21	111.87	112.41	112.97	113.28	113.62

1. Consists of prices for gasoline and oil, fuel oil and coal, and electricity and gas.

Table 7.6.—Chain-Type Quantity and Price Indexes for Private Fixed Investment by Type

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted					
			1996		1997			
			III	IV	I	II	III	IV
Chain-type quantity indexes								
Private fixed investment	**132.97**	**143.26**	**135.42**	**136.41**	**137.73**	**141.86**	**146.70**	**146.74**
Nonresidential	**138.33**	**151.78**	**141.48**	**143.54**	**145.00**	**150.03**	**156.75**	**155.33**
Structures	**111.51**	**115.47**	**112.32**	**116.40**	**115.79**	**114.39**	**116.26**	**115.45**
Nonresidential buildings, including farm	123.67	131.58	125.22	131.15	132.58	129.98	132.61	131.15
Utilities	84.83	81.20	83.23	85.66	79.80	83.07	81.32	80.59
Mining exploration, shafts, and wells	104.18	100.71	106.20	103.54	102.45	97.40	100.62	102.36
Other structures	66.68	60.21	65.30	61.90	55.98	57.50	61.86	65.48
Producers' durable equipment	**150.77**	**169.14**	**155.10**	**156.09**	**158.63**	**167.05**	**176.32**	**174.57**
Information processing and related equipment	188.61	227.49	196.97	201.54	209.70	221.31	238.88	240.06
Computers and peripheral equipment [1]	365.81	511.40	386.78	414.95	445.54	491.73	547.14	561.19
Other	128.90	140.70	133.29	132.21	134.66	137.85	145.77	144.51
Industrial equipment	131.01	137.44	131.64	130.91	130.81	138.25	140.67	140.04
Transportation and related equipment	145.10	160.50	150.25	150.54	147.92	157.79	170.32	165.95
Other	127.58	138.23	130.11	129.66	134.23	138.07	141.85	138.78
Residential	**120.64**	**124.00**	**121.51**	**120.18**	**121.17**	**123.36**	**124.19**	**127.29**
Structures	**120.71**	**123.99**	**121.59**	**120.21**	**121.13**	**123.35**	**124.17**	**127.33**
Single family	117.22	117.48	118.73	116.95	116.95	117.14	116.45	119.40
Multifamily	142.27	153.82	133.41	137.49	149.84	156.03	149.56	159.83
Other structures	122.54	128.71	123.96	122.33	122.86	127.25	131.15	133.57
Producers' durable equipment	**118.12**	**124.53**	**118.83**	**119.28**	**122.83**	**123.91**	**125.40**	**125.97**
Chain-type price indexes								
Private fixed investment	**104.70**	**104.54**	**104.85**	**104.75**	**104.52**	**104.47**	**104.55**	**104.62**
Nonresidential	**101.26**	**99.88**	**101.21**	**100.82**	**100.31**	**99.93**	**99.73**	**99.53**
Structures	**114.09**	**117.87**	**114.58**	**115.30**	**116.11**	**117.23**	**118.44**	**119.71**
Nonresidential buildings, including farm	114.14	117.76	114.72	115.38	116.02	117.03	118.33	119.68
Utilities	113.70	117.76	113.75	115.29	116.17	117.45	118.42	118.98
Mining exploration, shafts, and wells	115.89	120.81	116.56	116.21	118.47	120.25	121.28	123.24
Other structures	112.33	116.61	112.46	113.43	114.82	116.51	116.93	118.18
Producers' durable equipment	**96.62**	**93.63**	**96.38**	**95.65**	**94.72**	**93.88**	**93.27**	**92.64**
Information processing and related equipment	77.09	69.43	76.06	74.05	72.06	70.16	68.46	67.03
Computers and peripheral equipment [1]	48.98	37.83	47.21	44.10	41.47	38.81	36.41	34.63
Other	100.04	99.73	100.02	100.07	99.65	99.67	99.89	99.71
Industrial equipment	108.96	109.45	109.06	109.41	109.34	109.23	109.47	109.75
Transportation and related equipment	107.56	108.48	108.18	108.03	108.09	108.22	108.97	108.65
Other	108.24	109.15	108.46	109.20	109.05	109.16	108.99	109.39
Residential	**113.64**	**117.09**	**114.37**	**115.10**	**115.68**	**116.65**	**117.57**	**118.47**
Structures	**113.88**	**117.41**	**114.62**	**115.36**	**115.94**	**116.96**	**117.91**	**118.85**
Single family	116.50	119.73	117.27	117.84	118.15	119.05	120.26	121.46
Multifamily	109.10	113.37	110.17	111.69	111.87	112.73	113.87	115.01
Other structures	111.02	114.82	111.68	112.50	113.47	114.66	115.29	115.87
Producers' durable equipment	**104.84**	**105.23**	**104.94**	**105.59**	**106.27**	**105.27**	**104.89**	**104.50**

1. Includes new computers and peripheral equipment only.

Table 7.9.—Chain-Type Quantity and Price Indexes for Exports and Imports of Goods and Services and for Receipts and Payments of Factor Income

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted					
			1996		1997			
			III	IV	I	II	III	IV
Chain-type quantity indexes								
Exports of goods and services	**134.03**	**150.82**	**133.15**	**140.92**	**144.30**	**150.53**	**152.17**	**156.29**
Goods [1]	140.05	161.77	138.85	148.48	152.94	161.76	163.11	169.26
Durable	153.97	183.92	153.17	164.19	171.81	184.74	186.07	193.07
Nondurable	114.40	122.53	112.57	119.77	119.12	121.23	122.57	127.21
Services [1]	120.51	127.12	120.28	124.14	125.27	126.25	128.46	128.51
Receipts of factor income	**155.36**	.....	**155.79**	**163.87**	**162.90**	**171.33**	**175.83**	.....
Imports of goods and services	**145.22**	**165.40**	**148.03**	**150.48**	**156.80**	**164.30**	**169.98**	**170.53**
Goods [1]	151.06	173.27	154.49	157.37	163.58	172.24	178.53	178.74
Durable	164.50	193.22	168.17	172.22	182.08	190.72	198.74	201.35
Nondurable	127.78	140.03	130.74	131.83	132.70	141.15	144.77	141.53
Services [1]	120.06	131.77	120.29	120.90	127.64	130.41	133.58	135.44
Payments of factor income	**165.78**	.....	**171.97**	**173.34**	**184.53**	**197.73**	**202.54**	.....
Chain-type price indexes								
Exports of goods and services	**101.61**	**99.39**	**101.47**	**100.35**	**99.90**	**99.72**	**99.21**	**98.71**
Goods [1]	98.27	94.61	97.89	96.06	95.55	94.99	94.35	93.56
Durable	90.93	87.03	90.21	88.77	88.13	87.43	86.69	85.87
Nondurable	116.09	113.27	116.61	113.78	113.67	113.55	113.28	112.60
Services [1]	110.21	112.04	110.70	111.55	111.29	112.23	112.12	112.50
Receipts of factor income	**109.36**	.....	**109.56**	**110.08**	**110.49**	**110.73**	**111.10**	.....
Imports of goods and services	**99.41**	**95.52**	**98.76**	**98.75**	**97.42**	**95.52**	**94.81**	**94.30**
Goods [1]	98.30	93.91	97.47	97.42	96.11	93.87	93.18	92.50
Durable	93.63	87.97	92.74	90.73	89.31	88.36	87.61	86.58
Nondurable	108.65	107.09	107.94	112.34	111.27	105.99	105.47	105.65
Services [1]	105.13	104.05	105.50	105.69	104.31	104.37	103.49	104.02
Payments of factor income	**110.63**	.....	**111.14**	**111.81**	**112.24**	**112.65**	**113.00**	.....

1. Exports and imports of certain goods, primarily military equipment purchased and sold by the Federal Government, are included in services. Beginning with 1986, repairs and alterations of equipment are reclassified from goods to services.

Table 7.10.—Chain-Type Quantity and Price Indexes for Exports and Imports of Goods and Services by Major Type of Product

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted 1996 III	1996 IV	1997 I	1997 II	1997 III	1997 IV
Chain-type quantity indexes								
Exports of goods and services	**134.03**	**150.82**	**133.15**	**140.92**	**144.30**	**150.53**	**152.17**	**156.29**
Exports of goods [1]	**140.05**	**161.77**	**138.85**	**148.48**	**152.94**	**161.76**	**163.11**	**169.26**
Foods, feeds, and beverages	109.04	109.04	106.22	117.01	107.05	101.39	105.81	121.91
Industrial supplies and materials	116.02	126.06	115.44	120.53	121.51	127.10	127.82	127.82
Durable goods	121.61	132.78	123.20	125.69	127.44	133.28	132.87	137.53
Nondurable goods	113.07	122.53	111.36	117.81	118.39	123.86	125.15	122.74
Capital goods, except automotive	176.29	219.78	173.67	191.52	202.24	220.74	224.90	231.25
Civilian aircraft, engines, and parts	71.59	91.26	61.81	84.26	89.29	102.57	81.03	92.14
Computers, peripherals, and parts	337.98	509.60	348.56	371.25	425.35	495.59	558.72	558.74
Other	185.57	220.43	184.71	198.17	205.08	217.82	227.57	231.26
Automotive vehicles, engines, and parts	132.62	150.98	135.07	136.33	143.80	148.52	147.80	163.82
Consumer goods, except automotive	130.81	143.80	129.26	135.65	139.66	146.32	142.33	146.90
Durable goods	131.21	144.34	129.81	138.38	138.59	149.53	144.41	144.83
Nondurable goods	130.37	143.21	128.68	132.80	140.75	142.95	140.13	149.03
Other	109.60	128.30	109.92	114.59	122.19	131.33	130.36	129.30
Durable goods	109.60	128.30	109.92	114.60	122.20	131.33	130.36	129.30
Nondurable goods	109.60	128.29	109.92	114.59	122.19	131.33	130.35	129.30
Exports of services [1]	**120.51**	**127.12**	**120.28**	**124.14**	**125.27**	**126.25**	**128.46**	**128.51**
Transfers under U.S. military agency sales contracts	111.75	113.44	106.13	124.35	101.68	115.54	117.72	118.81
Travel	114.43	116.94	114.82	117.69	119.26	115.75	117.95	114.81
Passenger fares	112.61	120.68	114.88	113.35	124.53	116.59	119.52	122.07
Other transportation	108.78	116.18	107.32	112.55	111.72	114.98	117.26	120.76
Royalties and license fees	136.87	142.15	136.63	139.76	139.78	143.74	142.94	142.16
Other private services	134.38	148.61	134.48	139.03	143.25	147.40	151.24	152.55
Other	109.14	109.74	108.48	108.73	109.21	109.45	109.87	110.41
Imports of goods and services	**145.22**	**165.40**	**148.03**	**150.48**	**156.80**	**164.30**	**169.98**	**170.53**
Imports of goods [1]	**151.06**	**173.27**	**154.49**	**157.37**	**163.58**	**172.24**	**178.53**	**178.74**
Foods, feeds, and beverages	116.82	127.53	117.84	120.16	123.78	127.97	131.19	127.20
Industrial supplies and materials, except petroleum and products	138.73	149.27	142.02	142.95	143.73	149.80	152.42	151.12
Durable goods	146.42	157.40	150.17	150.97	150.80	157.53	158.96	162.31
Nondurable goods	131.63	141.74	134.50	135.54	137.18	142.64	146.42	140.71
Petroleum and products	123.72	127.85	130.93	123.98	120.50	132.12	134.16	124.61
Capital goods, except automotive	219.36	280.10	222.42	238.05	253.47	275.14	293.05	298.72
Civilian aircraft, engines, and parts	88.71	110.73	90.58	96.77	92.67	105.06	127.72	117.46
Computers, peripherals, and parts	373.29	535.92	383.34	410.89	455.71	521.20	579.68	587.08
Other	197.41	240.87	199.06	213.17	225.32	238.34	245.82	254.02
Automotive vehicles, engines, and parts	129.38	141.58	134.07	129.32	142.67	138.97	143.84	140.85
Consumer goods, except automotive	134.78	153.31	136.62	141.81	143.88	152.92	155.69	160.76
Durable goods	135.52	152.25	138.66	140.82	143.19	151.76	153.68	160.37
Nondurable goods	133.96	154.45	134.41	142.86	144.62	154.15	157.83	161.19
Other	124.65	145.00	125.92	127.07	133.79	143.13	151.38	151.70
Durable goods	124.65	145.00	125.92	127.07	133.79	143.13	151.38	151.70
Nondurable goods	124.65	145.00	125.92	127.07	133.79	143.13	151.38	151.70
Imports of services [1]	**120.06**	**131.77**	**120.29**	**120.90**	**127.64**	**130.41**	**133.58**	**135.44**
Direct defense expenditures	72.71	82.06	74.42	72.34	79.33	81.05	84.47	83.39
Travel	115.75	130.66	111.42	115.97	127.31	129.34	131.36	134.63
Passenger fares	141.57	148.55	142.09	143.35	149.12	144.58	147.33	153.15
Other transportation	108.20	113.77	109.77	107.70	110.16	113.41	114.41	117.11
Royalties and license fees	131.88	150.41	154.18	126.69	135.99	149.43	156.31	159.93
Other private services	156.64	173.09	157.00	161.19	165.61	171.31	178.47	176.95
Other	107.59	112.43	108.64	109.99	111.87	112.06	113.05	112.75
Addenda:								
Exports of agricultural goods [2]	110.25	112.37	106.20	117.38	108.28	107.13	112.27	121.78
Exports of nonagricultural goods	143.68	168.03	142.86	152.24	158.58	168.75	169.57	175.23
Imports of nonpetroleum goods	153.63	178.09	156.57	160.69	168.20	176.44	183.20	184.54

	1996	1997	Seasonally adjusted 1996 III	1996 IV	1997 I	1997 II	1997 III	1997 IV
Chain-type price indexes								
Exports of goods and services	**101.61**	**99.39**	**101.47**	**100.35**	**99.90**	**99.72**	**99.21**	**98.71**
Exports of goods [1]	**98.27**	**94.61**	**97.89**	**96.06**	**95.55**	**94.99**	**94.35**	**93.56**
Foods, feeds, and beverages	126.27	115.98	128.50	117.48	117.60	117.98	115.48	112.84
Industrial supplies and materials	115.72	115.36	115.05	115.29	115.52	115.36	115.71	114.86
Durable goods	113.74	112.80	112.30	112.12	113.19	113.30	113.32	111.38
Nondurable goods	116.78	116.78	116.58	117.06	116.81	116.48	117.03	116.82
Capital goods, except automotive	81.56	75.84	80.68	78.60	77.42	76.31	75.28	74.33
Civilian aircraft, engines, and parts	114.01	118.35	114.97	115.70	117.81	117.63	118.82	119.16
Computers, peripherals, and parts	44.97	34.05	43.23	40.46	37.77	35.06	32.64	30.73
Other	87.85	84.09	87.16	85.25	84.49	84.28	83.96	83.63
Automotive vehicles, engines, and parts	104.25	105.12	104.24	104.53	104.92	105.15	105.21	105.21
Consumer goods, except automotive	104.27	105.06	104.39	104.53	104.80	104.86	105.18	105.38
Durable goods	102.71	103.70	102.86	102.92	103.38	103.75	103.77	103.89
Nondurable goods	105.95	106.52	106.05	106.27	106.32	106.05	106.72	107.00
Other	103.61	100.84	103.38	101.61	101.12	101.12	100.38	100.73
Durable goods	103.61	100.88	103.42	101.65	101.16	101.17	100.42	100.78
Nondurable goods	103.61	100.88	103.42	101.65	101.16	101.17	100.42	100.78
Exports of services [1]	**110.21**	**112.04**	**110.70**	**111.55**	**111.29**	**112.23**	**112.12**	**112.50**
Transfers under U.S. military agency sales contracts	111.29	110.24	109.83	109.65	110.56	110.84	109.69	109.85
Travel	111.60	114.97	112.38	112.89	114.09	114.62	114.78	116.41
Passenger fares	109.86	106.25	109.73	112.16	102.75	109.52	108.05	104.67
Other transportation	105.61	105.59	105.69	107.16	106.69	105.73	105.06	104.89
Royalties and license fees	109.41	111.02	109.62	110.14	110.55	110.79	111.15	111.60
Other private services	107.81	109.28	107.95	108.43	108.78	109.16	109.36	109.81
Other	122.10	131.28	126.05	128.28	129.06	131.79	131.76	132.52
Imports of goods and services	**99.41**	**95.52**	**98.76**	**98.75**	**97.42**	**95.52**	**94.81**	**94.30**
Imports of goods [1]	**98.30**	**93.91**	**97.47**	**97.42**	**96.11**	**93.87**	**93.18**	**92.50**
Foods, feeds, and beverages	110.72	111.99	110.06	110.71	111.37	113.17	112.05	111.37
Industrial supplies and materials, except petroleum and products	109.62	109.67	108.70	109.35	110.46	108.90	109.65	109.67
Durable goods	110.07	112.06	109.99	109.86	111.36	112.51	112.95	111.42
Nondurable goods	109.26	107.40	107.49	108.95	109.66	105.41	106.47	108.05
Petroleum and products	113.99	107.67	112.85	128.60	123.38	104.18	101.73	101.38
Capital goods, except automotive	77.78	67.36	76.05	72.32	69.65	68.05	66.63	65.10
Civilian aircraft, engines, and parts	113.54	118.15	114.47	114.99	117.21	117.65	118.63	119.10
Computers, peripherals, and parts	52.01	41.37	50.65	48.16	45.26	42.64	40.00	37.59
Other	87.18	77.02	85.15	80.62	78.03	77.23	76.79	76.02
Automotive vehicles, engines, and parts	108.57	108.83	108.64	108.67	108.67	108.50	108.90	109.27
Consumer goods, except automotive	103.45	102.28	103.37	103.14	102.67	102.38	102.14	101.93
Durable goods	103.06	100.87	102.90	102.61	101.84	101.00	100.57	100.06
Nondurable goods	103.87	103.82	103.89	103.72	103.57	103.89	103.84	103.96
Other	107.43	106.44	107.08	107.24	107.05	106.36	106.34	106.00
Durable goods	107.43	106.44	107.08	107.24	107.05	106.36	106.34	106.00
Nondurable goods	107.43	106.44	107.08	107.24	107.05	106.36	106.34	106.00
Imports of services [1]	**105.13**	**104.05**	**105.50**	**105.69**	**104.31**	**104.37**	**103.49**	**104.02**
Direct defense expenditures	107.97	100.27	107.94	108.89	101.94	101.45	98.05	99.65
Travel	109.23	105.82	110.96	109.53	106.66	105.58	104.74	106.29
Passenger fares	105.58	111.73	104.56	107.13	108.68	112.91	112.86	112.48
Other transportation	103.29	103.14	103.32	104.57	104.33	103.88	102.65	101.68
Royalties and license fees	109.42	111.02	109.62	110.14	110.55	110.79	111.15	111.60
Other private services	99.25	98.66	98.93	99.08	98.61	98.98	98.34	98.69
Other	109.36	108.97	110.20	109.96	109.04	108.74	108.61	109.50
Addenda:								
Exports of agricultural goods [2]	126.61	117.53	128.81	118.80	119.38	118.84	116.80	115.10
Exports of nonagricultural goods	95.65	92.45	95.04	93.91	93.31	92.75	92.22	91.50
Imports of nonpetroleum goods	97.16	92.77	96.32	94.93	93.92	92.98	92.43	91.73

NOTE.—See footnotes to table 4.3.

Table 7.11.—Chain-Type Quantity and Price Indexes for Government Consumption Expenditures and Gross Investment by Type

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted 1996 III	1996 IV	1997 I	1997 II	1997 III	1997 IV
Chain-type quantity indexes								
Government consumption expenditures and gross investment [1]	**99.54**	**100.54**	**99.83**	**99.85**	**99.74**	**100.50**	**100.77**	**101.17**
Federal	**87.92**	**86.71**	**88.21**	**87.04**	**85.76**	**87.14**	**86.89**	**87.04**
National defense	**84.56**	**82.24**	**85.00**	**83.44**	**80.86**	**82.33**	**82.58**	**83.18**
Consumption expenditures	86.20	85.46	86.99	85.84	84.57	85.69	85.60	85.97
Durable goods [2]	72.27	68.96	79.98	67.04	66.37	70.43	66.16	72.88
Nondurable goods	76.05	69.95	82.30	66.02	70.26	66.46	72.52	70.57
Services	88.01	87.70	87.94	88.45	86.93	87.94	88.05	87.89
Compensation of general government employees, except force-account construction [3]	81.89	78.92	81.93	80.64	79.99	79.14	78.93	77.62
Consumption of general government fixed capital [4]	94.82	92.92	94.57	94.12	93.62	93.17	92.70	92.18
Other services	94.25	100.04	94.08	98.60	94.74	100.30	101.42	103.72
Gross investment	75.34	63.89	73.76	69.89	59.66	63.13	65.42	67.34
Structures	107.11	95.34	103.75	102.80	96.54	94.56	93.91	96.36
Equipment	71.80	60.37	70.43	66.21	55.49	59.61	62.26	64.12
Nondefense	**96.01**	**97.46**	**95.93**	**95.69**	**97.54**	**98.71**	**97.27**	**96.33**
Consumption expenditures	95.37	97.10	94.84	95.21	97.18	97.60	97.24	96.37
Durable goods [2]								
Nondurable goods								
Commodity Credit Corporation inventory change								
Other nondurables	75.08	86.79	70.86	74.38	83.75	85.82	85.41	92.19
Services	95.57	96.69	95.43	95.61	96.75	97.23	97.03	95.76
Compensation of general government employees, except force-account construction [3]	90.66	90.56	91.20	90.70	91.10	91.42	90.91	88.82
Consumption of general government fixed capital [4]	115.70	121.31	116.42	117.80	119.30	120.73	122.01	123.19
Other services	99.49	101.87	98.03	99.16	101.47	102.05	102.13	101.84
Gross investment	100.61	100.00	103.75	99.08	100.06	106.81	97.31	95.84
Structures	97.44	90.21	96.76	97.41	94.95	88.29	90.52	87.07
Equipment	104.93	112.61	112.70	101.49	106.77	130.76	105.85	107.07
State and local	**107.88**	**110.48**	**108.17**	**109.04**	**109.78**	**110.10**	**110.73**	**111.31**
Consumption expenditures	108.28	110.45	108.63	108.98	109.53	110.06	110.77	111.44
Durable goods [2]	115.98	119.47	116.49	117.32	118.18	119.04	119.90	120.76
Nondurable goods	117.38	121.71	117.92	119.06	120.12	121.18	122.24	123.30
Services	107.08	108.98	107.41	107.66	108.15	108.61	109.28	109.90
Compensation of general government employees, except force-account construction [3]	105.08	106.63	105.44	105.54	105.87	106.30	106.90	107.43
Consumption of general government fixed capital [4]	111.57	114.41	111.94	112.66	113.37	114.07	114.76	115.43
Other services	138.73	146.07	138.20	140.65	143.86	144.66	146.73	149.01
Gross investment	106.03	110.62	106.03	109.35	110.95	110.28	110.52	110.74
Structures	104.30	108.72	104.15	107.84	109.49	108.43	108.39	108.57
Equipment	114.13	119.71	114.91	116.33	117.57	119.08	120.88	121.30
Addenda:								
Compensation of general government employees [3]	98.66	99.08	98.98	98.72	98.87	99.00	99.31	99.14
Federal	84.83	82.84	85.07	84.02	83.73	83.27	82.98	81.39
State and local	105.06	106.64	105.42	105.54	105.89	106.31	106.91	107.44

	1996	1997	Seasonally adjusted 1996 III	1996 IV	1997 I	1997 II	1997 III	1997 IV
Chain-type price indexes								
Government consumption expenditures and gross investment [1]	**111.83**	**114.47**	**112.07**	**112.76**	**113.74**	**114.14**	**114.54**	**115.47**
Federal	**112.03**	**114.74**	**112.05**	**112.74**	**114.10**	**114.46**	**114.71**	**115.71**
National defense	**111.02**	**113.66**	**111.16**	**111.94**	**113.14**	**113.46**	**113.62**	**114.41**
Consumption expenditures	110.96	113.98	111.26	112.16	113.39	113.70	113.95	114.88
Durable goods [2]	102.41	103.00	102.60	102.17	102.89	103.22	103.01	102.89
Nondurable goods	109.95	108.30	109.14	116.27	114.14	107.47	105.14	106.46
Services	111.78	115.12	112.12	112.96	114.31	114.81	115.17	116.17
Compensation of general government employees, except force-account construction [3]	115.40	120.34	115.87	116.76	119.51	120.16	120.26	121.45
Consumption of general government fixed capital [4]	111.40	113.15	111.61	111.91	112.50	112.78	113.26	114.08
Other services	106.45	108.49	106.69	107.82	107.65	108.07	108.71	109.55
Gross investment	111.22	111.22	110.39	110.29	111.26	111.65	111.10	110.89
Structures	121.50	125.44	122.21	123.57	124.09	125.35	126.15	126.16
Equipment	110.07	109.45	109.00	108.67	109.72	109.95	109.19	108.94
Nondefense	**114.47**	**117.35**	**114.25**	**114.72**	**116.44**	**116.87**	**117.30**	**118.76**
Consumption expenditures	116.32	119.88	116.10	116.74	118.80	119.30	119.87	121.54
Durable goods [2]								
Nondurable goods								
Commodity Credit Corporation inventory change								
Other nondurables	112.73	111.20	113.82	109.98	110.07	111.40	111.61	111.74
Services	116.89	120.75	116.64	117.48	119.65	120.14	120.73	122.47
Compensation of general government employees, except force-account construction [3]	126.39	132.64	125.72	126.91	130.91	131.68	132.41	135.56
Consumption of general government fixed capital [4]	104.51	104.30	104.40	104.15	104.08	103.77	104.43	104.93
Other services	106.39	108.09	106.65	107.29	107.60	107.92	108.29	108.55
Gross investment	102.76	101.48	102.53	101.99	101.63	101.67	101.24	101.38
Structures	113.14	116.60	113.30	113.92	114.63	116.18	117.11	118.49
Equipment	92.16	86.90	91.56	90.00	88.66	87.56	86.12	85.25
State and local	**111.71**	**114.32**	**112.07**	**112.77**	**113.54**	**113.95**	**114.44**	**115.33**
Consumption expenditures	111.84	114.44	112.23	113.01	113.71	114.02	114.58	115.45
Durable goods [2]	106.39	106.81	106.32	106.45	106.42	106.45	107.01	107.35
Nondurable goods	109.36	108.64	109.07	110.70	110.77	108.30	107.82	107.68
Services	112.25	115.34	112.75	113.43	114.23	114.90	115.60	116.61
Compensation of general government employees, except force-account construction [3]	114.02	117.18	114.45	115.24	116.04	116.75	117.52	118.40
Consumption of general government fixed capital [4]	108.74	110.58	108.85	108.95	109.84	110.41	110.57	111.48
Other services	90.09	93.90	91.97	92.13	92.76	93.05	93.55	96.23
Gross investment	111.14	113.73	111.34	111.69	112.73	113.64	113.78	114.78
Structures	113.93	117.98	114.25	114.90	116.36	117.75	118.20	119.60
Equipment	99.35	95.94	99.09	98.20	97.49	96.39	95.28	94.63
Addenda:								
Compensation of general government employees [3]	115.42	119.17	115.75	116.59	118.03	118.73	119.38	120.52
Federal	119.00	124.40	119.08	120.08	123.26	123.94	124.26	126.14
State and local	114.03	117.18	114.46	115.24	116.04	116.75	117.53	118.40

NOTE.—See footnotes to table 3.7.

Table 7.14.—Chain-Type Quantity and Price Indexes for Gross Domestic Product by Sector

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted					
			1996		1997			
			III	IV	I	II	III	IV
Chain-type quantity indexes								
Gross domestic product	**110.95**	**115.17**	**111.20**	**112.38**	**113.73**	**114.66**	**115.53**	**116.75**
Business [1]	**112.70**	**117.55**	**112.93**	**114.35**	**115.92**	**116.98**	**117.94**	**119.38**
Nonfarm [1]	112.99	117.83	113.25	114.69	116.18	117.23	118.23	119.68
Nonfarm less housing	113.61	118.83	113.83	115.36	116.99	118.15	119.27	120.91
Housing	107.83	109.60	108.37	109.05	109.53	109.66	109.67	109.56
Farm	93.75	99.13	92.56	92.75	98.07	99.75	98.78	99.93
Households and institutions	**111.52**	**114.89**	**111.96**	**112.66**	**113.55**	**114.40**	**115.28**	**116.32**
Private households	100.06	95.64	98.67	95.09	94.77	95.54	95.97	96.28
Nonprofit institutions	111.96	115.62	112.47	113.33	114.27	115.11	116.02	117.08
General government [2]	**99.34**	**99.80**	**99.63**	**99.43**	**99.58**	**99.72**	**100.01**	**99.88**
Federal	87.79	86.03	87.94	87.08	86.80	86.40	86.12	84.80
State and local	105.65	107.33	106.00	106.18	106.56	107.00	107.61	108.16
Chain-type price indexes								
Gross domestic product	**110.22**	**112.46**	**110.59**	**111.10**	**111.78**	**112.27**	**112.67**	**113.10**
Business [1]	**109.56**	**111.60**	**109.95**	**110.43**	**111.00**	**111.45**	**111.80**	**112.13**
Nonfarm [1]	109.46	111.47	109.76	110.21	110.88	111.29	111.67	112.04
Nonfarm less housing	109.11	110.98	109.40	109.82	110.47	110.83	111.14	111.46
Housing	112.48	115.80	112.88	113.63	114.42	115.32	116.29	117.19
Farm	118.34	122.15	125.11	128.16	121.56	124.35	122.82	119.88
Households and institutions	**111.19**	**114.25**	**111.36**	**111.98**	**112.87**	**113.90**	**114.79**	**115.45**
Private households	113.51	117.66	114.29	115.40	115.86	116.84	118.22	119.72
Nonprofit institutions	111.10	114.14	111.25	111.86	112.77	113.79	114.68	115.31
General government [2]	**114.58**	**118.02**	**114.89**	**115.62**	**116.95**	**117.60**	**118.21**	**119.30**
Federal	116.82	121.19	116.92	117.71	120.19	120.74	121.11	122.70
State and local	113.53	116.55	113.93	114.64	115.46	116.15	116.86	117.74

NOTE.—See footnotes to table 1.7.

Table 7.15.—Current-Dollar Cost and Profit Per Unit of Real Gross Domestic Product of Nonfinancial Corporate Business

[Dollars]

Current-dollar cost and profit per unit of real gross domestic product [1]	**1.063**	.....	**1.064**	**1.065**	**1.069**	**1.072**	**1.072**	.....
Consumption of fixed capital	**.101**	.....	**.101**	**.101**	**.101**	**.101**	**.100**	.....
Net domestic product	**.962**	.....	**.963**	**.963**	**.968**	**.971**	**.972**	.....
Indirect business tax and nontax liability plus business transfer payments less subsidies	.108	.....	.108	.108	.107	.107	.107	.....
Domestic income	.853	.....	.855	.855	.861	.863	.865	.....
Compensation of employees	.690	.....	.691	.693	.697	.698	.695	.....
Corporate profits with inventory valuation and capital consumption adjustments	.140	.....	.141	.142	.143	.144	.149	.....
Profits tax liability	.040	.....	.040	.040	.040	.040	.042	.....
Profits after tax with inventory valuation and capital consumption adjustments	.101	.....	.101	.102	.103	.104	.107	.....
Net interest	.023	.....	.022	.021	.021	.021	.021	.....

1. Equals the deflator for gross domestic product of nonfinancial corporate business with the decimal point shifted two places to the left.

Table 7.16.—Implicit Price Deflators for Inventories of Business by Industry

[Index numbers, 1992=100]

	Seasonally adjusted					
	1996		1997			
	III	IV	I	II	III	IV
Inventories	**107.20**	**107.08**	**106.63**	**105.93**	**106.21**	**105.59**
Farm	105.03	100.15	103.26	101.90	101.00	98.36
Nonfarm	107.45	107.77	107.00	106.36	106.74	106.32
Durable goods	106.52	106.49	106.69	106.25	106.12	105.93
Nondurable goods	108.74	109.53	107.45	106.54	107.62	106.87
Manufacturing	107.32	107.47	106.84	106.13	106.49	106.31
Durable goods	104.68	104.89	104.92	104.52	104.50	104.55
Nondurable goods	111.79	111.85	110.06	108.80	109.84	109.27
Wholesale	107.22	106.53	106.26	105.62	106.08	105.45
Durable goods	104.14	103.90	103.91	103.80	103.56	103.22
Nondurable goods	112.38	110.90	110.16	108.61	110.27	109.14
Merchant wholesalers	107.39	106.48	106.50	105.93	106.35	105.77
Durable goods	104.39	104.14	104.17	104.06	103.83	103.48
Nondurable goods	112.55	110.43	110.44	109.05	110.61	109.64
Nonmerchant wholesalers	106.18	106.86	104.87	103.79	104.50	103.52
Durable goods	102.54	102.26	102.24	102.07	101.79	101.48
Nondurable goods	111.59	113.64	108.77	106.34	108.52	106.56
Retail trade	106.85	106.96	107.01	106.28	106.53	106.25
Durable goods	110.22	110.06	110.48	109.42	109.38	108.96
Motor vehicle dealers	112.94	112.57	113.16	110.90	110.89	110.21
Other	107.50	107.52	107.79	107.83	107.76	107.59
Nondurable goods	103.39	103.80	103.44	103.08	103.64	103.51
Other	109.96	113.73	109.34	109.15	109.74	108.63
Durable goods	115.20	115.15	116.40	116.50	115.80	115.60
Nondurable goods	107.36	113.22	105.81	105.46	106.73	105.14

NOTE.—Implicit price deflators are as of the end of the quarter and are consistent with the inventory stocks shown in tables 5.12 and 5.13.

Table 7.17.—Chain-Type Quantity Indexes for Gross Domestic Product by Major Type of Product

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product	**110.95**	**115.17**	**111.20**	**112.38**	**113.73**	**114.66**	**115.53**	**116.75**
Final sales of domestic product	110.64	114.22	110.70	111.93	112.77	113.47	114.80	115.83
Change in business inventories								
Goods	**114.72**	**121.01**	**115.17**	**116.51**	**119.31**	**120.49**	**121.30**	**122.92**
Final sales	113.89	118.38	113.83	115.32	116.66	117.19	119.31	120.37
Change in business inventories								
Durable goods	127.97	138.76	130.25	128.64	133.71	139.00	140.14	142.18
Final sales	124.84	134.07	125.41	127.35	128.97	132.66	136.70	137.93
Change in business inventories								
Nondurable goods	105.69	109.06	104.94	108.19	109.52	108.07	108.66	110.00
Final sales	106.32	107.68	105.82	107.01	108.17	106.63	107.49	108.44
Change in business inventories								
Services	**108.08**	**111.12**	**108.15**	**109.17**	**109.76**	**110.65**	**111.54**	**112.54**
Structures	**113.63**	**117.01**	**114.19**	**115.73**	**116.16**	**116.27**	**117.26**	**118.34**
Addenda:								
Motor vehicle output	117.55	122.87	120.25	115.23	120.59	117.22	123.72	129.95
Gross domestic product less motor vehicle output	110.73	114.90	110.89	112.28	113.50	114.57	115.25	116.30

Table 7.18.—Chain-Type Quantity Indexes for Auto Output

[Index numbers, 1992=100]

	1996	1997	Seasonally adjusted					
			1996		1997			
			III	IV	I	II	III	IV
Auto output	**98.69**	**98.52**	**105.25**	**93.58**	**98.45**	**96.09**	**100.49**	**99.05**
Final sales	**101.94**	**98.40**	**101.44**	**99.35**	**99.31**	**94.84**	**100.39**	**99.06**
Personal consumption expenditures	103.07	103.18	102.94	100.38	105.11	99.69	106.36	101.55
New autos	95.25	95.79	93.43	93.83	96.91	89.70	100.20	96.37
Net purchases of used autos								
Producers' durable equipment	128.03	132.73	133.95	127.22	136.19	130.82	136.50	127.42
New autos	126.10	126.84	133.00	121.72	130.80	126.22	129.36	120.99
Net purchases of used autos								
Net exports								
Exports	112.16	113.42	112.99	110.84	109.44	119.00	106.05	119.18
Imports	126.62	139.83	131.31	125.96	143.81	139.60	143.34	132.59
Gross government investment	102.75	100.46	89.32	115.71	103.02	82.28	100.78	115.77
Change in business inventories of new and used autos								
New								
Used								
Addenda:								
Domestic output of new autos [1]	110.93	110.17	120.25	103.63	109.88	108.14	114.28	108.39
Sales of imported new autos [2]	98.06	106.71	97.64	99.15	108.82	102.63	109.56	105.80

1. Consists of final sales and change in business inventories of new autos assembled in the United States.
2. Consists of personal consumption expenditures, producers' durable equipment, and gross government investment.

Table 7.19.—Chain-Type Quantity Indexes for Truck Output

[Index numbers, 1992=100]

Truck output [1]	**144.61**	**157.88**	**141.72**	**146.38**	**152.43**	**147.62**	**157.14**	**174.33**
Final sales	**147.62**	**156.90**	**144.35**	**152.03**	**150.72**	**147.96**	**158.65**	**170.29**
Personal consumption expenditures	121.78	122.63	118.29	120.90	119.17	113.36	126.05	131.95
Producers' durable equipment	181.34	199.99	184.46	190.80	193.20	192.36	202.08	212.33
Net exports								
Exports	156.23	190.00	147.53	177.17	175.57	169.89	176.36	238.17
Imports	116.45	134.38	125.33	113.92	133.14	130.75	145.62	128.01
Gross government investment	91.90	105.34	79.52	82.80	97.68	109.59	120.72	93.37
Change in business inventories								

1. Includes new trucks only.

8. Supplementary Tables

Table 8.1.—Percent Change From Preceding Period in Selected Series

[Percent]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Gross domestic product:								
Current dollars	5.1	5.9	3.6	6.2	7.4	5.2	4.6	5.9
Chain-type quantity index	2.8	3.8	1.0	4.3	4.9	3.3	3.1	4.3
Chain-type price index	2.3	2.0	2.7	1.9	2.4	1.8	1.4	1.5
Implicit price deflator	2.3	2.0	2.6	1.9	2.4	1.8	1.4	1.5
Personal consumption expenditures:								
Current dollars	5.0	5.4	3.0	6.3	7.6	2.0	7.2	4.6
Chain-type quantity index	2.6	3.3	.5	3.3	5.3	.9	5.6	3.2
Chain-type price index	2.4	2.0	2.5	3.0	2.2	1.0	1.5	1.3
Implicit price deflator	2.4	2.0	2.5	2.9	2.2	1.0	1.5	1.3
Durable goods:								
Current dollars	4.3	3.9	–2.6	2.4	13.3	–8.2	15.0	.1
Chain-type quantity index	4.7	5.7	–1.9	3.5	14.1	–5.4	18.4	2.6
Chain-type price index	–.4	–1.6	–.6	–1.0	–.7	–3.0	–2.9	–2.4
Implicit price deflator	–.4	–1.7	–.7	–1.1	–.7	–3.0	–2.9	–2.4
Nondurable goods:								
Current dollars	4.0	3.8	1.6	5.8	7.2	–2.1	5.7	.8
Chain-type quantity index	1.4	1.9	.6	2.1	4.7	–2.1	4.3	–.4
Chain-type price index	2.6	1.9	.9	3.7	2.4	0	1.3	1.2
Implicit price deflator	2.6	1.9	.9	3.7	2.4	0	1.3	1.2
Services:								
Current dollars	5.7	6.5	4.9	7.4	6.6	6.3	6.5	7.4
Chain-type quantity index	2.7	3.5	1.0	3.9	3.9	3.9	3.9	5.1
Chain-type price index	2.9	2.9	3.9	3.4	2.6	2.4	2.5	2.1
Implicit price deflator	2.9	2.9	3.9	3.4	2.6	2.4	2.5	2.1
Gross private domestic investment:								
Current dollars	7.5	10.8	16.8	.7	15.6	17.2	2.7	4.7
Chain-type quantity index	7.8	11.5	16.5	1.6	17.1	17.7	2.5	4.5
Chain-type price index	–.2	–.3	1.2	–.5	–1.0	–.6	.2	.2
Implicit price deflator	–.3	–.6	.3	–.9	–1.3	–.4	.1	.2
Fixed investment:								
Current dollars	8.2	7.5	11.6	2.6	3.0	12.4	14.7	.4
Chain-type quantity index	8.3	7.7	10.1	3.0	3.9	12.6	14.4	.1
Chain-type price index	–.1	–.2	1.4	–.4	–.9	–.2	.3	.3
Implicit price deflator	–.1	–.2	1.3	–.4	–.9	–.2	.3	.3
Nonresidential:								
Current dollars	8.1	8.2	16.1	4.4	2.1	12.9	18.2	–4.4
Chain-type quantity index	9.2	9.7	16.5	5.9	4.1	14.6	19.2	–3.6
Chain-type price index	–1.0	–1.4	–.3	–1.5	–2.0	–1.5	–.8	–.8
Implicit price deflator	–1.0	–1.4	–.3	–1.5	–2.0	–1.5	–.8	–.8
Structures:								
Current dollars	7.3	7.0	14.2	18.2	.7	–1.0	11.2	1.5
Chain-type quantity index	4.8	3.6	10.0	15.3	–2.1	–4.7	6.7	–2.7
Chain-type price index	2.3	3.3	3.9	2.5	2.8	3.9	4.2	4.4
Implicit price deflator	2.3	3.3	3.8	2.5	2.8	3.9	4.2	4.4
Producers' durable equipment:								
Current dollars	8.4	8.7	16.9	–.5	2.6	18.7	20.9	–6.5
Chain-type quantity index	10.9	12.2	19.1	2.6	6.7	23.0	24.1	–3.9
Chain-type price index	–2.3	–3.1	–1.9	–3.0	–3.8	–3.5	–2.6	–2.7
Implicit price deflator	–2.3	–3.1	–1.9	–3.0	–3.8	–3.5	–2.6	–2.7
Residential:								
Current dollars	8.5	5.9	1.0	–1.8	5.4	11.1	6.0	13.8
Chain-type quantity index	5.9	2.8	–4.5	–4.3	3.3	7.4	2.7	10.4
Chain-type price index	2.4	3.0	5.7	2.6	2.0	3.4	3.2	3.1
Implicit price deflator	2.4	3.0	5.7	2.6	2.0	3.4	3.2	3.1
Exports of goods and services:								
Current dollars	6.4	10.1	–.6	20.4	8.0	17.6	2.3	9.0
Chain-type quantity index	8.3	12.5	1.9	25.5	9.9	18.4	4.4	11.3
Chain-type price index	–1.8	–2.2	–2.6	–4.3	–1.8	–.7	–2.0	–2.0
Implicit price deflator	–1.8	–2.2	–2.4	–4.1	–1.8	–.7	–2.0	–2.0
Exports of goods:								
Current dollars	5.8	11.3	–2.7	21.8	10.2	22.2	.6	12.1
Chain-type quantity index	9.5	15.5	2.5	30.7	12.6	25.1	3.4	16.0
Chain-type price index	–3.4	–3.7	–5.3	–7.3	–2.1	–2.3	–2.6	–3.3
Implicit price deflator	–3.4	–3.7	–5.1	–6.9	–2.1	–2.3	–2.6	–3.3
Exports of services:								
Current dollars	8.0	7.3	4.6	17.1	2.7	6.7	6.8	1.5
Chain-type quantity index	5.5	5.5	.3	13.5	3.7	3.2	7.2	.2
Chain-type price index	2.4	1.7	4.3	3.1	–.9	3.4	–.4	1.4
Implicit price deflator	2.4	1.7	4.3	3.1	–.9	3.4	–.4	1.4
Imports of goods and services:								
Current dollars	6.8	9.3	8.1	6.5	11.7	11.4	11.2	–.9
Chain-type quantity index	9.1	13.9	13.2	6.8	17.9	20.5	14.6	1.3
Chain-type price index	–2.2	–3.9	–4.2	0	–5.3	–7.6	–3.0	–2.1
Implicit price deflator	–2.2	–4.0	–4.5	–.3	–5.3	–7.6	–3.0	–2.1
Imports of goods:								
Current dollars	6.8	9.4	8.9	7.2	10.5	11.8	12.1	–2.4
Chain-type quantity index	9.9	14.7	15.7	7.7	16.7	22.9	15.4	.5
Chain-type price index	–2.8	–4.5	–5.6	–.2	–5.3	–9.0	–2.9	–2.9
Implicit price deflator	–2.8	–4.6	–5.9	–.4	–5.3	–9.0	–2.9	–2.9
Imports of services:								
Current dollars	6.6	8.6	4.3	2.8	17.9	9.2	6.4	7.9
Chain-type quantity index	5.5	9.7	1.2	2.1	24.2	8.9	10.1	5.7
Chain-type price index	1.1	–1.0	3.1	.7	–5.1	.2	–3.3	2.1
Implicit price deflator	1.1	–1.0	3.1	.7	–5.1	.2	–3.3	2.1
Government consumption expenditures and gross investment:								
Current dollars	3.8	3.4	1.8	2.5	3.1	4.5	2.5	4.9
Chain-type quantity index	.5	1.0	–1.1	.1	–.4	3.1	1.1	1.6
Chain-type price index	3.3	2.4	3.1	2.5	3.5	1.4	1.4	3.3
Implicit price deflator	3.3	2.3	3.0	2.4	3.5	1.4	1.4	3.3
Federal:								
Current dollars	2.1	.9	–2.3	–3.0	–1.1	7.9	–.3	4.2
Chain-type quantity index	–1.3	–1.4	–4.2	–5.2	–5.8	6.6	–1.1	.7
Chain-type price index	3.4	2.4	2.1	2.5	4.9	1.3	.9	3.5
Implicit price deflator	3.4	2.3	1.9	2.3	4.9	1.3	.9	3.5
National defense:								
Current dollars	2.4	–.6	–2.8	–4.7	–8.0	8.7	1.8	5.8
Chain-type quantity index	–1.5	–2.7	–4.6	–7.1	–11.8	7.5	1.2	2.9
Chain-type price index	3.9	2.4	2.1	2.8	4.3	1.1	.6	2.8
Implicit price deflator	3.9	2.2	1.9	2.6	4.3	1.1	.6	2.8
Nondefense:								
Current dollars	1.4	4.0	–1.3	.5	14.6	6.4	–4.3	1.0
Chain-type quantity index	–.9	1.5	–3.2	–1.0	8.0	4.9	–5.7	–3.8
Chain-type price index	2.3	2.5	2.2	1.7	6.1	1.5	1.5	5.1
Implicit price deflator	2.3	2.5	2.0	1.5	6.1	1.5	1.5	5.0
State and local:								
Current dollars	4.8	4.8	4.4	5.9	5.5	2.6	4.1	5.3
Chain-type quantity index	1.6	2.4	.7	3.3	2.7	1.2	2.3	2.1
Chain-type price index	3.2	2.3	3.6	2.5	2.7	1.5	1.7	3.1
Implicit price deflator	3.2	2.3	3.6	2.5	2.7	1.5	1.7	3.1
Addenda:								
Final sales of domestic product:								
Current dollars	5.2	5.4	2.9	6.6	5.6	4.4	6.3	5.3
Chain-type quantity index	2.8	3.2	.2	4.5	3.0	2.5	4.7	3.6
Chain-type price index	2.3	2.1	2.7	1.9	2.5	1.9	1.5	1.6
Implicit price deflator	2.3	2.1	2.7	2.0	2.5	1.9	1.5	1.6
Gross domestic purchases:								
Current dollars	5.2	5.8	4.7	4.8	7.9	4.6	5.7	4.6
Chain-type quantity index	2.9	4.1	2.4	2.5	5.9	3.7	4.3	3.1
Chain-type price index	2.2	1.7	2.4	2.4	1.9	.8	1.3	1.5
Implicit price deflator	2.2	1.7	2.2	2.3	1.9	.9	1.3	1.5
Final sales to domestic purchasers:								
Current dollars	5.2	5.3	4.0	5.1	6.1	3.9	7.4	4.0
Chain-type quantity index	3.0	3.5	1.5	2.7	4.0	2.9	6.0	2.5
Chain-type price index	2.2	1.8	2.4	2.4	2.0	.9	1.3	1.5
Implicit price deflator	2.2	1.8	2.4	2.4	2.0	.9	1.3	1.5
Gross national product:								
Current dollars	5.0	.....	3.1	6.8	6.5	4.9	4.6	.....
Chain-type quantity index	2.7	.....	.6	4.9	4.0	3.0	3.1	.....
Chain-type price index	2.3	.....	2.6	1.9	2.4	1.8	1.4	.....
Implicit price deflator	2.3	.....	2.5	1.8	2.4	1.8	1.4	.....
Command-basis gross national product:								
Chain-type quantity index	2.8	.....	.8	4.4	4.5	4.0	3.2	.....
Disposable personal income:								
Current dollars	4.7	5.0	5.2	3.7	6.8	4.2	4.1	6.1
Chained (1992) dollars	2.3	2.9	2.7	.7	4.6	3.1	2.6	4.7

NOTE.—Contributions to the percent change in real gross domestic product are shown in table 8.2.

Table 8.2.—Contributions to Percent Change in Real Gross Domestic Product

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Percent change at annual rate:								
Gross domestic product	**2.8**	**3.8**	**1.0**	**4.3**	**4.9**	**3.3**	**3.1**	**4.3**
Percentage points at annual rates:								
Personal consumption expenditures	**1.8**	**2.2**	**.4**	**2.2**	**3.6**	**.6**	**3.8**	**2.2**
Durable goods	.4	.4	–.2	.3	1.1	–.5	1.4	.2
Nondurable goods	.3	.4	.1	.4	.9	–.4	.8	–.1
Services	1.1	1.4	.4	1.5	1.5	1.5	1.5	2.0
Gross private domestic investment	**1.1**	**1.6**	**2.3**	**.2**	**2.4**	**2.5**	**.4**	**.7**
Fixed investment	1.1	1.0	1.4	.4	.6	1.7	2.0	0
Nonresidential	.9	.9	1.6	.6	.4	1.4	1.9	–.4
Structures	.1	.1	.3	.4	–.1	–.1	.2	–.1
Producers' durable equipment	.8	.8	1.3	.2	.5	1.6	1.7	–.3
Residential	.2	.1	–.2	–.2	.1	.3	.1	.4
Change in business inventories	0	.5	.8	–.2	1.8	.8	–1.6	.7
Net exports of goods and services	**–.2**	**–.3**	**–1.4**	**1.8**	**–1.0**	**–.4**	**–1.3**	**1.1**
Exports	.9	1.3	.2	2.7	1.1	2.0	.5	1.3
Goods	.7	1.2	.2	2.2	1.0	1.9	.3	1.3
Services	.2	.2	0	.4	.1	.1	.2	0
Imports	–1.1	–1.6	–1.6	–.8	–2.1	–2.5	–1.7	–.2
Goods	–1.0	–1.4	–1.6	–.8	–1.7	–2.3	–1.6	–.1
Services	–.1	–.2	0	0	–.5	–.2	–.1	–.1
Government consumption expenditures and gross investment	**.1**	**.2**	**–.2**	**0**	**–.1**	**.6**	**.2**	**.3**
Federal	–.1	–.1	–.3	–.4	–.4	.4	–.1	0
National defense	–.1	–.1	–.2	–.3	–.6	.3	.1	.1
Nondefense	0	0	–.1	0	.2	.1	–.1	–.1
State and local	.2	.3	.1	.4	.3	.1	.3	.2

Table 8.3.—Selected Per Capita Product and Income Series in Current and Chained Dollars

[Dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Current dollars:								
Gross domestic product	28,752	30,177	28,869	29,243	29,715	30,030	30,295	30,664
Gross national product	28,759	.....	28,843	29,254	29,662	29,952	30,218	.....
Personal income	24,457	25,663	24,604	24,835	25,268	25,525	25,756	26,102
Disposable personal income	21,117	21,976	21,229	21,373	21,689	21,865	22,034	22,312
Personal consumption expenditures	19,608	20,490	19,660	19,919	20,247	20,303	20,612	20,796
Durable goods	2,389	2,462	2,386	2,395	2,466	2,409	2,488	2,484
Nondurable goods	5,779	5,946	5,786	5,854	5,945	5,901	5,969	5,967
Services	11,441	12,082	11,488	11,669	11,836	11,993	12,154	12,345
Chained (1992) dollars:								
Gross domestic product	26,088	26,847	26,116	26,333	26,599	26,760	26,901	27,124
Gross national product	26,101	.....	26,102	26,354	26,562	26,704	26,844	.....
Disposable personal income	19,116	19,497	19,161	19,152	19,331	19,439	19,518	19,700
Personal consumption expenditures	17,750	18,179	17,745	17,848	18,046	18,051	18,258	18,361
Durable goods	2,301	2,411	2,301	2,316	2,389	2,351	2,447	2,457
Nondurable goods	5,393	5,448	5,393	5,408	5,460	5,420	5,465	5,447
Services	10,057	10,323	10,052	10,125	10,202	10,278	10,352	10,459
Population (mid-period, thousands)	265,579	267,869	265,887	266,491	266,987	267,545	268,171	268,772

Table 8.4.—Auto Output

[Billions of dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Auto output	**134.6**	**134.7**	**144.5**	**128.7**	**136.4**	**130.2**	**138.1**	**134.2**
Final sales	**140.0**	**135.3**	**140.2**	**138.0**	**137.9**	**131.1**	**137.4**	**134.6**
Personal consumption expenditures	141.3	140.7	141.5	138.4	145.2	136.7	144.0	136.9
New autos	86.1	86.7	84.8	85.3	87.9	81.3	90.7	86.9
Net purchases of used autos	55.3	54.0	56.7	53.2	57.3	55.4	53.3	50.0
Producers' durable equipment	45.3	48.4	48.0	45.9	48.8	47.4	50.4	47.0
New autos	79.2	79.8	84.0	76.9	82.5	79.5	81.4	75.9
Net purchases of used autos	–33.9	–31.4	–35.9	–31.1	–33.7	–32.1	–31.0	–28.8
Net exports	–48.9	–56.1	–51.3	–48.8	–58.4	–54.9	–59.4	–51.9
Exports	17.0	17.3	17.1	16.8	16.6	18.1	16.2	18.2
Imports	65.9	73.4	68.3	65.7	75.0	73.0	75.5	70.1
Gross government investment	2.3	2.3	2.0	2.6	2.3	1.9	2.3	2.7
Change in business inventories of new and used autos	**–5.4**	**–.5**	**4.3**	**–9.3**	**–1.5**	**–.9**	**.7**	**–.4**
New	–5.6	0	3.7	–9.0	–.8	.3	1.1	–.5
Used	.2	–.6	.6	–.4	–.6	–1.2	–.4	0
Addenda:								
Domestic output of new autos [1]	121.1	120.6	131.6	113.5	120.8	116.8	126.3	118.6
Sales of imported new autos [2]	58.2	63.4	58.2	59.2	64.8	61.1	65.1	62.6

1. Consists of final sales and change in business inventories of new autos assembled in the United States.
2. Consists of personal consumption expenditures, producers' durable equipment, and gross government investment.

Table 8.5.—Real Auto Output

[Billions of chained (1992) dollars]

	1996	1997	Seasonally adjusted at annual rates					
			1996		1997			
			III	IV	I	II	III	IV
Auto output	**119.9**	**119.7**	**127.9**	**113.7**	**119.7**	**116.8**	**122.1**	**120.4**
Final sales	**124.4**	**120.1**	**123.8**	**121.3**	**121.2**	**115.8**	**122.6**	**120.9**
Personal consumption expenditures	121.2	121.3	121.0	118.0	123.6	117.2	125.0	119.4
New autos	78.2	78.7	76.7	77.0	79.6	73.7	82.3	79.1
Net purchases of used autos	42.1	41.8	43.2	40.2	43.1	42.4	42.0	39.6
Producers' durable equipment	45.1	46.8	47.2	44.9	48.0	46.1	48.1	44.9
New autos	72.0	72.4	75.9	69.5	74.7	72.1	73.9	69.1
Net purchases of used autos	–26.6	–25.6	–28.4	–24.6	–26.6	–25.9	–25.8	–24.2
Net exports	–43.6	–49.6	–45.6	–43.4	–52.0	–48.7	–52.3	–45.4
Exports	16.0	16.2	16.1	15.8	15.6	17.0	15.1	17.0
Imports	59.6	65.8	61.8	59.2	67.6	65.7	67.4	62.4
Gross government investment	2.1	2.0	1.8	2.3	2.1	1.7	2.0	2.3
Change in business inventories of new and used autos	**–4.7**	**–.6**	**4.0**	**–7.9**	**–1.8**	**.9**	**–.6**	**–.7**
New	–5.2	.2	3.6	–8.1	–1.0	2.3	0	–.6
Used	.3	–.7	.5	0	–.7	–1.2	–.5	–.1
Residual	.6	.5	.3	.8	.5	.4	.5	.6
Addenda:								
Domestic output of new autos [1]	110.9	110.1	120.2	103.6	109.8	108.1	114.2	108.3
Sales of imported new autos [2]	52.9	57.5	52.6	53.5	58.7	55.3	59.1	57.0

1. Consists of final sales and change in business inventories of new autos assembled in the United States.
2. Consists of personal consumption expenditures, producers' durable equipment, and gross government investment.

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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, excluding the lines in the addenda.

Table 8.6.—Truck Output

[Billions of dollars]

Truck output [1]	**136.7**	**149.7**	**134.2**	**138.5**	**145.0**	**140.2**	**149.3**	**164.6**
Final sales	**137.4**	**146.6**	**134.6**	**141.6**	**141.1**	**138.3**	**148.3**	**158.5**
Personal consumption expenditures	63.7	65.0	62.1	63.9	63.2	60.1	66.8	69.8
Producers' durable equipment	71.6	78.5	72.9	74.9	76.1	75.5	79.3	82.9
Net exports	–4.7	–4.6	–6.3	–3.2	–5.4	–5.4	–6.7	–1.0
Exports	9.0	11.2	8.5	10.2	10.2	10.0	10.4	14.2
Imports	13.7	15.8	14.8	13.4	15.7	15.3	17.1	15.2
Gross government investment	6.8	7.8	5.9	6.1	7.2	8.1	8.9	6.8
Change in business inventories	**–.7**	**3.2**	**–.4**	**–3.1**	**3.8**	**1.8**	**1.0**	**6.1**

1. Includes new trucks only.

Table 8.7.—Real Truck Output

[Billions of chained (1992) dollars]

Truck output [1]	**121.1**	**132.2**	**118.7**	**122.6**	**127.6**	**123.6**	**131.6**	**146.0**
Final sales	**121.7**	**129.3**	**119.0**	**125.3**	**124.2**	**121.9**	**130.7**	**140.3**
Personal consumption expenditures	55.8	56.2	54.2	55.4	54.6	51.9	57.7	60.5
Producers' durable equipment	63.7	70.2	64.7	67.0	67.8	67.5	70.9	74.5
Net exports	–3.7	–3.8	–5.1	–2.3	–4.4	–4.5	–5.7	–.4
Exports	8.7	10.6	8.2	9.8	9.8	9.4	9.8	13.2
Imports	12.4	14.3	13.4	12.1	14.2	13.9	15.5	13.6
Gross government investment	6.1	6.9	5.2	5.5	6.4	7.2	8.0	6.2
Change in business inventories	**–.6**	**3.0**	**–.3**	**–2.9**	**3.6**	**1.7**	**.9**	**5.7**
Residual	–.2	–.4	.1	–.1	–.4	–.2	–.2	–.5

1. Includes new trucks only.

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

B. Other NIPA and NIPA-Related Tables

Monthly Estimates:

Tables B.1 and B.2 include the most recent estimates of personal income and its components; these estimates were released on February 2, 1998 and include "preliminary" estimates for December 1997 and "revised" estimates for October and November.

Table B.1.—Personal Income

[Billions of dollars; monthly estimates seasonally adjusted at annual rates]

	1996	1997	1996		1997											
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.[r]	Nov.[r]	Dec.[p]
Personal income	**6,495.2**	**6,874.4**	**6,615.2**	**6,664.4**	**6,700.1**	**6,750.3**	**6,788.2**	**6,800.9**	**6,822.8**	**6,863.5**	**6,873.1**	**6,912.2**	**6,935.5**	**6,971.2**	**7,022.4**	**7,052.7**
Wage and salary disbursements	3,632.5	3,877.2	3,713.4	3,753.7	3,754.1	3,799.1	3,821.3	3,822.1	3,835.1	3,867.6	3,870.0	3,902.3	3,916.1	3,943.8	3,989.3	4,006.0
Private industries	2,989.9	3,211.8	3,064.4	3,104.0	3,098.7	3,140.9	3,161.7	3,161.2	3,173.1	3,204.5	3,204.6	3,234.5	3,246.2	3,271.7	3,314.9	3,330.0
Commodity-producing industries	909.1	960.1	926.5	935.2	936.3	943.4	948.8	950.3	953.7	954.5	955.5	962.0	966.6	975.4	984.7	990.5
Manufacturing	674.7	705.9	684.7	690.4	690.5	693.4	698.4	699.5	700.3	701.2	701.5	706.5	710.0	717.8	724.3	727.3
Distributive industries	823.3	876.0	840.8	848.9	847.7	857.9	864.8	863.1	865.0	872.9	872.2	883.7	886.4	893.1	903.2	902.4
Service industries	1,257.5	1,375.6	1,297.1	1,319.9	1,314.6	1,339.6	1,348.1	1,347.7	1,354.5	1,377.1	1,376.8	1,388.9	1,393.3	1,403.1	1,427.0	1,437.1
Government	642.6	665.4	649.1	649.7	655.5	658.2	659.7	660.9	661.9	663.1	665.4	667.8	669.8	672.1	674.4	676.0
Other labor income	407.6	416.6	408.7	411.4	410.5	412.5	413.9	414.4	415.3	415.6	416.6	417.6	418.9	420.1	421.4	422.6
Proprietors' income with IVA and CCAdj	520.3	544.7	528.4	529.8	532.2	534.5	537.2	540.9	543.6	546.5	546.8	546.1	548.7	552.0	553.4	554.6
Farm	37.2	40.9	40.5	39.9	39.4	39.9	41.4	43.0	43.8	44.0	43.0	40.8	39.0	38.9	38.8	39.2
Nonfarm	483.1	503.8	487.9	490.0	492.8	494.6	495.8	497.9	499.8	502.4	503.9	505.3	509.6	513.1	514.6	515.4
Rental income of persons with CCAdj	146.3	148.1	149.2	149.1	148.5	149.3	149.2	149.3	148.9	147.8	147.4	148.5	148.2	146.9	146.5	146.5
Personal dividend income	291.2	321.5	295.0	296.9	310.7	312.5	314.4	316.3	318.3	320.3	322.4	324.5	326.6	328.6	330.7	332.8
Personal interest income	735.7	768.8	749.8	751.8	754.3	757.0	760.4	763.4	766.0	768.9	771.0	772.5	774.3	776.3	779.1	782.0
Transfer payments to persons	1,068.0	1,121.1	1,081.8	1,085.5	1,105.5	1,104.1	1,111.9	1,114.6	1,116.6	1,119.7	1,122.1	1,125.9	1,129.0	1,131.3	1,133.0	1,140.0
Old-age, survivors, disability, and health insurance benefits	537.6	566.7	546.2	548.2	559.5	555.6	561.5	562.4	564.8	565.9	567.3	570.4	570.4	571.9	572.6	577.8
Government unemployment insurance benefits	22.0	21.8	21.1	22.3	22.1	22.0	22.0	22.0	21.9	21.9	21.7	21.4	21.6	21.5	21.5	21.5
Other	508.4	532.7	514.6	515.0	523.9	526.5	528.4	530.2	529.9	531.9	533.1	534.1	537.0	537.9	538.9	540.7
Less: Personal contributions for social insurance	306.3	323.6	311.3	313.8	315.8	318.7	320.1	320.1	320.9	323.0	323.1	325.2	326.1	327.9	331.0	331.8

[p] Preliminary.
[r] Revised.
CCAdj Capital consumption adjustment
IVA Inventory valuation adjustment

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

Table B.2.—The Disposition of Personal Income

[Monthly estimates seasonally adjusted at annual rates]

	1996	1997	1996		1997											
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.[r]	Nov.[r]	Dec.[p]
	Billions of dollars, unless otherwise indicated															
Personal income	**6,495.2**	**6,874.4**	**6,615.2**	**6,664.4**	**6,700.1**	**6,750.3**	**6,788.2**	**6,800.9**	**6,822.8**	**6,863.5**	**6,873.1**	**6,912.2**	**6,935.5**	**6,971.2**	**7,022.4**	**7,052.7**
Less: Personal tax and nontax payments	886.9	987.8	921.7	936.8	942.3	957.7	967.0	970.4	978.3	988.9	991.2	999.3	1,003.5	1,010.7	1,021.0	1,023.8
***Equals*: Disposable personal income**	**5,608.3**	**5,886.6**	**5,693.5**	**5,727.6**	**5,757.8**	**5,792.7**	**5,821.2**	**5,830.5**	**5,844.5**	**5,874.5**	**5,881.9**	**5,913.0**	**5,932.0**	**5,960.4**	**6,001.3**	**6,028.9**
Less: Personal outlays	5,368.8	5,661.0	5,470.2	5,505.9	5,565.9	5,578.5	5,579.5	5,592.3	5,592.7	5,623.5	5,690.4	5,699.3	5,712.6	5,745.4	5,767.7	5,784.2
Personal consumption expenditures	5,207.6	5,488.6	5,302.7	5,336.4	5,396.7	5,409.7	5,410.8	5,422.0	5,422.4	5,451.9	5,518.7	5,525.8	5,537.8	5,569.1	5,590.9	5,608.0
Durable goods	634.5	659.4	638.4	637.4	661.0	659.8	654.4	642.9	643.5	647.0	670.8	670.5	660.7	658.8	669.5	674.4
Nondurable goods	1,534.7	1,592.7	1,558.1	1,564.6	1,584.5	1,589.0	1,588.6	1,577.0	1,577.1	1,582.6	1,597.6	1,599.8	1,604.9	1,604.5	1,603.7	1,603.4
Services	3,038.4	3,236.5	3,106.2	3,134.5	3,151.1	3,160.9	3,167.8	3,202.1	3,201.8	3,222.3	3,250.3	3,255.5	3,272.2	3,305.9	3,317.6	3,330.2
Interest paid by persons	145.2	154.5	150.8	152.8	152.2	151.7	151.6	152.7	152.7	154.0	153.5	155.2	156.6	157.8	158.3	157.7
Personal transfer payments to rest of world	15.9	17.9	16.7	16.7	17.0	17.0	17.0	17.6	17.6	17.6	18.2	18.2	18.2	18.5	18.5	18.5
***Equals*: Personal savings**	**239.6**	**225.6**	**223.3**	**221.7**	**191.9**	**214.2**	**241.7**	**238.2**	**251.8**	**251.0**	**191.4**	**213.7**	**219.4**	**215.0**	**233.7**	**244.7**
Addenda:																
Disposable personal income:																
Billions of chained (1992) dollars[1]	5,076.9	5,222.7	5,101.1	5,123.0	5,142.3	5,159.4	5,181.4	5,185.5	5,198.7	5,218.3	5,214.8	5,239.8	5,247.8	5,267.1	5,297.0	5,320.3
Per capita:																
Current dollars	21,117	21,976	21,364	21,478	21,579	21,697	21,789	21,808	21,845	21,941	21,951	22,049	22,102	22,191	22,329	22,417
Chained (1992) dollars	19,116	19,497	19,142	19,211	19,272	19,326	19,394	19,396	19,431	19,490	19,462	19,539	19,553	19,610	19,708	19,782
Population (thousands)	265,579	267,869	266,492	266,672	266,826	266,975	267,161	267,354	267,541	267,741	267,952	268,171	268,391	268,594	268,775	268,947
Personal consumption expenditures:																
Billions of chained (1992) dollars	4,714.1	4,869.7	4,751.0	4,773.1	4,819.8	4,818.3	4,816.1	4,822.2	4,823.2	4,842.9	4,892.8	4,896.8	4,899.0	4,921.3	4,934.7	4,948.9
Durable goods	611.1	645.8	617.2	618.2	641.2	638.4	633.8	625.9	628.1	633.0	657.7	659.9	650.9	650.7	662.6	667.6
Nondurable goods	1,432.3	1,459.3	1,439.3	1,440.7	1,456.0	1,458.1	1,459.2	1,446.3	1,449.1	1,454.7	1,466.0	1,464.8	1,465.6	1,464.3	1,464.0	1,463.9
Services	2,671.0	2,765.2	2,694.7	2,714.0	2,724.2	2,723.2	2,724.2	2,749.1	2,745.5	2,755.0	2,771.0	2,774.1	2,783.2	2,806.0	2,808.9	2,818.2
Implicit price deflator, 1992=100	110.47	112.71	111.61	111.80	111.97	112.27	112.35	112.44	112.42	112.58	112.79	112.85	113.04	113.16	113.30	113.32
Personal saving as percentage of disposable personal income[2]	4.3	3.8	3.9	3.9	3.3	3.7	4.2	4.1	4.3	4.3	3.3	3.6	3.7	3.6	3.9	4.1
	Percent change from preceding period															
Personal income, current dollars	**5.6**	**5.8**	**0.6**	**0.7**	**0.5**	**0.7**	**0.6**	**0.2**	**0.3**	**0.6**	**0.1**	**0.6**	**0.3**	**0.5**	**0.7**	**0.4**
Disposable personal income:																
Current dollars	4.7	5.0	.5	.6	.5	.6	.5	.2	.2	.5	.1	.5	.3	.5	.7	.5
Chained (1992) dollars	2.3	2.9	.3	.4	.4	.3	.4	.1	.3	.4	–.1	.5	.2	.4	.6	.4
Personal consumption expenditures:																
Current dollars	5.0	5.4	.3	.6	1.1	.2	0	.2	0	.5	1.2	.1	.2	.6	.4	.3
Chained (1992) dollars	2.6	3.3	.1	.5	1.0	0	0	.1	0	.4	1.0	.1	0	.5	.3	.3

[p] Preliminary.
[r] Revised.
1. Disposable personal income in chained (1992) dollars equals the current-dollar figure divided by the implicit price deflator for personal consumption expenditures.
2. Monthly estimates equal personal saving for the month as a percentage of disposable personal income for that month.

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

Annual Estimates:

Except as noted, these tables are derived from the NIPA tables published in the August 1997 SURVEY OF CURRENT BUSINESS; they are consistent with the most recent comprehensive and annual revisions.

Table B.3.—Gross Domestic Product by Industry, Current-Dollar and Real Estimates for 1994–96

	Billions of dollars			Billions of chained (1992) dollars		
	1994	1995	1996	1994	1995	1996
Gross domestic product	**6,947.0**	**7,265.4**	**7,636.0**	**6,610.7**	**6,742.1**	**6,928.4**
Private industries	**6,013.5**	**6,301.3**	**6,639.8**	**5,763.6**	**5,921.4**	**6,094.1**
Agriculture, forestry and fishing	**119.2**	**111.0**	**129.8**	**119.1**	**111.4**	**111.7**
Farms	83.5	73.5	89.4	84.9	74.2	75.5
Agricultural services, forestry and fishing	35.7	37.5	40.5	34.9	37.0	37.6
Mining	**94.9**	**99.8**	**113.6**	**102.5**	**108.4**	**101.9**
Metal mining	5.9	6.8	6.8	5.7	5.5	6.3
Coal mining	13.1	12.3	12.3	15.5	15.7	16.6
Oil and gas extraction	66.7	71.0	84.4	72.2	77.7	69.4
Nonmetallic minerals, except fuels	9.2	9.6	10.2	9.2	9.5	10.1
Construction	**268.7**	**286.4**	**306.1**	**249.8**	**254.1**	**264.3**
Manufacturing	**1,216.1**	**1,286.3**	**1,332.1**	**1,193.2**	**1,273.7**	**1,323.7**
Durable goods	679.2	716.8	749.0	671.3	731.2	785.5
Lumber and wood products	38.4	40.7	41.4	29.8	31.6	33.6
Furniture and fixtures	18.5	19.4	20.5	18.0	18.7	18.8
Stone, clay, and glass products	28.8	30.7	32.7	27.0	27.7	29.1
Primary metal industries	46.3	52.0	50.6	45.0	44.4	46.8
Fabricated metal products	84.2	89.5	98.2	84.5	89.7	94.0
Industrial machinery and equipment	122.3	142.4	150.2	131.5	164.5	186.1
Electronic and other electric equipment	132.9	134.0	143.8	145.8	175.6	217.4
Motor vehicles and equipment	87.4	87.3	85.1	78.0	79.3	76.1
Other transportation equipment	49.5	46.9	49.7	47.6	43.8	44.5
Instruments and related products	48.7	49.7	52.3	45.1	42.6	38.3
Miscellaneous manufacturing industries	22.2	24.3	24.6	21.5	22.8	23.3
Nondurable goods	536.9	569.5	583.1	522.0	543.2	541.0
Food and kindred products	109.6	118.7	122.6	106.5	120.9	112.9
Tobacco products	16.3	17.6	18.1	22.3	24.3	23.9
Textile mill products	25.4	23.6	25.5	27.3	25.4	26.6
Apparel and other textile products	28.2	27.3	26.6	28.3	28.5	26.9
Paper and allied products	51.3	59.9	57.1	52.1	45.4	47.3
Printing and publishing	86.0	85.0	90.4	78.0	77.5	74.3
Chemicals and allied products	140.6	155.9	157.8	131.2	138.9	142.2
Petroleum and coal products	30.4	30.2	30.1	27.6	32.2	33.8
Rubber and miscellaenous plastics	44.4	46.1	49.7	45.4	48.2	50.9
Leather and leather products	4.7	5.1	5.2	4.5	4.7	4.8
Transportation and public utilities	**598.7**	**622.4**	**645.3**	**584.1**	**593.8**	**608.9**
Transportation	219.9	228.7	235.1	214.3	216.0	220.8
Railroad transportation	24.2	24.5	25.3	25.9	27.7	31.0
Local and interurban passenger transit	11.4	12.4	13.6	11.0	12.0	12.2
Trucking and warehousing	95.0	97.5	92.2	88.7	87.4	80.3
Water transportation	10.9	10.8	11.2	10.8	11.0	10.7
Transportation by air	51.7	54.9	63.2	51.4	49.8	59.0
Pipelines, except natural gas	4.6	5.7	5.5	4.8	5.4	5.0
Transportation services	22.1	23.0	24.0	21.7	23.2	24.0
Communications	184.6	191.6	200.3	176.9	178.4	181.6
Telephone and telegraph	142.1	144.1	149.6	137.9	136.4	141.2
Radio and television	42.5	47.5	50.6	38.8	41.7	40.4
Electric, gas, and sanitary services	194.2	202.0	210.0	193.1	199.6	207.0
Wholesale trade	**468.0**	**484.4**	**516.8**	**448.6**	**457.5**	**493.3**
Retail trade	**615.3**	**637.6**	**667.9**	**601.2**	**622.5**	**648.5**
Finance, insurance, and real estate	**1,267.6**	**1,361.3**	**1,448.5**	**1,196.9**	**1,231.1**	**1,258.5**
Depository instituions	207.4	229.6	247.4	197.0	193.4	192.0
Nondepository institutions	36.1	39.0	49.9	33.9	32.6	35.4
Security and commodity brokers	78.5	79.5	90.0	83.0	81.9	92.2
Insurance carriers	108.8	126.5	136.6	91.3	105.1	110.1
Insurance agents, brokers, and services	45.0	47.1	50.4	41.6	42.1	43.6
Real estate	802.9	842.7	886.2	758.3	775.6	793.3
Nonfarm housing services	607.3	642.8	673.3	573.3	587.9	596.8
Other real estate	195.6	199.9	212.9	185.0	187.7	196.6
Holding and other investment offices	–11.1	–3.2	–12.0	12.9	12.6	12.6
Services	**1,350.4**	**1,440.3**	**1,539.5**	**1,256.5**	**1,298.8**	**1,342.9**
Hotels and other lodging places	57.4	60.6	63.7	54.4	55.4	55.8
Personal services	45.8	46.6	49.1	42.6	42.4	43.3
Business services	256.0	283.3	318.5	247.1	271.3	295.7
Auto repair, services, and parking	59.3	61.1	65.0	53.3	53.3	55.3
Miscellaneous repair services	19.2	20.7	22.5	16.7	17.0	15.9
Motion pictures	23.0	25.9	29.9	21.8	23.9	26.2
Amusement and recreation services	51.4	56.2	60.8	47.5	49.7	51.6
Health services	410.2	428.9	447.0	369.7	371.6	376.6
Legal services	93.8	96.5	100.0	86.0	85.5	85.1
Educational services	52.3	55.1	58.2	48.9	49.6	50.7
Social services	43.2	46.7	49.3	41.6	43.7	44.9
Membership organizations	45.1	47.0	48.9	42.1	42.5	43.1
Other services	182.6	199.9	215.2	175.4	184.6	192.9
Private households	11.0	11.8	11.5	10.4	10.8	10.1
Statistical discrepancy	**14.6**	**–28.2**	**–59.9**	**13.9**	**–26.3**	**–54.7**
Government	**933.5**	**964.1**	**996.3**	**878.3**	**877.4**	**874.1**
Federal	**324.9**	**326.2**	**331.5**	**306.9**	**297.1**	**290.6**
General gvernment	275.2	275.5	281.4	258.4	248.1	240.9
Government enterprises	49.7	50.7	50.2	48.6	49.0	49.7
State and local	**608.6**	**637.9**	**664.7**	**571.3**	**580.3**	**583.4**
General government	557.5	583.4	607.6	524.2	532.2	535.2
Government enterprises	51.1	54.5	57.1	47.1	48.0	48.2
Not allocated by industry[2]				**–60.4**	**–87.9**	**–101.1**

1. The current-dollar statistical discrepancy equals gross domestic product (GDP) measured as the sum of expenditures less gross domestic income—that is, GDP measured as the costs incurred and profits earned in domestic production. The chained (1992) dollar statistical discrepancy equals the current-dollar discrepancy deflated by the implicit price deflator for gross domestic product.

2. Equals GDP in chained (1992) dollars less the statistical discrepancy and the sum of GPO of the detailed industries.

NOTE—Estimates are based on the 1987 Standard Industrial Classification. The table is derived from tables 7 and 10 in "Gross Product by Industry, 1947–96" in the November 1997 SURVEY OF CURRENT BUSINESS.

Table B.4.—Personal Consumption Expenditures by Type of Expenditure

	Billions of dollars			Billions of chained (1992) dollars		
	1994	1995	1996	1994	1995	1996
Personal consumption expenditures	**4,717.0**	**4,957.7**	**5,207.6**	**4,486.0**	**4,595.3**	**4,714.1**
Food and tobacco	**761.7**	**783.8**	**805.7**	**735.0**	**737.9**	**736.5**
Food purchased for off-premise consumption (n.d.)	451.6	462.2	478.4	434.5	433.4	434.7
Purchased meals and beverages [1] (n.d.)	254.3	264.1	268.7	245.1	248.7	246.6
Food furnished to employees (including military) (n.d.)	8.1	8.4	8.7	7.8	7.9	8.0
Food produced and consumed on farms (n.d.)	.5	.4	.4	.5	.5	.4
Tobacco products (n.d.)	47.3	48.7	49.6	47.2	47.4	46.8
Addenda: Food excluding alcoholic beverages (n.d.)	633.6	652.0	669.9	608.7	610.2	608.7
Alcoholic beverages purchased for off-premise consumption (n.d.)	53.9	54.9	57.3	53.7	54.5	55.5
Other alcoholic beverages (n.d.)	27.0	28.2	28.9	25.6	25.9	25.7
Clothing, accessories, and jewelry	**312.7**	**323.4**	**336.3**	**308.5**	**321.8**	**335.3**
Shoes (n.d.)	36.0	36.8	38.1	35.7	36.6	37.6
Clothing and accessories except shoes [2]	211.6	217.7	226.0	211.2	220.6	229.9
Women's and children's (n.d.)	137.5	141.3	145.8	137.0	144.2	150.7
Men's and boys' (n.d.)	74.1	76.4	80.2	74.1	76.4	79.2
Standard clothing issued to military personnel (n. d)	.3	.3	.3	.3	.3	.3
Cleaning, storage, and repair of clothing and shoes (s.)	11.6	12.3	12.3	11.0	11.5	11.3
Jewelry and watches (d.)	37.7	39.3	41.6	35.6	36.8	39.7
Other [3] (s.)	15.6	17.1	18.1	14.7	16.0	16.6
Personal care	**68.4**	**71.9**	**75.7**	**65.5**	**67.9**	**70.1**
Toilet articles and preparations (n.d.)	45.3	47.2	49.9	43.7	45.0	47.0
Barbershops, beauty parlors, and health clubs (s.)	23.0	24.7	25.7	21.8	22.9	23.0
Housing	**712.7**	**750.3**	**787.2**	**674.3**	**688.2**	**700.2**
Owner-occupied nonfarm dwellings space rent [4] (s.)	507.0	532.2	558.3	479.6	487.2	495.3
Tenant-occupied nonfarm dwellings rent [5] (s.)	174.0	184.6	193.6	165.2	171.1	174.9
Rental value of farm dwellings (s.)	5.8	5.9	6.1	5.2	5.2	5.1
Other [6] (s.)	26.0	27.5	29.1	24.3	24.8	25.0
Household operation	**535.0**	**562.8**	**591.9**	**514.5**	**533.6**	**548.4**
Furniture, including mattresses and bedsprings (d.)	45.9	48.0	49.6	43.2	44.2	44.6
Kitchen and other household appliances [7] (d.)	25.6	27.2	27.8	25.0	26.6	27.1
China, glassware, tableware, and utensils (d.)	24.0	25.3	27.4	23.5	25.0	26.9
Other durable house furnishings [8] (d.)	52.3	54.5	58.2	51.4	53.1	56.1
Semidurable house furnishings [9] (n.d.)	27.2	28.9	30.1	25.7	26.9	28.2
Cleaning and polishing preparations, and miscellaneous household supplies and paper products (n. d)	50.8	52.3	54.5	50.2	50.0	50.6
Stationery and writing supplies (n.d.)	15.1	15.8	17.0	14.4	14.4	14.8
Household utilities	163.8	168.5	177.9	156.3	159.4	163.1
Electricity (s.)	84.2	88.0	90.3	82.6	84.3	85.2
Gas (s.)	32.4	31.5	34.9	30.0	30.7	32.7
Water and other sanitary services (s.)	36.6	38.8	41.1	33.0	33.8	34.6
Fuel oil and coal (n.d.)	10.5	10.2	11.6	10.7	10.5	10.6
Telephone and telegraph (s.)	82.6	90.2	96.9	79.6	86.6	91.1
Domestic service (s.)	11.9	12.8	12.5	11.2	11.7	11.0
Other [10] (s.)	35.8	39.4	40.1	34.2	35.9	35.3
Medical care	**826.1**	**871.6**	**912.8**	**751.0**	**766.2**	**782.4**
Drug preparations and sundries [11] (n.d.)	81.6	85.7	90.9	76.7	79.1	81.7
Ophthalmic products and orthopedic appliances (d.)	12.9	13.1	13.9	12.3	12.2	12.6
Physicians (s.)	180.0	191.4	196.5	162.4	166.1	169.3
Dentists (s.)	43.9	47.6	50.9	39.8	41.1	42.0
Other professional services [12] (s.)	95.7	104.4	110.2	89.2	95.6	99.1
Hospitals and nursing homes [13]	357.0	375.9	394.2	331.5	336.6	343.1
Hospitals	298.1	310.6	325.1	276.9	278.5	284.4
Nonprofit (s.)	200.2	207.9	217.3	187.8	188.2	191.8
Proprietary (s.)	32.1	34.5	37.1	29.2	30.3	31.9
Government (s.)	65.8	68.2	70.7	59.9	60.0	60.7
Nursing homes (s.)	58.9	65.2	69.1	54.6	58.1	58.7
Health insurance	55.0	53.6	56.3	40.0	37.5	36.9
Medical care and hospitalization [14] (s.)	42.9	40.7	41.8	36.6	35.2	34.7
Income loss [15] (s.)	2.7	2.9	3.2	2.4	2.5	2.6
Workers' compensation [16] (s.)	9.4	10.0	11.3	2.3	1.8	1.8
Personal business	**370.4**	**389.1**	**421.1**	**352.1**	**350.7**	**363.6**
Brokerage charges and investment counseling (s.)	36.2	38.8	47.2	37.8	41.8	50.0
Bank service charges, trust services, and safe deposit box rental (s.)	31.6	33.9	37.3	27.5	27.8	28.9
Services furnished without payment by financial intermediaries except life insurance carriers and private noninsured pension plans (s.)	151.5	159.8	169.9	146.5	141.9	143.9
Expense of handling life insurance [17] (s.)	72.6	75.4	79.9	68.1	67.9	68.5
Legal services (s.)	48.8	49.1	52.2	45.3	44.0	45.2
Funeral and burial expenses (s.)	11.1	12.2	12.8	10.1	10.5	10.4
Other [18] (s.)	18.5	19.9	21.8	17.1	17.6	18.7
Transportation	**542.2**	**572.3**	**602.2**	**515.3**	**528.0**	**540.3**
User-operated transportation	502.6	530.1	557.7	476.6	487.8	497.7
New autos (d.)	91.2	87.1	86.1	86.2	80.6	78.2
Net purchases of used autos (d.)	44.1	52.4	55.3	37.5	40.8	42.1
Other motor vehicles (d.)	76.8	79.4	82.1	71.4	71.7	72.5
Tires, tubes, accessories, and other parts (d.)	34.5	35.8	37.9	35.1	36.2	38.3
Repair, greasing, washing, parking, storage, rental, and leasing (s.)	116.4	128.7	140.1	108.5	116.5	123.3
Gasoline and oil (n.d.)	109.4	114.4	122.6	109.8	113.1	114.1
Bridge, tunnel, ferry, and road tolls (s.)	2.6	2.8	2.9	2.4	2.4	2.5
Insurance [19] (s.)	27.5	29.4	30.9	25.6	26.0	26.2
Purchased local transportation	8.9	9.2	10.1	8.6	8.5	8.5
Mass transit systems (s.)	5.9	6.0	6.6	5.7	5.5	5.6
Taxicab (s.)	3.0	3.2	3.5	2.9	3.0	3.0
Purchased intercity transportation	30.7	33.0	34.4	30.1	31.7	34.2
Railway (s.)	.7	.8	.8	.7	.7	.7
Bus (s.)	1.1	1.3	1.3	1.1	1.4	1.4
Airline (s.)	25.8	27.7	28.2	25.5	26.8	28.8
Other [20] (s.)	3.2	3.3	4.0	2.8	2.8	3.3
Recreation	**370.2**	**402.5**	**431.1**	**365.2**	**395.7**	**424.4**
Books and maps (d.)	20.6	22.1	23.2	19.6	20.6	20.8
Magazines, newspapers, and sheet music (n.d.)	24.5	25.5	26.5	22.9	22.9	22.7
Nondurable toys and sport supplies (n.d.)	39.7	42.2	45.4	38.9	41.4	43.9
Wheel goods, sports and photographic equipment, boats, and pleasure aircraft (d.)	35.6	39.1	42.0	34.8	37.7	40.3
Video and audio products, computing equipment, and musical instruments (d.)	78.5	85.2	89.7	87.4	101.8	119.5
Radio and television repair (s.)	4.5	4.9	5.1	4.2	4.5	4.5
Flowers, seeds, and potted plants (n.d.)	13.4	13.9	14.9	13.4	13.2	14.4
Admissions to specified spectator amusements	19.0	20.2	22.1	17.8	18.2	18.9
Motion picture theaters (s.)	5.6	6.0	6.3	5.2	5.4	5.4
Legitimate theaters and opera, and entertainments of nonprofit institutions (except athletics) (s.)	8.2	8.7	9.3	7.7	7.9	8.0
Spectator sports [21] (s.)	5.2	5.5	6.4	4.9	5.0	5.5
Clubs and fraternal organizations [22] (s.)	11.8	12.7	13.0	11.2	11.5	11.8
Commercial participant amusements [23] (s.)	36.2	41.5	46.2	34.1	38.0	41.1
Pari-mutuel net receipts (s.)	3.3	3.3	3.5	3.1	3.1	3.1
Other [24] (s.)	83.1	91.9	99.6	79.1	85.5	89.3
Education and research	**104.7**	**112.2**	**119.6**	**96.8**	**99.4**	**102.7**
Higher education [25] (s.)	59.0	62.2	65.2	53.1	53.7	54.0
Nursery, elementary, and secondary schools [26] (s.)	21.4	22.8	24.0	20.4	20.8	21.7
Other [27] (s.)	24.4	27.2	30.3	23.4	25.0	27.2
Religious and welfare activities [28] (s.)	**131.2**	**139.8**	**150.5**	**125.6**	**128.6**	**136.6**
Foreign travel and other, net	**–18.3**	**–22.1**	**–26.5**	**–16.2**	**–19.5**	**–21.5**
Foreign travel by U. S. residents (s.)	50.1	51.9	54.9	48.8	48.9	50.8
Expenditures abroad by U. S. residents (n.d.)	2.7	2.6	2.6	2.8	2.4	2.4
Less: Expenditures in the United States by nonresidents (s.)	69.7	75.2	82.7	66.4	69.5	73.5
Less: Personal remittances in kind to nonresidents (n.d.)	1.4	1.4	1.2	1.3	1.3	1.1
Residual	.....	.....	.....	–5.7	–10.6	–17.8

1. Consists of purchases (including tips) of meals and beverages from retail, service, and amusement establishments, hotels, dining and buffet cars, schools, school fraternities, institutions, clubs, and industrial lunchrooms. Includes meals and beverages consumed both on-and off-premise.
2. Includes luggage.
3. Consists of watch, clock, and jewelry repairs, costume and dress suit rental, and miscellaneous personal services.
4. Consists of rent for space and for heating and plumbing facilities, water heaters, lighting fixtures, kitchen cabinets, linoleum, storm windows and doors, window screens, and screen doors, but excludes rent for appliances and furniture and purchases of fuel and electricity.
5. Consists of space rent (see footnote 4) and rent for appliances, furnishings, and furniture.
6. Consists of transient hotels, motels, clubs, schools, and other group housing.
7. Consists of refrigerators and freezers, cooking ranges, dishwashers, laundry equipment, stoves, room air conditioners, sewing machines, vacuum cleaners, and other appliances.
8. Includes such house furnishings as floor coverings, comforters, quilts, blankets, pillows, picture frames, mirrors, art products, portable lamps, and clocks. Also includes writing equipment and hand, power, and garden tools.
9. Consists largely of textile house furnishings, including piece goods allocated to house furnishing use. Also includes lamp shades, brooms, and brushes.
10. Consists of maintenance services for appliances and house furnishings, moving and warehouse expenses, postage and express charges, premiums for fire and theft insurance on personal property less benefits and dividends, and miscellaneous household operation services.
11. Excludes drug preparations and related products dispensed by physicians, hospitals, and other medical services.
12. Consists of osteopathic physicians, chiropractors, private duty nurses, chiropodists, podiatrists, and others providing health and allied services, not elsewhere classified.
13. Consists of (1) current expenditures (including consumption of fixed capital) of nonprofit hospitals and nursing homes, and (2) payments by patients to proprietary and government hospitals and nursing homes.
14. Consists of (1) premiums, less benefits and dividends, for health, hospitalization, and accidental death and dismemberment insurance provided by commercial insurance carriers, and (2) administrative expenses (including consumption of fixed capital) of Blue Cross and Blue Shield plans and of other independent prepaid and self-insured health plans.
15. Consists of premiums, less benefits and dividends, for income loss insurance.
16. Consists of premiums, less benefits and dividends, for privately administered workers' compensation.
17. Consists of (1) operating expenses of life insurance carriers and private noninsured pension plans, and (2) premiums, less benefits and dividends, of fraternal benefit societies. Excludes expenses allocated by commercial carriers to accident and health insurance.
18. Consists of current expenditures (including consumption of fixed capital) of trade unions and professional associations, employment agency fees, money order fees, spending for classified advertisements, tax return preparation services, and other personal business services.
19. Consists of premiums, less benefits and dividends, for motor vehicle insurance.
20. Consists of baggage charges, coastal and inland waterway fares, travel agents' fees, and airport bus fares.
21. Consists of admissions to professional and amateur athletic events and to racetracks.
22. Consists of dues and fees excluding insurance premiums.
23. Consists of billiard parlors; bowling alleys; dancing, riding, shooting, skating, and swimming places; amusement devices and parks; golf courses; sightseeing buses and guides; private flying operations; casino gambling; and other commercial participant amusements.
24. Consists of net receipts of lotteries and expenditures for purchases of pets and pet care services, cable TV, film processing, photographic studios, sporting and recreation camps, video cassette rentals, and recreational services, not elsewhere classified.
25. For private institutions, equals current expenditures (including consumption of fixed capital) less receipts—such as those from meals, rooms, and entertainments—accounted for separately in consumer expenditures, and less expenditures for research and development financed under contracts or grants. For government institutions, equals student payments of tuition.
26. For private institutions, equals current expenditures (including consumption of fixed capital) less receipts—such as those from meals, rooms, and entertainments—accounted for separately in consumer expenditures. For government institutions, equals student payments of tuition. Excludes child day care services, which are included in religious and welfare activities.
27. Consists of (1) fees paid to commercial, business, trade, and correspondence schools and for educational services, not elsewhere classified, and (2) current expenditures (including consumption of fixed capital) by research organizations and foundations for education and research.
28. For nonprofit institutions, equals current expenditures (including consumption of fixed capital) of religious, social welfare, foreign relief, and political organizations, museums, libraries, and foundations. The expenditures are net of receipts—such as those from meals, rooms, and entertainments—accounted for separately in consumer expenditures, and excludes relief payments within the United States and expenditures by foundations for education and research. For proprietary and government institutions, equals receipts from users.

NOTES.—Consumer durable goods are designated (d.), nondurable goods (n.d.), and services (s.).

Estimates of foreign travel by U. S. residents (line 108) expenditures were $0.3 billion in 1981. Beginning with 1984, estimates of foreign travel by U. S. residents include substantially improved estimates of U. S. residents' foreign travel and passenger fare expenditures. Estimates of expenditures in the United States by nonresidents (line 110) include, beginning with 1981, nonresidents' student and medical care expenditures in the United States. Student expenditures were $2.2 billion, and medical expenditures were $0.4 billion in 1981. Beginning with 1984, estimates of expenditures in the United States by nonresidents include substantially improved estimates of nonresidents' travel expenditures. Expenditures in the United States by nonresidents are subtracted from total personal consumption expenditures (line 110) because they are included in detailed type of expenditure estimates elsewhere in personal consumption expenditures.

Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

Table B.5.—Private Purchases of Structures by Type

	Billions of dollars			Billions of chained (1992) dollars		
	1994	1995	1996	1994	1995	1996
Private purchases of structures	**463.6**	**478.4**	**517.0**	**432.8**	**430.0**	**453.7**
Nonresidential	**184.5**	**200.6**	**215.2**	**172.5**	**179.9**	**188.7**
New	184.3	200.2	214.7	172.2	179.5	188.2
Nonresidential buildings, excluding farm	125.5	140.8	156.1	116.9	126.1	136.7
Industrial	28.9	32.5	32.1	27.0	29.1	28.1
Commercial	61.9	70.8	77.6	57.7	63.4	68.0
Office buildings [1]	25.8	29.8	32.1	24.1	26.7	28.2
Other [2]	36.1	41.0	45.5	33.6	36.7	39.8
Religious	3.8	4.2	4.4	3.5	3.8	3.9
Educational	5.6	6.2	7.5	5.2	5.6	6.6
Hospital and institutional	13.7	12.5	13.4	12.7	11.2	11.7
Other [3]	11.6	14.5	21.1	10.8	13.0	18.5
Utilities	32.0	33.2	33.3	29.9	30.0	29.3
Railroads	3.3	3.5	4.6	3.0	3.1	3.9
Telecommunications	10.1	11.0	11.9	9.6	10.1	10.4
Electric light and power	13.0	12.3	11.0	12.1	11.0	9.8
Gas	4.6	5.5	4.7	4.2	5.0	4.2
Petroleum pipelines	1.0	.9	1.0	.9	.8	.9
Farm	3.2	3.0	3.7	3.0	2.7	3.2
Mining exploration, shafts, and wells	16.7	16.3	16.1	15.8	14.3	13.9
Petroleum and natural gas	14.7	14.8	14.8	14.0	13.0	12.7
Other	1.9	1.5	1.3	1.8	1.3	1.1
Other [4]	6.9	6.9	5.7	6.6	6.3	5.0
Brokers' commissions on sale of structures	1.5	1.6	1.8	1.4	1.5	1.6
Net purchases of used structures	–1.2	–1.3	–1.3	–1.2	–1.1	–1.2
Residential	**279.1**	**277.8**	**301.7**	**260.3**	**250.0**	**265.0**
New	248.5	246.9	267.0	230.8	220.8	233.6
New housing units	177.2	174.4	192.1	162.0	153.1	165.2
Permanent site	167.9	163.1	179.4	153.7	143.5	154.8
Single-family structures	153.8	145.2	159.1	140.1	126.9	136.6
Multifamily structures	14.1	17.9	20.3	13.6	16.9	18.6
Mobile homes	9.3	11.3	12.6	8.3	9.5	10.3
Improvements	71.0	72.0	74.4	68.4	67.3	67.7
Other [5]	.3	.5	.6	.3	.4	.5
Brokers' commissions on sale of structures	31.6	32.1	36.3	30.4	30.3	32.7
Net purchases of used structures	–1.0	–1.1	–1.6	–.9	–1.0	–1.4
Residual	.....	.....	.....	.3	–.1	.3

1. Consists of office buildings, except those constructed at industrial sites and those constructed by utilities for their own use.
2. Consists of stores, restaurants, garages, service stations, warehouses, mobile structures, and other buildings used for commercial purposes.
3. Consists of hotels and motels, buildings used primarily for social and recreational activities, and buildings not elsewhere classified, such as passenger terminals, greenhouses, and animal hospitals.
4. Consists primarily of streets, dams and reservoirs, sewer and water facilities, parks, and airfields.
5. Consists primarily of dormitories, fraternity and sorority houses, and nurses' homes.

NOTE. Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.

Table B.6.—Private Purchases of Producers' Durable Equipment by Type

	Billions of dollars			Billions of chained (1992) dollars		
	1994	1995	1996	1994	1995	1996
Private purchases of producers' durable equipment	**483.0**	**529.6**	**573.7**	**483.5**	**535.2**	**593.1**
Nonresidential equipment	**476.1**	**522.4**	**566.2**	**476.8**	**528.3**	**586.0**
Information processing and related equipment	152.1	172.8	195.1	165.1	201.8	253.1
Office, computing, and accounting machinery	59.3	73.5	88.1	73.9	108.1	164.2
Computers and peripheral equipment [1]	51.8	65.6	78.7	67.2	102.8	160.8
Other	7.5	7.9	9.3	7.3	7.5	9.0
Communication equipment	52.8	59.4	65.9	53.7	62.0	69.9
Instruments	22.1	22.4	23.4	21.2	21.2	21.8
Photocopy and related equipment	17.9	17.6	17.7	17.3	16.6	16.4
Industrial equipment	109.3	121.5	127.5	105.5	113.4	117.0
Fabricated metal products	10.5	11.1	11.7	10.4	10.6	11.0
Engines and turbines	4.8	4.2	4.0	4.6	4.0	3.7
Metalworking machinery	24.4	28.2	29.6	23.3	26.0	26.6
Special industry machinery, n.e.c.	26.9	31.2	32.8	25.9	29.0	29.9
General industrial, including materials handling, equipment	23.6	25.8	28.5	22.6	24.0	26.0
Electrical transmission, distribution, and industrial apparatus	19.0	20.9	20.9	18.6	19.8	19.7
Transportation and related equipment	118.6	125.7	134.5	113.2	118.9	125.0
Trucks, buses, and truck trailers	55.0	63.3	68.9	50.6	56.7	61.3
Autos	48.0	42.3	45.3	47.8	43.4	45.1
Aircraft	8.9	12.8	13.4	8.4	11.6	11.8
Ships and boats	1.5	1.5	1.6	1.5	1.4	1.4
Railroad equipment	5.1	5.7	5.3	4.9	5.2	4.6
Other equipment	99.9	106.9	113.7	96.0	100.3	104.6
Furniture and fixtures	25.6	28.1	30.2	24.5	26.2	27.4
Tractors	9.9	10.4	10.9	9.5	9.8	10.2
Agricultural machinery, except tractors	9.7	10.4	10.9	9.2	9.6	9.9
Construction machinery, except tractors	12.0	13.5	14.4	11.4	12.4	13.0
Mining and oilfield machinery	1.5	1.8	2.3	1.5	1.7	2.1
Service industry machinery	13.4	14.4	15.2	13.0	13.5	14.0
Electrical equipment, n.e.c.	10.7	10.8	11.1	10.6	10.4	10.8
Other	16.9	17.5	18.6	16.3	16.5	17.2
Less: Sale of equipment scrap, excluding autos	3.7	4.5	4.6	3.1	3.4	3.8
Residential equipment	**6.9**	**7.2**	**7.5**	**6.7**	**7.0**	**7.1**
Residual	.....	.....	.....	–1.4	–10.3	–33.8
Addenda:						
Private purchases of producers' durable equipment	483.0	529.6	573.7	.....	.....	.....
Less: Dealers' margin on used equipment	4.9	5.3	5.8	.....	.....	.....
Net purchases of used equipment from government	1.0	1.1	1.2	.....	.....	.....
Plus: Net sales of used equipment	31.3	37.6	39.7	.....	.....	.....
Net exports of used equipment	1.5	.6	.7	.....	.....	.....
Sale of equipment scrap	3.8	4.6	4.6	.....	.....	.....
Equals: Private purchases of new equipment	513.7	566.0	611.8	.....	.....	.....

1. Includes new computers and peripheral equipment only.

NOTE. Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.
n.e.c. Not elsewhere classified.

Table B.7.—Compensation and Wage and Salary Accruals by Industry

[Millions of dollars]

	Compensation			Wage and salary accruals		
	1994	1995	1996	1994	1995	1996
Total	**4,012,002**	**4,215,434**	**4,426,912**	**3,254,030**	**3,442,583**	**3,633,641**
Domestic industries	**4,014,482**	**4,217,968**	**4,429,472**	**3,256,510**	**3,445,117**	**3,636,201**
Private industries	**3,213,814**	**3,392,629**	**3,574,191**	**2,654,320**	**2,822,137**	**2,993,607**
Agriculture, forestry, and fishing	**34,780**	**37,011**	**39,619**	**29,852**	**31,915**	**34,476**
Farms	14,477	15,588	16,385	12,325	13,309	14,163
Agricultural services, forestry, and fishing	20,303	21,423	23,234	17,527	18,606	20,313
Mining	**32,656**	**32,892**	**33,678**	**26,378**	**26,843**	**27,644**
Metal mining	2,791	3,145	3,358	2,187	2,518	2,707
Coal mining	6,375	6,174	5,974	4,993	4,884	4,739
Oil and gas extraction	19,069	18,929	19,539	15,606	15,628	16,240
Nonmetallic minerals, except fuels	4,421	4,644	4,807	3,592	3,813	3,958
Construction	**182,016**	**193,746**	**209,279**	**147,425**	**157,684**	**172,234**
Manufacturing	**792,034**	**816,853**	**839,754**	**625,496**	**651,750**	**675,067**
Durable goods	486,844	505,167	521,750	379,616	398,272	416,061
Lumber and wood products	23,018	23,802	24,832	18,495	19,401	20,459
Furniture and fixtures	14,927	15,443	15,754	11,986	12,584	12,964
Stone, clay, and glass products	21,564	22,129	22,920	17,054	17,706	18,548
Primary metal industries	36,102	37,261	37,888	26,841	27,990	28,866
Fabricated metal products	56,398	58,594	60,161	44,496	46,794	48,553
Industrial machinery and equipment	95,407	100,891	105,182	76,720	82,191	86,528
Electronic and other electric equipment	72,726	77,181	80,895	58,302	62,681	66,179
Motor vehicles and equipment	61,771	65,047	65,911	42,384	44,886	46,377
Other transportation equipment	47,367	46,243	47,105	36,861	36,172	37,186
Instruments and related products	44,806	45,579	47,745	35,960	37,013	39,158
Miscellaneous manufacturing industries	12,758	12,997	13,357	10,517	10,854	11,243
Nondurable goods	305,190	311,686	318,004	245,880	253,478	259,006
Food and kindred products	59,381	61,042	62,422	47,614	49,527	50,746
Tobacco products	2,768	2,949	3,014	2,062	2,215	2,268
Textile mill products	19,274	18,956	18,744	15,840	15,697	15,544
Apparel and other textile products	21,352	20,996	20,379	17,442	17,322	16,816
Paper and allied products	32,236	32,936	33,661	26,230	27,058	27,672
Printing and publishing	58,652	60,387	62,308	48,193	50,087	51,718
Chemicals and allied products	63,653	65,393	67,538	50,743	52,582	54,411
Petroleum and coal products	10,769	10,834	10,738	7,796	7,837	7,791
Rubber and miscellaneous plastics products	34,133	35,322	36,478	27,527	28,784	29,803
Leather and leather products	2,972	2,871	2,722	2,433	2,369	2,237
Transportation and public utilities	**265,575**	**276,517**	**287,023**	**211,840**	**221,770**	**231,072**
Transportation	144,649	150,664	156,924	113,626	119,110	124,815
Railroad transportation	15,346	15,313	15,525	11,249	11,271	11,422
Local and interurban passenger transit	8,911	9,374	10,101	7,292	7,731	8,381
Trucking and warehousing	63,763	66,914	60,838	49,750	52,594	47,040
Water transportation	7,757	7,843	7,895	6,238	6,323	6,429
Transportation by air	34,424	35,714	46,492	27,189	28,339	38,220
Pipelines, except natural gas	1,126	1,051	1,007	929	869	829
Transportation services	13,322	14,455	15,066	10,979	11,983	12,494
Communications	67,070	71,112	75,153	55,320	58,933	62,279
Telephone and telegraph	51,679	53,701	56,202	42,517	44,315	46,361
Radio and television	15,391	17,411	18,951	12,803	14,618	15,918
Electric, gas, and sanitary services	53,856	54,741	54,946	42,894	43,727	43,978
Wholesale trade	**259,828**	**276,202**	**289,438**	**217,964**	**234,467**	**246,452**
Retail trade	**365,722**	**383,120**	**399,951**	**313,776**	**329,936**	**345,994**
Finance, insurance, and real estate	**310,211**	**324,894**	**350,180**	**260,045**	**273,124**	**296,112**
Depository institutions	77,101	80,243	83,793	62,949	65,664	69,013
Nondepository institutions	21,474	21,677	25,089	18,087	18,317	21,223
Security and commodity brokers	53,798	59,450	68,973	46,857	51,967	60,688
Insurance carriers	70,378	72,737	75,871	58,148	60,125	63,079
Insurance agents, brokers, and service	29,514	31,008	32,828	25,039	26,384	28,031
Real estate	41,284	42,182	44,906	34,567	35,442	37,910
Holding and other investment offices	16,662	17,597	18,720	14,398	15,225	16,168
Services	**970,992**	**1,051,394**	**1,125,269**	**821,544**	**894,648**	**964,556**
Hotels and other lodging places	34,231	35,886	37,676	28,966	30,557	32,322
Personal services	22,439	23,495	24,609	19,383	20,405	21,518
Business services	168,265	193,888	221,473	142,292	165,300	190,526
Auto repair, services, and parking	25,924	27,830	30,388	22,053	23,824	26,212
Miscellaneous repair services	10,222	11,247	12,103	8,709	9,650	10,455
Motion pictures	14,426	16,837	18,956	12,224	14,399	16,289
Amusement and recreation services	31,264	34,526	37,235	26,179	29,150	31,764
Health services	325,041	344,680	359,179	271,678	289,564	303,790
Legal services	56,886	58,333	60,452	48,407	49,761	51,905
Educational services	49,079	51,755	54,601	41,294	43,697	46,503
Social services and membership organizations	86,121	91,565	95,877	73,364	78,346	82,749
Social services	42,375	45,862	48,350	35,109	38,282	40,766
Membership organizations	43,746	45,703	47,527	38,255	40,064	41,983
Other services [1]	136,059	149,531	161,263	116,205	128,432	139,316
Private households	11,035	11,821	11,457	10,790	11,563	11,207
Government	**800,668**	**825,339**	**855,281**	**602,190**	**622,980**	**642,594**
Federal	258,006	258,051	264,853	173,413	175,045	177,228
General government	208,312	207,288	212,849	139,744	140,708	142,038
Civilian	123,976	123,427	125,174	84,864	84,540	85,541
Military [2]	84,336	83,861	87,675	54,880	56,168	56,497
Government enterprises	49,694	50,763	52,004	33,669	34,337	35,190
State and local	542,662	567,288	590,428	428,777	447,935	465,366
General government	506,154	529,188	551,031	399,489	417,381	433,845
Education	265,457	279,024	292,665	207,472	217,962	228,252
Other	240,697	250,164	258,366	192,017	199,419	205,593
Government enterprises	36,508	38,100	39,397	29,288	30,554	31,521
Rest of the world	**–2,480**	**–2,534**	**–2,560**	**–2,480**	**–2,534**	**–2,560**
Receipts from the rest of the world	1,239	1,323	1,338	1,239	1,323	1,338
Less: Payments to the rest of the world [3]	3,719	3,857	3,898	3,719	3,857	3,898
Addenda:						
Households and institutions	312,741	331,760	346,034	.....	.....	.....
Nonfarm business	2,972,798	3,134,144	3,303,173	.....	.....	.....

1. Consists of museums, botanical, zoological gardens; engineering and management services; and services, not elsewhere classified.

2. Includes Coast Guard.

3. Beginning with 1993, includes estimates of foreign professional workers and undocumented Mexican migratory workers employed temporarily in the United States.

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

Compensation equals wage and salary accruals plus supplements to wages and salaries. "Supplements" are listed in table 8.15 of the August 1997 SURVEY OF CURRENT BUSINESS.

Table B.8.—Employment by Industry

[Thousands]

	Full-time and part-time employment			Persons engaged in production [1]		
	1994	1995	1996	1994	1995	1996
Total	**121,695**	**124,602**	**126,992**	**118,560**	**121,370**	**123,666**
Domestic industries	**122,258**	**125,171**	**127,543**	**119,042**	**121,858**	**124,151**
Private industries	**100,326**	**103,195**	**105,596**	**100,750**	**103,531**	**105,947**
Agriculture, forestry, and fishing	**1,936**	**2,004**	**2,069**	**3,148**	**3,199**	**3,300**
Farms	840	868	860	1,791	1,810	1,818
Agricultural services, forestry, and fishing	1,096	1,136	1,209	1,357	1,389	1,482
Mining	**606**	**587**	**583**	**607**	**590**	**586**
Metal mining	49	52	54	49	52	54
Coal mining	113	106	99	110	103	97
Oil and gas extraction	339	321	321	345	327	327
Nonmetallic minerals, except fuels	105	108	109	103	108	108
Construction	**5,197**	**5,383**	**5,669**	**6,406**	**6,654**	**6,954**
Manufacturing	**18,428**	**18,592**	**18,574**	**18,445**	**18,613**	**18,577**
Durable goods	10,507	10,722	10,834	10,584	10,802	10,911
Lumber and wood products	776	790	801	835	857	858
Furniture and fixtures	505	512	506	515	525	521
Stone, clay, and glass products	535	542	547	544	550	558
Primary metal industries	697	708	709	693	701	707
Fabricated metal products	1,396	1,443	1,452	1,390	1,441	1,446
Industrial machinery and equipment	2,000	2,069	2,115	1,996	2,083	2,100
Electronic and other electric equipment	1,582	1,626	1,658	1,573	1,616	1,653
Motor vehicles and equipment	900	969	967	895	952	960
Other transportation equipment	852	817	820	850	816	819
Instruments and related products	860	841	855	853	834	850
Miscellaneous manufacturing industries	404	405	404	440	427	439
Nondurable goods	7,921	7,870	7,740	7,861	7,811	7,666
Food and kindred products	1,683	1,688	1,697	1,654	1,659	1,664
Tobacco products	43	42	42	43	42	42
Textile mill products	681	664	629	676	661	631
Apparel and other textile products	982	946	874	998	952	881
Paper and allied products	693	692	682	686	686	677
Printing and publishing	1,566	1,570	1,565	1,551	1,560	1,536
Chemicals and allied products	1,056	1,039	1,032	1,039	1,032	1,024
Petroleum and coal products	147	143	139	145	142	138
Rubber and miscellaneous plastics products	954	978	981	951	967	971
Leather and leather products	116	108	99	118	110	102
Transportation and public utilities	**6,060**	**6,175**	**6,292**	**6,045**	**6,176**	**6,318**
Transportation	3,834	3,962	4,063	3,922	4,048	4,182
Railroad transportation	233	232	224	220	220	212
Local and interurban passenger transit	407	420	440	437	431	444
Trucking and warehousing	1,843	1,916	1,658	1,977	2,054	1,854
Water transportation	179	178	177	175	178	174
Transportation by air	750	778	1,119	704	731	1,050
Pipelines, except natural gas	17	15	14	17	15	14
Transportation services	405	423	431	392	419	434
Communications	1,293	1,307	1,347	1,192	1,219	1,258
Telephone and telegraph	916	915	936	844	851	873
Radio and television	377	392	411	348	368	385
Electric, gas, and sanitary services	933	906	882	931	909	878
Wholesale trade	**6,235**	**6,475**	**6,558**	**6,324**	**6,559**	**6,589**
Retail trade	**21,159**	**21,867**	**22,256**	**18,897**	**19,476**	**19,866**
Finance, insurance, and real estate	**7,021**	**6,926**	**7,051**	**7,251**	**7,216**	**7,315**
Depository institutions	2,068	2,023	2,018	1,973	1,937	1,923
Nondepository institutions	488	463	513	485	466	506
Security and commodity brokers	543	554	582	592	622	648
Insurance carriers	1,522	1,497	1,503	1,468	1,449	1,447
Insurance agents, brokers, and service	723	732	746	853	856	873
Real estate	1,422	1,410	1,441	1,635	1,648	1,680
Holding and other investment offices	255	247	248	245	238	238
Services	**33,684**	**35,186**	**36,544**	**33,627**	**35,048**	**36,442**
Hotels and other lodging places	1,712	1,754	1,791	1,549	1,587	1,625
Personal services	1,276	1,300	1,317	1,725	1,776	1,805
Business services	6,352	6,935	7,484	6,538	7,109	7,664
Auto repair, services, and parking	1,075	1,132	1,205	1,338	1,362	1,480
Miscellaneous repair services	350	374	389	568	591	573
Motion pictures	458	506	553	498	543	583
Amusement and recreation services	1,421	1,519	1,593	1,264	1,327	1,420
Health services	9,318	9,568	9,809	8,677	8,903	9,168
Legal services	1,059	1,056	1,063	1,184	1,173	1,147
Educational services	2,024	2,075	2,141	1,860	1,915	1,986
Social services and membership organizations	4,478	4,637	4,760	4,351	4,504	4,623
Social services	2,328	2,454	2,534	2,563	2,689	2,772
Membership organizations	2,150	2,183	2,226	1,788	1,815	1,851
Other services [2]	2,877	3,049	3,193	3,254	3,439	3,572
Private households	1,284	1,281	1,246	821	819	796
Government	**21,932**	**21,976**	**21,947**	**18,292**	**18,327**	**18,204**
Federal	5,720	5,560	5,357	4,661	4,530	4,368
General government	4,748	4,573	4,366	3,867	3,725	3,562
Civilian	2,100	2,026	1,952	2,052	1,984	1,912
Military [3]	2,648	2,547	2,414	1,815	1,741	1,650
Government enterprises	972	987	991	794	805	806
State and local	16,212	16,416	16,590	13,631	13,797	13,836
General government	15,295	15,485	15,655	12,754	12,910	12,945
Education	8,220	8,389	8,542	6,635	6,770	6,791
Other	7,075	7,096	7,113	6,119	6,140	6,154
Government enterprises	917	931	935	877	887	891
Rest of the world [4]	**–563**	**–569**	**–551**	**–482**	**–488**	**–485**

1. Equals the number of full-time equivalent employees (table 6.5) plus the number of self-employed persons (table 6.7). Unpaid family workers are not included.

2. Consists of museums, botanical, zoological gardens; engineering and management services; and services, not elsewhere classified.

3. Includes Coast Guard.

4. Beginning with 1993, includes estimates of foreign professional workers and undocumented Mexican migratory workers employed temporarily in the United States.

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

Table B.9.—Wage and Salary Accruals Per Full-Time Equivalent Employee and Full-Time Equivalent Employees by Industry

	Dollars			Thousands		
	Wages and salaries per full-time equivalent			Full-time equivalent employees		
	1994	1995	1996	1994	1995	1996
Total [1]	**30,131**	**31,032**	**32,121**	**107,996**	**110,935**	**113,125**
Domestic industries	**30,020**	**30,919**	**32,006**	**108,478**	**111,423**	**113,610**
Private industries	**29,432**	**30,314**	**31,378**	**90,186**	**93,096**	**95,406**
Agriculture, forestry, and fishing	**17,833**	**18,331**	**18,870**	**1,674**	**1,741**	**1,827**
Farms	17,118	17,888	18,709	720	744	757
Agricultural services, forestry, and fishing	18,372	18,662	18,984	954	997	1,070
Mining	**44,482**	**46,683**	**48,329**	**593**	**575**	**572**
Metal mining	44,633	48,423	50,130	49	52	54
Coal mining	45,391	47,417	48,856	110	103	97
Oil and gas extraction	47,006	49,613	51,556	332	315	315
Nonmetallic minerals, except fuels	35,216	36,314	37,340	102	105	106
Construction	**30,191**	**30,453**	**31,649**	**4,883**	**5,178**	**5,442**
Manufacturing	**34,725**	**35,852**	**37,165**	**18,013**	**18,179**	**18,164**
Durable goods	36,724	37,751	39,030	10,337	10,550	10,660
Lumber and wood products	24,400	25,131	26,162	758	772	782
Furniture and fixtures	24,312	25,068	26,085	493	502	497
Stone, clay, and glass products	32,299	33,345	34,799	528	531	533
Primary metal industries	38,788	40,100	41,003	692	698	704
Fabricated metal products	32,455	32,954	34,072	1,371	1,420	1,425
Industrial machinery and equipment	39,063	40,093	41,761	1,964	2,050	2,072
Electronic and other electric equipment	37,277	39,005	40,279	1,564	1,607	1,643
Motor vehicles and equipment	47,516	47,248	48,410	892	950	958
Other transportation equipment	43,674	44,712	45,683	844	809	814
Instruments and related products	42,506	44,810	46,451	846	826	843
Miscellaneous manufacturing industries	27,317	28,192	28,902	385	385	389
Nondurable goods	32,032	33,226	34,516	7,676	7,629	7,504
Food and kindred products	29,157	30,163	30,681	1,633	1,642	1,654
Tobacco products	47,953	52,738	54,000	43	42	42
Textile mill products	23,642	24,002	24,950	670	654	623
Apparel and other textile products	18,169	18,828	19,877	960	920	846
Paper and allied products	38,292	39,558	40,935	685	684	676
Printing and publishing	33,259	34,543	35,791	1,449	1,450	1,445
Chemicals and allied products	48,932	51,200	53,344	1,037	1,027	1,020
Petroleum and coal products	53,766	55,190	56,457	145	142	138
Rubber and miscellaneous plastics products	29,253	29,921	30,884	941	962	965
Leather and leather products	21,531	22,349	23,547	113	106	95
Transportation and public utilities	**37,401**	**38,369**	**39,278**	**5,664**	**5,780**	**5,883**
Transportation	31,882	32,279	32,994	3,564	3,690	3,783
Railroad transportation	51,132	51,232	53,877	220	220	212
Local and interurban passenger transit	19,655	20,133	20,848	371	384	402
Trucking and warehousing	28,924	29,366	30,348	1,720	1,791	1,550
Water transportation	37,353	37,862	38,729	167	167	166
Transportation by air	38,953	39,088	36,644	698	725	1,043
Pipelines, except natural gas	54,647	57,933	59,214	17	15	14
Transportation services	29,593	30,884	31,551	371	388	396
Communications	46,802	49,316	50,716	1,182	1,195	1,228
Telephone and telegraph	50,736	52,945	54,287	838	837	854
Radio and television	37,218	40,832	42,561	344	358	374
Electric, gas, and sanitary services	46,725	48,857	50,433	918	895	872
Wholesale trade	**36,504**	**37,817**	**39,256**	**5,971**	**6,200**	**6,278**
Retail trade	**18,130**	**18,300**	**18,821**	**17,307**	**18,029**	**18,383**
Finance, insurance, and real estate	**39,282**	**41,698**	**44,629**	**6,620**	**6,550**	**6,635**
Depository institutions	31,921	33,935	35,926	1,972	1,935	1,921
Nondepository institutions	38,647	41,070	43,224	468	446	491
Security and commodity brokers	89,937	97,499	108,760	521	533	558
Insurance carriers	39,610	41,494	43,593	1,468	1,449	1,447
Insurance agents, brokers, and services	36,447	37,854	39,648	687	697	707
Real estate	27,456	28,308	29,780	1,259	1,252	1,273
Holding and other investment offices	58,767	63,971	67,933	245	238	238
Services	**27,886**	**28,987**	**29,935**	**29,461**	**30,864**	**32,222**
Hotels and other lodging places	19,585	20,117	20,733	1,479	1,519	1,559
Personal services	17,337	17,915	18,518	1,118	1,139	1,162
Business services	24,554	25,942	27,713	5,795	6,372	6,875
Auto repair, services, and parking	21,943	22,454	23,074	1,005	1,061	1,136
Miscellaneous repair services	27,216	28,134	29,204	320	343	358
Motion pictures	34,434	36,639	37,706	355	393	432
Amusement and recreation services	22,904	23,680	24,509	1,143	1,231	1,296
Health services	32,780	34,098	34,624	8,288	8,492	8,774
Legal services	51,497	53,107	54,984	940	937	944
Educational services	23,637	24,263	24,895	1,747	1,801	1,868
Social services and membership organizations	19,266	19,834	20,346	3,808	3,950	4,067
Social services	17,381	17,931	18,396	2,020	2,135	2,216
Membership organizations	21,395	22,074	22,681	1,788	1,815	1,851
Other services [2]	43,984	45,754	47,146	2,642	2,807	2,955
Private households	13,143	14,118	14,079	821	819	796
Government	**32,921**	**33,992**	**35,300**	**18,292**	**18,327**	**18,204**
Federal	37,205	38,641	40,574	4,661	4,530	4,368
General government	36,138	37,774	39,876	3,867	3,725	3,562
Civilian	41,357	42,611	44,739	2,052	1,984	1,912
Military [3]	30,237	32,262	34,241	1,815	1,741	1,650
Government enterprises	42,404	42,655	43,660	794	805	806
State and local	31,456	32,466	33,634	13,631	13,797	13,836
General government	31,323	32,330	33,514	12,754	12,910	12,945
Education	31,269	32,195	33,611	6,635	6,770	6,791
Other	31,380	32,479	33,408	6,119	6,140	6,154
Government enterprises	33,396	34,446	35,377	877	887	891
Rest of the world [4]	.....	.....	.....	**–482**	**–488**	**–485**

1. Full-time equivalent employees equals the number of employees on full-time schedules plus the number of employees on part-time schedules converted to a full-time basis. The number of full-time equivalent employees in each industry is the product of the total number of employees and the ratio of average weekly hours per employee for all employees to average weekly hours per employee on full-time schedules.

2. Consists of museums, botanical, zoological gardens; engineering and management services; and services, not elsewhere classified.

3. Includes Coast Guard.

4. Beginning with 1993, includes estimates of foreign professional workers and undocumented Mexican migratory workers employed temporarily in the United States.

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

Table B.10.—Farm Sector Output, Gross Product, and National Income

	Billions of dollars			Billions of chained (1992) dollars		
	1994	1995	1996	1994	1995	1996
Farm output	**202.9**	**197.9**	**219.9**	**199.4**	**192.0**	**193.1**
Cash receipts from farm marketings	180.9	193.9	204.2	178.2	188.5	179.0
Crops	92.8	106.9	111.4	88.4	96.9	88.9
Livestock	88.1	87.0	92.9	89.9	91.3	90.5
Farm housing	5.8	5.9	6.1	5.2	5.2	5.1
Farm products consumed on farms	.5	.5	.4	.5	.5	.4
Other farm income	4.9	5.6	6.3	4.8	5.2	5.3
Change in farm inventories	10.8	–7.9	2.9	11.7	–9.2	2.6
Crops	9.7	–8.2	4.1	9.2	–7.7	3.0
Livestock	1.1	.2	–1.3	1.2	.3	–1.5
Less: Intermediate goods and services purchased	119.4	124.4	130.6	114.7	117.6	117.3
Intermediate goods and services, other than rent	105.3	110.0	113.7	100.7	103.4	101.2
Rent paid to nonoperator landlords	14.1	14.3	16.8	14.0	14.2	16.2
***Equals*: Gross farm product**	**83.5**	**73.5**	**89.4**	**85.0**	**74.2**	**75.5**
Less: Consumption of fixed capital	23.7	24.7	25.6	22.4	22.8	23.2
***Equals*: Net farm product**	**59.8**	**48.8**	**63.8**	**62.9**	**51.3**	**52.2**
Less: Indirect business tax and nontax liability	4.8	5.1	5.1	.....	.....	.....
Plus: Subsidies to operators	6.6	6.1	6.1	.....	.....	.....
***Equals*: Farm national income**	**61.5**	**49.7**	**64.9**	.....	.....	.....
Compensation of employees	14.6	15.7	16.5	.....	.....	.....
Wage and salary accruals	12.3	13.3	14.2	.....	.....	.....
Supplements to wages and salaries	2.2	2.4	2.3	.....	.....	.....
Proprietors' income and corporate profits with IVA and CCAdj	37.8	24.7	38.6	.....	.....	.....
Proprietors' income	36.9	23.4	37.2	.....	.....	.....
Corporate profits	.9	1.2	1.4	.....	.....	.....
Net interest	9.1	9.4	9.8	.....	.....	.....

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.
CCAdj Capital consumption adjustment
IVA Inventory valuation adjustment

Table B.11.—Housing Sector Output, Gross Product, and National Income

	Billions of dollars			Billions of chained (1992) dollars		
	1994	1995	1996	1994	1995	1996
Housing output [1]	**686.7**	**722.7**	**758.1**	**649.9**	**663.4**	**675.2**
Nonfarm housing	680.9	716.8	752.0	644.8	658.3	670.2
Owner-occupied	507.0	532.2	558.3	479.6	487.2	495.3
Tenant-occupied	174.0	184.6	193.6	165.2	171.1	174.9
Farm housing	5.8	5.9	6.1	5.2	5.2	5.1
Less: Intermediate goods and services consumed	87.6	88.5	94.1	83.1	82.1	85.3
***Equals*: Gross housing product**	**599.1**	**634.2**	**664.0**	**566.8**	**581.3**	**589.9**
Nonfarm housing	594.4	629.2	658.8	562.7	577.0	585.7
Owner-occupied	439.5	462.8	484.0	415.6	423.1	428.3
Tenant-occupied	155.0	166.4	174.9	147.1	153.9	157.5
Farm housing	4.7	5.0	5.1	4.2	4.3	4.2
Less: Consumption of fixed capital	120.5	114.8	118.2	112.2	103.6	104.6
Capital consumption allowances	60.9	59.6	62.8	.....	.....	.....
Less: CCAdj	–59.6	–55.1	–55.4	.....	.....	.....
***Equals*: Net housing product**	**478.6**	**519.4**	**545.8**	**454.5**	**477.8**	**485.5**
Less: Indirect business tax and nontax liability plus business transfer payments	112.9	116.2	119.5	.....	.....	.....
Plus: Subsidies less current surplus of government enterprises	20.6	20.8	22.6	.....	.....	.....
***Equals*: Housing national income**	**386.4**	**424.0**	**448.9**	.....	.....	.....
Compensation of employees	7.7	8.1	8.5	.....	.....	.....
Proprietors' income with IVA and CCAdj	17.6	25.2	27.1	.....	.....	.....
Rental income of persons with CCAdj	96.7	104.3	115.8	.....	.....	.....
Corporate profits with IVA and CCAdj	4.2	5.1	5.6	.....	.....	.....
Net interest	260.2	281.3	292.0	.....	.....	.....

1. Equals personal consumption expenditures for housing less expenditures for other housing as shown in table B.4.

NOTE.—Chained (1992) dollar series are calculated as the product of the chain-type quantity index and the 1992 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.
CCAdj Capital consumption adjustment
IVA Inventory valuation adjustment

Table B.12.—Net Stock of Fixed Private Capital, by Type

[Yearend estimates]

	Current-cost valuation (billions of dollars)						Chain-type quantity indexes (1992=100)					
	1991	1992	1993	1994	1995	1996	1991	1992	1993	1994	1995	1996
Fixed private capital	**12,955.2**	**13,484.1**	**14,198.8**	**15,064.5**	**15,738.6**	**16,503.4**	**98.49**	**100.00**	**101.94**	**104.15**	**106.67**	**109.58**
Private producers' durable equipment	**2,570.3**	**2,642.7**	**2,742.1**	**2,881.7**	**3,050.3**	**3,232.9**	**98.37**	**100.00**	**102.74**	**106.62**	**111.68**	**117.63**
Nonresidential equipment	**2,519.5**	**2,590.0**	**2,686.7**	**2,823.1**	**2,989.3**	**3,168.9**	**98.39**	**100.00**	**102.72**	**106.61**	**111.70**	**117.69**
Information processing and related equipment	603.2	629.0	650.4	673.8	704.0	785.4	94.86	100.00	106.40	113.96	125.25	140.31
Office, computing, and accounting machinery	119.0	120.7	128.3	138.5	151.2	175.7	87.31	100.00	120.18	144.51	189.31	264.83
Computers and peripheral equipment	99.5	101.0	107.9	118.0	130.4	153.9	85.14	100.00	124.20	154.49	211.49	308.42
Other office equipment	19.5	19.7	20.4	20.6	20.9	21.8	99.35	100.00	101.27	101.08	101.82	108.04
Communication equipment	318.9	330.8	333.0	335.3	342.7	391.5	97.21	100.00	102.41	106.50	112.84	120.39
Instruments	101.4	109.9	117.9	124.1	130.6	136.2	95.09	100.00	105.34	109.32	112.73	116.19
Photocopy and related equipment	64.0	67.5	71.2	75.8	79.4	82.0	97.52	100.00	104.27	109.02	112.00	113.98
Industrial equipment	898.3	916.8	945.7	991.4	1,050.3	1,083.6	99.38	100.00	101.38	103.55	106.34	108.92
Fabricated metal products	87.7	86.7	87.0	90.3	93.5	95.7	100.79	100.00	100.07	100.95	101.72	102.72
Engines and turbines	50.8	51.8	53.2	56.8	58.4	59.7	97.84	100.00	102.12	104.56	105.58	105.86
Steam engines	46.0	47.1	48.2	51.5	52.5	53.5	97.48	100.00	102.13	104.33	104.68	104.57
Internal combustion engines	4.8	4.7	5.0	5.4	5.9	6.3	101.47	100.00	102.06	106.76	114.34	118.43
Metalworking machinery	167.1	168.8	174.4	183.0	197.0	205.8	100.38	100.00	100.48	102.74	106.16	109.54
Special industry machinery, n.e.c	193.4	199.4	207.5	218.2	232.1	240.0	99.14	100.00	101.85	104.03	107.46	109.64
General industrial, including materials handling, equipment	185.7	189.0	194.9	202.5	212.5	220.8	100.53	100.00	100.70	102.25	104.37	107.35
Electrical transmission, distribution, and industrial apparatus	213.6	221.0	228.7	240.5	256.7	261.6	97.65	100.00	102.57	105.65	109.13	112.29
Transportation and related equipment	491.2	510.0	538.9	581.2	627.2	660.5	98.93	100.00	102.30	106.91	111.87	116.89
Trucks, buses, and truck trailers	160.6	169.1	185.5	210.1	236.8	259.6	98.99	100.00	105.33	115.39	127.18	139.25
Autos	102.5	107.6	111.7	124.6	131.1	138.0	97.44	100.00	100.93	109.20	113.03	117.20
Aircraft	114.4	121.2	127.1	129.2	136.2	140.3	97.17	100.00	102.25	100.57	101.80	103.08
Ships and boats	45.5	45.1	45.6	44.7	44.3	44.4	103.69	100.00	98.25	95.33	92.42	89.79
Railroad equipment	68.2	67.1	69.0	72.7	78.8	78.3	101.16	100.00	99.65	100.79	102.22	102.81
Other equipment	526.8	534.2	551.8	576.6	607.7	639.4	100.42	100.00	101.19	103.29	106.07	109.92
Furniture and fixtures	140.0	146.1	153.8	163.0	175.0	186.2	96.81	100.00	103.04	105.84	110.10	115.18
Household furniture	9.0	9.1	9.4	9.7	10.1	10.5	100.22	100.00	100.43	101.74	103.22	105.88
Other furniture	131.0	137.0	144.4	153.3	164.9	175.7	96.59	100.00	103.21	106.12	110.55	115.79
Tractors	54.1	54.1	55.1	57.2	59.1	60.9	102.77	100.00	99.71	101.34	103.25	105.60
Farm tractors	42.3	42.4	43.2	45.1	46.8	48.2	102.43	100.00	100.28	102.61	105.11	107.84
Construction tractors	11.8	11.7	11.9	12.1	12.3	12.7	103.99	100.00	97.68	96.85	96.65	97.69
Agricultural machinery, except tractors	65.4	64.9	65.6	67.1	69.9	72.2	103.85	100.00	98.79	99.07	99.89	101.40
Construction machinery, except tractors	66.7	66.0	66.8	69.6	73.2	77.1	104.46	100.00	99.09	100.51	103.15	106.11
Mining and oilfield machinery	16.7	15.3	14.6	14.0	13.8	13.3	110.04	100.00	93.67	87.79	83.85	78.91
Service industry machinery	61.0	60.3	61.0	64.5	69.2	76.7	103.27	100.00	99.38	103.02	107.46	117.36
Electrical equipment, n.e.c	41.5	44.6	47.2	48.9	50.3	50.9	94.43	100.00	104.87	107.43	109.26	111.42
Household appliances	4.5	4.6	4.7	4.9	5.1	5.2	99.31	100.00	101.98	104.43	107.35	110.74
Other	37.0	40.1	42.5	44.0	45.2	45.7	93.87	100.00	105.20	107.77	109.47	111.49
Other nonresidential equipment	81.2	83.0	87.7	92.4	97.2	102.1	98.81	100.00	103.18	106.40	109.34	112.59
Residential equipment	**50.8**	**52.6**	**55.4**	**58.6**	**61.0**	**64.1**	**97.03**	**100.00**	**103.36**	**107.18**	**111.01**	**114.80**
Private structures	**10,384.9**	**10,841.4**	**11,456.7**	**12,182.8**	**12,688.3**	**13,270.4**	**98.52**	**100.00**	**101.75**	**103.57**	**105.50**	**107.74**
Nonresidential structures	**4,177.2**	**4,302.7**	**4,528.9**	**4,775.6**	**4,970.8**	**5,163.3**	**98.92**	**100.00**	**101.16**	**102.20**	**103.61**	**105.43**
Nonresidential buildings, excluding farm	2,593.9	2,686.1	2,834.9	3,011.3	3,144.1	3,299.0	98.44	100.00	101.38	102.97	105.02	107.92
Industrial buildings	589.7	613.0	636.2	673.6	700.7	725.9	98.36	100.00	100.17	101.44	103.03	104.54
Office buildings [1]	611.2	625.4	670.1	707.8	736.5	767.1	98.72	100.00	101.51	102.54	104.24	106.37
Commercial buildings	653.7	678.7	717.2	765.0	803.8	855.8	98.46	100.00	101.96	103.93	106.63	111.20
Mobile structures	6.4	6.6	7.2	7.9	8.3	8.7	98.26	100.00	101.54	103.27	105.36	107.95
Other commercial [2]	647.4	672.1	710.1	757.1	795.5	847.1	98.47	100.00	101.97	103.94	106.64	111.24
Religious buildings	119.7	123.5	129.4	136.6	141.4	146.2	99.10	100.00	101.10	102.06	103.23	104.47
Educational buildings	102.6	108.0	114.7	123.5	130.2	138.0	97.05	100.00	102.47	105.40	108.64	112.77
Hospital and institutional buildings	246.2	259.8	276.7	297.9	311.6	325.6	96.87	100.00	102.72	105.71	108.08	110.59
Other	270.8	277.6	290.6	307.0	319.9	340.5	99.67	100.00	100.79	101.88	103.76	108.01
Hotels and motels	135.6	139.2	145.9	153.7	161.0	173.3	99.51	100.00	101.03	101.79	104.25	109.82
Amusement and recreational buildings	67.8	70.2	73.7	78.6	83.2	88.7	98.63	100.00	101.25	103.20	106.83	111.45
Other nonfarm buildings [3]	67.4	68.2	71.0	74.7	75.7	78.5	101.07	100.00	99.84	100.73	99.60	100.81
Utilities	1,032.3	1,062.0	1,120.2	1,159.7	1,199.7	1,236.4	99.44	100.00	100.59	100.76	101.29	101.73
Railroad	266.7	272.4	290.1	294.0	300.3	311.1	100.93	100.00	99.08	98.22	97.42	96.92
Telecommunications	181.1	185.3	194.0	204.8	218.3	229.9	98.21	100.00	101.66	103.71	106.33	109.22
Electric light and power	410.9	423.8	443.4	459.6	476.5	481.8	99.61	100.00	100.86	100.77	101.20	101.28
Gas	136.8	143.1	153.0	160.0	163.1	170.4	97.56	100.00	101.42	101.99	102.88	103.23
Petroleum pipelines	36.8	37.5	39.6	41.2	41.5	43.2	100.12	100.00	100.18	100.25	100.00	99.92
Farm related buildings and structures	182.0	183.5	194.3	201.6	204.6	206.1	101.36	100.00	102.10	101.29	100.48	99.14
Mining exploration, shafts, and wells	263.8	259.0	260.1	274.5	283.7	278.5	101.90	100.00	99.14	98.31	97.36	95.89
Petroleum and natural gas	234.7	229.3	229.2	241.6	250.0	244.5	102.17	100.00	98.97	97.82	96.76	95.21
Other mining	29.0	29.7	31.0	32.9	33.7	34.1	99.81	100.00	100.48	101.99	101.92	101.14
Other nonfarm structures [4]	105.2	112.1	119.4	128.4	138.7	143.3	94.60	100.00	104.32	107.95	111.30	113.37
Residential structures	**6,207.7**	**6,538.7**	**6,927.8**	**7,407.2**	**7,717.5**	**8,107.1**	**98.25**	**100.00**	**102.14**	**104.47**	**106.75**	**109.25**
Housing units	5,057.2	5,327.0	5,667.3	6,078.4	6,322.4	6,639.3	98.37	100.00	102.00	104.20	106.43	108.99
Permanent site	4,959.6	5,226.1	5,557.9	5,956.2	6,190.1	6,497.7	98.36	100.00	102.00	104.17	106.36	108.86
1-to-4-unit	4,226.4	4,465.3	4,796.1	5,182.3	5,398.5	5,662.9	98.09	100.00	102.37	105.01	107.45	110.22
5-or-more-unit	733.2	760.7	761.9	773.8	791.5	834.8	99.97	100.00	99.78	99.05	99.64	100.47
Mobile homes	97.6	100.9	109.4	122.2	132.3	141.5	99.10	100.00	102.02	105.56	110.07	115.21
Improvements	1,124.7	1,185.1	1,232.6	1,299.8	1,365.8	1,438.0	97.64	100.00	102.83	105.87	108.42	110.75
Other residential [5]	25.9	26.6	27.8	29.0	29.3	29.9	100.98	100.00	99.67	98.53	97.95	97.69

1. Consists of office buildings, except those occupied by electric and gas utility companies.
2. Consists primarily of stores, restaurants, garages, service stations, warehouses, and other buildings used for commercial purposes.
3. Consists of buildings not elsewhere classified, such as passenger terminals, greenhouses, and animal hospitals.
4. Consists primarily of streets, dams, reservoirs, sewer and water facilities, parks, and airfields.
5. Consists primarily of dormitories, fraternity and sorority houses, and nurses' homes.

n.e.c. Not elsewhere classified.

C. Historical Tables

The tables in this section are derived from the "Summary National Income and Product Series" tables that were published in the August 1997 issue of the SURVEY OF CURRENT BUSINESS and from the "Selected NIPA Tables" that are published in this issue. (Changes in prices are calculated from indexes expressed to three decimal places.)

Table C.1.—Historical Measures of Real Gross Domestic Product, Real Gross National Product, and Real Gross Domestic Purchases

[Quarterly estimates are seasonally adjusted at annual rates]

Year and quarter	Billions of chained (1992) dollars			Percent change from preceding period		Chain-type price indexes		Implicit price deflators		Percent change from preceding period			
										Chain-type price index		Implicit price deflators	
	Gross domestic product	Final sales of domestic product	Gross national product	Gross domestic product	Final sales of domestic product	Gross domestic product	Gross domestic purchases	Gross domestic product	Gross national product	Gross domestic product	Gross domestic purchases	Gross domestic product	Gross national product
1959	2,210.2	2,206.9	2,222.0	7.4	6.5	22.95	22.44	22.95	22.96	1.0	1.0	1.0	1.0
1960	2,262.9	2,264.2	2,276.0	2.4	2.6	23.27	22.75	23.27	23.28	1.4	1.4	1.4	1.4
1961	2,314.3	2,318.0	2,329.1	2.3	2.4	23.54	23.00	23.54	23.55	1.2	1.1	1.2	1.2
1962	2,454.8	2,445.4	2,471.5	6.1	5.5	23.84	23.28	23.84	23.85	1.3	1.2	1.3	1.3
1963	2,559.4	2,552.4	2,577.3	4.3	4.4	24.12	23.58	24.12	24.13	1.2	1.3	1.2	1.2
1964	2,708.4	2,705.1	2,727.8	5.8	6.0	24.48	23.94	24.48	24.49	1.5	1.6	1.5	1.5
1965	2,881.1	2,860.4	2,901.4	6.4	5.7	24.95	24.39	24.96	24.97	1.9	1.9	2.0	2.0
1966	3,069.2	3,033.5	3,087.8	6.5	6.1	25.66	25.07	25.67	25.68	2.8	2.8	2.8	2.8
1967	3,147.2	3,125.1	3,166.4	2.5	3.0	26.48	25.83	26.49	26.50	3.2	3.0	3.2	3.2
1968	3,293.9	3,278.0	3,314.5	4.7	4.9	27.64	26.95	27.64	27.66	4.4	4.3	4.4	4.4
1969	3,393.6	3,377.2	3,413.3	3.0	3.0	28.94	28.21	28.94	28.96	4.7	4.7	4.7	4.7
1970	3,397.6	3,406.5	3,417.1	.1	.9	30.48	29.73	30.48	30.50	5.3	5.4	5.3	5.3
1971	3,510.0	3,499.8	3,532.1	3.3	2.7	32.05	31.32	32.06	32.08	5.2	5.3	5.2	5.2
1972	3,702.3	3,689.5	3,726.3	5.5	5.4	33.42	32.71	33.42	33.44	4.2	4.5	4.2	4.2
1973	3,916.3	3,883.9	3,950.1	5.8	5.3	35.30	34.64	35.30	35.32	5.6	5.9	5.6	5.6
1974	3,891.2	3,873.4	3,930.2	–.6	–.3	38.46	38.17	38.47	38.49	8.9	10.2	9.0	8.9
1975	3,873.9	3,906.4	3,903.3	–.4	.9	42.09	41.72	42.09	42.11	9.4	9.3	9.4	9.4
1976	4,082.9	4,061.7	4,118.8	5.4	4.0	44.55	44.15	44.55	44.58	5.8	5.8	5.8	5.9
1977	4,273.6	4,240.8	4,314.5	4.7	4.4	47.42	47.18	47.43	47.46	6.5	6.9	6.5	6.5
1978	4,503.0	4,464.4	4,543.7	5.4	5.3	50.88	50.65	50.89	50.92	7.3	7.4	7.3	7.3
1979	4,630.6	4,614.4	4,687.4	2.8	3.4	55.22	55.22	55.23	55.26	8.5	9.0	8.5	8.5
1980	4,615.0	4,641.9	4,670.8	–.3	.6	60.34	61.10	60.33	60.36	9.3	10.7	9.2	9.2
1981	4,720.7	4,691.6	4,769.9	2.3	1.1	66.01	66.72	66.01	66.05	9.4	9.2	9.4	9.4
1982	4,620.3	4,651.2	4,662.0	–2.1	–.9	70.18	70.64	70.17	70.21	6.3	5.9	6.3	6.3
1983	4,803.7	4,821.2	4,844.8	4.0	3.7	73.16	73.31	73.16	73.20	4.3	3.8	4.3	4.3
1984	5,140.1	5,061.6	5,178.0	7.0	5.0	75.92	75.90	75.92	75.97	3.8	3.5	3.8	3.8
1985	5,323.5	5,296.9	5,346.7	3.6	4.6	78.53	78.34	78.53	78.57	3.4	3.2	3.4	3.4
1986	5,487.7	5,480.9	5,501.2	3.1	3.5	80.58	80.40	80.58	80.62	2.6	2.6	2.6	2.6
1987	5,649.5	5,626.0	5,658.2	2.9	2.6	83.06	83.11	83.06	83.09	3.1	3.4	3.1	3.1
1988	5,865.2	5,855.1	5,878.5	3.8	4.1	86.10	86.13	86.09	86.12	3.7	3.6	3.7	3.7
1989	6,062.0	6,028.7	6,075.7	3.4	3.0	89.72	89.78	89.72	89.75	4.2	4.2	4.2	4.2
1990	6,136.3	6,126.7	6,157.0	1.2	1.6	93.64	93.83	93.60	93.63	4.4	4.5	4.3	4.3
1991	6,079.4	6,082.6	6,094.9	–.9	–.7	97.32	97.30	97.32	97.33	3.9	3.7	4.0	4.0
1992	6,244.4	6,237.4	6,255.5	2.7	2.5	100.00	100.00	100.00	100.00	2.8	2.8	2.8	2.7
1993	6,389.6	6,368.9	6,408.0	2.3	2.1	102.64	102.48	102.64	102.63	2.6	2.5	2.6	2.6
1994	6,610.7	6,551.2	6,619.1	3.5	2.9	105.09	104.85	105.09	105.08	2.4	2.3	2.4	2.4
1995	6,742.1	6,712.7	6,748.7	2.0	2.5	107.76	107.52	107.76	107.73	2.5	2.5	2.5	2.5
1996	6,928.4	6,901.0	6,932.0	2.8	2.8	110.22	109.86	110.21	110.18	2.3	2.2	2.3	2.3
1997	7,191.4	7,124.2	.....	3.8	3.2	112.46	111.77	112.40	.....	2.0	1.7	2.0	.....
1959: I	2,165.0	2,165.5	2,176.2	8.6	9.2	22.86	22.35	22.92	22.93	.8	1.1	.8	.8
II	2,223.3	2,204.2	2,234.5	11.2	7.3	22.92	22.41	22.91	22.91	1.1	1.1	–.3	–.3
III	2,221.4	2,232.6	2,233.5	–.3	5.3	22.96	22.45	22.94	22.95	.7	.7	.6	.6
IV	2,231.0	2,225.3	2,243.9	1.7	–1.3	23.05	22.53	23.03	23.04	1.5	1.5	1.6	1.6
1960: I	2,279.2	2,248.5	2,291.6	8.9	4.2	23.10	22.57	23.13	23.14	.9	.8	1.8	1.9
II	2,265.5	2,268.4	2,278.2	–2.4	3.6	23.21	22.69	23.22	23.23	2.0	2.1	1.5	1.5
III	2,268.3	2,265.1	2,281.6	.5	–.6	23.32	22.80	23.32	23.33	2.0	2.0	1.7	1.7
IV	2,238.6	2,274.7	2,252.7	–5.1	1.7	23.44	22.92	23.40	23.41	2.1	2.1	1.4	1.4
1961: I	2,251.7	2,277.7	2,266.8	2.4	.5	23.48	22.96	23.45	23.46	.7	.6	.9	.9
II	2,292.0	2,301.1	2,306.3	7.4	4.2	23.51	22.97	23.51	23.52	.5	.2	1.0	1.0
III	2,332.6	2,320.4	2,347.1	7.3	3.4	23.55	23.01	23.56	23.57	.7	.7	.8	.8
IV	2,381.0	2,372.8	2,395.9	8.6	9.3	23.61	23.06	23.63	23.64	1.1	.9	1.2	1.2
1962: I	2,422.6	2,400.3	2,437.4	7.2	4.7	23.73	23.17	23.75	23.76	2.0	1.9	2.0	2.0
II	2,448.0	2,440.7	2,464.4	4.3	6.9	23.80	23.24	23.81	23.81	1.1	1.4	1.0	1.0
III	2,471.9	2,462.0	2,488.4	4.0	3.5	23.86	23.31	23.87	23.87	1.1	1.1	1.0	1.0
IV	2,476.7	2,478.7	2,495.9	.8	2.7	23.96	23.41	23.94	23.95	1.7	1.8	1.2	1.2
1963: I	2,508.7	2,492.4	2,526.9	5.3	2.2	24.03	23.48	24.00	24.01	1.2	1.3	1.1	1.1
II	2,538.1	2,533.8	2,555.5	4.8	6.8	24.07	23.53	24.07	24.08	.6	.8	1.1	1.1
III	2,586.3	2,578.0	2,604.0	7.8	7.2	24.11	23.58	24.12	24.13	.7	.9	.8	.8
IV	2,604.6	2,605.3	2,622.9	2.9	4.3	24.26	23.72	24.29	24.30	2.4	2.5	3.0	3.0
1964: I	2,666.7	2,663.1	2,686.8	9.9	9.2	24.33	23.80	24.35	24.36	1.2	1.3	.9	.9
II	2,697.5	2,695.0	2,716.8	4.7	4.9	24.41	23.89	24.41	24.42	1.3	1.5	.9	.9
III	2,729.6	2,727.6	2,749.5	4.8	4.9	24.53	23.99	24.52	24.53	1.9	1.8	1.8	1.8
IV	2,739.7	2,734.5	2,758.1	1.5	1.0	24.64	24.09	24.64	24.65	1.8	1.6	2.1	2.1
1965: I	2,808.9	2,777.2	2,830.0	10.5	6.4	24.76	24.19	24.77	24.78	2.0	1.6	2.0	2.0
II	2,846.3	2,826.7	2,868.2	5.4	7.3	24.88	24.31	24.88	24.89	2.0	2.0	1.9	1.9
III	2,898.8	2,879.8	2,918.9	7.6	7.7	25.01	24.44	25.01	25.02	2.1	2.2	2.1	2.1
IV	2,970.5	2,957.8	2,988.6	10.3	11.3	25.16	24.61	25.17	25.18	2.5	2.8	2.6	2.6
1966: I	3,042.4	3,008.8	3,061.1	10.0	7.1	25.30	24.73	25.32	25.34	2.2	1.9	2.5	2.5
II	3,055.5	3,023.1	3,074.2	1.7	1.9	25.50	24.93	25.53	25.54	3.2	3.2	3.2	3.3
III	3,076.5	3,047.2	3,094.7	2.8	3.2	25.82	25.22	25.79	25.81	5.1	4.8	4.2	4.2
IV	3,102.4	3,054.8	3,121.4	3.4	1.0	26.03	25.41	26.02	26.03	3.4	3.1	3.5	3.5
1967: I	3,127.2	3,085.6	3,145.9	3.2	4.1	26.16	25.52	26.14	26.15	2.0	1.6	1.9	2.0
II	3,129.5	3,119.0	3,147.7	.3	4.4	26.32	25.67	26.31	26.32	2.5	2.5	2.5	2.5
III	3,154.2	3,134.2	3,174.4	3.2	2.0	26.57	25.92	26.60	26.61	3.9	3.9	4.5	4.5
IV	3,178.0	3,161.5	3,197.5	3.1	3.5	26.87	26.21	26.90	26.91	4.6	4.5	4.6	4.6

Table C.1.—Historical Measures of Real Gross Domestic Product, Real Gross National Product, and Real Gross Domestic Purchases—Continued

[Quarterly estimates are seasonally adjusted at annual rates]

Year and quarter	Billions of chained (1992) dollars			Percent change from preceding period		Chain-type price indexes		Implicit price deflators		Percent change from preceding period			
										Chain-type price index		Implicit price deflators	
	Gross domestic product	Final sales of domestic product	Gross national product	Gross domestic product	Final sales of domestic product	Gross domestic product	Gross domestic purchases	Gross domestic product	Gross national product	Gross domestic product	Gross domestic purchases	Gross domestic product	Gross national product
1968: I	3,236.2	3,225.3	3,256.2	7.5	8.3	27.19	26.52	27.21	27.22	4.8	4.9	4.7	4.8
II	3,292.1	3,258.0	3,312.5	7.1	4.1	27.50	26.80	27.49	27.50	4.5	4.2	4.1	4.1
III	3,316.1	3,303.9	3,337.3	3.0	5.8	27.75	27.06	27.75	27.76	3.7	4.0	3.8	3.8
IV	3,331.2	3,325.1	3,352.2	1.8	2.6	28.12	27.43	28.12	28.13	5.5	5.5	5.5	5.5
1969: I	3,381.9	3,357.5	3,402.8	6.2	4.0	28.38	27.66	28.39	28.40	3.7	3.5	3.8	3.9
II	3,390.2	3,373.0	3,410.3	1.0	1.9	28.74	28.02	28.73	28.75	5.2	5.3	5.0	5.0
III	3,409.7	3,389.6	3,428.5	2.3	2.0	29.14	28.40	29.14	29.16	5.7	5.6	5.8	5.8
IV	3,392.6	3,388.9	3,411.4	–2.0	–.1	29.51	28.77	29.51	29.52	5.2	5.2	5.1	5.1
1970: I	3,386.5	3,397.6	3,406.0	–.7	1.0	29.92	29.18	29.94	29.95	5.7	5.9	6.0	6.0
II	3,391.6	3,391.9	3,411.9	.6	–.7	30.36	29.59	30.36	30.37	6.0	5.8	5.7	5.7
III	3,423.0	3,421.9	3,442.9	3.7	3.6	30.60	29.87	30.61	30.63	3.2	3.8	3.4	3.4
IV	3,389.4	3,414.8	3,407.4	–3.9	–.8	31.02	30.29	31.02	31.03	5.6	5.7	5.4	5.4
1971: I	3,481.4	3,458.9	3,503.3	11.3	5.3	31.50	30.75	31.50	31.52	6.3	6.2	6.4	6.4
II	3,500.9	3,481.2	3,524.3	2.3	2.6	31.93	31.18	31.93	31.94	5.7	5.7	5.5	5.5
III	3,523.8	3,509.4	3,544.7	2.6	3.3	32.25	31.52	32.27	32.29	4.1	4.5	4.4	4.4
IV	3,533.8	3,549.5	3,556.0	1.1	4.7	32.53	31.81	32.54	32.55	3.5	3.7	3.3	3.3
1972: I	3,604.7	3,608.0	3,627.9	8.3	6.8	33.01	32.28	33.02	33.03	6.0	6.0	6.0	6.1
II	3,687.9	3,665.7	3,710.7	9.6	6.5	33.23	32.53	33.20	33.22	2.6	3.1	2.2	2.2
III	3,726.2	3,700.0	3,751.2	4.2	3.8	33.50	32.82	33.49	33.51	3.3	3.6	3.5	3.5
IV	3,790.4	3,784.3	3,815.3	7.1	9.4	33.93	33.23	33.95	33.97	5.2	5.1	5.6	5.6
1973: I	3,892.2	3,867.0	3,921.5	11.2	9.0	34.38	33.69	34.36	34.38	5.5	5.6	5.0	5.0
II	3,919.0	3,884.5	3,950.4	2.8	1.8	34.96	34.33	34.94	34.96	6.9	7.8	6.9	6.9
III	3,907.1	3,890.9	3,944.1	–1.2	.7	35.63	34.95	35.61	35.63	7.8	7.5	7.9	7.9
IV	3,947.1	3,893.1	3,984.4	4.2	.2	36.24	35.60	36.29	36.31	7.0	7.6	7.8	7.8
1974: I	3,908.1	3,889.1	3,952.4	–3.9	–.4	36.98	36.55	37.01	37.03	8.4	11.1	8.2	8.2
II	3,922.6	3,899.7	3,964.3	1.5	1.1	37.79	37.59	37.79	37.81	9.0	11.9	8.7	8.7
III	3,880.0	3,882.5	3,917.6	–4.3	–1.8	38.93	38.71	38.96	38.98	12.7	12.5	12.9	12.9
IV	3,854.1	3,822.2	3,886.1	–2.6	–6.1	40.14	39.84	40.13	40.15	13.0	12.2	12.6	12.5
1975: I	3,800.9	3,848.3	3,827.3	–5.4	2.8	41.04	40.69	41.05	41.07	9.2	8.8	9.5	9.5
II	3,835.2	3,887.9	3,861.8	3.7	4.2	41.67	41.34	41.66	41.68	6.3	6.5	6.1	6.1
III	3,907.0	3,922.7	3,936.1	7.7	3.6	42.44	42.05	42.41	42.44	7.6	7.0	7.4	7.4
IV	3,952.5	3,966.7	3,987.9	4.7	4.6	43.21	42.79	43.19	43.22	7.4	7.2	7.6	7.6
1976: I	4,044.6	4,027.0	4,078.8	9.7	6.2	43.68	43.26	43.69	43.72	4.4	4.5	4.7	4.7
II	4,072.2	4,039.1	4,107.9	2.8	1.2	44.17	43.76	44.15	44.18	4.6	4.7	4.2	4.2
III	4,088.5	4,061.7	4,124.8	1.6	2.3	44.78	44.42	44.77	44.80	5.7	6.1	5.7	5.7
IV	4,126.4	4,119.0	4,163.7	3.8	5.8	45.56	45.16	45.57	45.60	7.2	6.9	7.3	7.3
1977: I	4,176.3	4,161.4	4,219.4	4.9	4.2	46.31	45.99	46.32	46.34	6.7	7.6	6.8	6.7
II	4,260.1	4,228.4	4,302.2	8.3	6.6	47.08	46.81	47.07	47.10	6.8	7.3	6.6	6.7
III	4,329.5	4,270.0	4,371.2	6.7	4.0	47.74	47.55	47.66	47.69	5.7	6.4	5.1	5.1
IV	4,328.3	4,303.3	4,365.0	–.1	3.2	48.55	48.36	48.63	48.66	7.0	7.1	8.4	8.4
1978: I	4,345.5	4,306.0	4,388.6	1.6	.3	49.39	49.19	49.42	49.45	7.1	7.0	6.7	6.7
II	4,510.7	4,474.6	4,546.1	16.1	16.6	50.43	50.22	50.41	50.44	8.6	8.6	8.2	8.2
III	4,552.1	4,511.6	4,591.1	3.7	3.4	51.32	51.11	51.27	51.30	7.3	7.3	7.0	7.1
IV	4,603.7	4,565.4	4,649.0	4.6	4.9	52.37	52.08	52.35	52.39	8.4	7.9	8.7	8.7
1979: I	4,605.7	4,579.0	4,652.6	.2	1.2	53.46	53.21	53.51	53.54	8.6	9.0	9.1	9.1
II	4,615.6	4,577.0	4,668.7	.9	–.2	54.70	54.52	54.65	54.68	9.6	10.2	8.8	8.8
III	4,644.9	4,639.2	4,708.8	2.6	5.5	55.82	55.89	55.82	55.85	8.5	10.4	8.9	8.9
IV	4,656.2	4,662.5	4,719.5	1.0	2.0	56.92	57.25	56.92	56.95	8.1	10.2	8.1	8.1
1980: I	4,679.0	4,675.3	4,743.0	2.0	1.1	58.25	58.89	58.18	58.22	9.7	12.0	9.2	9.2
II	4,566.6	4,579.0	4,625.6	–9.3	–8.0	59.59	60.41	59.55	59.58	9.6	10.7	9.7	9.7
III	4,562.3	4,637.1	4,617.8	–.4	5.2	60.93	61.77	61.01	61.05	9.3	9.3	10.2	10.2
IV	4,651.9	4,676.1	4,696.6	8.1	3.4	62.57	63.33	62.59	62.64	11.2	10.5	10.8	10.8
1981: I	4,739.2	4,692.9	4,787.7	7.7	1.4	64.19	64.96	64.15	64.20	10.7	10.7	10.3	10.4
II	4,696.8	4,699.0	4,742.6	–3.5	.5	65.35	66.15	65.37	65.42	7.4	7.5	7.8	7.8
III	4,753.0	4,702.5	4,801.4	4.9	.3	66.65	67.27	66.65	66.69	8.2	7.0	8.0	8.0
IV	4,693.8	4,672.0	4,747.9	–4.9	–2.6	67.85	68.48	67.87	67.91	7.4	7.3	7.5	7.5
1982: I	4,615.9	4,655.4	4,658.5	–6.5	–1.4	68.85	69.42	68.86	68.91	6.0	5.6	6.0	6.0
II	4,634.9	4,651.2	4,682.9	1.7	–.4	69.71	70.17	69.72	69.77	5.1	4.4	5.1	5.1
III	4,612.1	4,616.9	4,651.1	–2.0	–2.9	70.69	71.10	70.66	70.70	5.7	5.4	5.5	5.5
IV	4,618.3	4,681.3	4,655.6	.5	5.7	71.46	71.85	71.44	71.47	4.5	4.3	4.4	4.4
1983: I	4,663.0	4,719.4	4,700.1	3.9	3.3	72.12	72.33	72.08	72.12	3.7	2.7	3.7	3.7
II	4,763.6	4,785.3	4,804.4	8.9	5.7	72.84	73.03	72.83	72.87	4.1	3.9	4.2	4.2
III	4,849.0	4,860.7	4,891.3	7.4	6.4	73.50	73.65	73.48	73.52	3.7	3.4	3.7	3.7
IV	4,939.2	4,919.5	4,983.5	7.7	4.9	74.19	74.24	74.19	74.24	3.8	3.2	3.9	3.9
1984: I	5,053.6	4,961.0	5,092.6	9.6	3.4	75.00	75.04	75.02	75.06	4.4	4.4	4.5	4.5
II	5,132.9	5,050.0	5,172.4	6.4	7.4	75.62	75.65	75.58	75.63	3.3	3.3	3.1	3.1
III	5,170.3	5,085.6	5,209.5	3.0	2.9	76.25	76.19	76.25	76.29	3.4	2.9	3.5	3.6
IV	5,203.7	5,149.9	5,237.5	2.6	5.2	76.82	76.71	76.81	76.85	3.0	2.7	3.0	2.9
1985: I	5,257.3	5,231.7	5,280.3	4.2	6.5	77.64	77.38	77.63	77.67	4.3	3.6	4.4	4.3
II	5,283.7	5,261.0	5,310.8	2.0	2.3	78.25	78.02	78.25	78.29	3.2	3.3	3.3	3.2
III	5,359.6	5,336.9	5,378.4	5.9	5.9	78.80	78.58	78.76	78.80	2.8	2.9	2.6	2.6
IV	5,393.6	5,358.0	5,417.5	2.6	1.6	79.44	79.37	79.45	79.49	3.3	4.1	3.5	3.5
1986: I	5,460.8	5,410.5	5,481.1	5.1	4.0	79.81	79.77	79.81	79.85	1.9	2.0	1.8	1.8
II	5,466.9	5,448.4	5,480.1	.4	2.8	80.26	79.97	80.22	80.26	2.2	1.0	2.1	2.1
III	5,496.3	5,518.2	5,510.4	2.2	5.2	80.81	80.60	80.84	80.88	2.8	3.2	3.1	3.1
IV	5,526.8	5,546.6	5,533.1	2.2	2.1	81.44	81.25	81.45	81.49	3.2	3.3	3.1	3.0
1987: I	5,561.8	5,535.8	5,568.7	2.6	–.8	82.11	82.07	82.09	82.12	3.3	4.1	3.2	3.2
II	5,618.0	5,608.4	5,628.7	4.1	5.4	82.68	82.74	82.68	82.71	2.8	3.3	2.9	2.9
III	5,667.4	5,671.5	5,676.0	3.6	4.6	83.35	83.44	83.33	83.36	3.3	3.4	3.2	3.2
IV	5,750.6	5,688.3	5,759.6	6.0	1.2	84.08	84.19	84.09	84.12	3.6	3.6	3.7	3.7
1988: I	5,785.3	5,774.2	5,802.3	2.4	6.2	84.69	84.81	84.67	84.69	2.9	3.0	2.7	2.8
II	5,844.0	5,840.1	5,857.5	4.1	4.6	85.56	85.68	85.56	85.59	4.2	4.2	4.3	4.3
III	5,878.7	5,869.2	5,889.4	2.4	2.0	86.67	86.58	86.66	86.69	5.3	4.3	5.2	5.2
IV	5,952.8	5,937.0	5,964.9	5.1	4.7	87.46	87.44	87.44	87.47	3.7	4.0	3.7	3.7

Table C.1.—Historical Measures of Real Gross Domestic Product, Real Gross National Product, and Real Gross Domestic Purchases—Continued

[Quarterly estimates are seasonally adjusted at annual rates]

Year and quarter	Billions of chained (1992) dollars			Percent change from preceding period		Chain-type price indexes		Implicit price deflators		Percent change from preceding period			
										Chain-type price index		Implicit price deflators	
	Gross domestic product	Final sales of domestic product	Gross national product	Gross domestic product	Final sales of domestic product	Gross domestic product	Gross domestic purchases	Gross domestic product	Gross national product	Gross domestic product	Gross domestic purchases	Gross domestic product	Gross national product
1989: I	6,011.0	5,970.0	6,023.1	4.0	2.2	88.44	88.47	88.45	88.48	4.5	4.8	4.7	4.7
II	6,055.6	6,010.9	6,065.5	3.0	2.8	89.40	89.52	89.39	89.42	4.4	4.8	4.3	4.3
III	6,088.0	6,063.1	6,101.8	2.2	3.5	90.13	90.14	90.13	90.16	3.3	2.8	3.3	3.3
IV	6,093.5	6,070.8	6,112.3	.4	.5	90.91	90.98	90.88	90.91	3.5	3.8	3.4	3.4
1990: I	6,152.6	6,144.6	6,172.8	3.9	5.0	92.01	92.17	92.00	92.04	4.9	5.4	5.0	5.1
II	6,171.6	6,127.5	6,188.0	1.2	–1.1	93.20	93.14	93.18	93.21	5.2	4.2	5.2	5.2
III	6,142.1	6,126.6	6,155.7	–1.9	–.1	94.19	94.32	94.14	94.17	4.3	5.2	4.2	4.2
IV	6,079.0	6,108.1	6,111.3	–4.0	–1.2	95.14	95.68	95.11	95.13	4.1	5.9	4.2	4.2
1991: I	6,047.5	6,065.4	6,074.3	–2.1	–2.8	96.26	96.42	96.27	96.29	4.8	3.1	5.0	4.9
II	6,074.7	6,095.9	6,086.4	1.8	2.0	97.02	96.95	97.00	97.01	3.2	2.2	3.1	3.1
III	6,090.1	6,085.4	6,099.2	1.0	–.7	97.70	97.58	97.70	97.71	2.8	2.6	2.9	2.9
IV	6,105.3	6,083.8	6,119.5	1.0	–.1	98.30	98.27	98.31	98.32	2.5	2.9	2.5	2.5
1992: I	6,175.7	6,175.8	6,192.0	4.7	6.2	99.14	99.04	99.13	99.13	3.4	3.2	3.4	3.4
II	6,214.2	6,203.8	6,225.2	2.5	1.8	99.81	99.76	99.79	99.79	2.8	2.9	2.7	2.7
III	6,260.7	6,249.5	6,270.3	3.0	3.0	100.17	100.28	100.17	100.17	1.4	2.1	1.5	1.5
IV	6,327.1	6,320.7	6,334.6	4.3	4.6	100.88	100.92	100.88	100.88	2.8	2.6	2.9	2.9
1993: I	6,327.9	6,297.3	6,351.3	.1	–1.5	101.85	101.71	101.84	101.84	3.9	3.2	3.9	3.8
II	6,359.9	6,344.9	6,375.9	2.0	3.1	102.38	102.28	102.35	102.34	2.1	2.3	2.0	2.0
III	6,393.5	6,379.3	6,415.3	2.1	2.2	102.83	102.64	102.83	102.83	1.8	1.4	1.9	1.9
IV	6,476.9	6,453.8	6,489.7	5.3	4.8	103.52	103.28	103.51	103.50	2.7	2.5	2.7	2.6
1994: I	6,524.5	6,473.0	6,540.5	3.0	1.2	104.16	103.80	104.13	104.14	2.5	2.0	2.4	2.5
II	6,600.3	6,526.7	6,609.3	4.7	3.4	104.74	104.46	104.71	104.71	2.2	2.6	2.2	2.2
III	6,629.5	6,580.4	6,635.6	1.8	3.3	105.39	105.24	105.39	105.38	2.5	3.0	2.6	2.6
IV	6,688.6	6,624.8	6,691.2	3.6	2.7	106.07	105.88	106.09	106.06	2.6	2.5	2.7	2.6
1995: I	6,703.7	6,654.3	6,711.3	.9	1.8	106.93	106.66	106.94	106.91	3.3	3.0	3.3	3.2
II	6,708.8	6,685.3	6,721.0	.3	1.9	107.49	107.33	107.46	107.43	2.1	2.5	2.0	2.0
III	6,759.2	6,739.3	6,758.3	3.0	3.3	108.03	107.79	108.02	107.99	2.0	1.7	2.1	2.1
IV	6,796.5	6,771.9	6,804.2	2.2	2.0	108.60	108.29	108.61	108.59	2.1	1.9	2.2	2.2
1996: I	6,826.4	6,815.0	6,834.7	1.8	2.6	109.35	109.01	109.39	109.37	2.8	2.7	2.9	2.9
II	6,926.0	6,902.3	6,930.1	6.0	5.2	109.86	109.50	109.84	109.82	1.9	1.8	1.7	1.6
III	6,943.8	6,905.0	6,940.2	1.0	.2	110.59	110.15	110.54	110.50	2.7	2.4	2.6	2.5
IV	7,017.4	6,981.7	7,023.1	4.3	4.5	111.10	110.79	111.05	111.01	1.9	2.4	1.9	1.8
1997: I	7,101.6	7,034.1	7,091.8	4.9	3.0	111.78	111.32	111.71	111.67	2.4	1.9	2.4	2.4
II	7,159.6	7,077.7	7,144.4	3.3	2.5	112.27	111.55	112.22	112.17	1.8	.8	1.8	1.8
III	7,214.0	7,160.3	7,198.8	3.1	4.7	112.67	111.90	112.62	112.57	1.4	1.3	1.4	1.4
IV	7,290.3	7,224.6	.....	4.3	3.6	113.10	112.31	113.05	.....	1.5	1.5	1.5	.....

Table C.2.—Real Gross Domestic Product

[Average annual percent change, based on chained (1992) dollar estimates]

Terminal year	Initial year																								
	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1997	2.8	2.7	2.6	2.7	2.9	2.7	2.6	2.5	2.5	2.6	2.7	3.0	2.9	2.6	2.5	2.5	2.4	2.3	2.2	2.3	2.8	2.9	3.0	2.8	3.3	3.8
1996	2.8	2.6	2.5	2.7	2.8	2.7	2.6	2.4	2.4	2.6	2.6	2.9	2.9	2.5	2.4	2.4	2.3	2.1	1.9	2.0	2.6	2.6	2.7	2.4	2.8	
1995	2.8	2.6	2.5	2.7	2.8	2.7	2.6	2.4	2.4	2.6	2.6	2.9	2.9	2.5	2.4	2.3	2.2	2.0	1.8	1.9	2.6	2.6	2.7	2.0		
1994	2.8	2.7	2.5	2.7	2.9	2.7	2.6	2.4	2.4	2.6	2.6	3.0	2.9	2.5	2.4	2.4	2.3	2.0	1.7	1.9	2.8	2.9	3.5			
1993	2.8	2.6	2.5	2.6	2.8	2.7	2.5	2.4	2.3	2.5	2.6	3.0	2.9	2.4	2.3	2.2	2.1	1.7	1.3	1.4	2.5	2.3				
1992	2.8	2.6	2.5	2.7	2.8	2.7	2.6	2.4	2.3	2.6	2.6	3.1	3.0	2.5	2.3	2.2	2.0	1.6	1.0	.9	2.7					
1991	2.8	2.6	2.5	2.7	2.9	2.7	2.5	2.3	2.3	2.5	2.6	3.1	3.0	2.4	2.2	2.1	1.9	1.2	.1	–.9						
1990	3.0	2.8	2.7	2.9	3.1	3.0	2.8	2.6	2.6	2.9	3.0	3.6	3.6	3.0	2.9	2.8	2.8	2.3	1.2							
1989	3.1	2.9	2.8	3.0	3.3	3.1	3.0	2.7	2.7	3.1	3.2	4.0	4.0	3.4	3.3	3.4	3.6	3.4								
1988	3.1	2.9	2.7	3.0	3.2	3.1	2.9	2.7	2.7	3.0	3.1	4.1	4.1	3.4	3.3	3.4	3.8									
1987	3.0	2.9	2.7	2.9	3.2	3.0	2.8	2.6	2.5	2.9	3.0	4.1	4.1	3.2	3.0	2.9										
1986	3.0	2.9	2.6	2.9	3.2	3.0	2.8	2.5	2.5	2.9	3.1	4.4	4.5	3.3	3.1											
1985	3.0	2.8	2.6	2.9	3.2	3.0	2.8	2.4	2.4	2.9	3.1	4.8	5.3	3.6												
1984	3.0	2.8	2.5	2.8	3.2	2.9	2.7	2.2	2.1	2.7	2.9	5.5	7.0													
1983	2.6	2.4	2.1	2.4	2.7	2.3	2.0	1.3	.9	1.3	.9	4.0														
1982	2.5	2.2	1.9	2.2	2.5	2.1	1.6	.6	–.1	.1	–2.1															
1981	3.0	2.7	2.4	2.8	3.3	2.9	2.5	1.6	1.0	2.3																
1980	3.1	2.8	2.4	2.9	3.6	3.1	2.6	1.2	–.3																	
1979	3.5	3.2	2.8	3.5	4.6	4.3	4.1	2.8																		
1978	3.6	3.3	2.8	3.7	5.1	5.0	5.4																			
1977	3.3	2.9	2.2	3.2	5.0	4.7																				
1976	3.1	2.5	1.4	2.4	5.4																					
1975	2.5	1.5	–.5	–.4																						
1974	3.5	2.5	–.6																							
1973	5.6	5.8																								
1972	5.5																									

Table C.3.—Chain-Type Price Index for Gross Domestic Product

[Average annual percent change]

Terminal year	Initial year																								
	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1997	4.9	5.0	4.9	4.8	4.6	4.5	4.4	4.3	4.0	3.7	3.4	3.2	3.1	3.1	3.0	3.1	3.1	3.0	2.9	2.7	2.4	2.4	2.3	2.3	2.2	2.0
1996	5.1	5.1	5.1	4.9	4.7	4.6	4.5	4.4	4.1	3.8	3.5	3.3	3.2	3.2	3.1	3.2	3.2	3.1	3.0	2.8	2.5	2.5	2.4	2.4	2.3	
1995	5.2	5.2	5.2	5.0	4.8	4.8	4.7	4.5	4.3	3.9	3.6	3.4	3.3	3.2	3.2	3.3	3.3	3.3	3.1	2.9	2.6	2.5	2.5	2.5		
1994	5.3	5.3	5.3	5.2	4.9	4.9	4.8	4.6	4.4	4.0	3.6	3.4	3.3	3.3	3.3	3.4	3.4	3.4	3.2	2.9	2.6	2.5	2.4			
1993	5.4	5.5	5.5	5.3	5.1	5.0	4.9	4.8	4.5	4.2	3.7	3.5	3.4	3.4	3.4	3.5	3.6	3.6	3.4	3.1	2.7	2.6				
1992	5.6	5.6	5.6	5.5	5.2	5.2	5.1	4.9	4.7	4.3	3.8	3.6	3.5	3.5	3.5	3.7	3.8	3.8	3.7	3.3	2.8					
1991	5.7	5.8	5.8	5.6	5.4	5.3	5.3	5.1	4.8	4.4	4.0	3.7	3.6	3.6	3.6	3.8	4.0	4.2	4.1	3.9						
1990	5.8	5.9	5.9	5.7	5.5	5.4	5.4	5.2	4.9	4.5	4.0	3.7	3.6	3.6	3.6	3.8	4.1	4.3	4.4							
1989	5.9	6.0	6.0	5.8	5.6	5.5	5.5	5.3	5.0	4.5	3.9	3.6	3.5	3.4	3.4	3.6	3.9	4.2								
1988	6.0	6.1	6.1	5.9	5.7	5.6	5.6	5.4	5.1	4.5	3.9	3.5	3.3	3.2	3.1	3.4	3.7									
1987	6.1	6.3	6.3	6.1	5.8	5.8	5.8	5.6	5.2	4.7	3.9	3.4	3.2	3.0	2.8	3.1										
1986	6.3	6.5	6.6	6.4	6.1	6.1	6.1	5.9	5.5	4.9	4.1	3.5	3.3	3.0	2.6											
1985	6.6	6.8	6.9	6.7	6.4	6.5	6.5	6.4	6.0	5.4	4.4	3.8	3.6	3.4												
1984	6.9	7.1	7.2	7.0	6.8	6.9	7.0	6.9	6.6	5.9	4.8	4.0	3.8													
1983	7.1	7.4	7.6	7.4	7.2	7.3	7.5	7.5	7.3	6.6	5.3	4.3														
1982	7.4	7.7	7.9	7.8	7.6	7.9	8.2	8.4	8.3	7.8	6.3															
1981	7.5	7.9	8.1	8.0	7.8	8.2	8.6	9.1	9.3	9.4																
1980	7.3	7.7	8.0	7.8	7.5	7.9	8.4	8.9	9.3																	
1979	7.0	7.4	7.7	7.5	7.0	7.4	7.9	8.5																		
1978	6.8	7.3	7.6	7.2	6.5	6.9	7.3																			
1977	6.7	7.3	7.7	7.2	6.1	6.5																				
1976	6.8	7.5	8.1	7.6	5.8																					
1975	7.0	8.0	9.2	9.4																						
1974	6.3	7.3	8.9																							
1973	4.9	5.6																								
1972	4.2																									

Table C.4.—Real Gross Domestic Purchases

[Average annual percent change, based on chained (1992) dollar estimates]

Terminal year	Initial year																								
	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1997	2.8	2.7	2.6	2.7	2.9	2.8	2.6	2.5	2.5	2.8	2.8	3.1	3.0	2.6	2.4	2.4	2.3	2.3	2.2	2.4	3.1	3.1	3.2	2.9	3.5	4.1
1996	2.7	2.6	2.5	2.7	2.9	2.7	2.6	2.4	2.4	2.7	2.7	3.1	2.9	2.4	2.3	2.2	2.1	2.0	1.9	2.1	2.9	2.9	2.9	2.4	2.9	
1995	2.7	2.6	2.5	2.7	2.9	2.7	2.5	2.4	2.4	2.7	2.7	3.1	2.9	2.4	2.2	2.1	2.0	1.9	1.8	2.0	2.9	2.9	2.9	1.9		
1994	2.7	2.6	2.5	2.7	2.9	2.7	2.6	2.4	2.4	2.8	2.8	3.2	3.0	2.4	2.3	2.1	2.1	1.9	1.8	2.0	3.2	3.4	3.9			
1993	2.7	2.6	2.4	2.7	2.9	2.7	2.5	2.3	2.3	2.7	2.7	3.1	2.9	2.3	2.1	1.9	1.8	1.5	1.2	1.4	2.9	2.9				
1992	2.7	2.5	2.4	2.6	2.9	2.7	2.5	2.3	2.3	2.7	2.7	3.1	2.9	2.2	1.9	1.7	1.5	1.2	.7	.6	2.8					
1991	2.7	2.5	2.4	2.6	2.9	2.6	2.5	2.2	2.2	2.6	2.7	3.1	2.9	2.1	1.8	1.5	1.2	.6	–.4	–1.6						
1990	2.9	2.7	2.6	2.9	3.2	3.0	2.8	2.6	2.6	3.1	3.1	3.7	3.5	2.7	2.5	2.3	2.1	1.8	.8							
1989	3.0	2.9	2.7	3.0	3.4	3.1	2.9	2.7	2.8	3.3	3.4	4.2	4.0	3.1	2.9	2.8	2.8	2.7								
1988	3.0	2.9	2.7	3.1	3.4	3.2	3.0	2.7	2.8	3.4	3.5	4.4	4.2	3.2	3.0	2.8	2.9									
1987	3.0	2.9	2.7	3.1	3.4	3.2	3.0	2.7	2.8	3.5	3.6	4.7	4.6	3.3	3.0	2.7										
1986	3.1	2.9	2.7	3.1	3.5	3.2	3.0	2.7	2.8	3.6	3.8	5.2	5.2	3.6	3.3											
1985	3.0	2.8	2.7	3.1	3.5	3.2	2.9	2.6	2.7	3.7	4.0	5.9	6.2	3.9												
1984	3.0	2.8	2.6	3.0	3.5	3.1	2.8	2.4	2.5	3.6	4.0	6.9	8.5													
1983	2.5	2.3	2.0	2.4	2.9	2.4	1.9	1.2	1.0	2.0	1.8	5.3														
1982	2.3	2.0	1.6	2.0	2.5	1.9	1.2	.2	–.4	.4	–1.6															
1981	2.7	2.4	2.1	2.6	3.2	2.6	1.9	.9	.2	2.4																
1980	2.7	2.3	2.0	2.6	3.4	2.7	1.8	.1	–2.0																	
1979	3.3	3.0	2.7	3.5	4.8	4.3	3.7	2.2																		
1978	3.5	3.1	2.8	3.9	5.7	5.3	5.3																			
1977	3.2	2.7	2.2	3.4	5.9	5.4																				
1976	2.7	2.0	1.1	2.5	6.4																					
1975	1.8	.6	–1.4	–1.3																						
1974	2.9	1.6	–1.5																							
1973	5.2	4.8																								
1972	5.7																									

NOTE.—In these triangles, the growth rate from one year to any other year can be found at the intersection of the column for the earlier year and the row for the later year; thus, growth rates from one year to the next are shown on the main diagonal. For example, from 1985 to 1995, real gross domestic product grew at an average annual rate of 2.4 percent; from 1984 to 1985, it grew 3.6 percent.

Table C.5.—Chain-Type Price Index for Gross Domestic Purchases

[Average annual percent change]

Terminal year	Initial year																								
	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1997	5.0	5.0	5.0	4.8	4.6	4.5	4.4	4.3	4.0	3.6	3.3	3.1	3.1	3.0	3.0	3.0	3.0	2.9	2.8	2.5	2.3	2.3	2.2	2.2	2.0	1.7
1996	5.1	5.2	5.1	4.9	4.7	4.7	4.5	4.4	4.1	3.7	3.4	3.2	3.2	3.1	3.1	3.2	3.1	3.1	2.9	2.7	2.5	2.4	2.3	2.4	2.2	
1995	5.3	5.3	5.3	5.1	4.8	4.8	4.7	4.5	4.3	3.8	3.5	3.3	3.2	3.2	3.2	3.3	3.3	3.2	3.1	2.8	2.5	2.4	2.4	2.5		
1994	5.4	5.4	5.4	5.2	5.0	4.9	4.8	4.7	4.4	3.9	3.5	3.3	3.3	3.3	3.3	3.4	3.4	3.3	3.2	2.8	2.5	2.4	2.3			
1993	5.5	5.6	5.6	5.3	5.1	5.1	5.0	4.8	4.5	4.1	3.6	3.4	3.4	3.4	3.4	3.5	3.6	3.5	3.4	3.0	2.6	2.5				
1992	5.7	5.7	5.7	5.5	5.3	5.2	5.1	5.0	4.7	4.2	3.7	3.5	3.5	3.5	3.5	3.7	3.8	3.8	3.7	3.2	2.8					
1991	5.8	5.9	5.9	5.7	5.4	5.4	5.3	5.2	4.8	4.3	3.8	3.6	3.6	3.6	3.7	3.9	4.0	4.1	4.1	3.7						
1990	5.9	6.0	6.0	5.8	5.6	5.5	5.4	5.3	4.9	4.4	3.9	3.6	3.6	3.6	3.7	3.9	4.1	4.4	4.5							
1989	6.0	6.1	6.1	5.9	5.6	5.6	5.5	5.3	5.0	4.4	3.8	3.5	3.4	3.4	3.5	3.7	3.9	4.2								
1988	6.1	6.2	6.3	6.0	5.7	5.7	5.6	5.5	5.1	4.4	3.7	3.4	3.3	3.2	3.2	3.5	3.6									
1987	6.3	6.4	6.5	6.2	5.9	5.9	5.8	5.7	5.2	4.5	3.7	3.3	3.2	3.1	3.0	3.4										
1986	6.5	6.6	6.7	6.4	6.1	6.2	6.1	5.9	5.5	4.7	3.8	3.3	3.1	2.9	2.6											
1985	6.8	6.9	7.0	6.8	6.5	6.6	6.5	6.4	6.0	5.1	4.1	3.5	3.4	3.2												
1984	7.0	7.3	7.4	7.1	6.9	7.0	7.0	7.0	6.6	5.6	4.4	3.7	3.5													
1983	7.3	7.6	7.8	7.5	7.3	7.5	7.6	7.7	7.3	6.3	4.8	3.8														
1982	7.7	8.0	8.2	8.0	7.8	8.1	8.4	8.7	8.6	7.5	5.9															
1981	7.9	8.2	8.5	8.3	8.1	8.6	9.0	9.6	9.9	9.2																
1980	7.7	8.1	8.4	8.2	7.9	8.5	9.0	9.8	10.7																	
1979	7.3	7.8	8.1	7.7	7.3	7.7	8.2	9.0																		
1978	7.1	7.6	7.9	7.3	6.7	7.1	7.4																			
1977	7.1	7.6	8.0	7.3	6.3	6.9																				
1976	7.1	7.8	8.4	7.5	5.8																					
1975	7.4	8.4	9.7	9.3																						
1974	6.8	8.0	10.2																							
1973	5.2	5.9																								
1972	4.5																									

Table C.6.—Real Final Sales of Domestic Product

[Average annual percent change, based on chained (1992) dollar estimates]

Terminal year	Initial year																								
	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1997	2.8	2.7	2.6	2.7	2.8	2.7	2.6	2.5	2.4	2.6	2.6	2.9	2.8	2.7	2.5	2.4	2.4	2.2	2.1	2.2	2.7	2.7	2.8	2.8	3.0	3.2
1996	2.8	2.6	2.5	2.7	2.7	2.7	2.6	2.4	2.4	2.5	2.6	2.9	2.8	2.6	2.4	2.3	2.3	2.1	1.9	2.0	2.6	2.6	2.7	2.6	2.8	
1995	2.8	2.6	2.5	2.7	2.7	2.7	2.6	2.4	2.4	2.5	2.6	2.9	2.8	2.6	2.4	2.3	2.2	2.0	1.8	1.8	2.5	2.5	2.7	2.5		
1994	2.8	2.6	2.5	2.7	2.8	2.7	2.6	2.4	2.4	2.5	2.6	2.9	2.8	2.6	2.4	2.3	2.2	1.9	1.7	1.7	2.5	2.5	2.9			
1993	2.8	2.6	2.5	2.7	2.8	2.7	2.6	2.4	2.3	2.5	2.6	2.9	2.8	2.6	2.3	2.2	2.1	1.7	1.4	1.3	2.3	2.1				
1992	2.8	2.7	2.5	2.7	2.8	2.7	2.6	2.4	2.3	2.5	2.6	3.0	2.9	2.6	2.4	2.2	2.1	1.6	1.1	.9	2.5					
1991	2.8	2.7	2.5	2.7	2.8	2.7	2.6	2.4	2.3	2.5	2.6	3.0	2.9	2.7	2.3	2.1	2.0	1.3	.4	–.7						
1990	3.0	2.9	2.7	2.9	3.0	3.0	2.9	2.7	2.6	2.8	3.0	3.5	3.5	3.2	3.0	2.8	2.9	2.3	1.6							
1989	3.1	2.9	2.8	3.0	3.1	3.1	3.0	2.8	2.7	2.9	3.2	3.8	3.8	3.6	3.3	3.2	3.5	3.0								
1988	3.1	2.9	2.8	3.0	3.2	3.1	3.0	2.7	2.7	2.9	3.2	3.9	4.0	3.7	3.4	3.4	4.1									
1987	3.0	2.9	2.7	2.9	3.1	3.0	2.9	2.6	2.5	2.8	3.1	3.9	3.9	3.6	3.1	2.6										
1986	3.0	2.9	2.7	2.9	3.1	3.0	2.9	2.6	2.5	2.8	3.2	4.2	4.4	4.1	3.5											
1985	3.0	2.8	2.6	2.9	3.1	3.0	2.8	2.5	2.3	2.7	3.1	4.4	4.8	4.6												
1984	2.9	2.7	2.4	2.7	2.9	2.8	2.6	2.1	1.9	2.2	2.6	4.3	5.0													
1983	2.7	2.5	2.2	2.5	2.7	2.5	2.2	1.5	1.1	1.3	1.4	3.7														
1982	2.6	2.3	2.0	2.3	2.5	2.3	1.9	1.0	.3	.1	–.9															
1981	3.0	2.7	2.4	2.8	3.1	2.9	2.6	1.7	.8	1.1																
1980	3.2	2.9	2.6	3.1	3.5	3.4	3.1	2.0	.6																	
1979	3.5	3.2	2.9	3.6	4.3	4.3	4.3	3.4																		
1978	3.5	3.2	2.8	3.6	4.6	4.8	5.3																			
1977	3.3	2.8	2.2	3.1	4.2	4.4																				
1976	3.0	2.4	1.5	2.4	4.0																					
1975	2.8	1.9	.3	.9																						
1974	3.4	2.5	–.3																							
1973	5.3	5.3																								
1972	5.4																									

Table C.7.—Real Disposable Personal Income

[Average annual percent change, based on chained (1992) dollar estimates]

Terminal year	Initial year																								
	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1997	2.8	2.7	2.5	2.7	2.7	2.6	2.6	2.5	2.5	2.6	2.6	2.7	2.7	2.4	2.3	2.2	2.3	2.1	2.1	2.2	2.5	2.5	2.7	2.8	2.6	2.9
1996	2.8	2.7	2.5	2.7	2.7	2.6	2.6	2.5	2.4	2.6	2.6	2.7	2.7	2.3	2.3	2.2	2.2	2.0	2.0	2.0	2.4	2.3	2.6	2.8	2.3	
1995	2.8	2.7	2.5	2.7	2.7	2.7	2.6	2.5	2.5	2.6	2.6	2.7	2.7	2.3	2.3	2.1	2.2	2.0	2.0	2.0	2.5	2.4	2.7	3.3		
1994	2.8	2.7	2.5	2.6	2.7	2.6	2.6	2.4	2.4	2.5	2.5	2.7	2.7	2.2	2.1	2.0	2.1	1.7	1.7	1.7	2.2	1.9	2.2			
1993	2.8	2.7	2.5	2.7	2.7	2.6	2.6	2.4	2.4	2.6	2.6	2.7	2.7	2.2	2.1	2.0	2.0	1.7	1.6	1.5	2.2	1.7				
1992	2.8	2.8	2.5	2.7	2.8	2.7	2.7	2.5	2.5	2.6	2.7	2.8	2.9	2.3	2.2	2.0	2.1	1.7	1.6	1.4	2.8					
1991	2.8	2.8	2.5	2.7	2.8	2.7	2.7	2.5	2.5	2.6	2.6	2.8	2.9	2.2	2.1	1.9	1.9	1.3	.9	0						
1990	3.0	2.9	2.7	2.9	3.0	2.9	2.9	2.7	2.7	2.9	2.9	3.2	3.3	2.6	2.5	2.3	2.6	1.9	1.8							
1989	3.1	3.0	2.7	3.0	3.0	3.0	3.0	2.8	2.8	3.0	3.1	3.4	3.5	2.8	2.7	2.5	2.9	2.0								
1988	3.1	3.0	2.8	3.0	3.1	3.1	3.0	2.8	2.8	3.1	3.2	3.6	3.8	3.0	2.9	2.8	3.9									
1987	3.1	3.0	2.7	3.0	3.1	3.0	3.0	2.7	2.7	3.0	3.1	3.6	3.8	2.6	2.4	1.6										
1986	3.2	3.1	2.8	3.1	3.2	3.1	3.1	2.8	2.9	3.2	3.4	4.1	4.5	3.1	3.2											
1985	3.2	3.1	2.7	3.0	3.2	3.1	3.1	2.8	2.8	3.2	3.5	4.4	5.1	3.0												
1984	3.2	3.1	2.7	3.1	3.2	3.1	3.1	2.8	2.8	3.3	3.6	5.0	7.3													
1983	2.8	2.7	2.3	2.6	2.7	2.5	2.4	1.9	1.6	2.0	1.8	2.8														
1982	2.8	2.7	2.2	2.6	2.7	2.5	2.3	1.6	1.3	1.6	.9															
1981	3.0	2.9	2.4	2.8	3.0	2.8	2.7	1.9	1.5	2.3																
1980	3.1	2.9	2.4	2.9	3.1	2.9	2.8	1.7	.6																	
1979	3.4	3.3	2.7	3.4	3.8	3.7	3.9	2.7																		
1978	3.5	3.4	2.6	3.5	4.1	4.2	5.2																			
1977	3.3	3.0	2.0	3.0	3.6	3.2																				
1976	3.3	3.0	1.6	2.8	3.9																					
1975	3.1	2.6	.5	1.7																						
1974	3.6	3.1	–.7																							
1973	5.8	7.1																								
1972	4.6																									

D. Domestic Perspectives

This table presents data collected from other government agencies and private organizations, as noted. Quarterly data are shown in the middle month of the quarter.

Table D.1.—Domestic Perspectives

	1996	1997	1996		1997											
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
	Consumer and producer prices, (seasonally adjusted) [1]															
Consumer price index for all urban consumers, 1982–84=100:																
All items	156.9	160.5	158.8	159.2	159.4	159.8	159.9	160.0	160.1	160.3	160.6	160.9	161.3	161.6	161.8	161.9
Less food and energy	165.6	169.5	167.4	167.7	167.9	168.3	168.7	169.2	169.5	169.7	170.0	170.1	170.4	170.8	171.0	171.4
Services	174.1	179.4	176.3	176.8	177.2	177.6	178.0	178.5	178.8	179.3	179.8	180.0	180.4	181.0	181.4	181.7
Producer price index, 1982=100:																
Finished goods	131.3	131.8	132.7	133.4	133.0	132.6	132.3	131.6	131.3	131.1	131.0	131.4	132.0	132.1	131.9	131.7
Less food and energy	142.0	142.5	142.3	142.5	142.5	142.4	142.6	142.5	142.2	142.3	142.0	142.2	142.8	142.8	142.7	142.5
Finished consumer goods	129.5	130.2	131.3	132.1	131.6	131.1	130.8	129.9	129.6	129.4	129.2	129.7	130.4	130.6	130.3	130.2
Capital equipment	138.3	138.3	138.5	138.5	138.6	138.5	138.5	138.4	138.1	138.2	138.0	138.0	138.4	138.3	138.2	137.9
Intermediate materials	125.7	125.6	125.8	126.4	126.6	126.4	125.9	125.5	125.3	125.3	125.2	125.4	125.6	125.5	125.7	125.4
Crude materials	113.8	110.9	115.0	122.1	126.7	116.2	107.3	107.9	110.2	106.7	106.6	107.2	108.0	112.3	114.1	107.7
	Money, interest rates, and stock prices															
Money stock (seasonally adjusted): [2]																
Percent change:																
M1	.....	.....	–0.02	0.09	–0.13	0.09	–0.50	–0.94	–0.24	0.02	–0.10	0.70	–0.83	–0.33	0.62	0.44
M2	.....	.....	.52	.57	.39	.40	.40	.46	–.07	.34	.26	.87	.46	.38	.57	.53
Ratio:																
Gross domestic product to M1	6.907	7.574	7.212	.....	.....	7.355	.....	.....	7.553	.....	.....	7.634	.....	.....	7.750	.....
Personal income to M2	1.734	1.754	1.741	1.744	1.746	1.752	1.755	1.750	1.757	1.761	1.759	1.754	1.752	1.754	1.757	1.755
Interest rates (percent, not seasonally adjusted): [2]																
Federal funds rate	5.30	5.46	5.31	5.29	5.25	5.19	5.39	5.51	5.50	5.56	5.52	5.54	5.54	5.50	5.52	5.50
Discount rate on new 91-day Treasury bills	5.02	5.07	5.03	4.87	5.05	5.00	5.14	5.17	5.13	4.92	5.07	5.13	4.97	4.95	5.15	5.16
Yield on new high-grade corporate bonds	7.62	7.40	7.43	7.45	7.63	7.54	7.85	8.04	7.90	7.71	7.44	7.30	7.04	6.90	6.79	6.68
10-Year U.S. Treasury bonds	6.44	6.35	6.20	6.30	6.58	6.42	6.69	6.89	6.71	6.49	6.22	6.30	6.21	6.03	5.88	5.81
Yield on municipal bonds, 20-bond average	5.76	5.52	5.59	5.64	5.72	5.63	5.76	5.88	5.70	5.53	5.35	5.41	5.39	5.38	5.33	5.19
Mortgage commitment rate	7.80	7.60	7.62	7.60	7.82	7.65	7.90	8.14	7.94	7.69	7.50	7.48	7.43	7.29	7.21	7.10
Average prime rate charged by banks	8.27	8.44	8.25	8.25	8.25	8.25	8.30	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50
Index of stock prices (not seasonally adjusted): [3]																
500 common stocks, 1941–43=10	670.83	872.72	735.67	743.25	766.22	798.39	792.16	763.93	833.09	876.29	925.29	927.74	937.02	951.16	938.92	962.37
	Labor markets (thousands, seasonally adjusted, unless otherwise noted) [1]															
Civilian labor force	133,943	136,297	134,977	135,060	135,729	135,689	136,115	136,043	136,060	136,206	136,294	136,404	136,439	136,406	136,864	137,169
Labor force participation rates (percent):																
Males 20 and over	76.8	77.0	76.9	76.8	77.1	76.9	77.1	77.1	76.9	77.0	77.0	76.9	76.8	76.8	77.0	77.0
Females 20 and over	59.9	60.5	60.3	60.3	60.3	60.3	60.5	60.4	60.5	60.5	60.5	60.6	60.6	60.5	60.4	60.7
16–19 years of age	52.3	51.6	51.9	52.2	51.9	52.6	52.4	52.0	51.9	51.2	51.4	51.0	51.0	50.9	51.8	51.6
Civilian employment	126,708	129,558	127,746	127,899	128,541	128,515	129,035	129,275	129,494	129,392	129661	129,747	129,761	129,910	130,575	130,777
Ratio, civilian employment to working-age population (percent)	63.2	63.8	63.4	63.4	63.5	63.5	63.7	63.8	63.8	63.7	63.8	63.8	63.7	63.8	64.0	64.1
Persons engaged in nonagricultural activities	123,264	126,159	124,383	124,476	125,088	125,175	125,648	125,813	126,076	126,003	126,209	126,368	126,339	126,583	127,191	127,392
Employees on nonagricultural payrolls	119,523	122,257	120,450	120,659	120,909	121,162	121,344	121,671	121,834	122,056	122,440	122,492	122,792	123,083	123,495	123,865
Goods-producing industries	24,431	24,738	24,508	24,540	24,581	24,653	24,670	24,667	24,702	24,714	24,713	24,765	24,771	24,814	24,891	24,980
Services-producing industries	95,092	97,519	95,942	96,119	96,328	96,509	96,674	97,004	97,132	97,342	97,727	97,727	98,021	98,269	98,604	98,885
Average weekly hours, manufacturing (hours)	41.6	42.0	41.7	42.0	41.8	41.9	42.1	42.1	42.0	41.8	41.8	41.8	41.9	42.0	42.1	42.3
Average weekly overtime hours, manufacturing (hours)	4.5	4.8	4.6	4.7	4.7	4.7	4.9	4.9	4.8	4.6	4.7	4.7	4.7	4.8	4.9	4.9
Number of persons unemployed	7,236	6,739	7,231	7,161	7,188	7,174	7,080	6,768	6,566	6,814	6,633	6,657	6,678	6,496	6,289	6,392
Unemployment rates (percent):																
Total	5.4	4.9	5.4	5.3	5.3	5.3	5.2	5.0	4.8	5.0	4.9	4.9	4.9	4.8	4.6	4.7
15 weeks and over	1.7	1.5	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.6	1.5	1.5	1.5	1.4	1.4
Average duration of unemployment (weeks)	16.7	15.8	16.1	15.8	15.9	15.9	15.4	15.4	15.3	15.3	16.5	15.8	15.9	16.3	15.6	16.3
Nonfarm business sector, 1992=100:																
Output per hour of all persons	102.0	.....	102.4	.....	.....	102.8	.....	.....	103.4	.....	.....	104.4	.....	.....	.....	.....
Unit labor costs	107.9	.....	108.9	.....	.....	109.7	.....	.....	110.0	.....	.....	109.9	.....	.....	.....	.....
Hourly compensation	110.1	.....	111.5	.....	.....	112.8	.....	.....	113.7	.....	.....	114.8	.....	.....	.....	.....

See footnotes at the end of the table.

Table D.1.—Domestic Perspectives—Continued

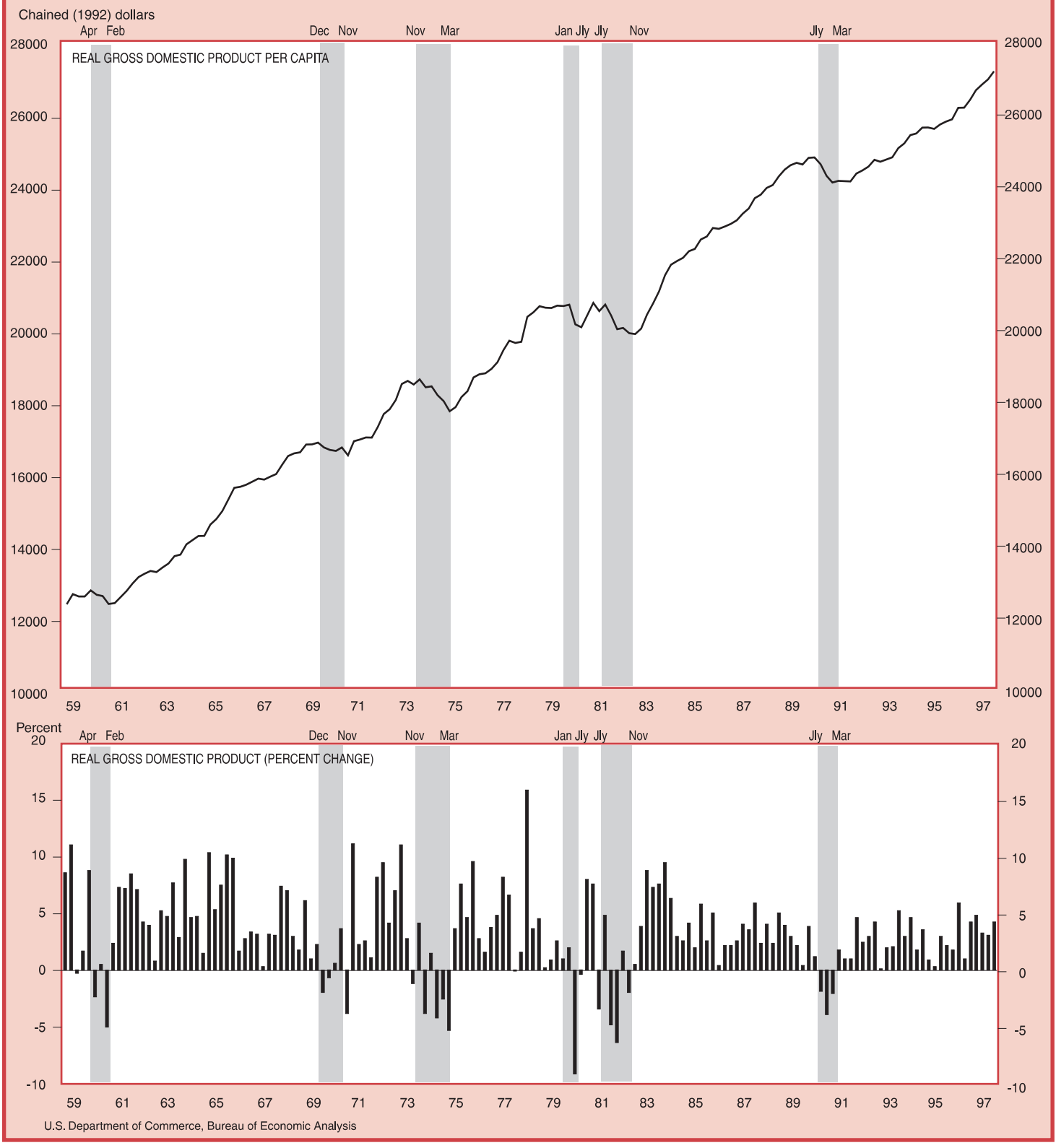
	1996	1997	1996		1997											
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Construction (seasonally adjusted at annual rates)[4]																
Total new private construction put in place (billions of dollars)	437.1	461.9	448.9	447.0	444.4	452.0	452.7	457.6	459.9	456.9	464.3	465.2	468.8	469.6	469.4	472.9
Residential	247.2	260.2	248.3	247.9	246.7	251.4	254.0	259.9	259.7	257.3	258.8	260.0	263.8	265.7	268.1	271.9
Nonresidential	149.4	161.2	159.9	157.4	161.0	163.7	160.5	156.5	160.0	159.2	164.5	163.4	163.3	162.0	159.8	159.1
Housing starts (thousands of units):																
Total	1,477	1,476	1,486	1,353	1,375	1,554	1,479	1,483	1,402	1,503	1,465	1,395	1,507	1,527	1,531	1,519
1-unit structures	1,161	1,134	1,133	1,024	1,125	1,237	1,142	1,133	1,098	1,134	1,149	1,091	1,181	1,122	1,161	1,092
New 1-family houses sold (thousands of units)	757	.....	788	794	822	826	825	765	764	802	812	798	814	790	830	.....
Manufacturing and trade, inventories and sales (millions of dollars, seasonally adjusted)[4]																
Inventories:																
Total manufacturing and trade	1,004,425	.....	1,003,740	1,004,425	1,007,618	1,011,899	1,013,376	1,017,150	1,019,025	1,026,255	1,027,787	1,030,243	1,037,172	1,040,265	1,044,278	.....
Manufacturing	434,434	.....	435,200	434,434	435,743	437,873	438,560	441,508	443,460	444,823	446,602	448,447	449,152	452,139	453,921	.....
Merchant wholesalers	255,808	.....	255,670	255,808	257,895	258,088	259,389	258,046	259,029	264,154	262,314	264,899	268,112	268,183	270,627	.....
Retail trade	314,183	.....	312,870	314,183	313,980	315,938	315,427	317,596	316,536	317,278	318,871	316,897	319,908	319,943	319,730	.....
Sales:																
Total manufacturing and trade	8,601,158	.....	730,974	728,760	737,464	747,790	745,460	746,769	742,945	750,027	757,485	752,886	762,543	759,880	758,095	.....
Manufacturing	3,735,183	.....	319,296	316,306	319,725	322,967	322,923	326,909	323,567	328,315	332,895	330,178	335,366	334,064	333,138	.....
Merchant wholesalers	2,420,679	.....	205,712	205,560	207,506	211,801	210,195	209,926	210,008	210,772	211,041	208,336	213,372	212,299	210,864	.....
Retail trade	2,445,296	.....	205,966	206,894	210,233	213,022	212,342	209,934	209,370	210,940	213,549	214,372	213,805	213,517	214,093	.....
Industrial production indexes and capacity utilization rates (seasonally adjusted)[2]																
Industrial production indexes, 1992=100:																
Total	118.5	124.5	120.6	120.9	121.3	122.1	122.5	123.1	123.3	123.5	124.5	125.2	125.6	126.5	127.5	128.1
By industry:																
Durable manufactures	131.7	142.4	134.9	135.3	136.1	137.8	138.7	139.5	140.1	141.2	142.4	144.3	144.4	145.4	147.8	148.8
Nondurable manufactures	108.0	111.1	109.6	110.3	110.2	110.4	110.5	110.8	110.7	110.5	110.9	111.0	111.3	112.0	112.7	113.1
By market category:																
Consumer goods	111.8	114.4	113.1	113.6	113.2	113.1	113.4	113.4	113.9	113.5	113.9	114.6	114.5	115.4	116.3	116.6
Capacity utilization rates (percent):																
Total industry	82.4	82.7	82.5	82.5	82.4	82.6	82.5	82.6	82.4	82.3	82.6	82.8	82.7	83.0	83.3	83.4
Manufacturing	81.4	81.7	81.5	81.5	81.4	81.7	81.6	81.6	81.4	81.3	81.5	81.8	81.6	81.8	82.4	82.5
Credit market borrowing (billions of dollars, seasonally adjusted at annual rates)[2]																
All sectors, by instrument:																
Total	1,321.0	.....	1,359.0	.....	.....	1,041.4	.....	.....	1,284.9	.....	.....	1,255.0	.....	.....	.....	.....
Open market paper	102.6	.....	142.3	.....	.....	199.2	.....	.....	109.5	.....	.....	172.0	.....	.....	.....	.....
U.S. government securities	376.5	.....	379.7	.....	.....	186.9	.....	.....	189.1	.....	.....	201.9	.....	.....	.....	.....
Municipal securities	1.3	.....	44.2	.....	.....	23.2	.....	.....	76.5	.....	.....	40.4	.....	.....	.....	.....
Corporate and foreign bonds	278.4	.....	332.4	.....	.....	129.3	.....	.....	335.4	.....	.....	341.9	.....	.....	.....	.....
Bank loans, n.e.c.	92.6	.....	61.8	.....	.....	153.8	.....	.....	126.7	.....	.....	48.7	.....	.....	.....	.....
Other loans and advances	50.2	.....	14.0	.....	.....	–4.1	.....	.....	67.2	.....	.....	85.9	.....	.....	.....	.....
Mortgages	330.6	.....	345.9	.....	.....	283.5	.....	.....	322.7	.....	.....	321.4	.....	.....	.....	.....
Consumer credit	88.8	.....	38.6	.....	.....	69.6	.....	.....	57.8	.....	.....	42.7	.....	.....	.....	.....

Sources:
1. Bureau of Labor Statistics.
2. Federal Reserve Board.
3. Standard and Poor's, Inc.
4. Bureau of the Census.
n.e.c. Not elsewhere classified.

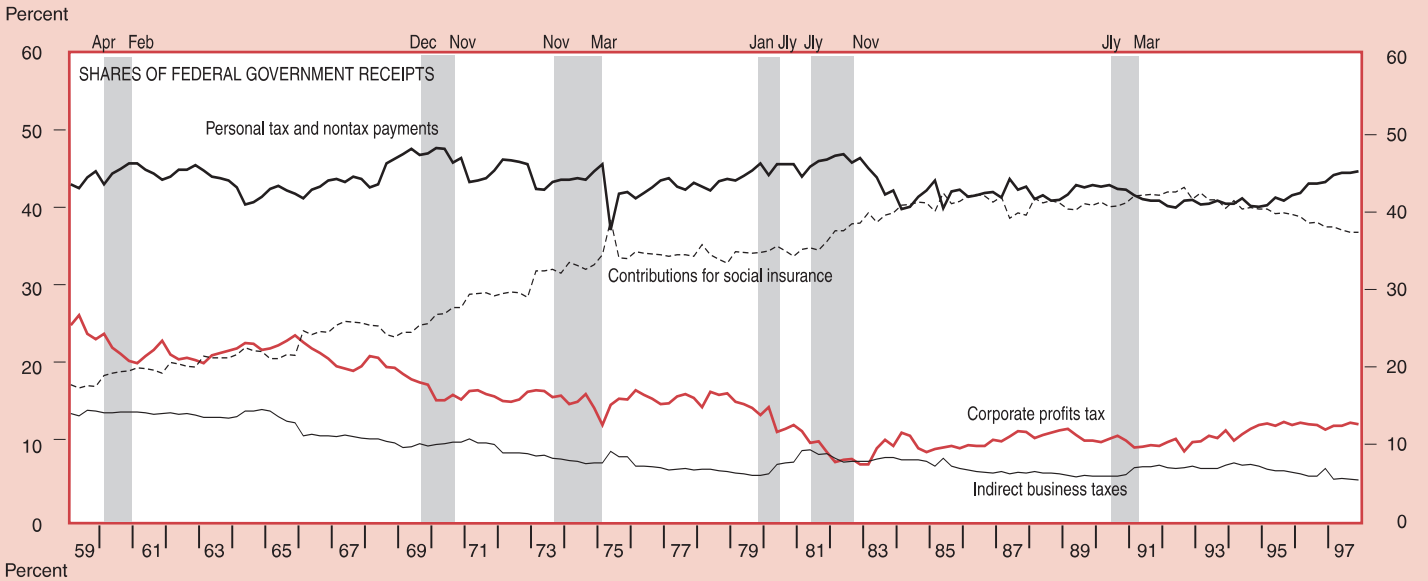
E. Charts

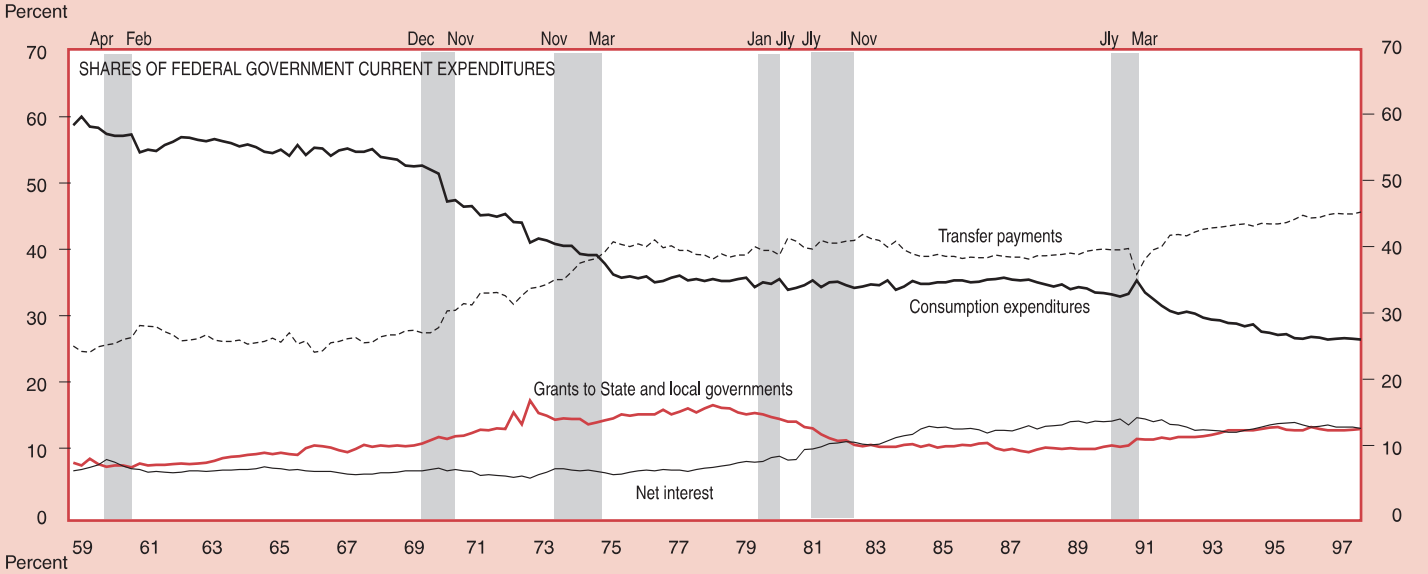
Percent changes shown in this section are based on quarter-to-quarter changes and are expressed at seasonally adjusted annual rates; likewise, levels of series are expressed at seasonally adjusted annual rates as appropriate.

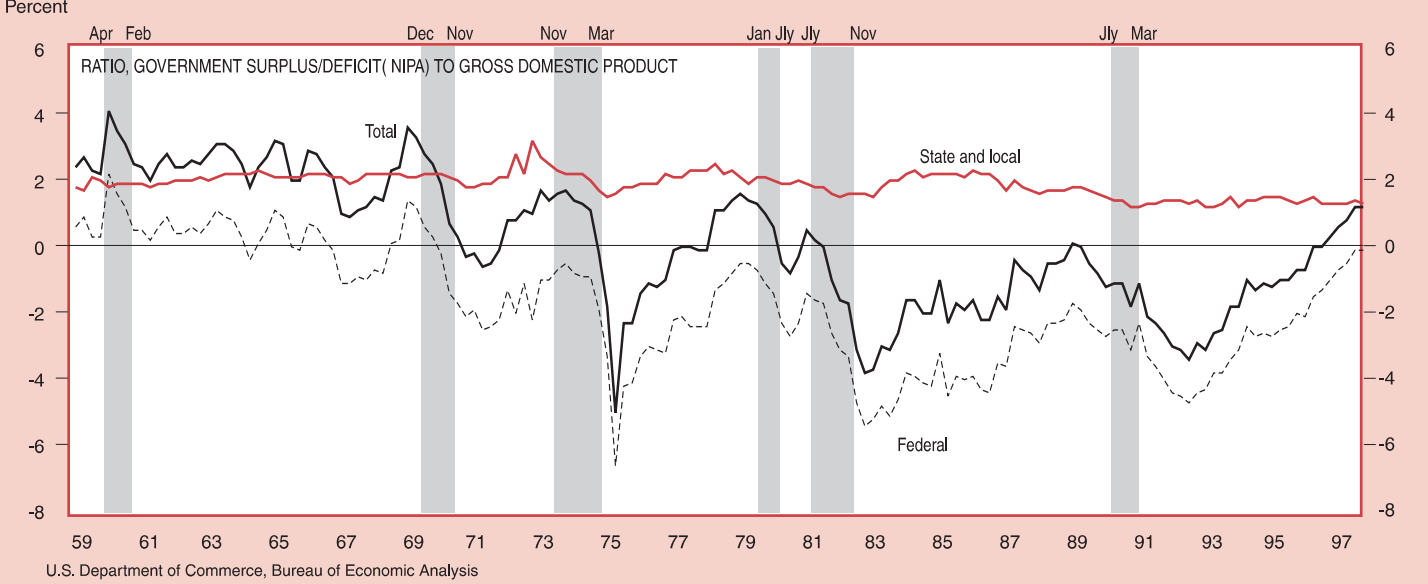
SELECTED NIPA SERIES



SELECTED NIPA SERIES







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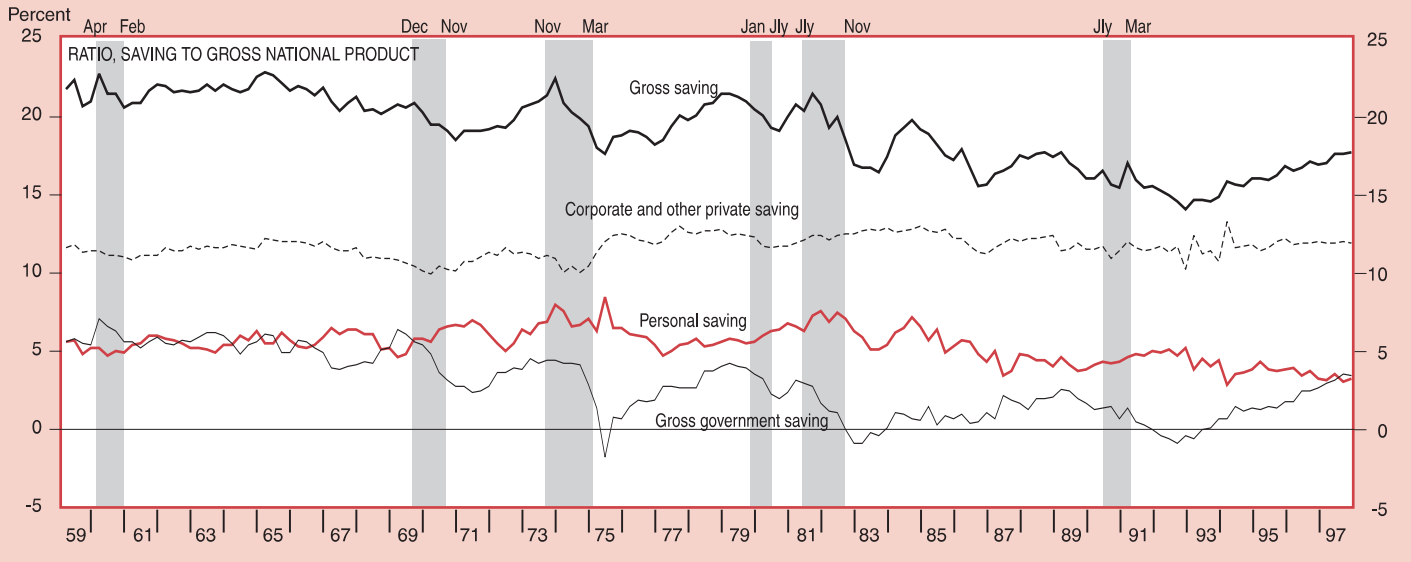

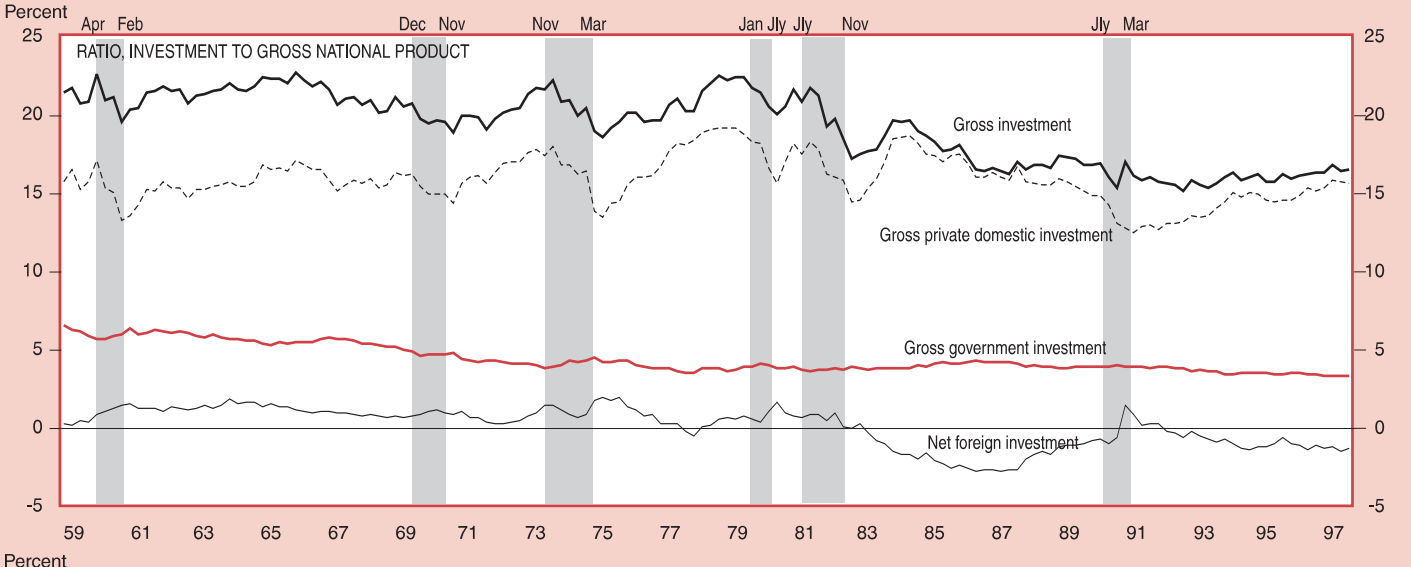

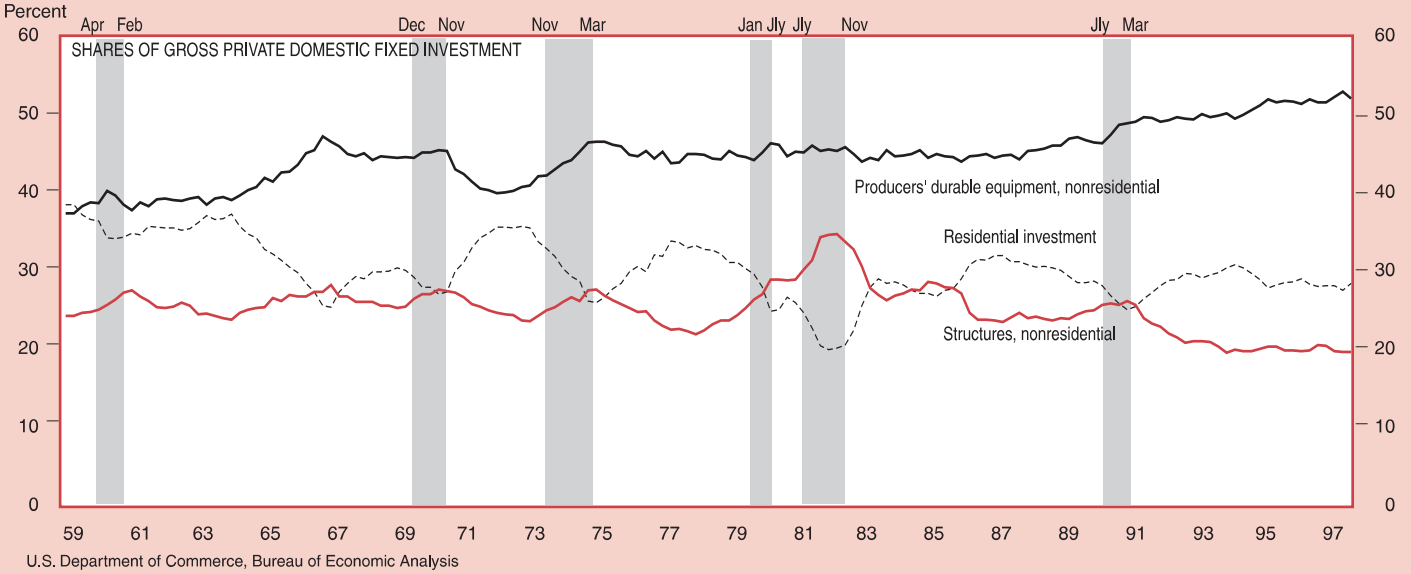

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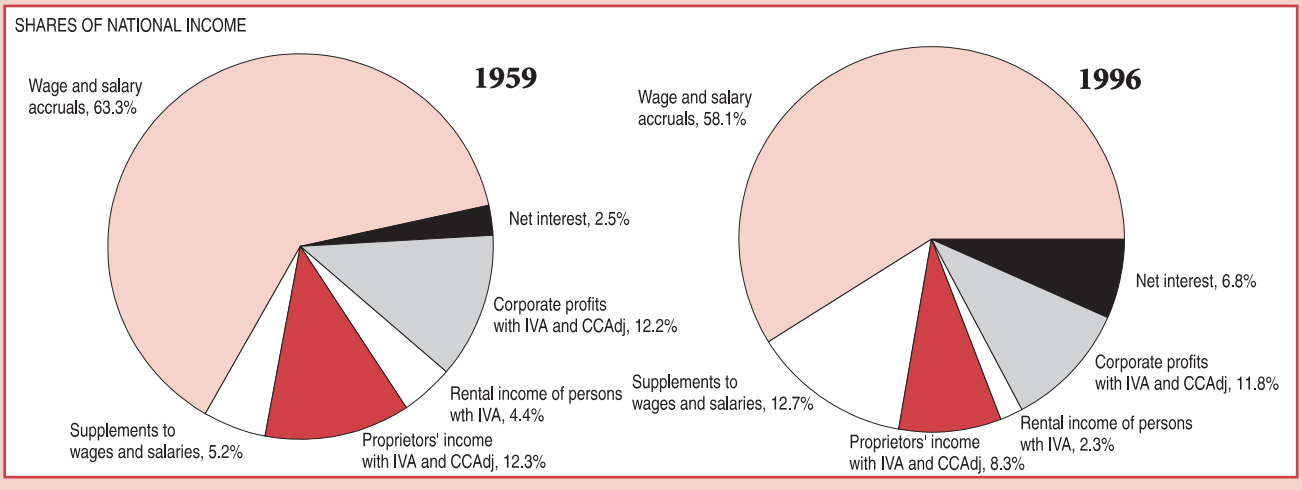
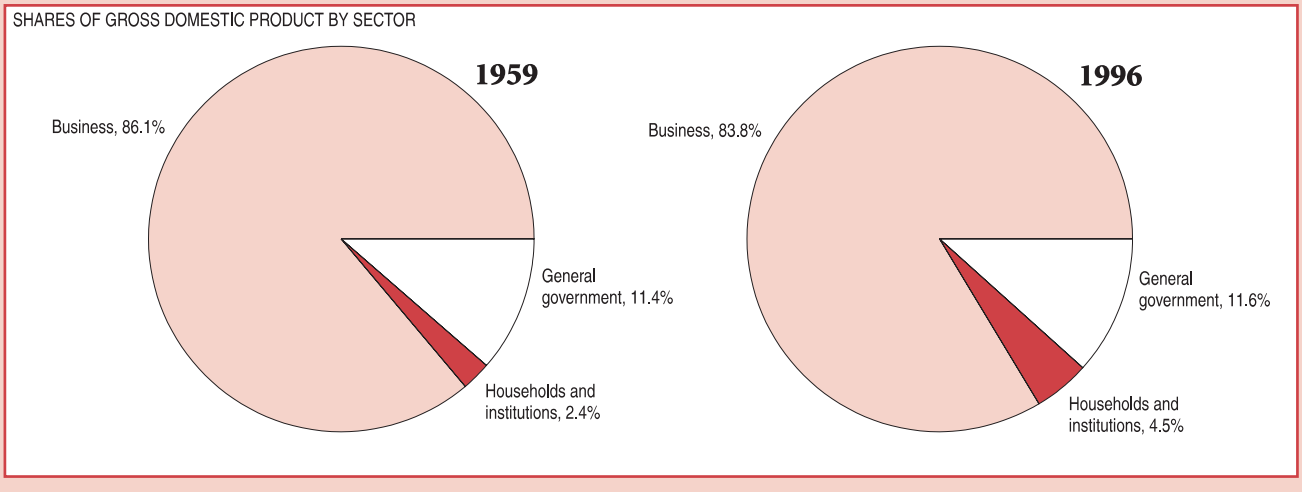
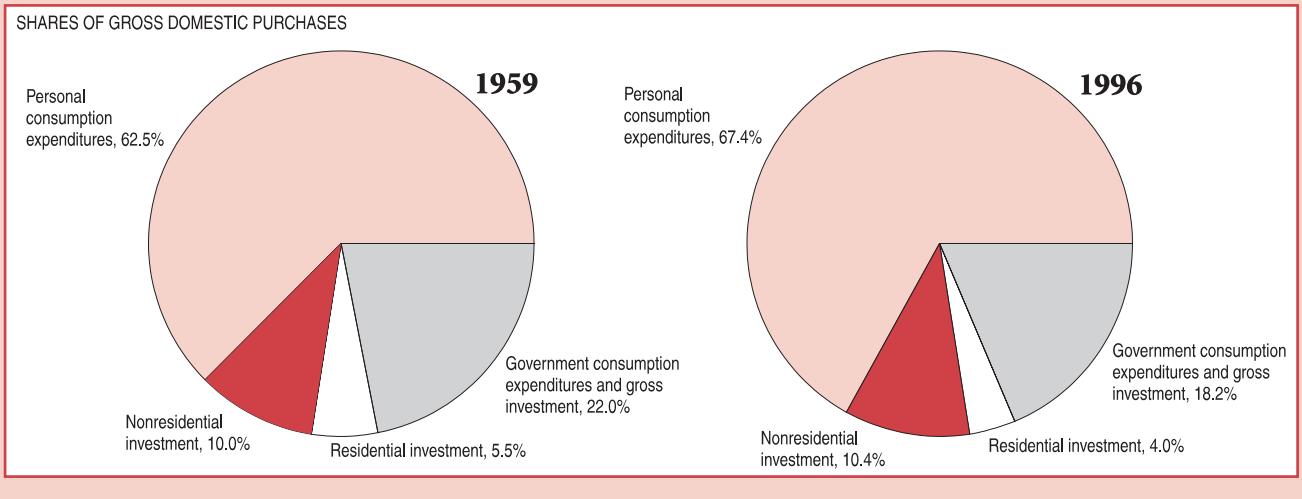
SELECTED NIPA SERIES







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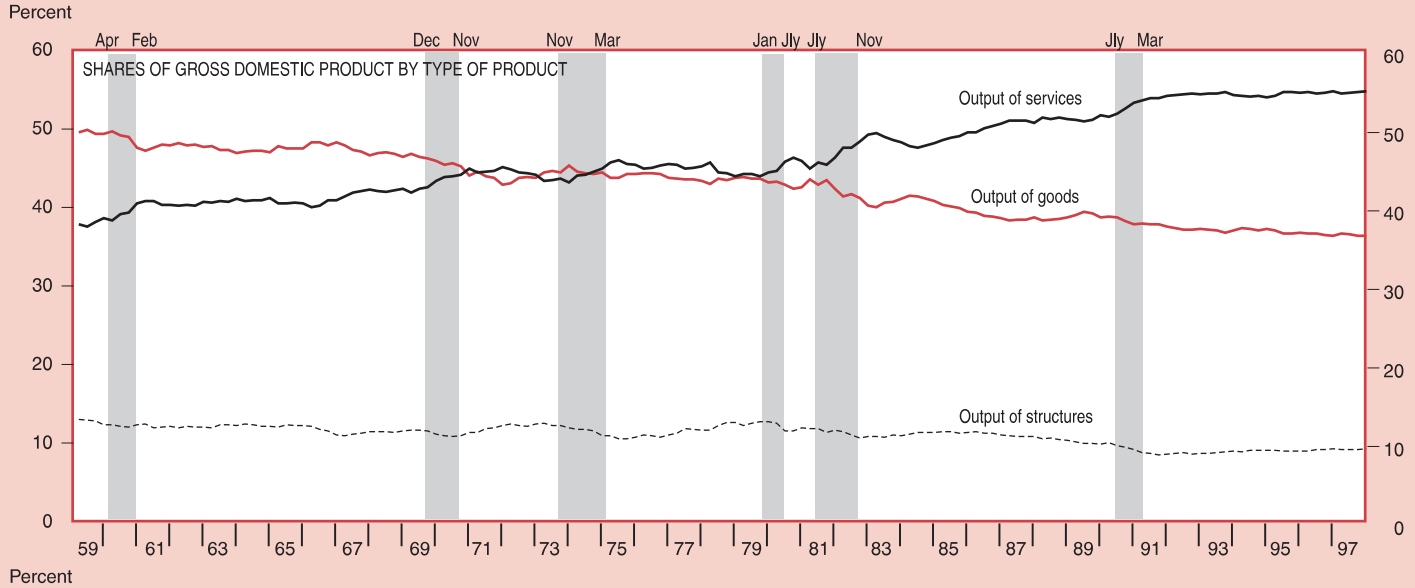

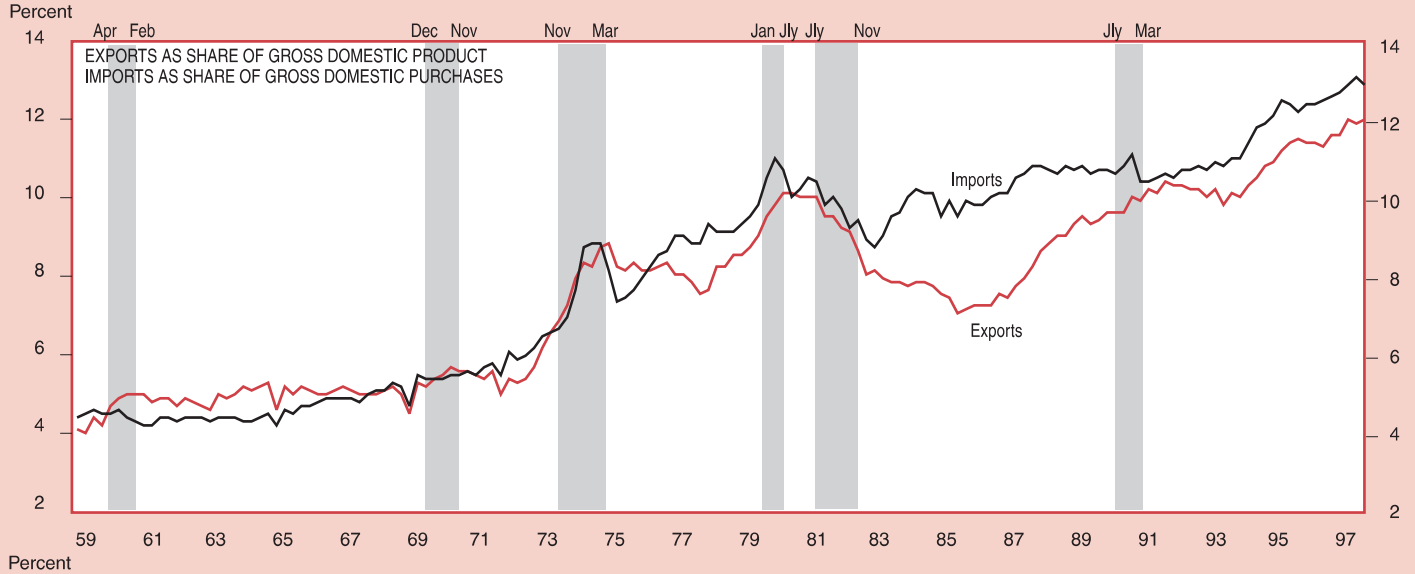

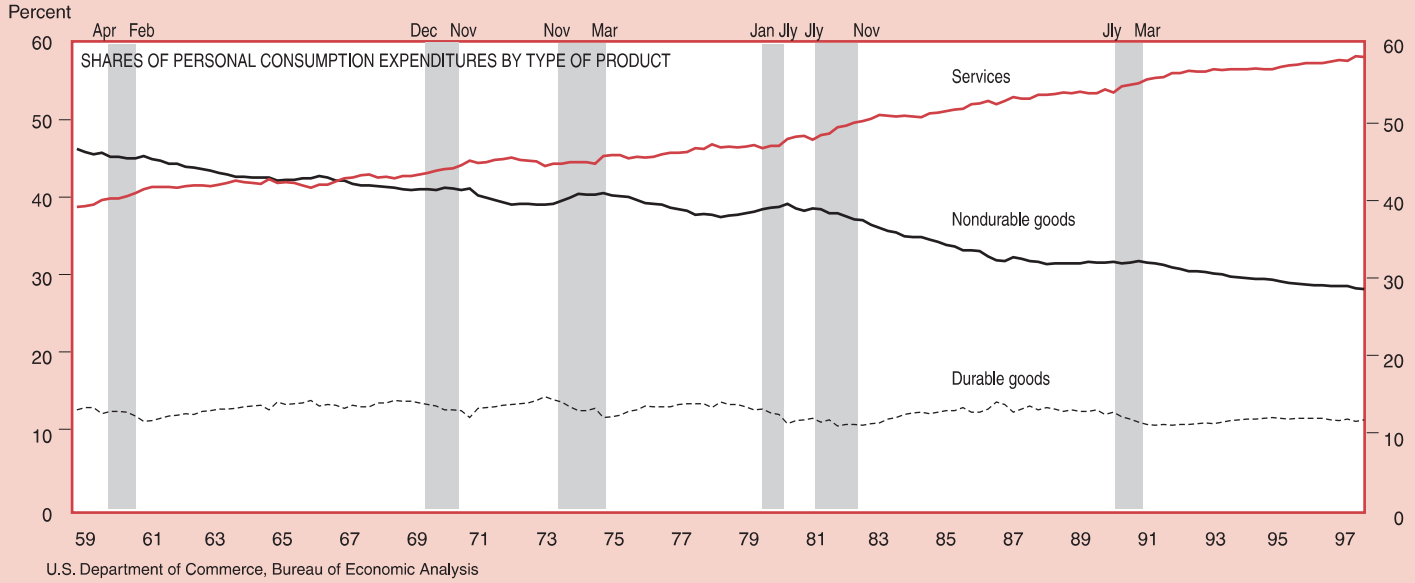

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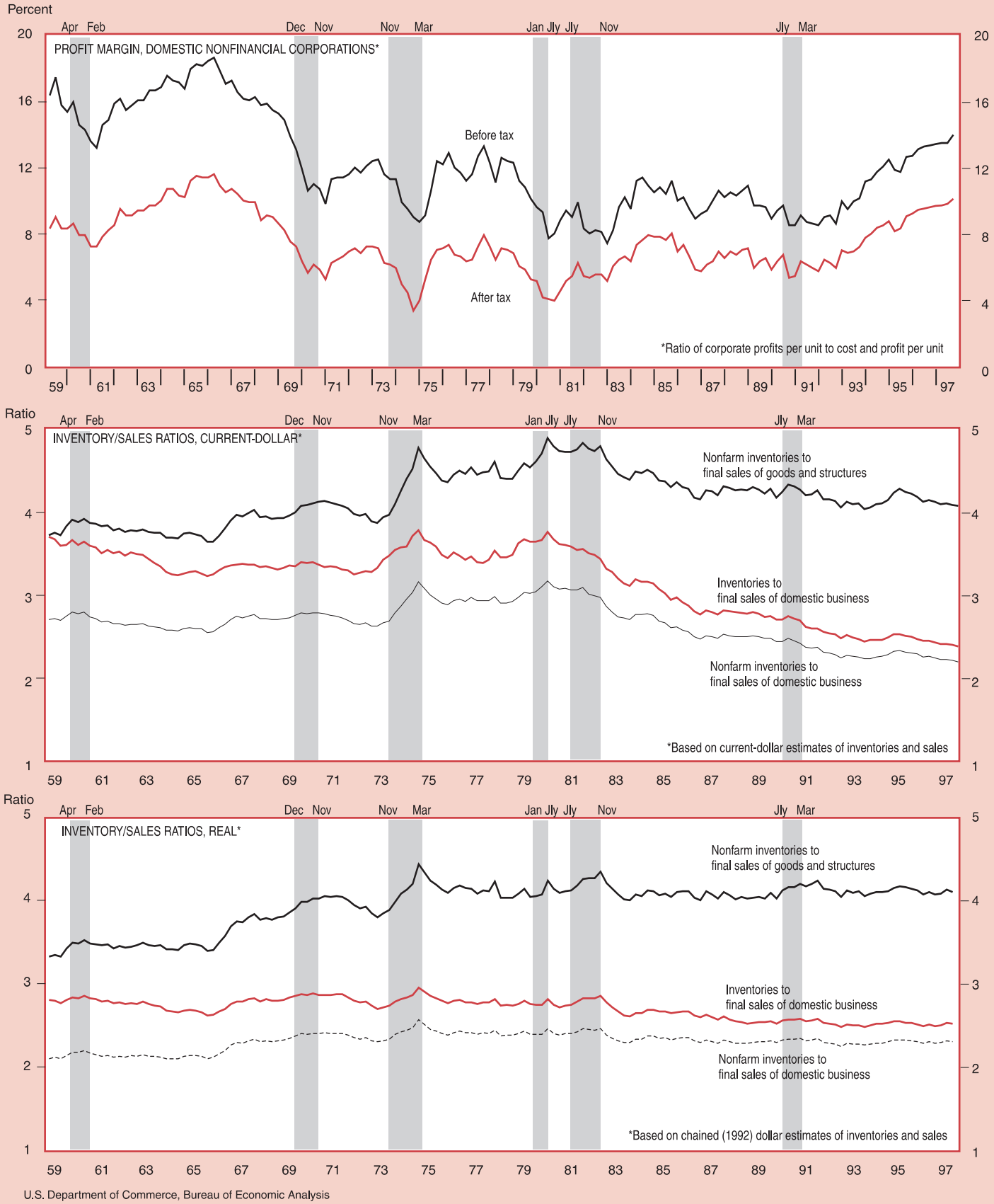
SELECTED NIPA SERIES



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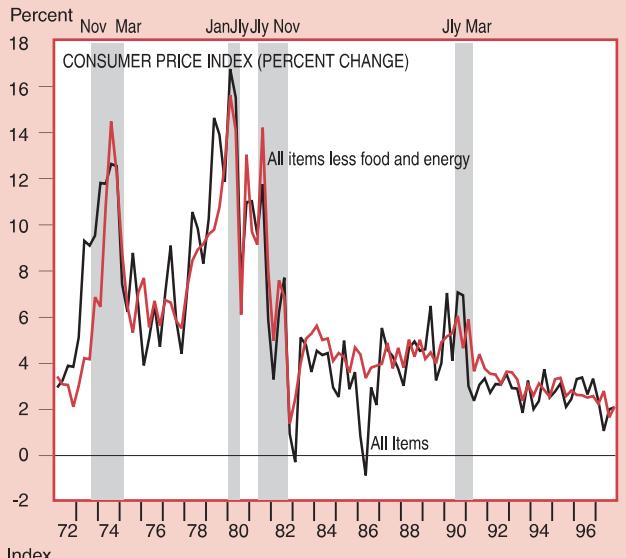
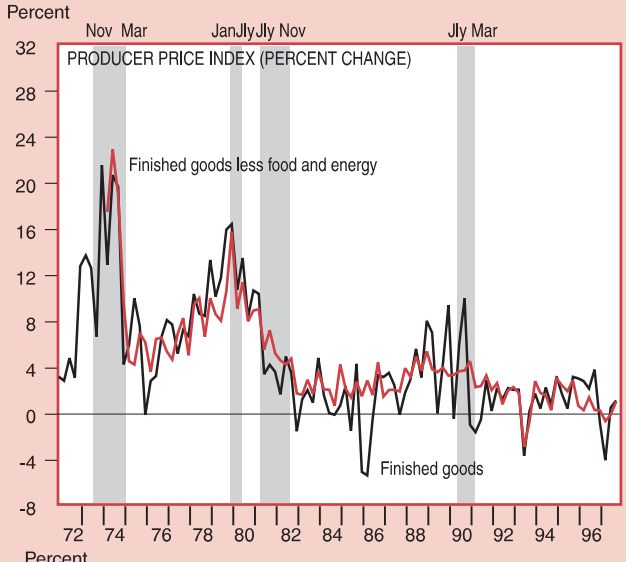
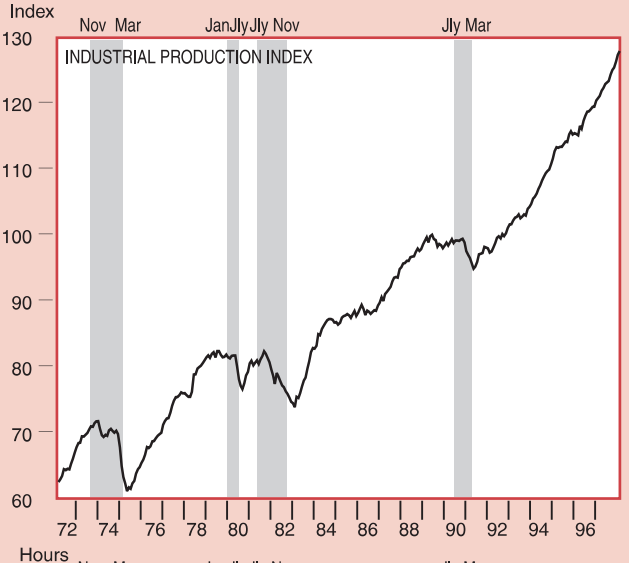
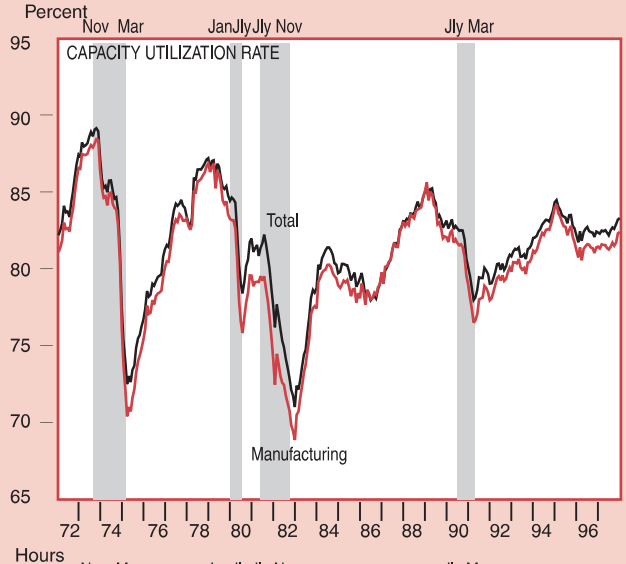
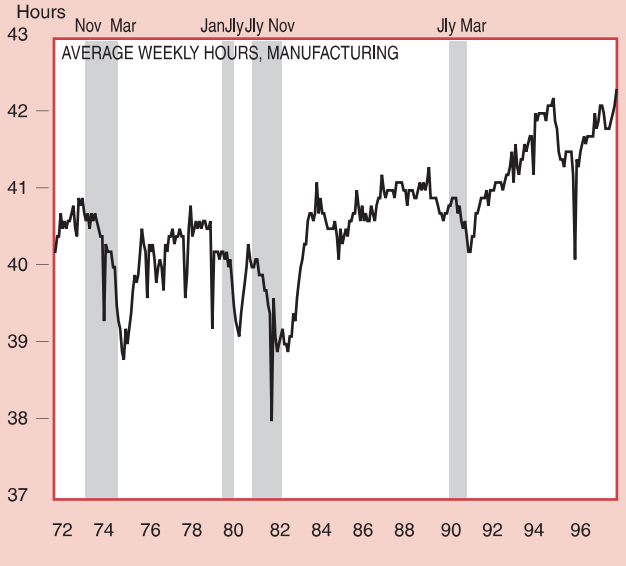
OTHER INDICATORS OF THE DOMESTIC ECONOMY

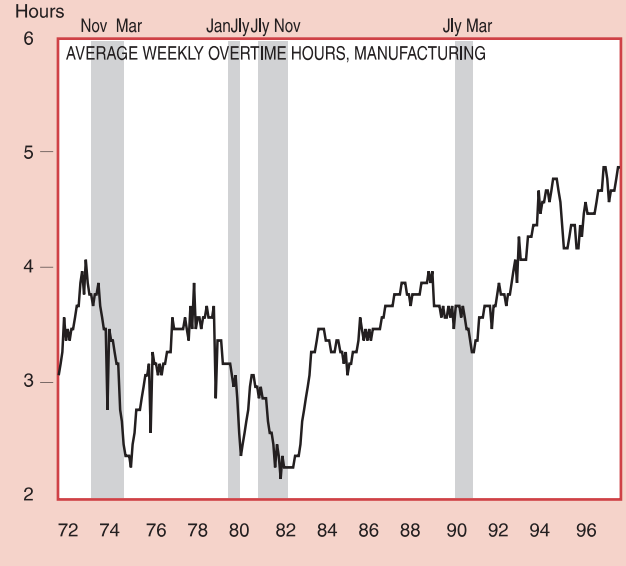












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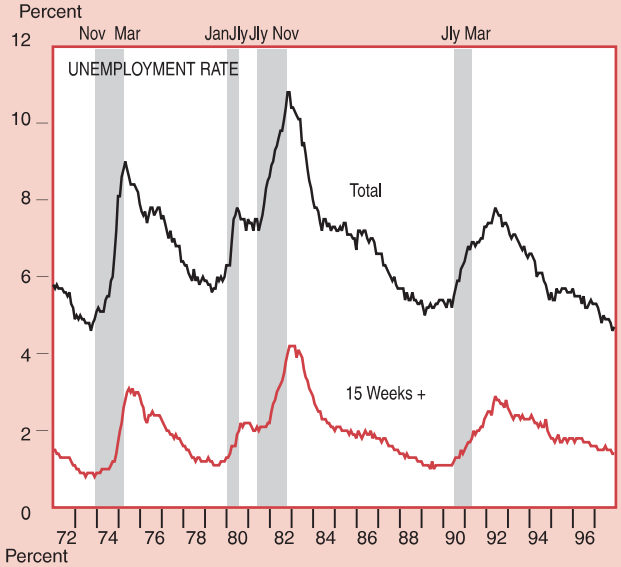
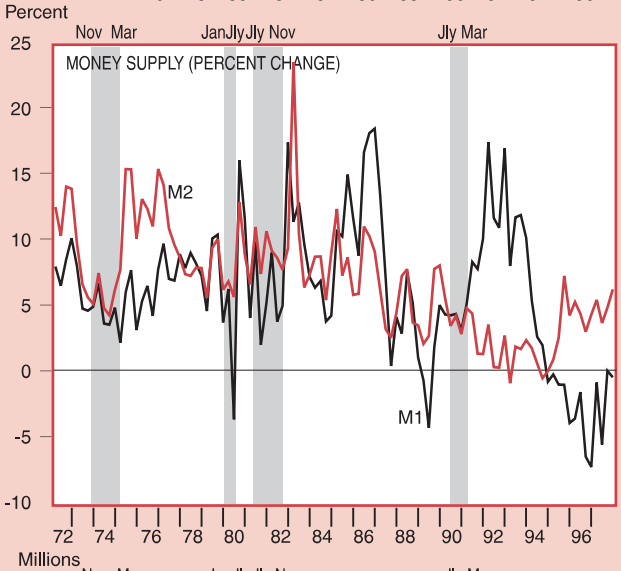
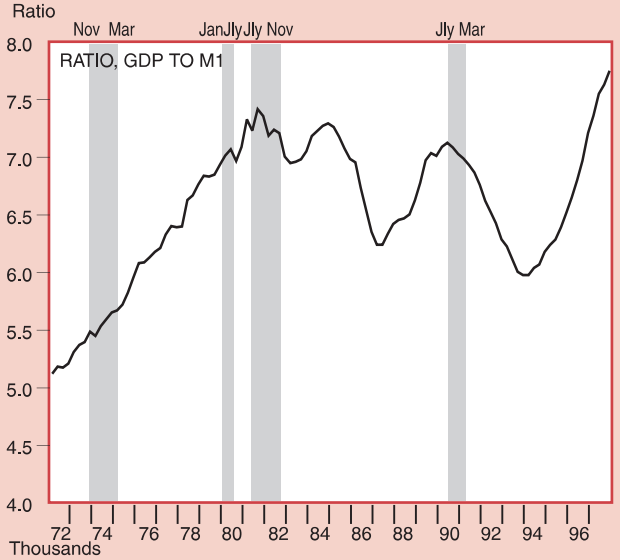
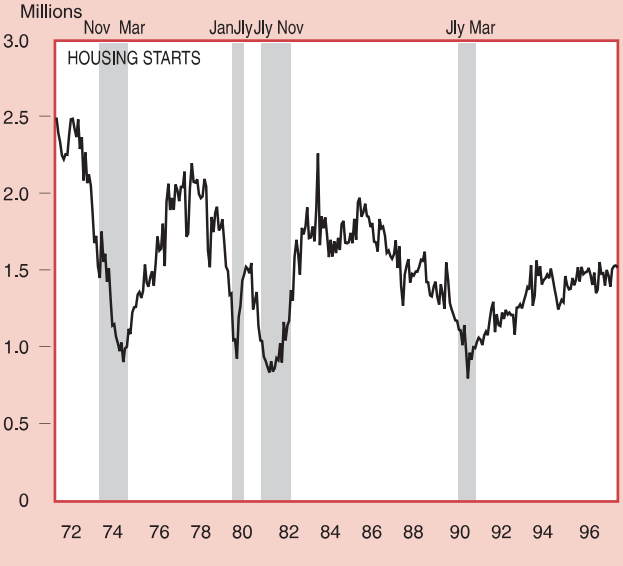
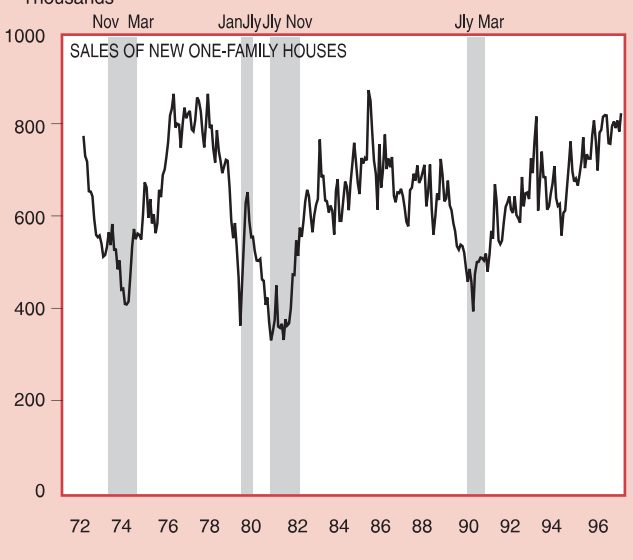
OTHER INDICATORS OF THE DOMESTIC ECONOMY











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

International Data

F. Transactions Tables

Table F.1 includes the most recent estimates of U.S. international trade in goods and services; the estimates were released on January 21, 1998 and include "preliminary" estimates for November 1997 and "revised" estimates for October 1997. The sources for the other tables in this section are as noted.

Table F.1.—U.S. International Transactions in Goods and Services

[Millions of dollars; monthly estimates seasonally adjusted]

	1995	1996	1996			1997										
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.[r]	Nov.[p]
Exports of goods and services	**794,610**	**848,833**	**73,088**	**73,969**	**72,444**	**71,848**	**74,282**	**78,124**	**78,385**	**77,989**	**78,365**	**77,845**	**78,890**	**78,116**	**80,230**	**79,197**
Goods	**575,871**	**612,069**	**52,503**	**53,209**	**52,133**	**51,686**	**53,687**	**57,155**	**57,162**	**56,871**	**57,378**	**56,745**	**57,326**	**56,370**	**58,450**	**57,781**
Foods, feeds, and beverages	50,473	55,534	4,545	5,012	4,398	4,327	4,272	4,181	4,162	4,052	3,929	3,832	4,234	4,337	4,681	4,643
Industrial supplies and materials	146,247	147,652	12,679	12,252	12,463	12,091	12,706	13,731	13,507	13,399	13,885	13,169	13,373	13,133	13,229	13,073
Capital goods, except automotive	233,046	252,895	22,049	22,211	22,052	21,555	22,715	24,713	24,971	24,760	24,482	24,898	24,913	24,778	25,350	24,649
Automotive vehicles, engines, and parts	61,828	65,021	5,410	5,878	5,465	5,600	5,907	6,228	6,171	5,935	6,251	6,261	6,174	5,844	6,458	6,910
Consumer goods (nonfood), except automotive	64,425	70,138	6,141	6,070	6,015	6,068	6,264	6,481	6,339	6,663	6,720	6,397	6,448	6,400	6,752	6,597
Other goods	28,723	33,836	2,744	3,064	3,056	2,595	2,493	2,808	2,709	3,057	2,968	3,218	3,228	3,010	3,021	2,576
Adjustments [1]	–8,871	–13,006	–1,065	–1,279	–1,316	–551	–671	–988	–697	–995	–857	–1,031	–1,044	–1,133	–1,040	–666
Services	**218,739**	**236,764**	**20,585**	**20,760**	**20,311**	**20,162**	**20,595**	**20,969**	**21,223**	**21,118**	**20,987**	**21,100**	**21,564**	**21,746**	**21,780**	**21,416**
Travel	63,395	69,908	6,145	6,215	5,823	5,947	6,243	6,366	6,389	6,189	6,027	6,098	6,342	6,537	6,418	6,186
Passenger fares	19,125	20,557	1,791	1,801	1,690	1,711	1,797	1,811	1,880	1,830	1,801	1,805	1,846	1,920	1,877	1,827
Other transportation	27,412	27,216	2,400	2,393	2,349	2,291	2,321	2,387	2,379	2,365	2,299	2,289	2,423	2,428	2,459	2,437
Royalties and license fees	27,383	29,974	2,559	2,570	2,574	2,561	2,563	2,575	2,550	2,540	2,532	2,541	2,535	2,528	2,531	2,533
Other private services	66,850	73,569	6,321	6,370	6,426	6,510	6,588	6,662	6,756	6,878	6,995	7,059	7,108	7,022	7,168	7,110
Transfers under U.S. military agency sales contracts [2]	13,756	14,647	1,299	1,342	1,381	1,074	1,015	1,101	1,205	1,252	1,270	1,245	1,247	1,248	1,261	1,258
U.S. Government miscellaneous services	818	893	70	69	68	68	68	67	64	64	63	63	63	63	66	65
Imports of goods and services	**896,467**	**959,873**	**81,023**	**81,634**	**83,045**	**83,458**	**84,138**	**85,955**	**86,504**	**87,178**	**86,702**	**87,589**	**87,945**	**89,344**	**89,321**	**87,234**
Goods	**749,431**	**803,239**	**67,823**	**68,385**	**69,828**	**69,834**	**70,448**	**72,032**	**72,689**	**73,234**	**72,622**	**73,593**	**73,885**	**74,908**	**74,929**	**72,879**
Foods, feeds, and beverages	33,176	35,710	3,009	2,976	3,189	3,074	3,105	3,328	3,358	3,378	3,251	3,395	3,347	3,395	3,304	3,192
Industrial supplies and materials	181,849	204,482	18,250	17,562	18,698	17,944	17,641	17,969	17,575	17,905	17,565	17,456	17,878	18,288	18,363	17,129
Capital goods, except automotive	221,431	229,050	18,943	19,330	19,581	19,466	19,439	20,422	20,686	20,988	21,250	21,574	22,060	21,984	22,386	21,376
Automotive vehicles, engines, and parts	123,795	128,938	10,156	11,234	10,846	11,763	12,113	11,685	11,366	11,625	11,594	12,291	11,817	11,821	11,252	11,789
Consumer goods (nonfood), except automotive	159,905	171,007	14,952	14,749	15,149	15,117	15,256	14,927	16,214	16,079	15,716	16,100	16,009	16,656	16,645	16,752
Other goods	23,387	26,102	2,198	2,245	2,130	2,224	2,465	2,244	2,472	2,361	2,355	2,549	2,531	2,505	2,738	2,409
Adjustments [1]	5,888	7,950	315	289	235	247	429	1,456	1,019	897	891	227	242	259	242	233
Services	**147,036**	**156,634**	**13,200**	**13,249**	**13,217**	**13,624**	**13,690**	**13,923**	**13,815**	**13,944**	**14,080**	**13,996**	**14,060**	**14,436**	**14,392**	**14,355**
Travel	46,053	48,739	4,025	4,156	4,061	4,295	4,312	4,411	4,275	4,340	4,388	4,288	4,289	4,524	4,471	4,537
Passenger fares	14,433	15,776	1,344	1,367	1,342	1,411	1,425	1,447	1,397	1,392	1,412	1,398	1,399	1,484	1,458	1,480
Other transportation	28,249	28,453	2,478	2,323	2,366	2,448	2,439	2,491	2,518	2,546	2,478	2,420	2,523	2,575	2,588	2,493
Royalties and license fees	6,503	7,322	577	589	604	588	598	613	609	615	623	659	641	651	660	671
Other private services	39,285	42,796	3,640	3,680	3,707	3,739	3,770	3,811	3,893	3,933	4,062	4,104	4,081	4,074	4,069	4,051
Direct defense expenditures [2]	9,890	10,861	909	907	911	914	917	922	896	892	891	899	900	901	919	896
U.S. Government miscellaneous services	2,623	2,687	227	227	226	229	229	228	227	226	226	228	227	227	227	227
Memoranda:																
Balance on goods	–173,560	–191,170	–15,320	–15,176	–17,695	–18,149	–16,761	–14,877	–15,528	–16,363	–15,244	–16,849	–16,559	–18,538	–16,479	–15,098
Balance on services	71,703	80,130	7,385	7,511	7,094	6,538	6,905	7,046	7,408	7,174	6,907	7,104	7,504	7,310	7,388	7,061
Balance on goods and services	–101,857	–111,040	–7,935	–7,665	–10,601	–11,611	–9,856	–7,831	–8,120	–9,189	–8,337	–9,745	–9,055	–11,228	–9,091	–8,037

[p] Preliminary.
[r] Revised.

Source: U.S. Department of Commerce, Bureau of Economic Analysis and Bureau of the Census

1. Reflects adjustments necessary to bring the Census Bureau's component data in line with the concepts and definitions used to prepare BEA's international and national accounts.
2. Contains goods that cannot be separately identified.

Table F.2.—U.S. International Transactions

[Millions of dollars]

Line	(Credits +; debits –) [1]	1996	Not seasonally adjusted						Seasonally adjusted					
			1996			1997			1996			1997		
			II	III	IV	I	II r	III p	II	III	IV	I	II r	III p
1	**Exports of goods, services, and income**	**1,055,233**	**261,665**	**260,424**	**276,672**	**278,315**	**293,478**	**294,545**	**262,335**	**261,979**	**274,545**	**279,521**	**293,868**	**295,597**
2	Goods, adjusted, excluding military [2]	612,069	154,198	145,670	160,759	162,812	172,548	165,691	153,411	150,764	157,846	162,527	171,411	170,579
3	Services [3]	236,764	57,121	63,564	60,669	59,841	61,652	69,075	58,736	59,322	61,656	61,725	63,328	64,410
4	Transfers under U.S. military agency sales contracts [4]	14,647	3,961	3,572	4,022	3,190	3,727	3,740	3,961	3,572	4,022	3,190	3,727	3,740
5	Travel	69,908	17,165	21,041	16,898	16,421	18,428	22,696	17,356	17,659	18,183	18,556	18,605	18,977
6	Passenger fares	20,557	4,769	6,104	4,916	4,976	5,302	6,513	4,952	5,237	5,282	5,319	5,511	5,571
7	Other transportation	27,216	6,788	6,763	7,229	6,873	7,029	7,193	6,805	6,716	7,142	6,999	7,043	7,140
8	Royalties and license fees [5]	29,974	7,170	7,410	8,273	7,389	7,445	7,527	7,345	7,495	7,703	7,699	7,622	7,604
9	Other private services [5]	73,569	17,082	18,464	19,124	20,789	19,530	21,217	18,130	18,433	19,117	19,759	20,629	21,189
10	U.S. Government miscellaneous services	893	187	210	207	203	191	189	187	210	207	203	191	189
11	Income receipts on U.S. assets abroad	206,400	50,346	51,190	55,243	55,663	59,278	59,779	50,188	51,893	55,043	55,269	59,129	60,608
12	Direct investment receipts	98,890	24,318	23,837	27,123	26,164	28,380	27,138	23,929	24,675	26,898	25,872	27,970	28,088
13	Other private receipts	102,866	25,053	25,938	27,232	28,544	30,151	31,643	25,053	25,938	27,232	28,544	30,151	31,643
14	U.S. Government receipts	4,644	975	1,415	888	955	747	998	1,206	1,280	913	853	1,008	877
15	**Imports of goods, services, and income**	**–1,163,450**	**–289,195**	**–301,489**	**–302,337**	**–300,017**	**–322,999**	**–335,255**	**–289,231**	**–295,865**	**–299,493**	**–310,811**	**–322,760**	**–328,549**
16	Goods, adjusted, excluding military [2]	–803,239	–199,450	–205,518	–210,542	–204,876	–217,230	–225,289	–200,973	–203,257	–206,036	–212,314	–218,545	–222,128
17	Services [3]	–156,634	–40,128	–42,415	–38,253	–38,247	–43,073	–45,746	–38,953	–39,345	–39,664	–41,238	–41,839	–42,492
18	Direct defense expenditures	–10,861	–2,747	–2,780	–2,727	–2,753	–2,679	–2,700	–2,747	–2,780	–2,727	–2,753	–2,679	–2,700
19	Travel	–48,739	–13,236	–14,321	–10,690	–10,935	–14,205	–15,664	–12,099	–11,915	–12,241	–13,018	–13,003	–13,101
20	Passenger fares	–15,776	–4,188	–4,406	–3,637	–3,947	–4,445	–4,789	–3,943	–3,920	–4,053	–4,283	–4,201	–4,281
21	Other transportation	–28,453	–7,222	–7,380	–7,203	–7,191	–7,514	–7,686	–7,253	–7,218	–7,166	–7,378	–7,542	–7,518
22	Royalties and license fees [5]	–7,322	–1,606	–2,154	–1,865	–1,772	–1,758	–1,963	–1,684	–2,144	–1,770	–1,799	–1,847	–1,951
23	Other private services [5]	–42,796	–10,473	–10,682	–11,451	–10,962	–11,793	–12,262	–10,570	–10,676	–11,027	–11,321	–11,888	–12,259
24	U.S. Government miscellaneous services	–2,687	–657	–692	–680	–686	–679	–682	–657	–692	–680	–686	–679	–682
25	Income payments on foreign assets in the United States	–203,577	–49,616	–53,556	–53,542	–56,895	–62,696	–64,220	–49,305	–53,263	–53,793	–57,259	–62,376	–63,929
26	Direct investment payments	–32,132	–8,184	–9,905	–7,554	–8,175	–10,561	–10,992	–7,873	–9,612	–7,805	–8,539	–10,241	–10,701
27	Other private payments	–100,103	–24,600	–25,158	–26,135	–27,581	–29,341	–29,759	–24,600	–25,158	–26,135	–27,581	–29,341	–29,759
28	U.S. Government payments	–71,342	–16,832	–18,493	–19,853	–21,139	–22,794	–23,469	–16,832	–18,493	–19,853	–21,139	–22,794	–23,469
29	**Unilateral transfers, net**	**–39,968**	**–8,122**	**–9,103**	**–12,305**	**–8,604**	**–8,623**	**–9,061**	**–8,689**	**–8,947**	**–11,926**	**–8,682**	**–8,960**	**–9,204**
30	U.S. Government grants [4]	–14,933	–2,423	–2,690	–5,499	–2,109	–2,245	–2,252	–2,423	–2,690	–5,499	–2,109	–2,245	–2,252
31	U.S. Government pensions and other transfers	–4,331	–781	–1,188	–1,407	–795	–1,057	–936	–1,081	–1,064	–1,050	–1,083	–1,128	–1,099
32	Private remittances and other transfers [6]	–20,704	–4,918	–5,225	–5,399	–5,700	–5,321	–5,873	–5,185	–5,193	–5,377	–5,490	–5,587	–5,853
33	**U.S. assets abroad, net (increase/capital outflow (–))**	**–352,444**	**–51,161**	**–78,638**	**–149,829**	**–130,316**	**–92,849**	**–103,146**	**–49,698**	**–77,542**	**–154,436**	**–127,969**	**–90,935**	**–101,564**
34	U.S. official reserve assets, net [7]	6,668	–523	7,489	–315	4,480	–236	–730	–523	7,489	–315	4,480	–236	–730
35	Gold													
36	Special drawing rights	370	–133	848	–146	72	–133	–139	–133	848	–146	72	–133	–139
37	Reserve position in the International Monetary Fund	–1,280	–220	–183	–28	1,055	54	–463	–220	–183	–28	1,055	54	–463
38	Foreign currencies	7,578	–170	6,824	–141	3,353	–157	–128	–170	6,824	–141	3,353	–157	–128
39	U.S. Government assets, other than official reserve assets, net	–690	–358	162	–284	–21	–268	482	–358	162	–284	–21	–268	482
40	U.S. credits and other long-term assets	–4,930	–1,489	–1,127	–1,238	–1,107	–1,613	–1,382	–1,489	–1,127	–1,238	–1,107	–1,613	–1,382
41	Repayments on U.S. credits and other long-term assets [8]	4,134	870	1,206	1,045	1,111	1,358	1,872	870	1,206	1,045	1,111	1,358	1,872
42	U.S. foreign currency holdings and U.S. short-term assets, net	106	261	83	–91	–25	–13	–8	261	83	–91	–25	–13	–8
43	U.S. private assets, net	–358,422	–50,280	–86,289	–149,230	–134,775	–92,345	–102,898	–48,817	–85,193	–153,837	–132,428	–90,431	–101,316
44	Direct investment	–87,813	–25,097	–12,200	–26,258	–28,773	–38,573	–26,243	–23,634	–11,104	–30,865	–26,426	–36,659	–24,661
45	Foreign securities	–108,189	–20,328	–23,206	–30,200	–14,510	–21,841	–37,995	–20,328	–23,206	–30,200	–14,510	–21,841	–37,995
46	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	–64,234	–5,047	–17,294	–26,115	–29,466	–3,984	–15,900	–5,047	–17,294	–26,115	–29,466	–3,984	–15,900
47	U.S. claims reported by U.S. banks, not included elsewhere	–98,186	192	–33,589	–66,657	–62,026	–27,947	–22,760	192	–33,589	–66,657	–62,026	–27,947	–22,760
48	**Foreign assets in the United States, net (increase/capital inflow (+))**	**547,555**	**106,568**	**159,231**	**193,738**	**181,978**	**143,508**	**170,177**	**106,114**	**158,629**	**194,579**	**182,238**	**143,015**	**169,540**
49	Foreign official assets in the United States, net	122,354	13,154	24,089	33,097	28,891	–5,374	22,498	13,154	24,089	33,097	28,891	–5,374	22,498
50	U.S. Government securities	115,634	–2,125	26,689	35,418	23,940	–11,464	9,148	–2,125	26,689	35,418	23,940	–11,464	9,148
51	U.S. Treasury securities [9]	111,253	–3,383	25,472	33,564	23,289	–12,108	6,485	–3,383	25,472	33,564	23,289	–12,108	6,485
52	Other [10]	4,381	1,258	1,217	1,854	651	644	2,663	1,258	1,217	1,854	651	644	2,663
53	Other U.S. Government liabilities [11]	720	–204	907	160	478	654	16	–204	907	160	478	654	16
54	U.S. liabilities reported by U.S. banks, not included elsewhere	4,722	14,198	–1,922	–4,270	7,698	4,536	12,705	14,198	–1,922	–4,270	7,698	4,536	12,705
55	Other foreign official assets [12]	1,278	1,285	–1,585	1,789	–3,225	900	629	1,285	–1,585	1,789	–3,225	900	629
56	Other foreign assets in the United States, net	425,201	93,414	135,142	160,641	153,087	148,882	147,679	92,960	134,540	161,482	153,347	148,389	147,042
57	Direct investment	76,955	17,894	26,579	16,820	30,381	27,101	21,713	17,440	25,977	17,661	30,641	26,608	21,076
58	U.S. Treasury securities and U.S. currency flows	172,878	36,152	50,798	75,326	51,289	49,915	43,494	36,152	50,798	75,326	51,289	49,915	43,494
59	U.S. securities other than U.S. Treasury securities	133,798	29,761	35,115	32,447	38,820	51,682	60,770	29,761	35,115	32,447	38,820	51,682	60,770
60	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	31,786	7,288	20,610	–2,912	15,210	–7,916	7,600	7,288	20,610	–2,912	15,210	–7,916	7,600
61	U.S. liabilities reported by U.S. banks, not included elsewhere	9,784	2,319	2,040	38,960	17,387	28,100	14,102	2,319	2,040	38,960	17,387	28,100	14,102
62	**Allocations of special drawing rights**													
63	**Statistical discrepancy (sum of above items with sign reversed)**	**–46,927**	**–19,755**	**–30,424**	**–5,938**	**–21,356**	**–12,515**	**–17,260**	**–20,831**	**–38,254**	**–3,269**	**–14,297**	**–14,228**	**–25,820**
63a	*Of which* seasonal adjustment discrepancy								–1,076	–7,830	2,669	7,059	–1,713	–8,560
	Memoranda:													
64	Balance on goods (lines 2 and 16)	–191,170	–45,252	–59,848	–49,783	–42,064	–44,682	–59,598	–47,562	–52,493	–48,190	–49,787	–47,134	–51,549
65	Balance on services (lines 3 and 17)	80,130	16,993	21,149	22,416	21,594	18,579	23,329	19,783	19,977	21,992	20,487	21,489	21,918
66	Balance on goods and services (lines 64 and 65)	–111,040	–28,259	–38,699	–27,367	–20,470	–26,103	–36,269	–27,779	–32,516	–26,198	–29,300	–25,645	–29,631
67	Balance on investment income (lines 11 and 25)	2,824	729	–2,367	1,701	–1,232	–3,418	–4,441	883	–1,370	1,250	–1,990	–3,247	–3,321
68	Balance on goods, services, and income (lines 1 and 15 or lines 66 and 67) [13]	–108,216	–27,530	–41,066	–25,666	–21,702	–29,521	–40,710	–26,896	–33,886	–24,948	–31,290	–28,892	–32,952
69	Unilateral transfers, net (line 29)	–39,968	–8,122	–9,103	–12,305	–8,604	–8,623	–9,061	–8,689	–8,947	–11,926	–8,682	–8,960	–9,204
70	Balance on current account (lines 1, 15, and 29 or lines 68 and 69) [13]	–148,184	–35,652	–50,169	–37,971	–30,306	–38,144	–49,771	–35,585	–42,833	–36,874	–39,972	–37,852	–42,156

See footnotes to table F.3.

Table F.3.—Selected U.S. International Transactions, by Area

[Millions of dollars]

Line	(Credits +; debits –) [1]	Western Europe			European Union [14]			United Kingdom			European Union (6) [15]		
		1997			1997			1997			1997		
		I	II [r]	III [p]	I	II [r]	III [p]	I	II [r]	III [p]	I	II [r]	III [p]
1	**Exports of goods, services, and income**	**82,285**	**85,940**	**84,666**	**74,107**	**76,451**	**76,476**	**23,784**	**24,050**	**23,597**	**38,711**	**40,599**	**41,155**
2	Goods, adjusted, excluding military [2]	38,645	39,866	35,404	35,089	35,147	32,449	9,554	9,327	8,149	20,391	20,776	19,722
3	Services [3]	19,651	21,070	24,110	17,350	18,686	21,434	5,347	5,673	6,393	8,859	9,613	11,386
4	Transfers under U.S. military agency sales contracts [4]	934	879	928	566	487	533	213	108	105	150	109	181
5	Travel	4,678	5,896	7,689	4,247	5,388	7,031	1,602	2,023	2,379	1,937	2,536	3,620
6	Passenger fares	1,448	1,728	2,448	1,375	1,639	2,329	358	379	566	821	1,008	1,421
7	Other transportation	1,942	2,002	2,107	1,557	1,593	1,684	458	423	434	687	715	757
8	Royalties and license fees [5]	3,711	3,540	3,594	3,542	3,355	3,405	625	630	706	2,162	2,014	2,087
9	Other private services [5]	6,896	6,990	7,303	6,026	6,194	6,417	2,079	2,099	2,191	3,086	3,217	3,303
10	U.S. Government miscellaneous services	42	35	41	37	30	35	12	11	12	15	14	17
11	Income receipts on U.S. assets abroad	23,990	25,004	25,152	21,668	22,618	22,593	8,883	9,050	9,055	9,462	10,210	10,047
12	Direct investment receipts	12,013	12,442	11,931	10,583	10,967	10,328	3,795	3,537	3,163	5,184	5,783	5,557
13	Other private receipts	11,695	12,392	12,946	10,843	11,506	12,034	5,088	5,513	5,892	4,137	4,295	4,354
14	U.S. Government receipts	282	170	275	242	145	231	.....	.....	.....	141	132	136
15	**Imports of goods, services, and income**	**–83,405**	**–94,876**	**–94,109**	**–75,539**	**–86,504**	**–85,845**	**–28,874**	**–31,843**	**–31,997**	**–36,856**	**–42,988**	**–41,993**
16	Goods, adjusted, excluding military [2]	–40,901	–45,115	–42,971	–37,268	–41,220	–39,192	–7,578	–7,949	–8,100	–23,637	–26,620	–24,612
17	Services [3]	–14,442	–17,876	–18,784	–12,697	–15,744	–16,739	–4,671	–5,438	–5,836	–6,567	–7,937	–8,337
18	Direct defense expenditures	–1,780	–1,594	–1,700	–1,415	–1,263	–1,350	–136	–132	–100	–1,168	–1,044	–1,100
19	Travel	–3,057	–5,609	–5,911	–2,871	–5,133	–5,529	–1,020	–1,450	–1,575	–1,554	–2,738	–2,959
20	Passenger fares	–1,752	–2,338	–2,529	–1,593	–2,102	–2,287	–631	–899	–925	–679	–828	–920
21	Other transportation	–2,456	–2,683	–2,741	–1,932	–2,062	–2,136	–565	–514	–578	–967	–1,002	–1,026
22	Royalties and license fees [5]	–1,213	–1,196	–1,289	–1,035	–995	–1,108	–511	–474	–544	–465	–454	–467
23	Other private services [5]	–3,890	–4,168	–4,324	–3,599	–3,942	–4,080	–1,785	–1,946	–2,091	–1,547	–1,687	–1,679
24	U.S. Government miscellaneous services	–293	–288	–290	–252	–247	–249	–23	–23	–23	–186	–184	–186
25	Income payments on foreign assets in the United States	–28,063	–31,885	–32,354	–25,574	–29,540	–29,914	–16,626	–18,456	–18,061	–6,652	–8,431	–9,044
26	Direct investment payments	–6,311	–8,578	–8,056	–5,521	–7,951	–7,311	–2,666	–3,247	–2,422	–2,344	–3,964	–4,060
27	Other private payments	–13,688	–14,475	–14,827	–12,762	–13,523	–13,861	–9,776	–10,345	–10,477	–2,429	–2,570	–2,791
28	U.S. Government payments	–8,064	–8,832	–9,471	–7,291	–8,066	–8,742	–4,184	–4,864	–5,162	–1,879	–1,897	–2,193
29	**Unilateral transfers, net**	**45**	**63**	**–50**	**243**	**288**	**268**	**350**	**374**	**390**	**87**	**110**	**67**
30	U.S. Government grants [4]	–102	–134	–201	–17	–11	.....	.....	.....	.....	.....	.....	.....
31	U.S. Government pensions and other transfers	–281	–330	–306	–249	–282	–267	–44	–48	–44	–144	–157	–152
32	Private remittances and other transfers [6]	428	527	457	509	581	535	394	422	434	231	267	219
33	**U.S. assets abroad, net (increase/capital outflow (–))**	**–83,486**	**–21,851**	**–41,951**	**–75,870**	**–20,810**	**–28,853**	**–34,277**	**–14,108**	**–11,745**	**–31,031**	**–3,431**	**–16,139**
34	U.S. official reserve assets, net [7]	–196	–139	–142	12	–227	189	.....	.....	.....	12	–227	189
35	Gold	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Special drawing rights	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Reserve position in the International Monetary Fund	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Foreign currencies	–196	–139	–142	12	–227	189	.....	.....	.....	12	–227	189
39	U.S. Government assets, other than official reserve assets, net	157	–17	198	141	–62	170	–5	4	.....	–8	–17	1
40	U.S. credits and other long-term assets	–86	–112	–71	–35	–51	–35	.....	.....	.....	.....	.....	.....
41	Repayments on U.S. credits and other long-term assets [8]	255	109	274	188	4	204	.....	.....	.....	.....	.....	.....
42	U.S. foreign currency holdings and U.S. short-term assets, net	–12	–14	–5	–12	–15	1	–5	4	.....	–8	–17	1
43	U.S. private assets, net	–83,447	–21,695	–42,007	–76,023	–20,521	–29,212	–34,272	–14,112	–11,745	–31,035	–3,187	–16,329
44	Direct investment	–12,590	–22,885	–10,479	–11,023	–21,951	–6,504	–2,446	–14,312	2,019	–6,631	–6,722	–7,457
45	Foreign securities	–3,366	4,773	–19,674	–2,135	4,397	–20,218	–2,013	1,663	–19,868	1,504	1,111	–796
46	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	–16,678	–5,269	.....	–16,590	–5,152	.....	–8,552	–5,037	.....	–7,145	1,708	.....
47	U.S. claims reported by U.S. banks, not included elsewhere	–50,813	1,686	–11,854	–46,275	2,185	–2,490	–21,261	3,574	6,104	–18,763	716	–8,076
48	**Foreign assets in the United States, net (increase/capital inflow (+))**	**111,398**	**85,754**	**110,212**	**103,122**	**84,121**	**103,883**	**80,358**	**40,075**	**57,025**	**11,978**	**42,247**	**37,090**
49	Foreign official assets in the United States, net	11,034	1,172	396	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
50	U.S. Government securities	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
51	U.S. Treasury securities [9]	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
52	Other [10]	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
53	Other U.S. Government liabilities [11]	73	209	284	94	157	337	–77	–32	6	76	106	80
54	U.S. liabilities reported by U.S. banks, not included elsewhere	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
55	Other foreign official assets [12]	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
56	Other foreign assets in the United States, net	100,364	84,582	109,816	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
57	Direct investment	26,390	14,755	12,979	24,223	12,349	5,920	13,684	1,488	1,420	10,138	11,037	3,122
58	U.S. Treasury securities and U.S. currency flows	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
59	U.S. securities other than U.S. Treasury securities	30,948	32,525	38,295	29,431	30,234	38,335	21,470	21,027	24,361	6,003	7,631	12,307
60	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	12,825	–368	.....	12,560	–386	.....	11,576	412	.....	713	–914	.....
61	U.S. liabilities reported by U.S. banks, not included elsewhere	(17)	(17)	(17)	[18] 36,814	[18] 41,767	[18] 59,291	[18] 33,705	[18] 17,180	[18] 31,238	[18] –4,952	[18] 24,387	[18] 21,581
62	**Allocations of special drawing rights**	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
63	**Statistical discrepancy, and transfers of funds between foreign areas, net (sum of above items with sign reversed)**	**–26,837**	**–55,030**	**–58,768**	**–26,062**	**–53,546**	**–65,929**	**–41,341**	**–18,548**	**–37,270**	**17,111**	**–36,537**	**–20,180**
	Memoranda:												
64	Balance on goods (lines 2 and 16)	–2,256	–5,249	–7,567	–2,179	–6,073	–6,743	1,976	1,378	49	–3,246	–5,844	–4,890
65	Balance on services (lines 3 and 17)	5,209	3,194	5,326	4,653	2,942	4,695	677	235	557	2,292	1,676	3,049
66	Balance on goods and services (lines 64 and 65)	2,953	–2,055	–2,241	2,474	–3,131	–2,048	2,653	1,613	606	–954	–4,168	–1,841
67	Balance on investment income (lines 11 and 25)	–4,073	–6,881	–7,202	–3,906	–6,922	–7,321	–7,743	–9,406	–9,006	2,809	1,779	1,003
68	Balance on goods, services, and income (lines 1 and 15 or lines 66 and 67) [13]	–1,120	–8,936	–9,443	–1,433	–10,053	–9,369	–5,090	–7,793	–8,400	1,855	–2,389	–838
69	Unilateral transfers, net (line 29)	45	63	–50	243	288	268	350	374	390	87	110	67
70	Balance on current account (lines 1, 15, and 29 or lines 68 and 69) [13]	–1,075	–8,873	–9,493	–1,190	–9,765	–9,101	–4,740	–7,419	–8,010	1,942	–2,279	–771

[p] Preliminary.
[r] Revised.

1. Credits, +: Exports of goods, services, and income; unilateral transfers to United States; capital inflows (increase in foreign assets (U.S. liabilities) or decrease in U.S. assets); decrease in U.S. official reserve assets; increase in foreign official assets in the United States.
Debits, –: Imports of goods, services, and income; unilateral transfers to foreigners; capital outflows (decrease in foreign assets (U.S. liabilities) or increase in U.S. assets); increase in U.S. official reserve assets; decrease in foreign offical assets in the United States.

2. Excludes exports of goods under U.S. military agency sales contracts identified in Census export documents, excludes imports of goods under direct defense expenditures identified in Census import documents, and reflects various other adjustments (for valuation, coverage, and timing) of Census statistics to balance of payments basis; see table 2 in "U.S. International Transactions, Third Quarter 1997" in the January 1998 issue of the SURVEY.

3. Includes some goods: Mainly military equipment in line 4; major equipment, other materials, supplies, and petroleum products purchased abroad by U.S. military agencies in line 18; and fuels purchased by airline and steamship operators in lines 7 and 21.

4. Includes transfers of goods and services under U.S. military grant programs.

5. Beginning in 1982, these lines are presented on a gross basis. The definition of exports is revised to exclude U.S. parents' payments to foreign affiliates and to include U.S. affiliates' receipts from foreign parents. The definition of imports is revised to include U.S. parents' payments to foreign affiliates and to exclude U.S. affiliates' receipts from foreign parents.

6. Beginning in 1982, the "other transfers" component includes taxes paid by U.S. private residents to foreign governments and taxes paid by private nonresidents to the U.S. Government.

7. For all areas, amounts outstanding September 30, 1997, were as follows in millions of dollars: Line 34, 67,148; line 35, 11,050; line 36, 9,997; line 37, 14,042; line 38, 32,059. Data are preliminary.

Table F.3.—Selected U.S. International Transactions, by Area

[Millions of dollars]

Line	(Credits +; debits –) [1]	Eastern Europe 1997			Canada 1997			Latin America and Other Western Hemisphere 1997			Japan 1997		
		I	II[r]	III[p]	I	II[r]	III[p]	I	II[r]	III[p]	I	II[r]	III[p]
1	**Exports of goods, services, and income**	**3,108**	**3,403**	**3,205**	**47,188**	**49,685**	**47,024**	**51,153**	**55,830**	**60,431**	**28,710**	**28,385**	**28,675**
2	Goods, adjusted, excluding military [2]	1,811	2,110	1,749	36,823	39,042	36,795	29,516	32,425	34,444	16,448	16,557	15,702
3	Services [3]	881	846	943	5,448	5,392	5,011	8,905	9,046	10,671	9,753	9,266	10,689
4	Transfers under U.S. military agency sales contracts [4]	96	80	61	24	22	23	114	95	110	156	98	130
5	Travel	173	227	293	1,954	1,907	1,601	3,543	3,551	4,527	3,486	3,243	4,157
6	Passenger fares	20	22	30	327	307	226	979	993	1,226	1,743	1,627	1,829
7	Other transportation	99	97	94	726	768	754	849	930	981	774	796	806
8	Royalties and license fees [5]	42	36	33	343	329	351	362	390	408	1,445	1,573	1,552
9	Other private services [5]	442	374	422	2,056	2,043	2,052	3,019	3,050	3,381	2,135	1,919	2,204
10	U.S. Government miscellaneous services	9	10	10	17	16	4	39	37	38	14	10	11
11	Income receipts on U.S. assets abroad	416	447	513	4,917	5,251	5,218	12,732	14,359	15,316	2,509	2,562	2,284
12	Direct investment receipts	247	302	262	2,581	2,793	2,747	4,192	5,450	5,634	1,103	1,148	904
13	Other private receipts	100	109	133	2,336	2,458	2,471	8,401	8,841	9,562	1,399	1,392	1,381
14	U.S. Government receipts	69	36	118	.....	.....	.....	139	68	120	7	22	–1
15	**Imports of goods, services, and income**	**–2,792**	**–3,108**	**–3,600**	**–47,506**	**–50,077**	**–48,781**	**–51,733**	**–54,841**	**–56,425**	**–41,415**	**–41,837**	**–44,334**
16	Goods, adjusted, excluding military [2]	–1,864	–2,009	–2,323	–42,004	–43,383	–41,319	–32,831	–34,925	–36,046	–30,096	–29,317	–30,803
17	Services [3]	–580	–722	–845	–3,009	–3,781	–4,659	–8,081	–8,362	–8,723	–3,548	–3,754	–3,948
18	Direct defense expenditures	–79	–51	–100	–18	–14	–15	–85	–83	–85	–257	–293	–275
19	Travel	–212	–338	–420	–619	–1,270	–2,126	–3,713	–3,708	–3,737	–790	–865	–907
20	Passenger fares	–52	–96	–96	–82	–121	–145	–742	–617	–689	–190	–182	–189
21	Other transportation	–80	–70	–66	–925	–965	–935	–589	–672	–659	–982	–1,018	–1,128
22	Royalties and license fees [5]	–2	–1	–2	–59	–70	–76	–28	–37	–38	–326	–323	–374
23	Other private services [5]	–142	–151	–146	–1,275	–1,308	–1,329	–2,815	–3,134	–3,404	–978	–1,049	–1,051
24	U.S. Government miscellaneous services	–14	–15	–15	–32	–33	–33	–110	–111	–111	–24	–24	–24
25	Income payments on foreign assets in the United States	–348	–377	–432	–2,493	–2,913	–2,803	–10,821	–11,554	–11,656	–7,771	–8,766	–9,583
26	Direct investment payments	–3	5	8	–685	–983	–961	–351	–477	–454	–1,016	–1,408	–2,077
27	Other private payments	–99	–99	–119	–1,279	–1,380	–1,277	–7,668	–8,240	–8,491	–1,610	–1,758	–1,680
28	U.S. Government payments	–246	–283	–321	–529	–550	–565	–2,802	–2,837	–2,711	–5,145	–5,600	–5,826
29	**Unilateral transfers, net**	**–653**	**–687**	**–771**	**–102**	**–74**	**–102**	**–2,627**	**–2,700**	**–2,785**	**–66**	**–25**	**–11**
30	U.S. Government grants [4]	–292	–359	–433	.....	.....	.....	–276	–342	–302	.....	.....	.....
31	U.S. Government pensions and other transfers	–9	–10	–8	–101	–102	–111	–140	–161	–144	–22	–23	–21
32	Private remittances and other transfers [6]	–352	–318	–330	–1	28	9	–2,211	–2,197	–2,339	–44	–2	10
33	**U.S. assets abroad, net (increase/capital outflow (–))**	**–3,738**	**1,044**	**–2,607**	**–12,332**	**–5,131**	**7,117**	**–13,440**	**–40,996**	**–58,458**	**–2,623**	**–11,820**	**3,547**
34	U.S. official reserve assets, net [7]	.....	.....	.....	.....	.....	.....	3,500	.....	.....	49	–18	14
35	Gold	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
36	Special drawing rights	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Reserve position in the International Monetary Fund	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
38	Foreign currencies	.....	.....	.....	.....	.....	.....	3,500	.....	.....	49	–18	14
39	U.S. Government assets, other than official reserve assets, net	11	–13	5	–1	1	.....	106	228	48	8	3	–1
40	U.S. credits and other long-term assets	–28	–328	–220	.....	.....	.....	–270	–219	–344	.....	.....	.....
41	Repayments on U.S. credits and other long-term assets [8]	27	315	225	.....	.....	.....	386	437	391	.....	.....	.....
42	U.S. foreign currency holdings and U.S. short-term assets, net	12	.....	.....	–1	1	.....	–10	10	1	8	3	–1
43	U.S. private assets, net	–3,749	1,057	–2,612	–12,331	–5,132	7,117	–17,046	–41,224	–58,506	–2,680	–11,805	3,534
44	Direct investment	–748	–578	–368	–2,563	–2,914	–2,835	–4,657	–7,024	–6,771	–1,045	–514	–1,533
45	Foreign securities	–85	–577	–577	2,300	–2,428	–4,509	–6,992	–11,098	–1,635	–3,258	–10,150	–2,410
46	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	38	–31	.....	681	2,762	.....	–13,884	–1,576	–15,900	155	67	.....
47	U.S. claims reported by U.S. banks, not included elsewhere	–2,954	2,243	–1,667	–12,749	–2,552	14,461	8,487	–21,526	–34,200	1,468	–1,208	7,477
48	**Foreign assets in the United States, net (increase/capital inflow (+))**	**1,180**	**3,708**	**1,690**	**3,906**	**7,813**	**–7,503**	**7,023**	**27,322**	**29,406**	**26,740**	**20,656**	**9,005**
49	Foreign official assets in the United States, net	([18])	([18])	([18])	682	–1,430	546	([18])	([18])	([18])	([18])	([18])	([18])
50	U.S. Government securities	([18])	([18])	([18])	([17])	([17])	([17])	([18])	([18])	([18])	([18])	([18])	([18])
51	U.S. Treasury securities [9]	([18])	([18])	([18])	([17])	([17])	([17])	([18])	([18])	([18])	([18])	([18])	([18])
52	Other [10]	([18])	([18])	([18])	([17])	([17])	([17])	([18])	([18])	([18])	([18])	([18])	([18])
53	Other U.S. Government liabilities [11]	–22	1	32	28	–10	–7	58	11	–22	–154	429	221
54	U.S. liabilities reported by U.S. banks, not included elsewhere	([18])	([18])	([18])	([17])	([17])	([17])	([18])	([18])	([18])	([18])	([18])	([18])
55	Other foreign official assets [12]	([18])	([18])	([18])	([17])	([17])	([17])	([18])	([18])	([18])	([18])	([18])	([18])
56	Other foreign assets in the United States, net	([18])	([18])	([18])	3,224	9,243	–8,049	([18])	([18])	([18])	([18])	([18])	([18])
57	Direct investment	–217	75	155	2,034	3,509	459	443	3,832	1,109	1,219	1,670	3,537
58	U.S. Treasury securities and U.S. currency flows	([18])	([18])	([18])	([17])	([17])	([17])	([18])	([18])	([18])	([18])	([18])	([18])
59	U.S. securities other than U.S. Treasury securities	–33	73	189	2,924	977	255	192	8,725	13,636	999	7,402	5,451
60	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	33	–47	.....	–1,038	–256	.....	2,469	–6,935	7,600	–111	–293	.....
61	U.S. liabilities reported by U.S. banks, not included elsewhere	[18] 1,419	[18] 3,606	[18] 1,314	([17])	([17])	([17])	[18] 3,861	[18] 21,689	[18] 7,083	[18] 24,787	[18] 11,448	[18] –204
62	**Allocations of special drawing rights**	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
63	**Statistical discrepancy, and transfers of funds between foreign areas, net (sum of above items with sign reversed)**	**2,896**	**–4,360**	**2,083**	**8,847**	**–2,216**	**2,245**	**9,623**	**15,385**	**27,831**	**–11,346**	**4,641**	**3,118**
	Memoranda:												
64	Balance on goods (lines 2 and 16)	–53	101	–574	–5,181	–4,341	–4,524	–3,315	–2,500	–1,602	–13,648	–12,760	–15,101
65	Balance on services (lines 3 and 17)	301	124	98	2,439	1,611	352	824	684	1,948	6,206	5,512	6,741
66	Balance on goods and services (lines 64 and 65)	248	225	–476	–2,742	–2,730	–4,172	–2,491	–1,816	346	–7,442	–7,248	–8,360
67	Balance on investment income (lines 11 and 25)	68	70	81	2,424	2,338	2,415	1,911	2,805	3,660	–5,262	–6,204	–7,299
68	Balance on goods, services, and income (lines 1 and 15 or lines 66 and 67) [13]	315	295	–395	–319	–392	–1,757	–580	989	4,006	–12,705	–13,452	–15,659
69	Unilateral transfers, net (line 29)	–653	–687	–771	–102	–74	–102	–2,627	–2,700	–2,785	–66	–25	–11
70	Balance on current account (lines 1, 15, and 29 or lines 68 and 69) [13]	–338	–392	–1,166	–421	–466	–1,859	–3,207	–1,711	1,221	–12,771	–13,477	–15,670

8. Includes sales of foreign obligations to foreigners.

9. Consists of bills, certificates, marketable bonds and notes, and nonmarketable convertible and nonconvertible bonds and notes.

10. Consists of U.S. Treasury and Export-Import Bank obligations, not included elsewhere, and of debt securities of U.S. Government corporations and agencies.

11. Includes, primarily, U.S. Government liabilities associated with military agency sales contracts and other transactions arranged with or through foreign official agencies; see table 4 in "U.S. International Transactions, Third Quarter 1997" in the January 1998 issue of the SURVEY.

12. Consists of investments in U.S. corporate stocks and in debt securities of private corporations and State and local governments.

13. Conceptually, the sum of lines 70 and 62 is equal to "net foreign investment" in the national income and product accounts (NIPA's). However, the foreign transactions account in the NIPA's (a) includes adjustments to the international transactions accounts for the treatment of gold, (b) includes adjustments for the different geographical treatment of transactions with U.S. territories and Puerto Rico, and (c) includes services furnished without payment by financial pension plans except life insurance carriers and private noninsured pension plans. A reconciliation of the balance on goods and services from the international accounts and the NIPA net exports appears in Appendix A of this section of the SURVEY OF CURRENT BUSINESS. A reconciliation of the other foreign transactions in the two sets of accounts appears in table 4.5 of the full set of NIPA tables (published annually in the August issue of the SURVEY).

Table F.3.—Selected U.S. International Transactions, by Area

[Millions of dollars]

Line	(Credits +; debits –) [1]	Australia			Other countries in Asia and Africa			International organizations and unallocated [16]		
		1997			1997			1997		
		I	II [r]	III [p]	I	II [r]	III [p]	I	II [r]	III [p]
1	**Exports of goods, services, and income**	**5,319**	**6,174**	**6,107**	**56,128**	**59,659**	**59,787**	**4,424**	**4,402**	**4,650**
2	Goods, adjusted, excluding military [2]	2,823	3,095	3,080	36,746	39,453	38,517			
3	Services [3]	1,122	1,293	1,455	12,623	13,380	14,786	1,458	1,359	1,410
4	Transfers under U.S. military agency sales contracts [4]	35	46	56	1,831	2,507	2,432			
5	Travel	392	480	620	2,195	3,124	3,809			
6	Passenger fares	100	133	147	359	492	607			
7	Other transportation	72	79	85	2,230	2,250	2,232	181	107	134
8	Royalties and license fees [5]	141	159	162	962	1,033	1,036	382	385	391
9	Other private services [5]	379	393	382	4,967	3,894	4,588	895	867	885
10	U.S. Government miscellaneous services	3	3	3	79	80	82			
11	Income receipts on U.S. assets abroad	1,374	1,786	1,572	6,760	6,826	6,484	2,966	3,043	3,240
12	Direct investment receipts	777	1,169	944	4,087	3,912	3,471	1,165	1,164	1,245
13	Other private receipts	597	617	628	2,357	2,597	2,657	1,659	1,745	1,865
14	U.S. Government receipts				316	317	356	142	134	130
15	**Imports of goods, services, and income**	**–2,074**	**–1,658**	**–1,929**	**–70,072**	**–75,688**	**–85,129**	**–1,019**	**–914**	**–948**
16	Goods, adjusted, excluding military [2]	–1,159	–1,169	–1,290	–56,021	–61,312	–70,537			
17	Services [3]	–743	–567	–659	–7,146	–7,439	–7,537	–697	–572	–591
18	Direct defense expenditures	–21	–12	–20	–513	–632	–505			
19	Travel	–325	–175	–203	–2,219	–2,240	–2,360			
20	Passenger fares	–157	–114	–130	–972	–977	–1,011			
21	Other transportation	–61	–60	–56	–1,741	–1,811	–1,854	–357	–235	–247
22	Royalties and license fees [5]	–8	–8	–54	–22	–19	–14	–115	–104	–116
23	Other private services [5]	–155	–187	–185	–1,483	–1,563	–1,595	–225	–233	–228
24	U.S. Government miscellaneous services	–17	–11	–11	–196	–197	–198			
25	Income payments on foreign assets in the United States	–172	78	20	–6,905	–6,937	–7,055	–322	–342	–357
26	Direct investment payments	–65	213	175	–176	238	–49	432	429	422
27	Other private payments	–88	–115	–135	–2,423	–2,530	–2,495	–726	–744	–735
28	U.S. Government payments	–19	–20	–20	–4,306	–4,645	–4,511	–28	–27	–44
29	**Unilateral transfers, net**	**–25**	**–22**	**–19**	**–3,061**	**–2,818**	**–3,028**	**–2,115**	**–2,360**	**–2,295**
30	U.S. Government grants [4]				–1,213	–1,203	–1,205	–226	–207	–111
31	U.S. Government pensions and other transfers	–9	–9	–7	–121	–125	–121	–112	–297	–218
32	Private remittances and other transfers [6]	–16	–13	–12	–1,727	–1,490	–1,702	–1,777	–1,856	–1,966
33	**U.S. assets abroad, net (increase/capital outflow (–))**	**–595**	**–2,026**	**–104**	**–16,737**	**–10,535**	**–9,454**	**2,636**	**–1,534**	**–1,236**
34	U.S. official reserve assets, net [7]							1,127	–79	–602
35	Gold									
36	Special drawing rights							72	–133	–139
37	Reserve position in the International Monetary Fund							1,055	54	–463
38	Foreign currencies									
39	U.S. Government assets, other than official reserve assets, net	–1	–1		32	–129	525	–333	–340	–293
40	U.S. credits and other long-term assets				–390	–614	–454	–333	–340	–293
41	Repayments on U.S. credits and other long-term assets [8]				443	497	982			
42	U.S. foreign currency holdings and U.S. short-term assets, net	–1	–1		–21	–12	–3			
43	U.S. private assets, net	–594	–2,025	–104	–16,769	–10,406	–9,979	1,842	–1,115	–341
44	Direct investment	–797	–632	317	–5,445	–3,198	–3,743	–927	–828	–831
45	Foreign securities	–1,092	–197	–922	–3,665	–2,297	–8,789	1,648	133	521
46	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	142	–57		24	123		56	–3	
47	U.S. claims reported by U.S. banks, not included elsewhere	1,153	–1,139	501	–7,683	–5,034	2,553	1,065	–417	–31
48	**Foreign assets in the United States, net (increase/capital inflow (+))**	**–921**	**2,560**	**1,874**	**31,640**	**–11,650**	**21,167**	**1,012**	**7,345**	**4,326**
49	Foreign official assets in the United States, net	(18)	(18)	(18)	(18)	(18)	(18)			
50	U.S. Government securities	(18)	(18)	(18)	(18)	(18)	(18)			
51	U.S. Treasury securities [9]	(18)	(18)	(18)	(18)	(18)	(18)			
52	Other [10]	(18)	(18)	(18)	(18)	(18)	(18)			
53	Other U.S. Government liabilities [11]	23	2	4	472	12	–496			
54	U.S. liabilities reported by U.S. banks, not included elsewhere	(18)	(18)	(18)	(18)	(18)	(18)			
55	Other foreign official assets [12]	(18)	(18)	(18)	(18)	(18)	(18)			
56	Other foreign assets in the United States, net	(18)	(18)	(18)	(18)	(18)	(18)	1,012	7,345	4,326
57	Direct investment	469	213	2,209	514	3,520	1,741	–471	–473	–476
58	U.S. Treasury securities and U.S. currency flows	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
59	U.S. securities other than U.S. Treasury securities	272	325	361	3,509	1,680	2,656	9	–25	–73
60	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	128	–153		880	79		24	57	
61	U.S. liabilities reported by U.S. banks, not included elsewhere	[18] –1,813	[18] 2,173	[18] –700	[18] 26,265	[18] –16,941	[18] 17,266	[18] 1,450	[18] 7,786	[18] 4,875
62	**Allocations of special drawing rights**									
63	**Statistical discrepancy, and transfers of funds between foreign areas, net (sum of above items with sign reversed)**	**–1,703**	**–5,028**	**–5,929**	**2,102**	**41,032**	**16,657**	**–4,938**	**–6,939**	**–4,497**
	Memoranda:									
64	Balance on goods (lines 2 and 16)	1,664	1,926	1,790	–19,275	–21,859	–32,020			
65	Balance on services (lines 3 and 17)	378	726	796	5,477	5,941	7,249	761	787	819
66	Balance on goods and services (lines 64 and 65)	2,042	2,652	2,586	–13,798	–15,918	–24,771	761	787	819
67	Balance on investment income (lines 11 and 25)	1,202	1,864	1,592	–145	–111	–571	2,644	2,701	2,883
68	Balance on goods, services, and income (lines 1 and 15 or lines 66 and 67) [13]	3,244	4,516	4,178	–13,944	–16,029	–25,342	3,406	3,488	3,702
69	Unilateral transfers, net (line 29)	–25	–22	–19	–3,061	–2,818	–3,028	–2,115	–2,360	–2,295
70	Balance on current account (lines 1, 15, and 29 or lines 68 and 69) [13]	3,219	4,494	4,159	–17,005	–18,847	–28,370	1,291	1,128	1,407

14. The "European Union" includes the "European Union (6)," United Kingdom, Denmark, Ireland, Greece, Spain, and Portugal. Beginning with the first quarter of 1995, the 'European Union' also includes Austria, Finland, and Sweden.

15. The "European Union (6)" includes Belgium, France, Germany (includes the former German Democratic Republic (East Germany) beginning in the fourth quarter of 1990), Italy, Luxembourg, Netherlands, European Atomic Energy Community, European Coal and Steel Community, and European Investment Bank.

16. Includes, as part of international and unallocated, the estimated direct investment in foreign affiliates engaged in international shipping, in operating oil and gas drilling equipment internationally, and in petroleum trading. Also includes taxes withheld; current-cost adjustments associated with U.S. and foreign direct investment; small transactions in business services that are not reported by country; and net U.S. currency flows, for which geographic source data are not available.

17. Details not shown separately; see totals in lines 49 and 56.

18. Details not shown separately are included in line 61.

NOTE.—The data in tables F.2 and F.3 are from tables 1 and 10 in "U.S. International Transactions, Third Quarter 1997" in the January 1998 issue of the SURVEY OF CURRENT BUSINESS, which presents the most recent estimates from the balance of payments accounts.

Table F.4.—Private Service Transactions

[Millions of dollars]

Line		1995	1996	Seasonally adjusted					
				1996			1997		
				II	III	IV	I	II[r]	III[p]
1	**Exports of private services**	**204,165**	**221,224**	**54,588**	**55,540**	**57,427**	**58,332**	**59,410**	**60,481**
2	Travel (table F.2, line 5)	63,395	69,908	17,356	17,659	18,183	18,556	18,605	18,977
3	Passenger fares (table F.2, line 6)	19,125	20,557	4,952	5,237	5,282	5,319	5,511	5,571
4	Other transportation (table F.2, line 7)	27,412	27,216	6,805	6,716	7,142	6,999	7,043	7,140
5	Freight	11,420	11,161	2,823	2,747	2,941	2,909	2,919	2,909
6	Port services	14,810	14,691	3,639	3,625	3,861	3,720	3,747	3,857
7	Other	1,184	1,364	342	343	339	370	377	374
8	Royalties and license fees (table F.2, line 8)	27,383	29,974	7,345	7,495	7,703	7,699	7,622	7,604
9	Affiliated,	21,670	23,760	5,814	5,929	6,091	6,033	5,915	5,869
10	U.S. parents' receipts	20,210	21,916	5,436	5,505	5,445	5,761	5,460	5,383
11	U.S. affiliates' receipts	1,460	1,844	378	424	646	272	455	486
12	Unaffiliated	5,713	6,214	1,531	1,566	1,612	1,666	1,707	1,735
13	Industrial processes [1]	3,583	3,979	978	1,006	1,040	1,080	1,109	1,129
14	Other [2]	2,131	2,235	554	560	573	587	598	607
15	Other private services (table F.2, line 9)	66,850	73,569	18,130	18,433	19,117	19,759	20,629	21,189
16	Affiliated services,	20,272	22,810	5,571	5,777	5,840	6,103	6,426	6,670
17	U.S. parents' receipts	12,795	13,763	3,429	3,410	3,431	3,622	3,802	3,839
18	U.S. affiliates' receipts	7,477	9,047	2,142	2,367	2,409	2,481	2,624	2,831
19	Unaffiliated services	46,578	50,759	12,559	12,656	13,277	13,656	14,203	14,519
20	Education	7,512	7,807	1,938	1,998	1,955	1,992	2,009	2,080
21	Financial services	7,029	8,034	1,938	1,925	2,325	2,259	2,492	2,561
22	Insurance, net	1,390	2,121	513	561	597	620	637	648
23	Premiums received	5,524	6,179	1,524	1,567	1,609	1,650	1,681	1,702
24	Losses paid	4,133	4,058	1,011	1,006	1,012	1,030	1,044	1,054
25	Telecommunications	3,183	3,405	854	838	850	845	895	913
26	Business, professional, and technical services	17,765	19,247	4,734	4,847	4,985	5,287	5,543	5,640
27	Other unaffiliated services [3]	9,699	10,145	2,583	2,486	2,565	2,654	2,627	2,677
28	**Imports of private services**	**134,523**	**143,086**	**35,549**	**35,873**	**36,257**	**37,800**	**38,481**	**39,110**
29	Travel (table F.2, line 19)	46,053	48,739	12,099	11,915	12,241	13,018	13,003	13,101
30	Passenger fares (table F.2, line 20)	14,433	15,776	3,943	3,920	4,053	4,283	4,201	4,281
31	Other transportation (table F.2, line 21)	28,249	28,453	7,253	7,218	7,166	7,378	7,542	7,518
32	Freight	16,759	16,879	4,414	4,312	4,130	4,318	4,636	4,570
33	Port services	10,579	10,792	2,647	2,709	2,838	2,845	2,706	2,749
34	Other	911	783	193	198	199	214	200	199
35	Royalties and license fees (table F.2, line 22)	6,503	7,322	1,684	2,144	1,770	1,799	1,847	1,951
36	Affiliated,	5,128	5,301	1,304	1,264	1,376	1,403	1,462	1,537
37	U.S. parents' payments	448	554	137	136	164	155	172	157
38	U.S. affiliates' payments	4,680	4,748	1,167	1,128	1,212	1,248	1,290	1,380
39	Unaffiliated	1,373	2,021	380	880	394	396	385	414
40	Industrial processes [1]	962	1,126	279	288	292	291	290	289
41	Other [2]	411	895	101	592	103	106	95	125
42	Other private services (table F.2, line 23)	39,285	42,796	10,570	10,676	11,027	11,321	11,888	12,259
43	Affiliated services,	13,597	16,026	3,945	4,073	4,130	4,222	4,364	4,573
44	U.S. parents' payments	6,820	7,505	1,788	1,935	1,867	1,973	2,139	2,214
45	U.S. affiliates' payments	6,777	8,521	2,157	2,138	2,263	2,249	2,225	2,359
46	Unaffiliated services	25,689	26,770	6,625	6,603	6,897	7,099	7,524	7,686
47	Education	949	1,041	256	262	269	275	278	285
48	Financial services	2,472	3,184	781	769	859	888	1,106	1,147
49	Insurance, net	5,383	4,387	1,089	1,047	1,064	1,139	1,195	1,232
50	Premiums paid	15,187	15,473	3,833	3,877	3,947	4,046	4,119	4,168
51	Losses recovered	9,804	11,086	2,745	2,830	2,884	2,907	2,924	2,936
52	Telecommunications	7,773	8,385	2,103	2,066	2,089	2,076	2,137	2,157
53	Business, professional, and technical services	4,691	5,253	1,278	1,335	1,406	1,540	1,612	1,648
54	Other unaffiliated services [3]	4,420	4,520	1,119	1,122	1,210	1,180	1,196	1,217
	Memoranda:								
55	Balance on goods (table F.2, line 64)	–173,560	–191,170	–47,562	–52,493	–48,190	–49,787	–47,134	–51,549
56	Balance on private services (line 1 minus line 28)	69,642	78,138	19,039	19,667	21,170	20,532	20,929	21,371
57	Balance on goods and private services (lines 55 and 56)	–103,918	–113,032	–28,523	–32,826	–27,020	–29,255	–26,205	–30,178

[p] Preliminary.
[r] Revised.

1. Patented techniques, processes, and formulas and other intangible property rights that are used in goods production.

2. Copyrights, trademarks, franchises, rights to broadcast live events, and other intangible property rights.

3. Other unaffiliated services receipts (exports) include mainly expenditures of foreign governments and international organizations in the United States. Payments (imports) include mainly wages of foreign residents temporarily employed in the United States and Canadian and Mexican commuters in U.S. border areas.

NOTE.—The data in this table are from table 3 in "U.S. International Transactions, Third Quarter 1997" in the January 1998 issue of the SURVEY OF CURRENT BUSINESS, which presents the most recent estimates from the balance of payments accounts.

G. Investment Tables

Table G.1.—International Investment Position of the United States at Yearend, 1995 and 1996

[Millions of dollars]

Line	Type of investment	Position 1995 r	Changes in position in 1996 (decrease (–))					Position 1996 p
			Attributable to:				Total	
			Capital flows	Valuation adjustments				
				Price changes	Exchange rate changes 1	Other changes 2		
			(a)	(b)	(c)	(d)	(a+b+c+d)	
	Net international investment position of the United States:							
1	**With direct investment positions at current cost (line 3 less line 24)**	**–687,702**	**–195,111**	**32,038**	**–22,195**	**2,446**	**–182,822**	**–870,524**
2	**With direct investment positions at market value (line 4 less line 25)**	**–637,480**	**–195,111**	**39,063**	**–46,339**	**8,564**	**–193,823**	**–831,303**
	U.S. assets abroad:							
3	**With direct investment positions at current cost (lines 5+10+15)**	**3,272,731**	**352,444**	**121,367**	**–21,849**	**–3,964**	**447,998**	**3,720,729**
4	**With direct investment positions at market value (lines 5+10+16)**	**3,700,432**	**352,444**	**267,858**	**–45,567**	**9,373**	**584,108**	**4,284,540**
5	U.S. official reserve assets	176,061	–6,668	–4,581	–4,073	...	–15,322	160,739
6	Gold	101,279	...	3 –4,581	...	–4,581	96,698	
7	Special drawing rights	11,037	–370	...	–355	...	–725	10,312
8	Reserve position in the International Monetary Fund	14,649	1,280	...	–494	...	786	15,435
9	Foreign currencies	49,096	–7,578	...	–3,224	...	–10,802	38,294
10	U.S. Government assets, other than official reserve assets	81,897	690	...	–34	1	657	82,554
11	U.S. credits and other long-term assets 4	79,958	796	...	–1	1	796	80,754
12	Repayable in dollars	79,178	846	...	...	–12	834	80,012
13	Other 5	780	–50	...	–1	13	–38	742
14	U.S. foreign currency holdings and U.S. short-term assets	1,939	–106	...	–33	...	–139	1,800
	U.S. private assets:							
15	With direct investment at current cost (lines 17+19+22+23)	3,014,773	358,422	125,948	–17,742	–3,965	462,663	3,477,436
16	With direct investment at market value (lines 18+19+22+23)	3,442,474	358,422	272,439	–41,460	9,372	598,773	4,041,247
	Direct investment abroad:							
17	At current cost	884,290	87,813	7,375	–4,726	–3,954	86,508	970,798
18	At market value	1,311,991	87,813	153,866	–28,444	9,383	222,618	1,534,609
19	Foreign securities	1,054,352	108,189	118,573	–7,675	...	219,087	1,273,439
20	Bonds	355,284	49,403	806	–7,521	...	42,688	397,972
21	Corporate stocks	699,068	58,786	117,767	–154	...	176,399	875,467
22	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns.	307,982	64,234	...	–3,161	...	61,073	369,055
23	U.S. claims reported by U.S. banks, not included elsewhere	768,149	98,186	...	–2,180	–11	95,995	864,144
	Foreign assets in the United States:							
24	**With direct investment at current cost (lines 26+33)**	**3,960,433**	**547,555**	**89,329**	**346**	**–6,410**	**630,820**	**4,591,253**
25	**With direct investment at market value (lines 26+34)**	**4,337,912**	**547,555**	**228,795**	**772**	**809**	**777,931**	**5,115,843**
26	Foreign official assets in the United States	678,451	122,354	4,345	...	–1	126,698	805,149
27	U.S. Government securities	498,906	115,634	–4,333	...	...	111,301	610,207
28	U.S. Treasury securities	471,508	111,253	–3,802	...	...	107,451	578,959
29	Other	27,398	4,381	–531	...	...	3,850	31,248
30	Other U.S. Government liabilities 7	25,225	720	...	...	–1	719	25,944
31	U.S. liabilities reported by U.S. banks, not included elsewhere	107,394	4,722	...	...	...	4,722	112,116
32	Other foreign official assets	46,926	1,278	8,678	...	...	9,956	56,882
	Other foreign assets:							
33	With direct investment at current cost (lines 35+37+38+39+42+43)	3,281,982	425,201	84,984	346	–6,409	504,122	3,786,104
34	With direct investment at market value (lines 36+37+38+39+42+43)	3,659,461	425,201	224,450	772	810	651,233	4,310,694
	Direct investment in the United States:							
35	At current cost	654,502	76,955	5,356	–426	–7,335	74,550	729,052
36	At market value	1,031,981	76,955	144,822	...	–116	221,661	1,253,642
37	U.S. Treasury securities	389,383	155,578	–14,411	...	...	141,167	530,550
38	U.S.currency	192,300	17,300	...	...	...	17,300	209,600
39	U.S. securities other than U.S. Treasury securities	999,537	133,798	94,039	–1,887	...	225,950	1,225,487
40	Corporate and other bonds	534,116	121,194	721	–1,887	...	120,028	654,144
41	Corporate stocks	465,421	12,604	93,318	...	...	105,922	571,343
42	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns.	232,891	31,786	...	5,932	926	38,644	271,535
43	U.S. liabilities reported by U.S. banks, not included elsewhere	813,369	9,784	...	–3,273	...	6,511	819,880

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. 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.

5. 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.

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

NOTE.—The data in this table are from table 1 in "International Investment Position of the United States in 1996" in the July 1997 issue of the SURVEY OF CURRENT BUSINESS.

Table G.2.—U.S. Direct Investment Abroad: Selected Items, by Country and by Industry of Foreign Affiliate, 1994–96

[Millions of dollars]

	Direct investment position on a historical-cost basis			Capital outflows (inflows (–))			Income		
	1994	1995	1996	1994	1995	1996	1994	1995	1996
All countries, all industries	**640,320**	**717,554**	**796,494**	**68,272**	**85,115**	**85,560**	**68,597**	**87,448**	**95,067**
By country									
Canada	78,018	85,441	91,587	6,760	8,435	6,875	5,873	8,812	8,642
Europe	320,135	360,994	399,632	28,785	45,292	45,274	30,468	41,320	46,183
Of which:									
France	28,204	32,950	34,000	2,586	5,726	5,221	1,296	2,728	3,322
Germany	38,467	44,226	44,259	2,217	4,373	955	3,107	4,783	4,286
Netherlands	29,558	39,344	44,667	6,331	8,420	7,140	5,081	6,890	7,991
United Kingdom	121,321	122,767	142,560	7,177	4,515	18,310	8,082	11,384	13,862
Latin America and Other Western Hemisphere	115,093	128,252	144,209	19,010	14,753	14,299	16,299	15,221	17,404
Of which:									
Brazil	18,400	23,706	26,166	3,517	4,899	3,064	4,756	3,515	3,879
Mexico	16,169	15,980	18,747	3,674	2,955	2,747	2,497	1,369	2,931
Africa	5,606	6,383	7,568	332	873	1,221	1,395	1,861	1,963
Middle East	6,741	7,669	8,743	242	905	1,044	964	1,393	1,458
Asia and Pacific	111,373	125,834	140,402	13,121	15,241	14,752	13,474	18,542	18,937
Of which:									
Australia	20,217	25,003	28,769	32	6,450	3,789	2,392	3,402	2,979
Japan	36,524	38,406	39,593	2,384	1,079	1,817	2,379	4,117	3,950
International	3,355	2,981	4,352	22	–384	2,096	124	300	480
By industry									
Petroleum	67,104	70,229	75,479	1,690	2,437	6,144	7,177	9,730	11,960
Manufacturing	211,431	250,253	272,564	23,953	42,531	28,530	26,699	35,065	34,975
Food and kindred products	29,588	32,439	36,179	3,764	2,871	3,280	4,690	4,728	4,684
Chemicals and allied products	49,128	62,151	69,430	4,992	18,477	7,835	6,839	8,877	10,001
Primary and fabricated metals	10,017	12,032	13,603	819	1,935	5,009	896	1,365	1,004
Industrial machinery and equipment	26,781	33,716	35,020	2,010	5,286	2,016	2,177	4,373	4,579
Electronic and other electric equipment	19,925	25,242	29,519	2,867	4,995	4,513	3,234	4,494	4,374
Transportation equipment	29,420	33,972	33,543	5,993	4,636	714	3,539	3,952	3,429
Other manufacturing	46,572	50,701	55,270	3,508	4,330	5,163	5,324	7,277	6,903
Wholesale trade	62,608	67,222	72,462	6,325	8,511	7,048	7,753	9,191	9,272
Banking	26,693	28,123	32,504	1,786	714	1,329	3,785	2,889	3,767
Finance (except banking), insurance, and real estate	213,175	228,744	257,213	22,982	12,109	28,985	18,302	23,757	27,797
Services	26,734	32,769	36,673	5,613	7,702	3,644	2,796	3,815	3,997
Other industries	32,575	40,213	49,600	5,924	11,113	9,880	2,085	3,002	3,299

NOTE.—In this table, unlike in the international transactions accounts, income and capital outflows are shown without a current-cost adjustment, and income is shown net of withholding taxes. In addition, unlike in the international investment position, the direct investment position is valued at historical cost.

The data in this table are from tables 17 and 18 in "U.S. Direct Investment Abroad: Detail for Historical-Cost Position and Related Capital and Income Flows, 1996" in the September 1997 SURVEY OF CURRENT BUSINESS.

Table G.3.—Selected Financial and Operating Data for Nonbank Foreign Affiliates of U.S. Companies, by Country and by Industry of Affiliate, 1995

	Number of affiliates	Millions of dollars			Number of employees (thousands)
		Total assets	Sales	Net income	
All countries, all industries	**21,318**	**2,815,141**	**2,140,438**	**124,675**	**7,377.0**
By country					
Canada	2,023	246,242	231,081	8,313	918.1
Europe	10,435	1,567,904	1,176,126	63,083	3,014.5
Of which:					
France	1,226	135,906	124,457	4,303	413.9
Germany	1,358	219,538	234,169	6,467	596.3
Italy	757	59,468	68,550	2,315	198.7
Netherlands	999	139,078	112,182	11,492	138.8
Switzerland	505	132,464	60,128	7,203	50.6
United Kingdom	2,393	641,348	363,372	14,338	928.8
Latin America and Other Western Hemisphere	3,256	316,495	191,340	23,419	1,485.2
Of which:					
Brazil	400	48,477	44,536	5,073	299.9
Mexico	823	59,115	61,122	4,732	743.6
Africa	502	22,604	20,587	1,845	126.5
Middle East	338	30,231	21,703	2,899	73.4
Asia and Pacific	4,665	614,555	492,181	24,464	1,747.6
Of which:					
Australia	855	81,055	63,056	2,944	258.7
Japan	1,006	280,164	211,821	4,979	414.9
International	99	17,110	7,421	653	11.8
By industry					
Petroleum	1,520	272,087	428,030	13,981	230.9
Manufacturing	8,023	779,339	984,868	53,795	4,376.6
Food and kindred products	764	99,571	113,166	7,064	554.4
Chemicals and allied products	1,942	180,964	189,096	15,695	591.9
Primary and fabricated metals	722	35,266	36,862	1,227	195.7
Industrial machinery and equipment	1,033	112,921	159,205	7,611	529.4
Electronic and other electric equipment	855	71,483	95,395	6,443	846.0
Transportation equipment	469	124,721	218,333	4,406	697.6
Other manufacturing	2,238	154,413	172,811	11,348	961.5
Wholesale trade	4,878	206,015	367,515	15,124	538.3
Finance (except banking), insurance, and real estate	2,742	1,229,643	108,441	30,507	191.0
Services	2,671	114,995	100,035	4,050	779.8
Other industries	1,484	213,062	151,548	7,219	1,260.4

NOTE.—The data in this table are from "U.S. Multinational Companies: Operations in 1995" in the October 1997 SURVEY OF CURRENT BUSINESS.

Table G.4.—Foreign Direct Investment in the United States: Selected Items, by Country of Foreign Parent and by Industry of Affiliate, 1994–96

[Millions of dollars]

	Direct investment position on a historical-cost basis			Capital inflows (outflows (–))			Income		
	1994	1995	1996	1994	1995	1996	1994	1995	1996
All countries, all industries	**496,539**	**560,850**	**630,045**	**46,995**	**69,414**	**78,828**	**21,286**	**32,029**	**33,759**
By country									
Canada	41,959	48,258	53,845	4,960	7,080	5,670	2,996	3,911	3,285
Europe	303,649	357,193	410,425	28,002	55,300	59,809	16,059	22,975	25,806
Of which:									
France	33,603	38,480	49,307	3,881	4,500	10,928	–63	1,722	2,654
Germany	40,345	49,269	62,242	7,144	10,229	16,283	2,256	1,908	2,097
Netherlands	67,210	65,806	73,803	–3,174	–1,789	8,225	4,120	5,212	6,294
United Kingdom	104,867	126,177	142,607	8,076	20,446	18,929	7,232	11,006	9,220
Latin America and Other Western Hemisphere	26,070	25,240	24,627	4,767	–1,121	131	1,391	1,349	1,557
Of which:									
Brazil	629	751	591	–8	97	–99	88	91	34
Mexico	2,412	1,980	1,078	1,248	–470	–447	2	81	–8
Africa	1,230	1,164	717	44	–66	–440	–19	54	–113
Middle East	6,674	6,008	6,177	161	–298	555	54	209	141
Asia and Pacific	116,956	122,986	134,255	9,061	8,519	13,104	805	3,531	3,084
Of which:									
Australia	8,080	7,833	9,747	1,101	504	2,129	–268	112	–31
Japan	102,999	107,933	118,116	6,238	6,591	11,930	985	3,405	3,106
By industry									
Petroleum	32,290	33,888	42,343	1,665	3,152	8,113	1,902	2,970	4,190
Manufacturing	189,459	213,026	234,323	19,673	27,849	29,112	10,788	15,886	17,262
Food and kindred products	21,411	26,898	28,089	–1,375	5,596	2,439	2,134	1,709	1,780
Chemicals and allied products	66,028	71,367	74,810	10,820	11,306	6,880	4,643	6,202	6,247
Primary and fabricated metals	14,320	14,085	18,727	1,982	312	5,280	–216	1,273	1,060
Machinery	35,196	37,638	37,093	3,826	3,986	–35	1,165	2,316	1,739
Other manufacturing	52,504	63,037	75,604	4,419	6,648	14,548	3,063	4,386	6,436
Wholesale trade	63,792	66,393	77,937	5,785	6,453	9,799	2,611	3,863	3,548
Retail trade	11,857	12,743	15,008	1,532	1,207	2,140	399	544	496
Depository institutions	27,139	34,076	31,903	3,800	6,566	562	2,837	4,725	2,626
Finance, except depository institutions	41,000	62,369	70,185	3,652	16,681	7,775	831	697	714
Insurance	38,833	50,975	59,566	2,759	4,114	7,739	2,237	1,913	3,048
Real estate	31,613	29,704	30,118	259	–880	388	–680	–623	62
Services	37,045	32,887	38,945	2,303	1,946	8,618	–345	212	396
Other industries	23,511	24,788	29,716	5,570	2,326	4,583	705	1,841	1,418

NOTE.—In this table, unlike in the international transactions accounts, income and capital inflows are shown without a current-cost adjustment, and income is shown net of withholding taxes. In addition, unlike in the international investment position, the direct investment position is valued at historical cost.

The data in this table are from tables 16 and 17 in "Foreign Direct Investment in the United States: Detail for Historical-Cost Position and Related Capital and Income Flows, 1996" in the September 1997 SURVEY OF CURRENT BUSINESS.

Table G.5.—Selected Financial and Operating Data of Nonbank U.S. Affiliates of Foreign Companies, by Country of Ultimate Beneficial Owner and by Industry of Affiliate, 1995

	Number of affiliates	Millions of dollars				Thousands of employees	Millions of dollars	
		Total assets	Sales	Net income	Gross product		U.S. exports of goods shipped by affiliates	U.S. imports of goods shipped to affiliates
All countries, all industries	**12,497**	**2,383,612**	**1,561,879**	**15,608**	**326,955**	**4,928.3**	**136,702**	**254,895**
By country								
Canada	1,285	267,378	141,292	2,446	36,532	703.7	5,402	13,565
Europe	5,363	1,327,437	832,286	14,273	202,361	2,991.0	59,344	86,349
Of which:								
France	668	232,662	111,966	1,053	24,178	348.2	14,882	11,255
Germany	1,291	210,408	161,099	1,331	37,182	580.6	12,308	27,753
Netherlands	394	154,877	98,084	2,790	28,013	334.2	5,357	8,730
Switzerland	603	229,335	92,343	–137	18,624	308.3	6,398	7,847
United Kingdom	1,205	381,241	264,355	8,101	71,049	986.5	11,728	14,367
Latin America and Other Western Hemisphere	1,078	53,830	52,067	917	13,345	166.6	6,193	10,126
Of which:								
Brazil	75	8,661	3,903	89	213	4.3	866	1,310
Mexico	265	9,593	8,540	–20	1,798	35.6	661	2,182
Africa	68	(D)	10,495	345	2,393	20.8	551	723
Middle East	414	25,516	18,121	–198	4,861	46.6	641	4,628
Asia and Pacific	4,212	598,404	489,928	–5,027	62,558	954.6	63,933	138,425
Of which:								
Australia	172	37,003	22,209	–577	4,211	73.6	877	1,110
Japan	3,241	519,577	418,656	–3,621	52,000	758.2	55,519	119,942
United States	77	(D)	17,690	2,851	4,904	44.9	638	1,079
By industry								
Petroleum	240	104,358	131,889	2,419	30,525	105.7	9,956	19,522
Manufacturing	2,896	587,049	562,151	9,824	156,991	2,276.8	55,561	81,790
Food and kindred products	252	57,195	50,879	632	12,229	228.6	2,790	3,238
Chemicals and allied products	331	191,614	131,892	3,903	39,768	407.1	13,778	13,582
Primary and fabricated metals	396	55,979	70,086	1,547	17,804	246.9	3,988	8,018
Machinery	739	96,130	123,167	176	32,163	541.6	18,861	29,219
Other manufacturing	1,178	186,132	186,128	3,566	55,028	852.6	16,144	27,734
Wholesale trade	2,228	222,616	466,192	174	39,135	455.5	65,500	148,735
Retail trade	353	47,982	93,624	759	23,951	759.1	1,793	3,742
Finance, except depository institutions	874	568,216	45,074	1,392	2,910	45.3	18	25
Insurance	167	514,601	88,149	3,570	8,557	148.2	0	0
Real estate	3,494	96,852	14,184	–2,283	5,574	24.9	9	1
Services	1,250	110,674	59,264	–1,975	23,753	633.0	492	690
Other industries	995	131,264	101,352	1,729	35,561	479.9	3,372	389

(D) Suppressed to avoid disclosure of data of individual companies.

NOTE.—The data in this table are from tables A1 and A2 in *Foreign Direct Investment in the United States: Operations of U.S. Affiliates of Foreign Companies, Preliminary 1995 Estimates.*

H. International Perspectives

Quarterly data in this table are shown in the middle month of the quarter.

Table H.1.—International Perspectives

	1995	1996	1996			1997										
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
	Exchange rates per U.S. dollar (not seasonally adjusted)															
Canada (Can.$/US$)	1.3725	1.3638	1.3508	1.3381	1.3622	1.3494	1.3556	1.3725	1.3942	1.3804	1.3843	1.3775	1.3872	1.3872	1.3869	1.4128
France (FFr/US$)	4.9864	5.1158	5.1652	5.1156	5.2427	5.4145	5.6536	5.7154	5.7672	5.7482	5.8293	6.0511	6.2010	6.0031	5.8954	5.8001
Germany (DM/US$)	1.4321	1.5049	1.5277	1.5118	1.5525	1.6047	1.6747	1.6946	1.7119	1.7048	1.7277	1.7939	1.8400	1.7862	1.7575	1.7323
Italy (L/US¢)	16.2945	15.4276	15.2382	15.1366	15.2844	15.6791	16.5500	16.9121	16.9452	16.8433	16.9454	17.4591	17.9712	17.4322	17.2109	16.9708
Japan (¥/US¢)	.9396	1.0878	1.1241	1.1230	1.1398	1.1791	1.2296	1.2277	1.2564	1.1919	1.1429	1.1538	1.1793	1.2089	1.2106	1.2538
Mexico (Peso/US$)	6.4467	7.6004	7.7345	7.9119	7.8769	7.8289	7.8023	7.9562	7.9059	7.9037	7.9498	7.8679	7.7818	7.7809	7.8708	8.2716
United Kingdom (US$/£)	1.5785	1.5607	1.5863	1.6623	1.6639	1.6585	1.6285	1.6096	1.6293	1.6322	1.6449	1.6694	1.6035	1.6013	1.6330	1.6889
Addendum:																
Exchange value of the U.S. dollar [1]	84.25	87.34	87.99	86.98	88.71	91.01	94.52	95.60	96.39	95.29	95.42	97.48	99.96	98.29	97.07	96.37
	Unemployment rates (percent, seasonally adjusted)															
Canada	9.6	9.7	10.0	10.0	9.7	9.7	9.7	9.3	9.6	9.5	9.1	9.0	9.0	9.0	9.1	9.0
France	11.6	12.3	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.5	12.6	12.5	12.5	12.5	12.5	12.4
Germany	9.4	10.4	10.7	10.8	10.9	11.2	11.2	11.2	11.2	11.4	11.4	11.5	11.6	11.7	11.8	.....
Italy	12.0	12.1	.....	12.0	.....	.....	12.2	.....	.....	12.4	.....	.....	12.1	.....	.....	.....
Japan	3.1	3.4	3.3	3.3	3.3	3.3	3.3	3.2	3.3	3.6	3.5	3.4	3.4	3.4	3.4	.....
Mexico	6.3	5.5	5.1	5.0	5.0	4.5	4.2	4.2	4.2	4.0	3.9	3.8	3.4	3.2	3.2	.....
United Kingdom	8.2	7.5	7.2	6.9	6.7	6.5	6.2	6.1	5.9	5.8	5.7	5.5	5.3	5.2	5.2	5.1
Addendum:																
United States	5.6	5.4	5.3	5.4	5.3	5.3	5.3	5.2	5.0	4.8	5.0	4.9	4.9	4.9	4.8	4.6
	Consumer prices (seasonally adjusted, 1990=100)															
Canada	111.8	113.5	114.0	114.5	114.5	114.8	114.9	115.2	115.2	115.3	115.5	115.5	115.7	115.6	115.7	115.5
France	111.6	113.8	114.3	114.2	114.4	114.7	114.9	115.0	115.0	115.2	115.2	115.0	115.3	115.5	115.5	115.7
Germany (1991=100)	114.8	116.5	116.8	116.7	117.0	117.6	118.1	117.9	117.9	118.4	118.6	119.2	119.3	119.0	118.9	118.9
Italy	128.1	133.2	133.9	134.4	134.4	134.9	135.1	135.4	135.6	136.0	136.0	136.0	136.1	136.2	.....	.....
Japan	107.0	107.1	107.2	107.3	107.5	107.5	107.5	107.4	109.1	109.2	109.6	109.5	109.3	109.7	109.9	109.6
Mexico	224.5	301.7	318.2	323.0	333.3	341.9	347.6	352.0	355.8	359.0	362.2	365.3	368.6	373.2	376.2	380.4
United Kingdom	118.2	121.1	121.9	122.0	122.4	122.4	122.9	123.2	123.9	124.4	124.9	124.9	125.7	126.3	126.5	126.5
Addendum:																
United States	116.6	120.0	121.2	121.5	121.8	122.0	122.3	122.4	122.5	122.5	122.7	122.9	123.1	123.5	123.7	123.8
	Real gross domestic product (percent change from preceding quarter, seasonally adjusted at annual rates)															
Canada	2.2	1.2	.....	2.4	.....	.....	4.1	.....	.....	5.4	.....	.....	4.1	.....	.....	.....
France	2.1	1.5	.....	1.3	.....	.....	1.4	.....	.....	4.6	.....	.....	3.5	.....	.....	.....
Germany	1.9	1.4	.....	.9	.....	.....	1.2	.....	.....	4.1	.....	.....	3.2	.....	.....	.....
Italy	3.0	.6	.....	0	.....	.....	–.9	.....	.....	7.7	.....	.....	1.7	.....	.....	.....
Japan	1.5	3.9	.....	4.3	.....	.....	8.3	.....	.....	–10.6	.....	.....	3.1	.....	.....	.....
Mexico	–6.2	5.1	.....	6.0	.....	.....	3.3	.....	.....	19.4	.....	.....	4.7	.....	.....	.....
United Kingdom	2.7	2.3	.....	4.2	.....	.....	4.6	.....	.....	3.4	.....	.....	3.8	.....	.....	.....
Addendum:																
United States	2.0	2.8	.....	4.3	.....	.....	4.9	.....	.....	3.3	.....	.....	3.1	.....	.....	4.3

See footnotes at the end of the table.

Table H.1.—International Perspectives—Continued

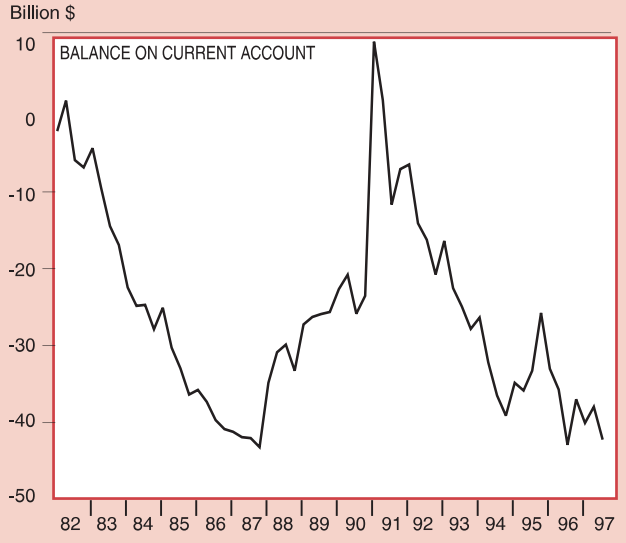
	1995	1996	1996			1997										
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
	Short-term, 3-month, interest rates (percent, not seasonally adjusted)															
Canada	7.07	4.43	3.49	3.00	3.08	3.11	3.10	3.20	3.41	3.29	3.22	3.51	3.63	3.60	3.76	3.99
France	6.58	3.94	3.51	3.47	3.44	3.35	3.33	3.36	3.40	3.48	3.43	3.39	3.43	3.41	3.59	3.69
Germany	4.53	3.31	3.12	3.19	3.23	3.14	3.19	3.26	3.23	3.17	3.14	3.14	3.26	3.31	3.58	3.74
Italy	10.46	8.82	8.02	7.41	7.25	7.23	7.36	7.43	7.13	6.83	6.88	6.89	6.87	6.67	6.65	6.49
Japan	1.23	.59	.52	.52	.52	.53	.55	.56	.56	.58	.61	.67	.59	.56	.53	.55
Mexico	48.24	32.91	27.68	28.94	26.51	24.60	21.96	22.32	22.37	20.59	21.40	19.40	20.15	20.51	19.91	22.01
United Kingdom	6.68	6.02	5.94	6.29	6.34	6.32	6.19	6.20	6.37	6.45	6.66	6.95	7.15	7.20	7.25	7.54
Addendum:																
United States	5.51	5.02	5.01	5.03	4.87	5.05	5.00	5.14	5.17	5.13	4.92	5.07	5.13	4.97	4.95	5.15
	Long-term interest rates, government bond yields (percent, not seasonally adjusted)															
Canada	8.36	7.54	7.00	6.48	6.81	6.99	6.74	6.92	7.09	6.90	6.63	6.30	6.30	6.19	5.94	5.76
France	7.66	6.51	6.11	5.79	5.82	5.69	5.39	5.80	5.93	5.96	5.67	5.50	5.65	5.55	5.80	5.66
Germany	6.80	6.10	5.90	5.80	5.70	5.70	5.40	5.60	5.70	5.60	5.60	5.40	5.50	5.50	5.50	5.50
Italy	11.79	8.85	7.78	7.15	6.95	6.76	6.93	7.55	7.37	7.02	6.82	6.38	6.53	6.10	5.90	5.81
Japan	3.21	2.98	2.51	2.44	2.57	2.38	2.40	2.27	2.36	2.55	2.37	2.12	2.01	1.88	1.62	1.73
Mexico	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
United Kingdom	8.24	7.82	7.55	7.61	7.55	7.54	7.20	7.46	7.65	7.16	7.13	7.04	7.08	6.80	6.50	6.61
Addendum:																
United States	6.57	6.44	6.53	6.20	6.30	6.58	6.42	6.69	6.89	6.71	6.49	6.22	6.30	6.21	6.03	5.88
	Share price indices (not seasonally adjusted, 1990=100)															
Canada	130.0	154.0	164.0	176.0	173.0	179.0	180.0	171.0	175.0	187.0	188.0	201.0	193.0	206.0	200.0	190.0
France	103.0	118.0	121.0	125.0	128.0	135.0	145.0	148.0	145.0	149.0	151.0	161.0	161.0	160.0	159.0	151.0
Germany	102.4	115.6	120.3	121.9	124.9	130.0	138.9	145.8	145.7	154.4	160.2	174.8	176.4	170.2	171.5	161.5
Italy	95.0	96.0	96.0	99.0	100.0	114.0	119.0	114.0	116.0	119.0	123.0	138.0	139.0	145.0	149.0	145.0
Japan	63.0	74.0	73.0	72.0	69.0	63.0	64.0	63.0	63.0	68.0	70.0	70.0	68.0	65.0	62.0	57.0
Mexico	389.3	554.8	563.6	577.3	589.5	639.7	673.7	657.4	658.9	696.1	781.9	888.9	815.3	933.4	815.2	872.5
United Kingdom	147.0	167.0	173.0	170.0	171.0	176.0	179.0	182.0	179.0	185.0	186.0	190.0	194.0	198.0	203.0	194.0
Addendum:																
United States	159.0	195.0	204.0	212.0	213.0	220.0	228.0	227.0	219.0	236.0	249.0	262.0	262.0	267.0	272.0	268.0

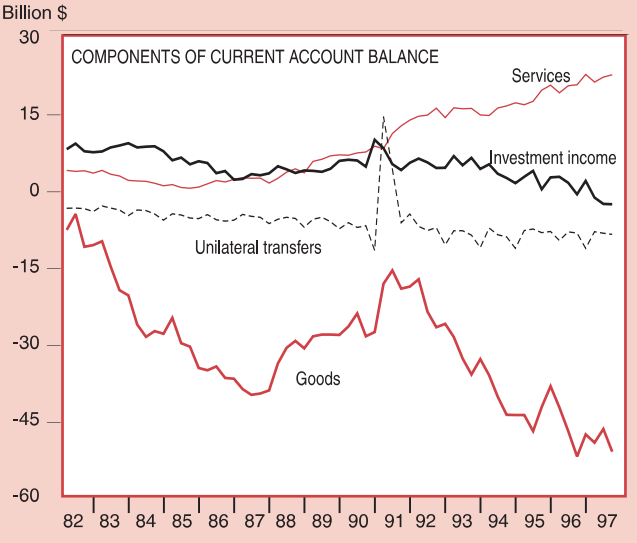
1. Index of weighted average exchange value of U.S. dollar against currencies of other G-10 countries. March 1973=100. Weights are 1972–76 global trade of each of the 10 countries. Series revised as of August 1978. For description and back data, see: ''Index of the weighted-average exchange value of the U.S. dollar: Revision'' on page 700 of the August 1978 *Federal Reserve Bulletin.*

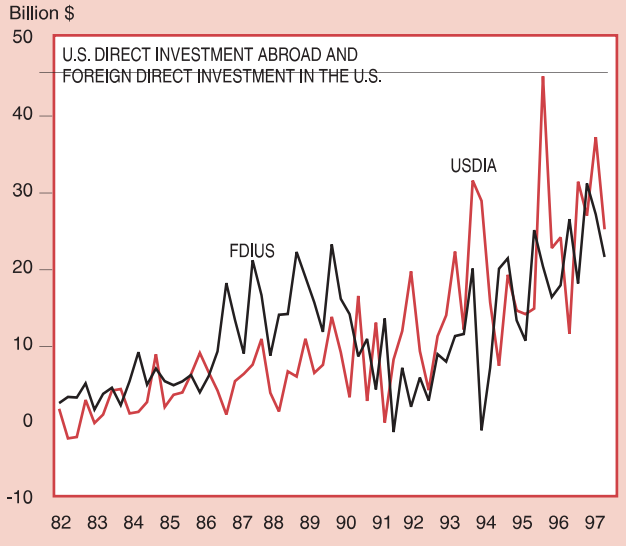
NOTE.—All exchange rates are from the Board of Governors of the Federal Reserve System. U.S. interest rates, unemployment rates, and GDP growth rates are from the Federal Reserve, the Bureau of Labor Statistics, and BEA, respectively. All other data (including U.S. consumer prices and U.S. share prices, both of which have been rebased to 1990 to facilitate comparison) are © OECD, January 1998, *OECD Main Economic Indicators* and are reproduced with permission of the OECD.

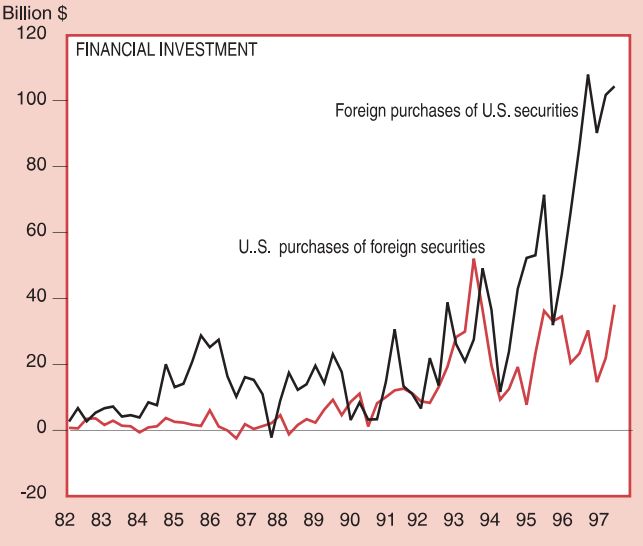
I. Charts

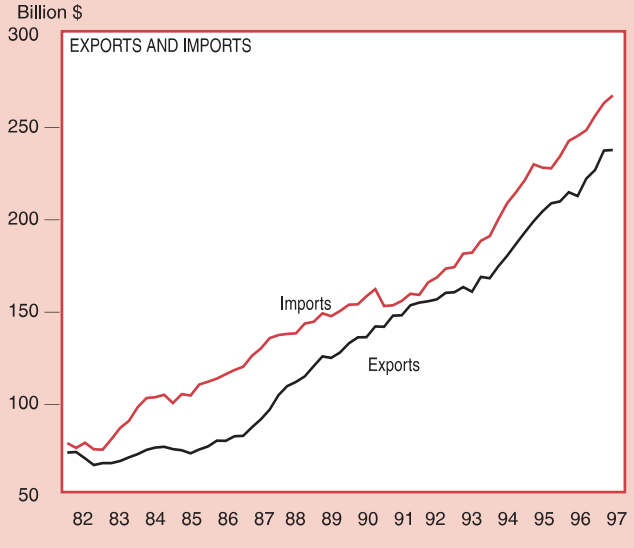
THE U.S. IN THE INTERNATIONAL ECONOMY

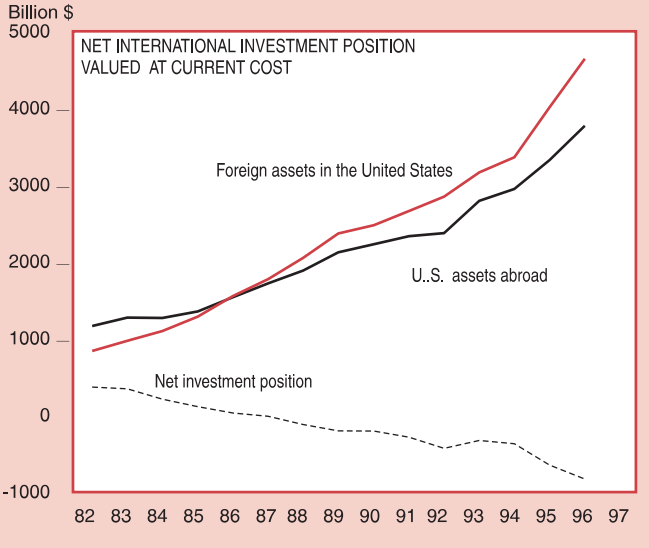












U.S. Department of Commerce, Bureau of Economic Analysis

Regional Data

J. State and Regional Tables

The tables in this section include the most recent estimates of State personal income and gross state product. The sources of these estimates are noted.

The quarterly and annual State personal income estimates and the gross state product estimates are available on diskettes or CD-ROM. For information on personal income, e-mail **reis.remd@bea.doc.gov**; write to the Regional Economic Information System, BE–55, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230; or call 202–606–5360. For information on gross state product, e-mail **gspread@bea.doc.gov**; write to the Regional Economic Analysis Division, BE–61, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230; or call 202–606–5340.

Table J.1.—Quarterly Personal Income for States and Regions

Area name	Millions of dollars											Percent change [1]			
	1995				1996				1997			1996:III–1996:IV	1996:IV–1997:I	1997:I–1997:II	1997:II–1997:III
	I	II	III	IV	I	II	III	IV	I	II	III				
United States	**6,040,235**	**6,102,138**	**6,166,454**	**6,242,674**	**6,344,946**	**6,446,004**	**6,526,017**	**6,602,689**	**6,730,234**	**6,813,111**	**6,890,952**	**1.2**	**1.9**	**1.2**	**1.1**
New England	**361,426**	**366,632**	**370,349**	**375,186**	**379,607**	**385,048**	**388,521**	**394,993**	**403,164**	**407,102**	**412,469**	**1.7**	**2.1**	**1.0**	**1.3**
Connecticut	104,157	105,263	106,209	107,485	109,083	110,491	111,178	112,912	116,058	117,258	119,092	1.6	2.8	1.0	1.6
Maine	24,630	24,975	24,979	25,282	25,590	25,984	26,251	26,669	27,068	27,371	27,668	1.6	1.5	1.1	1.1
Massachusetts	168,247	170,826	173,256	175,702	177,592	180,415	182,334	185,678	189,306	190,836	193,262	1.8	2.0	.8	1.3
New Hampshire	28,839	29,559	29,592	30,050	30,336	30,727	31,109	31,584	31,984	32,533	32,896	1.5	1.3	1.7	1.1
Rhode Island	23,121	23,507	23,684	23,853	23,971	24,270	24,341	24,743	25,105	25,330	25,600	1.7	1.5	.9	1.1
Vermont	12,433	12,502	12,630	12,815	13,034	13,160	13,307	13,407	13,643	13,773	13,952	.7	1.8	1.0	1.3
Mideast	**1,186,541**	**1,194,849**	**1,203,961**	**1,216,140**	**1,237,524**	**1,251,871**	**1,264,426**	**1,280,913**	**1,304,447**	**1,311,683**	**1,325,982**	**1.3**	**1.8**	**.6**	**1.1**
Delaware	18,424	18,573	18,823	19,208	19,552	19,842	20,252	20,735	20,806	20,858	21,170	2.4	.3	.2	1.5
District of Columbia	17,979	17,999	18,011	18,097	18,444	18,299	18,629	18,787	19,046	18,980	19,128	.8	1.4	0	.8
Maryland	132,435	133,396	134,073	135,171	137,621	139,245	140,748	142,657	145,585	146,772	148,279	1.4	2.1	.8	1.0
New Jersey	235,873	238,211	239,921	242,202	245,984	249,308	251,460	254,430	259,568	260,234	263,035	1.2	2.0	.3	1.1
New York	500,818	502,971	507,122	512,336	522,825	527,239	532,396	540,159	550,752	552,885	559,445	1.5	2.0	.4	1.2
Pennsylvania	281,013	283,700	286,012	289,126	293,099	297,938	300,941	304,145	308,691	311,954	314,925	1.1	1.5	1.1	1.0
Great Lakes	**1,011,205**	**1,016,414**	**1,025,335**	**1,037,991**	**1,050,678**	**1,067,473**	**1,080,212**	**1,088,807**	**1,107,241**	**1,118,858**	**1,128,709**	**.8**	**1.7**	**1.0**	**.9**
Illinois	297,953	299,874	302,507	306,538	311,898	316,298	320,221	323,827	329,728	334,795	338,706	1.1	1.8	1.5	1.2
Indiana	125,000	125,260	125,840	127,120	128,813	131,434	133,113	134,643	136,273	137,946	139,130	1.1	1.2	1.2	.9
Michigan	228,072	227,381	229,862	232,862	235,014	238,849	241,129	242,326	246,604	246,771	247,980	.5	1.8	.1	.5
Ohio	247,297	249,836	252,041	254,992	257,084	261,194	264,418	265,610	270,378	273,296	275,415	.5	1.8	1.1	.8
Wisconsin	112,884	114,063	115,086	116,480	117,869	119,697	121,331	122,402	124,257	126,050	127,478	.9	1.5	1.4	1.1
Plains	**396,928**	**401,414**	**405,940**	**411,894**	**422,854**	**430,289**	**436,027**	**440,502**	**447,509**	**454,004**	**458,272**	**1.0**	**1.6**	**1.5**	**.9**
Iowa	58,230	58,654	59,339	60,349	62,444	63,330	64,071	64,608	65,608	66,547	66,789	.8	1.5	1.4	.4
Kansas	55,452	55,957	56,483	56,978	58,546	59,253	59,992	60,546	61,519	62,694	63,322	.9	1.6	1.9	1.0
Minnesota	108,996	110,264	111,360	113,501	116,196	118,885	120,959	122,079	123,362	125,624	127,214	.9	1.1	1.8	1.3
Missouri	114,669	116,225	117,492	118,622	121,011	122,784	124,035	125,633	128,408	129,378	130,487	1.3	2.2	.8	.9
Nebraska	34,259	34,631	35,324	36,008	36,963	37,686	38,117	38,681	39,335	39,833	40,287	1.5	1.7	1.3	1.1
North Dakota	11,619	11,828	11,871	12,141	12,842	13,111	13,347	13,338	13,507	13,758	13,933	0	1.3	1.9	1.3
South Dakota	13,702	13,854	14,072	14,295	14,853	15,239	15,505	15,617	15,769	16,170	16,240	.7	1.0	2.5	.4
Southeast	**1,315,532**	**1,330,900**	**1,346,689**	**1,366,123**	**1,384,840**	**1,409,188**	**1,427,939**	**1,443,187**	**1,472,789**	**1,490,004**	**1,506,729**	**1.1**	**2.1**	**1.2**	**1.1**
Alabama	80,849	81,643	82,531	83,247	84,122	85,655	86,740	87,568	88,998	89,800	90,587	1.0	1.6	.9	.9
Arkansas	44,006	44,711	45,284	46,153	46,329	47,567	48,005	48,436	48,995	50,187	50,252	.9	1.2	2.4	.1
Florida	322,062	325,801	330,072	334,334	342,159	346,800	351,320	355,118	362,557	366,848	371,547	1.1	2.1	1.2	1.3
Georgia	154,451	156,103	158,784	162,162	164,063	168,023	170,891	172,857	176,818	178,647	181,433	1.2	2.3	1.0	1.6
Kentucky	71,560	72,417	72,972	74,008	75,075	76,525	77,707	78,235	79,899	80,934	81,762	.7	2.1	1.3	1.0
Louisiana	81,220	81,823	82,912	83,053	83,917	85,273	86,111	86,892	88,374	89,748	90,871	.9	1.7	1.6	1.3
Mississippi	44,325	44,797	45,387	46,079	46,721	47,627	48,188	48,402	49,263	50,109	50,571	.4	1.8	1.7	.9
North Carolina	148,917	151,505	153,258	156,724	158,014	161,859	163,920	166,616	170,544	172,999	174,230	1.6	2.4	1.4	.7
South Carolina	69,009	69,827	70,483	71,511	72,080	73,495	74,607	75,377	76,809	77,602	78,662	1.0	1.9	1.0	1.4
Tennessee	109,635	111,021	112,222	113,817	114,441	116,169	117,626	118,806	121,368	122,635	123,994	1.0	2.2	1.0	1.1
Virginia	157,790	159,368	160,764	162,642	165,259	167,219	169,444	171,277	175,302	176,238	178,236	1.1	2.3	.5	1.1
West Virginia	31,708	31,885	32,021	32,392	32,659	32,976	33,381	33,603	33,864	34,258	34,585	.7	.8	1.2	1.0
Southwest	**568,008**	**576,315**	**584,361**	**592,619**	**603,099**	**613,576**	**623,327**	**630,151**	**645,366**	**656,488**	**665,435**	**1.1**	**2.4**	**1.7**	**1.4**
Arizona	85,300	86,460	88,345	89,968	92,200	93,851	95,623	96,709	99,123	100,860	102,407	1.1	2.5	1.8	1.5
New Mexico	30,231	30,580	31,009	31,304	31,823	32,152	32,367	32,526	33,301	33,837	34,154	.5	2.4	1.6	.9
Oklahoma	60,341	61,041	61,604	62,385	63,239	64,273	65,003	65,541	67,017	67,547	68,659	.8	2.3	.8	1.6
Texas	392,135	398,234	403,402	408,962	415,838	423,301	430,334	435,376	445,924	454,244	460,215	1.2	2.4	1.9	1.3
Rocky Mountain	**172,902**	**174,647**	**177,649**	**180,764**	**183,459**	**187,084**	**190,154**	**192,566**	**196,311**	**199,637**	**202,462**	**1.3**	**1.9**	**1.7**	**1.4**
Colorado	89,985	90,804	92,494	93,779	95,749	97,514	99,191	100,578	102,455	104,393	105,785	1.4	1.9	1.9	1.3
Idaho	21,944	22,135	22,446	22,945	23,112	23,581	23,795	23,877	24,354	24,760	25,169	.3	2.0	1.7	1.7
Montana	15,891	16,029	16,250	16,456	16,566	16,788	17,017	17,213	17,294	17,536	17,660	1.2	.5	1.4	.7
Utah	35,196	35,701	36,388	37,378	37,856	38,848	39,697	40,397	41,520	42,153	42,921	1.8	2.8	1.5	1.8
Wyoming	9,885	9,977	10,072	10,205	10,177	10,354	10,453	10,501	10,687	10,795	10,926	.5	1.8	1.0	1.2
Far West	**1,027,694**	**1,040,967**	**1,052,169**	**1,061,958**	**1,082,884**	**1,101,474**	**1,115,412**	**1,131,570**	**1,153,406**	**1,175,334**	**1,190,893**	**1.4**	**1.9**	**1.9**	**1.3**
Alaska	14,500	14,548	14,590	14,615	14,731	14,789	14,826	14,894	15,055	15,384	15,574	.5	1.1	2.2	1.2
California	752,421	761,430	768,728	775,160	790,291	803,573	812,716	825,321	840,004	855,514	866,436	1.6	1.8	1.8	1.3
Hawaii	29,352	29,669	29,633	29,716	29,902	30,067	30,150	30,169	30,549	30,837	31,095	.1	1.3	.9	.8
Nevada	36,893	37,503	38,351	39,055	40,255	41,286	42,207	43,050	44,032	44,799	45,490	2.0	2.3	1.7	1.5
Oregon	67,167	68,155	69,323	70,580	71,934	73,336	74,683	75,735	77,505	79,098	80,046	1.4	2.3	2.1	1.2
Washington	127,361	129,663	131,544	132,832	135,771	138,424	140,830	142,401	146,261	149,703	152,252	1.1	2.7	2.4	1.7

1. Percent changes are expressed at quarterly rates and are calculated from seasonally adjusted unrounded data.

NOTE.—The personal income level shown for the United States is derived as the sum of the State estimates. It differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

Source: Table 1 in "Personal Income by State and Region, Third Quarter 1997" in this issue of the SURVEY OF CURRENT BUSINESS.

Table J.2.—Annual Personal Income and Disposable Personal Income for States and Regions

Area name	Personal income					Disposable personal income				
	Millions of dollars			Percent change [1]		Millions of dollars			Percent change [1]	
	1994	1995	1996	1994–95	1995–96	1994	1995	1996	1994–95	1995–96
United States	**5,774,806**	**6,137,875**	**6,479,914**	**6.3**	**5.6**	**5,036,648**	**5,343,656**	**5,593,988**	**6.1**	**4.7**
New England	**345,430**	**368,398**	**387,042**	**6.6**	**5.1**	**295,605**	**313,755**	**325,596**	**6.1**	**3.8**
Connecticut	99,703	105,778	110,916	6.1	4.9	84,190	88,514	91,395	5.1	3.3
Maine	23,865	24,966	26,124	4.6	4.6	21,091	22,099	22,963	4.8	3.9
Massachusetts	160,247	172,008	181,505	7.3	5.5	135,860	145,105	151,149	6.8	4.2
New Hampshire	27,532	29,510	30,939	7.2	4.8	24,522	26,221	27,221	6.9	3.8
Rhode Island	22,296	23,541	24,331	5.6	3.4	19,562	20,683	21,247	5.7	2.7
Vermont	11,787	12,595	13,227	6.9	5.0	10,381	11,132	11,622	7.2	4.4
Mideast	**1,138,137**	**1,200,373**	**1,258,684**	**5.5**	**4.9**	**977,624**	**1,029,807**	**1,070,910**	**5.3**	**4.0**
Delaware	17,517	18,757	20,095	7.1	7.1	15,016	16,074	17,069	7.0	6.2
District of Columbia	17,795	18,021	18,539	1.3	2.9	15,167	15,405	15,859	1.6	2.9
Maryland	127,014	133,769	140,068	5.3	4.7	108,911	114,640	119,139	5.3	3.9
New Jersey	225,686	239,052	250,295	5.9	4.7	193,487	205,302	212,443	6.1	3.5
New York	479,156	505,812	530,655	5.6	4.9	407,831	429,520	447,031	5.3	4.1
Pennsylvania	270,969	284,963	299,031	5.2	4.9	237,212	248,867	259,369	4.9	4.2
Great Lakes	**964,118**	**1,022,736**	**1,071,792**	**6.1**	**4.8**	**834,810**	**884,726**	**919,565**	**6.0**	**3.9**
Illinois	284,319	301,718	318,061	6.1	5.4	245,498	260,030	271,612	5.9	4.5
Indiana	119,665	125,805	132,001	5.1	4.9	103,684	109,145	113,693	5.3	4.2
Michigan	215,266	229,544	239,330	6.6	4.3	186,873	199,127	206,030	6.6	3.5
Ohio	237,118	251,041	262,077	5.9	4.4	206,164	217,936	225,788	5.7	3.6
Wisconsin	107,749	114,628	120,325	6.4	5.0	92,591	98,488	102,442	6.4	4.0
Plains	**382,697**	**404,044**	**432,418**	**5.6**	**7.0**	**333,873**	**351,357**	**373,267**	**5.2**	**6.2**
Iowa	56,787	59,143	63,613	4.1	7.6	49,894	51,960	55,617	4.1	7.0
Kansas	53,088	56,218	59,585	5.9	6.0	46,463	49,000	51,481	5.5	5.1
Minnesota	104,727	111,031	119,530	6.0	7.7	89,182	94,081	100,058	5.5	6.4
Missouri	109,613	116,752	123,366	6.5	5.7	96,242	102,314	107,573	6.3	5.1
Nebraska	33,218	35,055	37,862	5.5	8.0	29,308	30,756	32,985	4.9	7.2
North Dakota	11,661	11,865	13,159	1.7	10.9	10,437	10,602	11,748	1.6	10.8
South Dakota	13,602	13,981	15,303	2.8	9.5	12,348	12,643	13,805	2.4	9.2
Southeast	**1,255,475**	**1,339,811**	**1,416,289**	**6.7**	**5.7**	**1,109,304**	**1,181,959**	**1,240,754**	**6.5**	**5.0**
Alabama	77,344	82,067	86,021	6.1	4.8	68,892	73,043	76,151	6.0	4.3
Arkansas	42,079	45,039	47,584	7.0	5.7	37,597	40,142	42,344	6.8	5.5
Florida	306,657	328,067	348,849	7.0	6.3	271,419	289,716	305,142	6.7	5.3
Georgia	146,103	157,875	168,959	8.1	7.0	127,646	137,701	145,978	7.9	6.0
Kentucky	68,670	72,739	76,885	5.9	5.7	60,451	63,930	67,208	5.8	5.1
Louisiana	78,219	82,252	85,548	5.2	4.0	70,548	74,106	76,592	5.0	3.4
Mississippi	42,507	45,147	47,735	6.2	5.7	38,700	41,143	43,420	6.3	5.5
North Carolina	141,426	152,601	162,602	7.9	6.6	123,333	133,009	141,008	7.8	6.0
South Carolina	66,019	70,208	73,890	6.3	5.2	58,661	62,097	65,038	5.9	4.7
Tennessee	103,989	111,674	116,760	7.4	4.6	93,528	100,278	104,146	7.2	3.9
Virginia	151,487	160,141	168,300	5.7	5.1	130,741	138,126	144,189	5.6	4.4
West Virginia	30,973	32,001	33,155	3.3	3.6	27,788	28,667	29,539	3.2	3.0
Southwest	**541,429**	**580,326**	**617,538**	**7.2**	**6.4**	**483,571**	**518,174**	**547,021**	**7.2**	**5.6**
Arizona	79,868	87,518	94,596	9.6	8.1	70,242	76,887	82,509	9.5	7.3
New Mexico	28,518	30,781	32,217	7.9	4.7	25,388	27,508	28,661	8.4	4.2
Oklahoma	58,691	61,343	64,514	4.5	5.2	52,010	54,409	56,831	4.6	4.5
Texas	374,353	400,683	426,212	7.0	6.4	335,932	359,370	379,020	7.0	5.5
Rocky Mountain	**163,203**	**176,490**	**188,316**	**8.1**	**6.7**	**141,204**	**152,796**	**161,621**	**8.2**	**5.8**
Colorado	84,643	91,766	98,258	8.4	7.1	72,629	78,826	83,523	8.5	6.0
Idaho	20,732	22,368	23,591	7.9	5.5	18,136	19,588	20,545	8.0	4.9
Montana	15,137	16,157	16,896	6.7	4.6	13,275	14,258	14,792	7.4	3.7
Utah	33,171	36,166	39,199	9.0	8.4	28,761	31,239	33,633	8.6	7.7
Wyoming	9,522	10,035	10,371	5.4	3.4	8,403	8,885	9,128	5.7	2.7
Far West	**984,317**	**1,045,697**	**1,107,835**	**6.2**	**5.9**	**860,656**	**911,081**	**955,254**	**5.9**	**4.8**
Alaska	14,125	14,563	14,810	3.1	1.7	12,247	12,655	12,778	3.3	1.0
California	722,002	764,435	807,975	5.9	5.7	632,206	665,609	695,767	5.3	4.5
Hawaii	28,469	29,593	30,072	3.9	1.6	24,640	25,916	26,119	5.2	.8
Nevada	34,292	37,951	41,699	10.7	9.9	29,699	32,870	35,718	10.7	8.7
Oregon	63,667	68,806	73,922	8.1	7.4	54,244	58,879	62,833	8.5	6.7
Washington	121,762	130,350	139,356	7.1	6.9	107,621	115,154	122,040	7.0	6.0

1. Percent changes are calculated from unrounded data.

NOTE.—The personal income level shown for the United States is derived as the sum of the State estimates. It differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

Source: Tables 1 and 3 in "State Personal Income, Revised Estimates for 1958-96" in the October 1997 SURVEY OF CURRENT BUSINESS.

Table J.3.—Per Capita Personal Income and Per Capita Disposable Personal Income for States and Regions, 1994-96

Area name	Per capita personal income [1]				Per capita disposable personal income [1]			
	Dollars			Rank in U.S.	Dollars			Rank in U.S.
	1994	1995	1996	1996	1994	1995	1996	1996
United States	**22,180**	**23,348**	**24,426**		**19,345**	**20,327**	**21,087**	
New England	**26,040**	**27,688**	**28,989**		**22,284**	**23,582**	**24,387**	
Connecticut	30,462	32,341	33,875	1	25,722	27,063	27,913	1
Maine	19,277	20,157	21,011	36	17,036	17,842	18,469	37
Massachusetts	26,522	28,332	29,792	3	22,486	23,901	24,810	3
New Hampshire	24,250	25,700	26,615	8	21,599	22,836	23,416	7
Rhode Island	22,383	23,738	24,572	18	19,638	20,856	21,457	18
Vermont	20,299	21,538	22,470	29	17,878	19,036	19,743	28
Mideast	**25,613**	**26,968**	**28,242**		**22,000**	**23,136**	**24,028**	
Delaware	24,748	26,159	27,724	5	21,215	22,417	23,549	5
District of Columbia	31,327	32,499	34,129		26,702	27,780	29,195	
Maryland	25,405	26,547	27,618	6	21,784	22,751	23,491	6
New Jersey	28,547	30,071	31,334	2	24,474	25,826	26,595	2
New York	26,332	27,806	29,181	4	22,412	23,612	24,583	4
Pennsylvania	22,471	23,628	24,803	17	19,672	20,635	21,514	15
Great Lakes	**22,342**	**23,575**	**24,575**		**19,346**	**20,394**	**21,084**	
Illinois	24,230	25,590	26,848	7	20,922	22,054	22,928	8
Indiana	20,811	21,702	22,601	28	18,032	18,828	19,466	32
Michigan	22,692	24,066	24,945	16	19,699	20,877	21,474	17
Ohio	21,368	22,547	23,457	21	18,579	19,574	20,209	21
Wisconsin	21,192	22,379	23,320	22	18,211	19,228	19,854	25
Plains	**21,005**	**22,018**	**23,414**		**18,325**	**19,147**	**20,211**	
Iowa	20,049	20,802	22,306	30	17,616	18,276	19,503	31
Kansas	20,819	21,929	23,165	23	18,221	19,114	20,015	23
Minnesota	22,904	24,061	25,663	11	19,504	20,388	21,482	16
Missouri	20,779	21,949	23,022	25	18,244	19,234	20,075	22
Nebraska	20,435	21,385	22,917	27	18,030	18,763	19,966	24
North Dakota	18,229	18,495	20,448	38	16,315	16,526	18,255	38
South Dakota	18,783	19,165	20,895	37	17,051	17,331	18,849	35
Southeast	**20,003**	**21,076**	**22,016**		**17,674**	**18,593**	**19,288**	
Alabama	18,349	19,327	20,131	39	16,344	17,202	17,821	39
Arkansas	17,142	18,126	18,959	47	15,316	16,155	16,872	45
Florida	21,959	23,129	24,226	20	19,436	20,425	21,190	19
Georgia	20,686	21,901	22,977	26	18,072	19,102	19,852	26
Kentucky	17,949	18,860	19,797	42	15,801	16,576	17,305	42
Louisiana	18,135	18,960	19,664	43	16,356	17,083	17,605	40
Mississippi	15,931	16,745	17,575	50	14,504	15,260	15,986	50
North Carolina	19,979	21,188	22,205	32	17,423	18,467	19,256	33
South Carolina	18,138	19,146	19,977	40	16,116	16,934	17,584	41
Tennessee	20,120	21,284	21,949	33	18,096	19,113	19,577	30
Virginia	23,129	24,208	25,212	14	19,961	20,880	21,600	14
West Virginia	16,998	17,532	18,160	49	15,250	15,706	16,179	49
Southwest	**19,739**	**20,673**	**21,614**		**17,630**	**18,459**	**19,146**	
Arizona	19,562	20,329	21,363	35	17,205	17,860	18,633	36
New Mexico	17,187	18,215	18,803	48	15,301	16,278	16,727	48
Oklahoma	18,039	18,731	19,544	45	15,985	16,614	17,217	44
Texas	20,308	21,311	22,282	31	18,224	19,114	19,815	27
Rocky Mountain	**20,286**	**21,467**	**22,490**		**17,552**	**18,585**	**19,302**	
Colorado	23,109	24,487	25,704	10	19,829	21,034	21,849	12
Idaho	18,243	19,181	19,837	41	15,959	16,798	17,276	43
Montana	17,672	18,563	19,214	46	15,499	16,382	16,821	46
Utah	17,334	18,468	19,595	44	15,029	15,952	16,812	47
Wyoming	20,013	20,941	21,544	34	17,661	18,542	18,961	34
Far West	**22,867**	**24,052**	**25,173**		**19,994**	**20,955**	**21,706**	
Alaska	23,487	24,170	24,398	19	20,364	21,002	21,050	20
California	23,022	24,217	25,346	13	20,158	21,087	21,826	13
Hawaii	24,278	25,095	25,404	12	21,012	21,978	22,065	10
Nevada	23,422	24,748	26,011	9	20,285	21,435	22,280	9
Oregon	20,575	21,851	23,074	24	17,530	18,698	19,612	29
Washington	22,755	23,927	25,187	15	20,112	21,138	22,057	11

1. Per capita personal income and per capita disposable personal income are computed using midyear population estimates of the Bureau of the Census.

NOTE.—The personal income level shown for the United States is derived as the sum of the State estimates. It differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

Source: Tables 2 and 4 in "State Personal Income, Revised Estimates for 1958–96" in the October 1997 SURVEY OF CURRENT BUSINESS.

Table J.4.—Gross State Product for States and Regions by Industry, 1994

[Millions of dollars]

State and region	Rank of total gross state product	Total gross state product	Farms	Agricultural services, forestry, and fishing	Mining	Construction	Manufacturing			Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Federal civilian government	Federal military government	State and local government
							Total	Durable goods	Nondurable goods								
United States		**6,835,641**	**82,197**	**35,651**	**90,058**	**269,232**	**1,197,098**	**673,139**	**523,959**	**606,354**	**461,863**	**609,908**	**1,273,678**	**1,342,720**	**182,651**	**79,948**	**604,284**
New England		**389,259**	**1,182**	**1,915**	**237**	**13,158**	**66,134**	**43,392**	**22,743**	**27,786**	**25,962**	**33,195**	**92,056**	**88,578**	**6,712**	**2,084**	**30,258**
Connecticut	21	110,449	280	504	38	3,646	18,612	12,231	6,381	7,744	7,328	8,813	30,138	22,939	1,510	579	8,319
Maine	42	26,069	221	267	12	1,142	4,639	2,200	2,439	1,864	1,510	3,159	4,742	4,816	827	342	2,528
Massachusetts	10	186,199	296	777	113	5,943	30,387	20,245	10,142	12,883	13,237	14,784	42,919	47,245	3,134	678	13,804
New Hampshire	40	29,393	94	138	29	1,031	6,053	4,336	1,718	2,327	1,742	2,913	6,502	5,723	448	67	2,326
Rhode Island	44	23,867	56	147	14	822	4,148	2,776	1,372	1,739	1,274	2,204	5,456	5,151	477	354	2,026
Vermont	50	13,282	234	82	31	574	2,296	1,605	691	1,229	872	1,323	2,299	2,704	317	65	1,256
Mideast		**1,327,798**	**4,504**	**4,012**	**2,355**	**45,626**	**183,235**	**85,106**	**98,129**	**114,721**	**86,894**	**100,291**	**321,733**	**294,563**	**46,598**	**7,278**	**115,987**
Delaware	41	26,697	221	75	4	889	5,397	1,486	3,911	1,354	1,046	1,513	10,414	3,419	358	273	1,733
District of Columbia		48,028	0	13	7	428	1,267	153	1,114	2,596	577	1,367	6,888	15,636	16,102	1,166	1,981
Maryland	16	132,703	601	610	111	6,536	11,442	5,676	5,766	11,144	8,199	11,787	29,253	29,531	9,956	2,117	11,416
New Jersey	8	254,945	479	864	152	9,261	36,841	12,144	24,698	25,750	23,374	19,096	57,125	54,124	4,186	832	22,862
New York	2	570,994	1,399	1,221	428	16,661	70,346	35,556	34,790	46,605	35,683	40,005	164,081	129,468	8,443	1,804	54,850
Pennsylvania	6	294,431	1,805	1,229	1,653	11,852	57,941	30,091	27,850	27,272	18,014	26,523	53,972	62,385	7,553	1,087	23,145
Great Lakes		**1,111,598**	**11,265**	**4,418**	**4,459**	**45,155**	**284,542**	**188,314**	**96,229**	**90,978**	**77,674**	**97,284**	**179,209**	**198,663**	**19,212**	**4,025**	**94,713**
Illinois	4	332,853	3,515	1,321	1,273	14,086	62,441	35,277	27,164	31,940	26,639	27,549	63,253	66,853	6,357	1,686	25,938
Indiana	15	138,190	1,839	531	753	6,493	41,843	29,115	12,728	11,407	8,382	12,734	18,448	21,325	2,725	479	11,229
Michigan	9	240,390	1,486	887	938	8,584	71,415	54,414	17,001	16,156	16,373	19,958	36,385	42,288	2,814	527	22,580
Ohio	7	274,844	2,121	1,039	1,238	10,583	73,887	48,605	25,282	22,592	18,534	25,922	41,404	47,899	5,225	1,032	23,366
Wisconsin	19	125,321	2,302	640	258	5,409	34,956	20,903	14,053	8,882	7,745	11,120	19,719	20,298	2,091	300	11,600
Plains		**455,013**	**17,428**	**2,562**	**2,466**	**19,202**	**88,359**	**49,443**	**38,916**	**43,306**	**34,207**	**41,979**	**69,161**	**79,879**	**10,786**	**4,102**	**41,575**
Iowa	29	68,298	4,238	553	156	2,700	16,699	9,775	6,924	5,388	4,718	5,966	9,632	10,090	1,263	191	6,706
Kansas	31	61,758	2,529	348	815	2,402	10,727	5,638	5,090	7,444	4,545	5,956	7,831	10,003	1,584	1,347	6,227
Minnesota	20	124,641	2,822	534	507	5,318	24,950	14,510	10,440	9,564	10,061	11,134	21,869	23,882	2,361	306	11,334
Missouri	17	128,216	1,751	563	356	5,823	27,017	14,477	12,540	13,476	9,406	12,493	18,734	24,172	3,549	892	9,985
Nebraska	36	41,357	3,160	308	98	1,714	6,031	3,088	2,944	4,559	3,147	3,488	5,937	6,724	1,104	587	4,500
North Dakota	49	13,494	1,286	84	349	588	979	534	445	1,496	1,255	1,291	1,673	2,302	358	494	1,341
South Dakota	46	17,250	1,642	173	185	657	1,956	1,422	534	1,378	1,076	1,652	3,487	2,706	567	288	1,483
Southeast		**1,478,627**	**20,175**	**7,841**	**21,509**	**60,747**	**282,972**	**126,435**	**156,537**	**143,740**	**97,808**	**144,130**	**226,278**	**263,453**	**45,781**	**31,101**	**133,092**
Alabama	25	88,661	1,512	460	1,184	3,496	19,398	9,593	9,805	8,821	5,515	8,926	10,860	14,045	4,173	1,411	8,861
Arkansas	33	50,575	2,035	315	382	1,846	12,578	6,757	5,820	6,196	3,077	5,193	5,637	7,272	1,179	411	4,455
Florida	5	317,829	3,399	2,735	711	14,592	26,612	15,079	11,533	29,914	22,644	35,783	68,123	72,639	6,669	4,573	29,435
Georgia	11	183,042	2,491	768	752	6,707	32,576	13,383	19,192	21,865	16,355	16,714	28,563	31,980	5,667	3,519	15,085
Kentucky	26	86,485	1,867	442	2,941	3,429	23,221	12,545	10,676	8,305	4,770	7,651	9,514	12,471	2,683	1,803	7,387
Louisiana	22	101,101	882	369	9,995	4,476	17,417	4,311	13,107	11,059	5,784	8,717	13,260	16,738	1,841	1,320	9,241
Mississippi	32	50,587	1,256	287	356	1,855	11,854	7,015	4,839	6,228	2,840	5,008	5,680	7,597	1,522	1,064	5,039
North Carolina	12	181,521	3,420	786	229	7,078	53,629	19,739	33,890	14,315	11,692	16,338	23,465	26,345	3,148	4,882	16,194
South Carolina	27	79,925	724	363	158	3,473	21,787	8,403	13,384	6,399	4,367	8,043	10,297	11,632	1,864	2,273	8,545
Tennessee	18	126,539	1,242	476	347	4,677	30,611	16,049	14,562	10,646	9,232	13,881	16,217	23,663	4,450	694	10,403
Virginia	13	177,708	1,147	737	1,074	7,443	27,435	11,047	16,389	15,425	9,694	14,820	30,823	33,594	11,646	9,009	14,860
West Virginia	39	34,654	200	101	3,380	1,675	5,854	2,514	3,341	4,567	1,836	3,057	3,838	5,477	939	142	3,587
Southwest		**677,888**	**8,347**	**3,541**	**39,652**	**28,989**	**105,712**	**61,747**	**43,964**	**72,514**	**46,743**	**62,877**	**98,977**	**120,958**	**17,331**	**9,967**	**62,281**
Arizona	24	94,093	810	673	1,114	5,116	13,973	11,155	2,817	8,345	5,677	10,034	17,115	18,155	2,538	1,200	9,343
New Mexico	37	37,832	564	178	2,702	1,781	5,117	4,422	695	3,672	1,645	3,551	5,130	6,595	1,791	834	4,272
Oklahoma	30	66,189	1,591	311	3,281	2,069	11,060	6,615	4,445	7,281	4,051	6,663	8,203	10,788	2,500	1,476	6,915
Texas	3	479,774	5,381	2,379	32,555	20,024	75,562	39,555	36,007	53,216	35,369	42,630	68,529	85,419	10,502	6,456	41,750
Rocky Mountain		**198,132**	**3,989**	**1,120**	**8,816**	**10,271**	**24,790**	**15,011**	**9,779**	**22,017**	**11,869**	**19,563**	**29,743**	**37,142**	**7,215**	**3,034**	**18,564**
Colorado	23	99,767	1,180	506	1,660	5,234	12,299	7,197	5,102	11,014	6,341	10,039	16,825	20,626	3,424	1,885	8,736
Idaho	43	24,185	1,260	276	169	1,536	4,612	3,030	1,583	2,181	1,456	2,502	3,092	3,771	760	268	2,301
Montana	47	16,862	835	135	837	758	1,317	763	555	2,152	1,049	1,714	2,261	3,061	742	266	1,734
Utah	35	41,657	418	123	1,484	2,151	5,891	3,806	2,086	4,008	2,532	4,268	5,905	8,221	1,901	412	4,346
Wyoming	48	15,660	297	79	4,666	591	670	215	455	2,662	492	1,040	1,661	1,464	388	202	1,447
Far West		**1,197,326**	**15,306**	**10,241**	**10,563**	**46,084**	**161,354**	**103,692**	**57,662**	**91,293**	**80,707**	**110,589**	**256,519**	**259,485**	**29,015**	**18,357**	**107,814**
Alaska	45	22,720	18	356	4,238	1,038	1,149	317	833	3,835	672	1,539	2,480	2,653	1,113	1,094	2,535
California	1	875,697	11,171	7,189	4,459	29,222	121,842	76,608	45,234	63,122	59,860	79,662	199,078	193,314	18,900	11,187	76,691
Hawaii	38	36,718	282	198	26	2,151	1,128	296	832	3,475	1,414	4,063	8,584	7,586	1,745	2,623	3,442
Nevada	34	43,958	142	178	1,438	3,090	2,002	1,269	733	3,376	1,990	4,084	8,058	14,967	840	435	3,358
Oregon	28	74,366	1,481	734	96	3,447	14,814	11,260	3,554	5,909	5,888	6,773	12,464	13,248	2,020	223	7,269
Washington	14	143,867	2,212	1,586	306	7,137	20,418	13,942	6,476	11,576	10,882	14,467	25,856	27,716	4,397	2,795	14,519

NOTE.—Totals shown for the United States differ from the NIPA estimates of gross domestic product (GDP) because State data exclude the statistical discrepancy (the difference between GDP and gross domestic income), the compensation of Federal civilian and military personnel stationed abroad, and government consumption of fixed capital for military structures located abroad and for military equipment, except office equipment; they may also differ from the GDP estimates because of differences in revision schedules.

Sources: Tables 9 and 10 in "Comprehensive Revision of Gross State Product by Industry, 1977–94" in the June 1997 SURVEY OF CURRENT BUSINESS.

K. Local Area Table

Table K.1.—Personal Income and Per Capita Personal Income by Metropolitan Area, 1993–95

Area name	Personal income, millions of dollars			Percent change [2]	Per capita personal income [3], dollars			Rank in U.S.
	1993	1994	1995	1994–95	1993	1994	1995	1995
United States [1]	**5,471,129**	**5,739,851**	**6,097,977**	**6.2**	**21,223**	**22,044**	**23,196**	
Metropolitan portion	**4,627,255**	**4,850,244**	**5,162,277**	**6.4**	**22,481**	**23,327**	**24,594**	
Nonmetropolitan portion	**843,874**	**889,607**	**935,700**	**5.2**	**16,239**	**16,959**	**17,658**	
Consolidated Metropolitan Statistical Areas								
Chicago-Gary-Kenosha, IL-IN-WI	210,079	220,224	234,889	6.7	24,869	25,906	27,481	
Cincinnati-Hamilton, OH-KY-IN	40,549	42,522	45,310	6.6	21,559	22,436	23,752	
Cleveland-Akron, OH	64,737	67,827	72,102	6.3	22,388	23,350	24,792	
Dallas-Fort Worth, TX	98,735	105,222	113,633	8.0	23,006	24,034	25,418	
Denver-Boulder-Greeley, CO	51,988	54,925	59,361	8.1	24,211	25,084	26,581	
Detroit-Ann Arbor-Flint, MI	121,251	131,581	140,169	6.5	23,139	25,117	26,646	
Houston-Galveston-Brazoria, TX	93,005	97,330	104,073	6.9	23,048	23,693	24,910	
Los Angeles-Riverside-Orange County, CA	331,389	337,711	357,571	5.9	21,822	22,122	23,290	
Miami-Fort Lauderdale, FL	71,826	74,618	80,095	7.3	21,514	21,965	23,155	
Milwaukee-Racine, WI	37,629	39,592	42,025	6.1	23,036	24,182	25,636	
New York-No. New Jersey-Long Island, NY-NJ-CT-PA	564,130	585,058	619,024	5.8	28,691	29,654	31,280	
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD	147,099	151,972	160,677	5.7	24,743	25,497	26,921	
Portland-Salem, OR-WA	41,382	44,382	48,170	8.5	21,236	22,308	23,719	
Sacramento-Yolo, CA	33,416	35,017	37,534	7.2	21,212	22,052	23,332	
San Francisco-Oakland-San Jose, CA	181,386	187,916	201,544	7.3	28,055	28,901	30,802	
Seattle-Tacoma-Bremerton, WA	77,103	80,757	85,826	6.3	24,214	25,062	26,231	
Washington-Baltimore, DC-MD-VA-WV	185,306	194,456	204,023	4.9	26,550	27,584	28,706	
Metropolitan Statistical Areas [4]								
Abilene, TX	2,117	2,153	2,299	6.8	17,407	17,720	18,708	254
Akron, OH*	13,869	14,691	15,620	6.3	20,663	21,828	23,103	92
Albany, GA	1,915	2,063	2,199	6.6	16,507	17,711	18,849	246
Albany-Schenectady-Troy, NY	19,396	20,365	21,004	3.1	22,194	23,082	23,837	73
Albuquerque, NM	12,071	13,056	14,188	8.7	19,145	20,175	21,452	142
Alexandria, LA	2,177	2,332	2,456	5.3	17,399	18,492	19,352	224
Allentown-Bethlehem-Easton, PA	13,250	13,794	14,580	5.7	21,754	22,554	23,801	74
Altoona, PA	2,287	2,379	2,495	4.9	17,338	17,963	18,891	244
Amarillo, TX	3,673	3,916	4,188	7.0	18,801	19,664	20,464	177
Anchorage, AK	6,616	6,921	7,015	1.4	26,465	27,484	27,914	22
Ann Arbor, MI*	12,251	13,472	14,508	7.7	24,101	26,255	27,829	24
Anniston, AL	1,846	1,916	2,024	5.6	15,859	16,989	17,840	289
Appleton-Oshkosh-Neenah, WI	6,735	7,178	7,672	6.9	20,497	21,596	22,810	102
Asheville, NC	3,920	4,095	4,391	7.2	19,491	20,050	21,181	154
Athens, GA	2,276	2,416	2,606	7.8	17,390	18,094	19,320	228
Atlanta, GA	75,166	80,871	87,956	8.8	23,260	24,229	25,563	42
Atlantic-Cape May, NJ*	8,192	8,502	8,964	5.4	24,973	25,768	27,020	29
Augusta-Aiken, GA-SC	8,114	8,429	8,809	4.5	18,297	18,790	19,451	222
Austin-San Marcos, TX	18,737	20,331	22,338	9.9	20,048	20,977	22,185	123
Bakersfield, CA	10,073	10,218	10,860	6.3	16,798	16,711	17,625	291
Baltimore, MD*	56,912	59,799	62,556	4.6	23,282	24,326	25,347	44
Bangor, ME (NECMA)	2,518	2,601	2,728	4.9	17,228	17,777	18,747	252
Barnstable-Yarmouth, MA (NECMA)	4,870	5,106	5,492	7.6	25,286	26,090	27,568	25
Baton Rouge, LA	10,492	11,233	11,919	6.1	18,962	20,114	21,159	156
Beaumont-Port Arthur, TX	6,711	6,951	7,348	5.7	17,973	18,567	19,541	221
Bellingham, WA	2,593	2,789	2,953	5.9	18,198	19,097	19,775	210
Benton Harbor, MI	3,073	3,257	3,442	5.7	19,018	20,193	21,284	150
Bergen-Passaic, NJ*	40,789	42,024	44,345	5.5	31,489	32,291	33,931	4
Billings, MT	2,361	2,515	2,662	5.8	19,543	20,472	21,345	146
Biloxi-Gulfport-Pascagoula, MS	5,374	5,852	6,104	4.3	16,315	17,339	17,856	288
Binghamton, NY	5,071	5,172	5,269	1.9	19,165	19,727	20,446	178
Birmingham, AL	17,846	18,960	20,283	7.0	20,644	21,547	22,830	99
Bismarck, ND	1,627	1,697	1,814	6.9	18,634	19,255	20,342	182
Bloomington, IN	1,939	2,029	2,147	5.8	17,196	17,844	18,603	261
Bloomington-Normal, IL	2,797	3,056	3,213	5.1	20,722	22,417	23,229	90
Boise City, ID	6,932	7,629	8,330	9.2	20,711	21,885	23,052	94
Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH (NECMA)	146,890	153,749	164,718	7.1	25,773	26,832	28,564	17
Boulder-Longmont, CO*	6,221	6,632	7,114	7.3	25,451	26,555	27,978	20
Brazoria, TX*	3,775	3,970	4,240	6.8	18,112	18,662	19,595	218
Bremerton, WA*	4,108	4,293	4,529	5.5	19,292	19,802	20,004	197
Brownsville-Harlingen-San Benito, TX	3,259	3,476	3,682	5.9	11,246	11,610	11,960	313
Bryan-College Station, TX	1,877	1,985	2,086	5.1	14,524	15,187	15,872	306
Buffalo-Niagara Falls, NY	24,140	25,509	26,766	4.9	20,254	21,475	22,645	109
Burlington, VT (NECMA)	3,864	4,018	4,280	6.5	21,053	21,518	22,687	105
Canton-Massillon, OH	7,625	8,052	8,535	6.0	19,014	20,054	21,222	152
Casper, WY	1,414	1,469	1,550	5.5	22,476	22,978	24,248	65
Cedar Rapids, IA	3,835	4,094	4,363	6.6	21,928	23,184	24,448	61
Champaign-Urbana, IL	3,125	3,235	3,390	4.8	18,442	19,518	20,376	181
Charleston-North Charleston, SC	8,879	9,168	9,447	3.0	16,919	17,769	18,840	247
Charleston, WV	5,201	5,434	5,744	5.7	20,465	21,352	22,562	112
Charlotte-Gastonia-Rock Hill, NC-SC	26,536	28,472	30,989	8.8	21,505	22,580	24,022	71
Charlottesville, VA	3,172	3,318	3,512	5.8	22,926	23,622	24,630	56
Chattanooga, TN-GA	8,461	8,887	9,453	6.4	19,450	20,230	21,330	147
Cheyenne, WY	1,570	1,597	1,664	4.2	20,420	20,458	21,201	153
Chicago, IL*	193,676	202,969	216,553	6.7	25,501	26,553	28,177	19
Chico-Paradise, CA	3,225	3,317	3,482	5.0	16,881	17,249	18,040	280
Cincinnati, OH-KY-IN*	34,473	36,084	38,428	6.5	21,928	22,848	24,199	66
Clarksville-Hopkinsville, TN-KY	2,694	2,854	3,053	7.0	14,943	15,405	16,833	298
Cleveland-Lorain-Elyria, OH*	50,869	53,136	56,482	6.3	22,910	23,809	25,303	46
Colorado Springs, CO	8,301	8,931	9,660	8.2	19,104	19,684	20,770	166
Columbia, MO	2,290	2,443	2,608	6.7	19,212	20,178	21,137	157
Columbia, SC	9,298	9,818	10,464	6.6	19,362	20,702	21,733	131
Columbus, GA-AL	4,612	4,798	5,060	5.4	17,023	17,549	18,616	259
Columbus, OH	30,328	32,441	34,614	6.7	21,525	22,825	24,132	68
Corpus Christi, TX	6,128	6,469	6,833	5.6	16,594	17,190	17,984	285
Cumberland, MD-WV	1,610	1,682	1,765	5.0	15,894	16,627	17,460	293
Dallas, TX*	68,719	73,638	79,737	8.3	24,084	25,298	26,803	32
Danville, VA	1,793	1,865	1,965	5.3	16,395	16,972	17,930	286
Davenport-Moline-Rock Island, IA-IL	7,016	7,337	7,722	5.3	19,646	20,534	21,588	137
Dayton-Springfield, OH	19,884	20,823	22,132	6.3	20,734	21,834	23,238	89
Daytona Beach, FL	7,417	7,867	8,464	7.6	17,120	17,742	18,794	249
Decatur, AL	2,466	2,623	2,772	5.7	17,912	19,069	19,955	200
Decatur, IL	2,360	2,434	2,517	3.4	20,106	20,851	21,640	134
Denver, CO*	43,300	45,764	49,546	8.3	24,570	25,494	27,069	28
Des Moines, IA	9,387	10,014	10,709	6.9	22,747	23,987	25,331	45
Detroit, MI*	100,582	108,703	115,754	6.5	23,395	25,320	26,889	31
Dothan, AL	2,264	2,372	2,506	5.7	16,919	17,819	18,777	250
Dover, DE	2,069	2,177	2,344	7.7	17,494	18,232	19,333	226
Dubuque, IA	1,669	1,771	1,865	5.3	19,011	20,113	21,160	155
Duluth-Superior, MN-WI	4,338	4,540	4,782	5.3	17,959	18,834	19,959	199
Dutchess County, NY*	6,092	6,132	6,302	2.8	23,177	23,474	24,098	69
Eau Claire, WI	2,440	2,584	2,754	6.5	17,292	18,218	19,335	225
El Paso, TX	8,391	8,809	9,299	5.6	12,964	13,211	13,702	312
Elkhart-Goshen, IN	3,317	3,564	3,780	6.1	20,485	21,719	22,660	107
Elmira, NY	1,686	1,773	1,863	5.0	17,745	18,766	19,817	206
Enid, OK	1,031	1,063	1,099	3.3	18,246	18,719	19,160	235
Erie, PA	5,278	5,510	5,811	5.5	18,879	19,630	20,704	168
Eugene-Springfield, OR	5,327	5,667	6,043	6.6	18,036	18,932	19,917	202
Evansville-Henderson, IN-KY	5,853	6,071	6,360	4.8	20,505	21,184	22,124	124
Fargo-Moorhead, ND-MN	2,952	3,165	3,348	5.8	18,469	19,535	20,433	180
Fayetteville, NC	4,773	4,899	5,210	6.4	16,813	17,252	18,289	271
Fayetteville-Springdale-Rogers, AR	4,319	4,696	5,078	8.1	18,381	19,293	20,060	192
Flagstaff, AZ-UT	1,679	1,820	1,948	7.0	15,124	15,959	16,733	299
Flint, MI*	8,418	9,407	9,908	5.3	19,469	21,757	22,815	101
Florence, AL	2,256	2,397	2,547	6.3	16,679	17,801	18,837	248
Florence, SC	2,067	2,177	2,301	5.7	17,285	17,981	18,767	251
Fort Collins-Loveland, CO	4,075	4,368	4,726	8.2	19,875	20,538	21,747	130
Fort Lauderdale, FL*	32,716	34,274	37,008	8.0	24,175	24,736	26,192	37
Fort Myers-Cape Coral, FL	7,784	8,259	8,880	7.5	21,672	22,450	23,664	78
Fort Pierce-Port St. Lucie, FL	6,126	6,362	6,866	7.9	22,491	22,847	24,313	64
Fort Smith, AR-OK	3,014	3,244	3,428	5.7	16,410	17,515	18,167	276
Fort Walton Beach, FL	2,914	3,060	3,237	5.8	18,491	19,007	19,795	208
Fort Wayne, IN	9,698	10,202	10,867	6.5	20,803	21,768	23,048	95
Fort Worth-Arlington, TX*	30,015	31,585	33,896	7.3	20,867	21,527	22,665	106
Fresno, CA	14,363	14,583	15,274	4.7	17,411	17,384	18,014	283
Gadsden, AL	1,639	1,727	1,839	6.4	16,425	16,935	18,032	281
Gainesville, FL	3,473	3,663	3,905	6.6	18,193	18,961	19,984	198
Galveston-Texas City, TX*	4,497	4,731	5,065	7.0	19,381	20,130	21,300	149
Gary, IN*	11,998	12,613	13,369	6.0	19,472	20,397	21,534	139
Glens Falls, NY	2,146	2,267	2,364	4.3	17,602	18,598	19,326	227
Goldsboro, NC	1,664	1,768	1,895	7.2	15,408	16,261	17,127	295
Grand Forks, ND-MN	1,707	1,809	1,906	5.4	16,492	17,326	18,297	270
Grand Junction, CO	1,768	1,866	2,007	7.6	17,553	18,016	18,904	243
Grand Rapids-Muskegon-Holland, MI	20,059	21,591	23,232	7.6	20,579	21,811	23,174	91
Great Falls, MT	1,500	1,527	1,624	6.4	18,682	18,803	20,043	194
Greeley, CO*	2,466	2,529	2,700	6.8	17,548	17,470	18,178	275
Green Bay, WI	4,349	4,622	4,936	6.8	21,236	22,267	23,429	85
Greensboro-Winston-Salem-High Point, NC	23,267	24,511	26,357	7.5	21,288	22,095	23,428	86
Greenville, NC	2,041	2,174	2,339	7.6	17,889	18,712	19,813	207
Greenville-Spartanburg-Anderson, SC	15,643	16,664	17,948	7.7	18,140	19,084	20,301	184
Hagerstown, MD*	2,156	2,296	2,382	3.8	17,134	18,162	18,740	253
Hamilton-Middletown, OH*	6,076	6,438	6,882	6.9	19,679	20,377	21,527	141
Harrisburg-Lebanon-Carlisle, PA	13,179	13,751	14,533	5.7	21,753	22,546	23,752	75
Hartford, CT (NECMA)	29,959	30,762	32,169	4.6	26,813	27,587	28,962	14
Hattiesburg, MS	1,525	1,635	1,761	7.7	14,937	15,773	16,594	301
Hickory-Morganton-Lenoir, NC	5,602	5,945	6,286	5.7	18,527	19,402	20,235	186
Honolulu, HI	21,675	22,254	22,901	2.9	25,150	25,602	26,300	35
Houma, LA	2,759	2,963	3,126	5.5	14,808	15,807	16,585	302
Houston, TX*	84,734	88,628	94,768	6.9	23,571	24,214	25,449	43
Huntington-Ashland, WV-KY-OH	5,123	5,341	5,566	4.2	16,188	16,865	17,570	292
Huntsville, AL	6,547	6,784	7,091	4.5	20,818	20,711	21,624	135
Indianapolis, IN	32,605	34,440	36,402	5.7	22,605	23,583	24,664	55
Iowa City, IA	2,042	2,206	2,321	5.2	20,612	21,926	22,894	98
Jackson, MI	2,715	2,887	3,055	5.8	17,779	18,936	19,913	203
Jackson, MS	7,410	7,981	8,594	7.7	18,190	19,355	20,646	170
Jackson, TN	1,678	1,829	1,963	7.3	17,693	19,032	20,161	190
Jacksonville, FL	19,606	20,630	22,209	7.7	20,401	21,234	22,617	110
Jacksonville, NC	1,962	2,030	2,149	5.9	13,474	14,005	14,897	310
Jamestown, NY	2,385	2,503	2,595	3.7	16,763	17,635	18,366	269
Janesville-Beloit, WI	2,831	3,018	3,247	7.6	19,580	20,635	21,865	127
Jersey City, NJ*	11,975	12,241	12,987	6.1	21,714	22,223	23,561	80
Johnson City-Kingsport-Bristol, TN-VA	7,596	7,936	8,442	6.4	16,959	17,622	18,582	262
Johnstown, PA	4,080	4,211	4,431	5.2	16,934	17,482	18,425	268

See footnotes at the end of the table.

Table K.1.—Personal Income and Per Capita Personal Income by Metropolitan Area, 1993–95—Continued

Area name	Personal income, Millions of dollars			Percent change [2]	Per capita personal income [3], Dollars			Rank in U.S.
	1993	1994	1995	1994–95	1993	1994	1995	1995
Jonesboro, AR	1,154	1,226	1,335	8.9	15,905	16,704	17,826	290
Joplin, MO	2,357	2,543	2,739	7.7	16,857	17,960	19,088	241
Kalamazoo-Battle Creek, MI	8,737	9,229	9,821	6.4	19,895	20,964	22,203	122
Kankakee, IL*	1,808	1,892	2,020	6.7	18,003	18,699	19,901	204
Kansas City, MO-KS	36,359	38,533	41,123	6.7	22,290	23,244	24,576	58
Kenosha, WI*	2,597	2,751	2,948	7.2	19,092	19,990	21,117	158
Killeen-Temple, TX	4,202	4,530	4,828	6.6	15,600	15,682	16,508	303
Knoxville, TN	12,153	12,964	13,814	6.6	19,627	20,566	21,558	138
Kokomo, IN	2,071	2,203	2,368	7.5	20,848	22,130	23,715	77
La Crosse, WI-MN	2,314	2,430	2,550	4.9	19,385	20,210	21,088	159
Lafayette, LA	5,720	6,161	6,527	5.9	15,999	17,060	17,867	287
Lafayette, IN	2,994	3,164	3,353	6.0	18,070	18,806	19,734	215
Lake Charles, LA	2,957	3,176	3,394	6.9	17,188	18,258	19,262	230
Lakeland-Winter Haven, FL	7,175	7,709	8,344	8.2	16,972	17,930	19,126	238
Lancaster, PA	9,537	9,785	10,321	5.5	21,745	22,084	23,056	93
Lansing-East Lansing, MI	8,531	9,168	9,686	5.7	19,553	20,614	21,717	132
Laredo, TX	1,730	1,885	1,966	4.3	10,998	11,430	11,402	314
Las Cruces, NM	2,059	2,160	2,343	8.5	13,487	13,752	14,643	311
Las Vegas, NV-AZ	21,342	23,786	26,198	10.1	21,054	21,974	22,927	97
Lawrence, KS	1,417	1,505	1,608	6.8	16,483	17,266	18,191	274
Lawton, OK	1,778	1,803	1,880	4.3	15,041	15,866	16,870	297
Lewiston-Auburn, ME (NECMA)	1,849	1,918	2,019	5.3	17,808	18,558	19,626	217
Lexington, KY	8,660	9,080	9,743	7.3	20,331	21,060	22,394	116
Lima, OH	2,795	2,988	3,117	4.3	17,897	19,168	20,042	195
Lincoln, NE	4,541	4,831	5,156	6.7	20,275	21,325	22,446	114
Little Rock-North Little Rock, AR	10,489	11,105	11,916	7.3	19,680	20,652	21,954	126
Longview-Marshall, TX	3,507	3,660	3,905	6.7	17,531	18,166	19,132	237
Los Angeles-Long Beach, CA*	199,770	201,754	213,337	5.7	21,984	22,218	23,501	82
Louisville, KY-IN	20,804	21,834	23,232	6.4	21,363	22,267	23,552	81
Lubbock, TX	4,100	4,330	4,590	6.0	18,027	18,776	19,783	209
Lynchburg, VA	3,723	3,922	4,127	5.2	18,550	19,314	20,199	188
Macon, GA	5,490	5,740	6,085	6.0	18,129	18,686	19,674	216
Madison, WI	9,206	9,765	10,391	6.4	23,822	25,032	26,449	33
Mansfield, OH	3,039	3,201	3,373	5.4	17,343	18,265	19,243	231
McAllen-Edinburg-Mission, TX	4,521	4,893	5,248	7.3	10,170	10,525	10,878	315
Medford-Ashland, OR	2,859	3,070	3,272	6.6	18,080	18,913	19,746	213
Melbourne-Titusville-Palm Bay, FL	8,564	8,938	9,341	4.5	19,663	20,161	20,747	167
Memphis, TN-AR-MS	21,862	23,432	25,222	7.6	20,988	22,215	23,640	79
Merced, CA	3,025	3,043	3,017	–.9	15,735	15,494	15,653	307
Miami, FL*	39,110	40,344	43,087	6.8	19,699	20,056	21,058	160
Middlesex-Somerset-Hunterdon, NJ*	31,640	33,117	35,087	5.9	29,967	30,997	32,507	7
Milwaukee-Waukesha, WI*	33,779	35,519	37,698	6.1	23,263	24,422	25,906	38
Minneapolis-St. Paul, MN-WI	66,474	70,555	74,901	6.2	25,026	26,197	27,436	26
Mobile, AL	8,495	8,967	9,469	5.6	16,811	17,614	18,429	266
Modesto, CA	6,992	7,139	7,449	4.3	17,379	17,537	18,122	278
Monmouth-Ocean, NJ*	27,308	28,058	29,635	5.6	26,720	27,089	28,187	18
Monroe, LA	2,390	2,528	2,708	7.1	16,395	17,304	18,444	264
Montgomery, AL	5,840	6,178	6,558	6.1	18,996	19,964	21,000	162
Muncie, IN	2,180	2,287	2,384	4.2	18,185	19,204	20,044	193
Myrtle Beach, SC	2,544	2,771	3,034	9.5	17,143	18,177	19,220	234
Naples, FL	5,343	5,601	6,015	7.4	31,084	31,447	32,878	5
Nashville, TN	23,385	25,394	27,453	8.1	22,367	23,716	25,077	50
Nassau-Suffolk, NY*	77,581	80,864	85,250	5.4	29,373	30,527	32,108	9
New Haven-Bridgeport-Stamford-Danbury-Waterbury, CT*	52,715	54,255	57,566	6.1	32,372	33,352	35,400	3
New London-Norwich, CT (NECMA)	5,907	6,264	6,615	5.6	23,761	25,157	26,436	34
New Orleans, LA	25,439	26,568	28,089	5.7	19,497	20,277	21,374	144
New York, NY*	242,044	251,831	266,669	5.9	28,163	29,227	30,896	11
Newark, NJ*	57,117	58,947	62,684	6.3	29,599	30,459	32,346	8
Newburgh, NY-PA*	7,061	7,395	7,729	4.5	20,037	20,813	21,528	140
Norfolk-Virginia Beach-Newport News, VA-NC	28,554	29,768	31,217	4.9	18,826	19,485	20,332	183
Oakland, CA*	56,796	58,801	62,995	7.1	26,196	26,973	28,729	16
Ocala, FL	3,533	3,804	4,090	7.5	16,673	17,318	18,130	277
Odessa-Midland, TX	4,650	4,875	5,152	5.7	19,829	20,618	21,674	133
Oklahoma City, OK	18,503	19,443	20,474	5.3	18,575	19,277	20,139	191
Olympia, WA*	3,791	3,996	4,288	7.3	20,662	21,301	22,258	120
Omaha, NE-IA	14,167	14,958	16,108	7.7	21,535	22,540	24,002	72
Orange County, CA*	65,005	67,212	71,272	6.0	25,681	26,213	27,420	27
Orlando, FL	26,180	27,690	29,645	7.1	19,621	20,313	21,395	143
Owensboro, KY	1,562	1,669	1,758	5.3	17,468	18,496	19,390	223
Panama City, FL	2,373	2,471	2,592	4.9	17,295	17,680	18,229	273
Parkersburg-Marietta, WV-OH	2,739	2,853	2,999	5.1	18,115	18,816	19,774	211
Pensacola, FL	6,229	6,484	6,818	5.1	17,195	17,391	18,025	282
Peoria-Pekin, IL	7,005	7,418	7,692	3.7	20,428	21,551	22,235	121
Philadelphia, PA-NJ*	122,479	126,364	133,528	5.7	24,775	25,521	26,959	30
Phoenix-Mesa, AZ	48,394	52,629	58,036	10.3	20,180	21,178	21,839	128
Pine Bluff, AR	1,290	1,319	1,397	5.8	15,294	15,649	16,685	300
Pittsburgh, PA	53,184	54,634	57,518	5.3	22,090	22,760	24,071	70
Pittsfield, MA (NECMA)	3,048	3,145	3,326	5.8	22,395	23,151	24,611	57
Pocatello, ID	1,121	1,182	1,245	5.3	16,056	16,404	17,033	296
Portland, ME (NECMA)	5,649	5,896	6,253	6.1	23,032	23,839	25,127	49
Portland-Vancouver, OR-WA*	36,081	38,758	42,160	8.8	21,897	23,046	24,553	60
Providence-Warwick-Pawtucket, RI (NECMA)	19,832	20,241	21,576	6.6	21,687	22,185	23,730	76
Provo-Orem, UT	3,895	4,248	4,691	10.4	13,736	14,063	15,099	309
Pueblo, CO	2,061	2,176	2,390	9.9	16,378	17,025	18,441	265
Punta Gorda, FL	2,294	2,456	2,649	7.9	18,636	19,483	20,539	174
Racine, WI*	3,849	4,073	4,327	6.2	21,217	22,275	23,498	83
Raleigh-Durham-Chapel Hill, NC	21,293	22,694	24,596	8.4	22,661	23,448	24,675	54
Rapid City, SD	1,564	1,645	1,760	7.0	18,181	18,991	20,176	189
Reading, PA	7,698	8,020	8,455	5.4	22,268	23,008	24,139	67
Redding, CA	2,909	3,007	3,146	4.6	18,319	18,785	19,558	219
Reno, NV	6,933	7,506	8,110	8.0	25,189	26,448	27,866	23
Richland-Kennewick-Pasco, WA	3,388	3,605	3,699	2.6	20,220	20,691	20,618	171
Richmond-Petersburg, VA	21,378	22,540	23,940	6.2	23,600	24,587	25,851	41
Riverside-San Bernardino, CA*	50,578	52,250	55,477	6.2	17,584	17,892	18,685	255
Roanoke, VA	5,017	5,207	5,575	7.1	22,045	22,753	24,378	62
Rochester, MN	2,608	2,667	2,784	4.4	23,141	23,574	24,720	52
Rochester, NY	24,339	25,451	26,703	4.9	22,372	23,386	24,566	59
Rockford, IL	6,837	7,381	7,888	6.9	19,923	21,330	22,602	111
Rocky Mount, NC	2,375	2,481	2,656	7.1	17,147	17,631	18,615	260
Sacramento, CA*	30,464	31,962	34,258	7.2	21,306	22,173	23,459	84
Saginaw-Bay City-Midland, MI	7,973	8,478	8,996	6.1	19,787	21,047	22,342	118
St. Cloud, MN	2,609	2,777	2,902	4.5	16,825	17,708	18,278	272
St. Joseph, MO	1,697	1,781	1,872	5.1	17,251	18,214	19,222	233
St. Louis, MO-IL	56,970	59,826	63,929	6.9	22,529	23,634	25,170	48
Salem, OR*	5,300	5,624	6,010	6.9	17,612	18,278	19,154	236
Salinas, CA	7,946	7,922	8,452	6.7	22,577	23,804	25,270	47
Salt Lake City-Ogden, UT	20,413	22,030	23,739	7.8	17,674	18,703	19,825	205
San Angelo, TX	1,754	1,845	1,958	6.1	17,553	18,247	19,231	232
San Antonio, TX	25,644	27,298	29,313	7.4	18,214	19,055	20,034	196
San Diego, CA	56,001	57,820	61,106	5.7	21,484	22,114	23,263	88
San Francisco, CA*	55,375	56,964	60,853	6.8	33,891	34,745	36,989	1
San Jose, CA*	43,786	45,784	49,548	8.2	28,362	29,439	31,487	10
San Luis Obispo-Atascadero-Paso Robles, CA	4,216	4,361	4,645	6.5	18,970	19,444	20,490	176
Santa Barbara-Santa Maria-Lompoc, CA	9,193	9,378	9,929	5.9	24,216	24,435	25,860	40
Santa Cruz-Watsonville, CA*	5,618	5,788	6,193	7.0	24,049	24,587	26,202	36
Santa Fe, NM	2,913	3,087	3,350	8.5	22,812	23,461	24,691	53
Santa Rosa, CA*	9,703	10,103	10,779	6.7	23,799	24,533	25,888	39
Sarasota-Bradenton, FL	13,489	14,375	15,557	8.2	26,406	27,704	29,641	13
Savannah, GA	5,292	5,612	5,971	6.4	19,473	20,318	21,351	145
Scranton-Wilkes-Barre-Hazleton, PA	11,963	12,316	12,927	5.0	18,695	19,363	20,442	179
Seattle-Bellevue-Everett, WA*	57,079	59,763	63,422	6.1	26,458	27,422	28,773	15
Sharon, PA	2,042	2,141	2,259	5.5	16,702	17,545	18,498	263
Sheboygan, WI	2,188	2,314	2,456	6.2	20,589	21,526	22,560	113
Sherman-Denison, TX	1,677	1,751	1,879	7.3	17,420	17,963	19,090	240
Shreveport-Bossier City, LA	6,963	7,296	7,672	5.2	18,495	19,321	20,228	187
Sioux City, IA-NE	2,196	2,336	2,517	7.7	18,493	19,544	20,871	165
Sioux Falls, SD	3,208	3,504	3,747	6.9	21,573	23,045	24,320	63
South Bend, IN	5,126	5,399	5,741	6.3	20,215	21,150	22,350	117
Spokane, WA	7,409	7,849	8,271	5.4	18,932	19,788	20,575	173
Springfield, IL	4,145	4,381	4,554	3.9	21,311	21,657	22,426	115
Springfield, MO	5,243	5,640	6,053	7.3	18,562	19,556	20,616	172
Springfield, MA (NECMA)	12,124	12,566	13,264	5.6	20,321	21,080	22,342	118
State College, PA	2,247	2,333	2,475	6.1	17,403	17,977	18,957	242
Steubenville-Weirton, OH-WV	2,326	2,420	2,521	4.2	16,519	17,278	18,079	279
Stockton-Lodi, CA	9,115	9,385	9,924	5.7	17,826	18,085	18,874	245
Sumter, SC	1,463	1,549	1,645	6.2	13,811	14,557	15,387	308
Syracuse, NY	14,898	15,544	16,171	4.0	19,745	20,676	21,592	136
Tacoma, WA*	12,125	12,706	13,586	6.9	19,231	19,899	20,945	163
Tallahassee, FL	4,504	4,784	5,083	6.3	18,014	18,760	19,753	212
Tampa-St. Petersburg-Clearwater, FL	43,934	45,864	49,391	7.7	20,567	21,246	22,646	108
Terre Haute, IN	2,574	2,654	2,789	5.1	17,160	17,757	18,640	258
Texarkana, TX-Texarkana, AR	1,975	2,080	2,215	6.5	16,184	16,939	17,998	284
Toledo, OH	12,583	13,292	14,038	5.6	20,521	21,730	22,971	96
Topeka, KS	3,409	3,554	3,753	5.6	20,775	21,540	22,752	104
Trenton, NJ*	9,809	10,194	10,770	5.7	29,853	30,964	32,633	6
Tucson, AZ	12,644	13,782	14,770	7.2	17,767	18,761	19,556	220
Tulsa, OK	14,918	15,473	16,274	5.2	20,192	20,823	21,789	129
Tuscaloosa, AL	2,678	2,856	3,045	6.6	17,306	18,411	19,281	229
Tyler, TX	3,054	3,238	3,456	6.7	19,357	20,245	21,253	151
Utica-Rome, NY	5,632	5,892	6,085	3.3	17,729	18,680	19,740	214
Vallejo-Fairfield-Napa, CA*	10,108	10,476	11,174	6.7	21,138	21,820	23,328	87
Ventura, CA*	16,035	16,494	17,485	6.0	23,196	23,527	24,736	51
Victoria, TX	1,513	1,594	1,700	6.6	19,197	19,892	21,042	161
Vineland-Millville-Bridgeton, NJ*	2,720	2,786	2,936	5.4	19,567	20,063	21,312	148
Visalia-Tulare-Porterville, CA	5,263	5,363	5,615	4.7	15,516	15,517	16,144	305
Waco, TX	3,297	3,474	3,734	7.5	16,963	17,528	18,674	257
Washington, DC-MD-VA-WV*	126,237	132,361	139,085	5.1	28,631	29,644	30,824	12
Waterloo-Cedar Falls, IA	2,258	2,406	2,540	5.6	18,142	19,419	20,660	169
Wausau, WI	2,247	2,370	2,530	6.8	18,772	19,689	20,902	164
West Palm Beach-Boca Raton, FL	30,995	32,424	35,204	8.6	33,197	33,862	36,057	2
Wheeling, WV-OH	2,717	2,796	2,926	4.7	17,138	17,723	18,682	256
Wichita, KS	10,710	10,934	11,617	6.2	21,238	21,574	22,823	100
Wichita Falls, TX	2,384	2,519	2,707	7.5	18,295	19,020	19,933	201
Williamsport, PA	2,119	2,184	2,290	4.9	17,517	18,080	19,102	239
Wilmington-Newark, DE-MD*	13,709	14,321	15,249	6.5	25,649	26,507	27,924	21
Wilmington, NC	3,499	3,741	4,062	8.6	18,667	19,314	20,247	185
Yakima, WA	3,599	3,738	3,934	5.2	17,559	17,810	18,427	267
Yolo, CA*	2,952	3,055	3,276	7.2	20,293	20,864	22,083	125
York, PA	7,632	7,823	8,299	6.1	21,563	21,727	22,759	103
Youngstown-Warren, OH	11,051	11,641	12,302	5.7	18,249	19,317	20,512	175
Yuba City, CA	2,191	2,233	2,366	5.9	16,566	16,569	17,414	294
Yuma, AZ	1,757	1,687	1,976	17.1	14,112	13,228	16,221	304

1. The personal income level shown for the United States is derived as the sum of the county estimates; it differs from the national income and product accounts (NIPA) estimate of personal income because, by definition, it omits the earnings of Federal civilian and military personnel stationed abroad and of U.S. residents employed abroad temporarily by private U.S. firms. It can also differ from the NIPA estimate because of different data sources and revision schedules.

2. Percent change was calculated from unrounded data.

3. Per capita personal income was computed using Census Bureau midyear population estimates. Estimates for 1993-95 reflect county population estimates available as of March 1997.

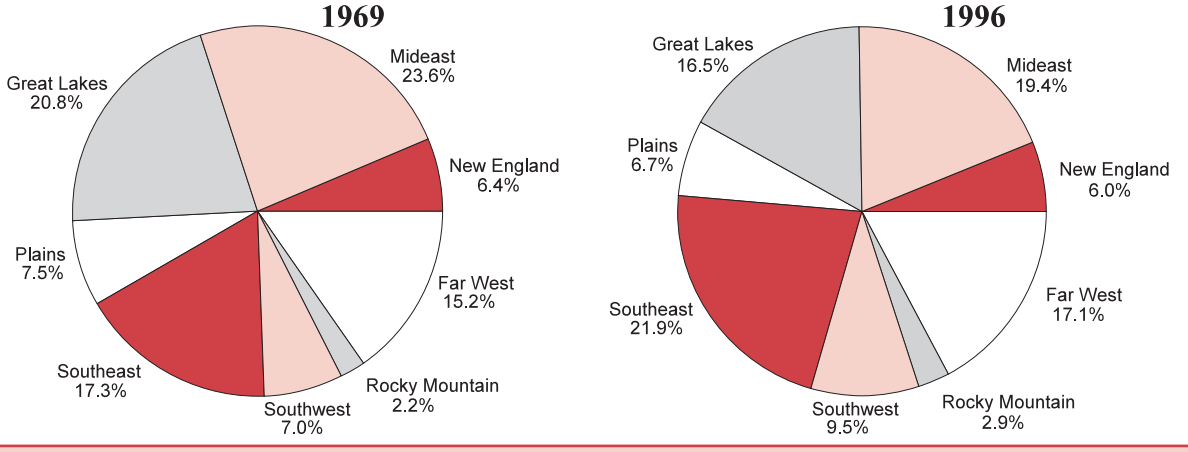
4. Includes Metropolitan Statistical Areas, Primary Metropolitan Statistical Areas (PMSA's designated by *), and New England County Metropolitan Areas (NECMA's). The New Haven-Bridgeport-Stamford-Danbury-Waterbury, CT NECMA is presented as a PMSA (part of the New York CMSA).

Source: Table 1 in "Comprehensive Revision of Local Area Personal Income, 1969–95" in the September 1997 SURVEY OF CURRENT BUSINESS.

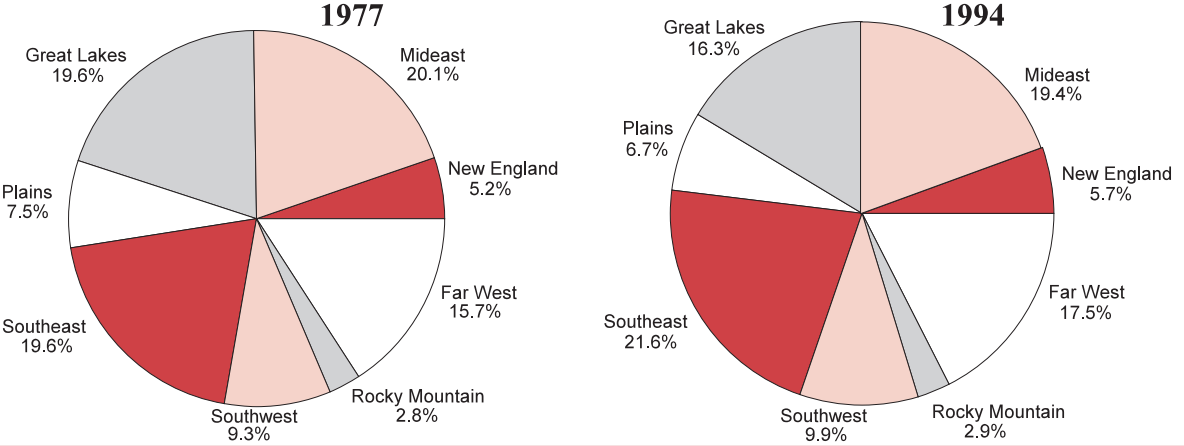
L. Charts

SELECTED REGIONAL ESTIMATES

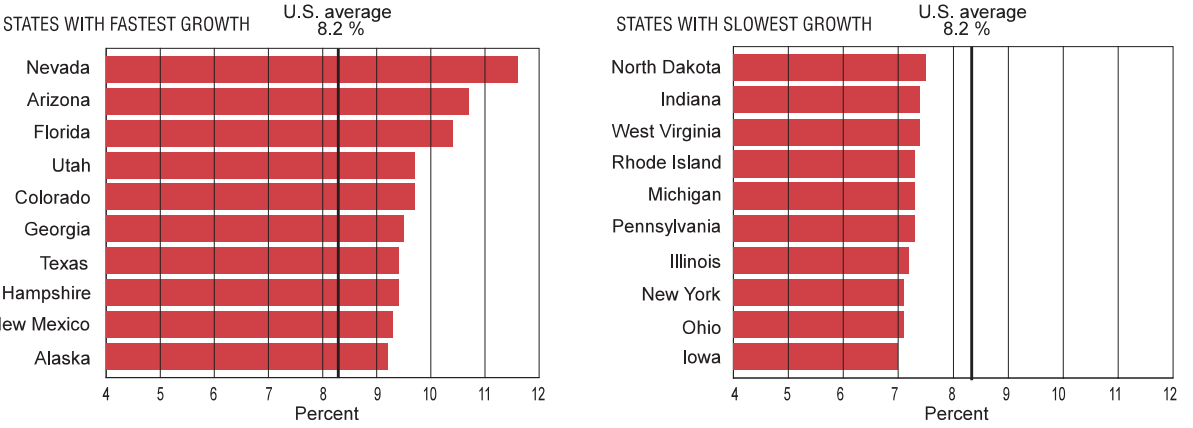
SHARES OF U.S. PERSONAL INCOME BY REGION



SHARES OF U.S. GROSS STATE PRODUCT BY REGION



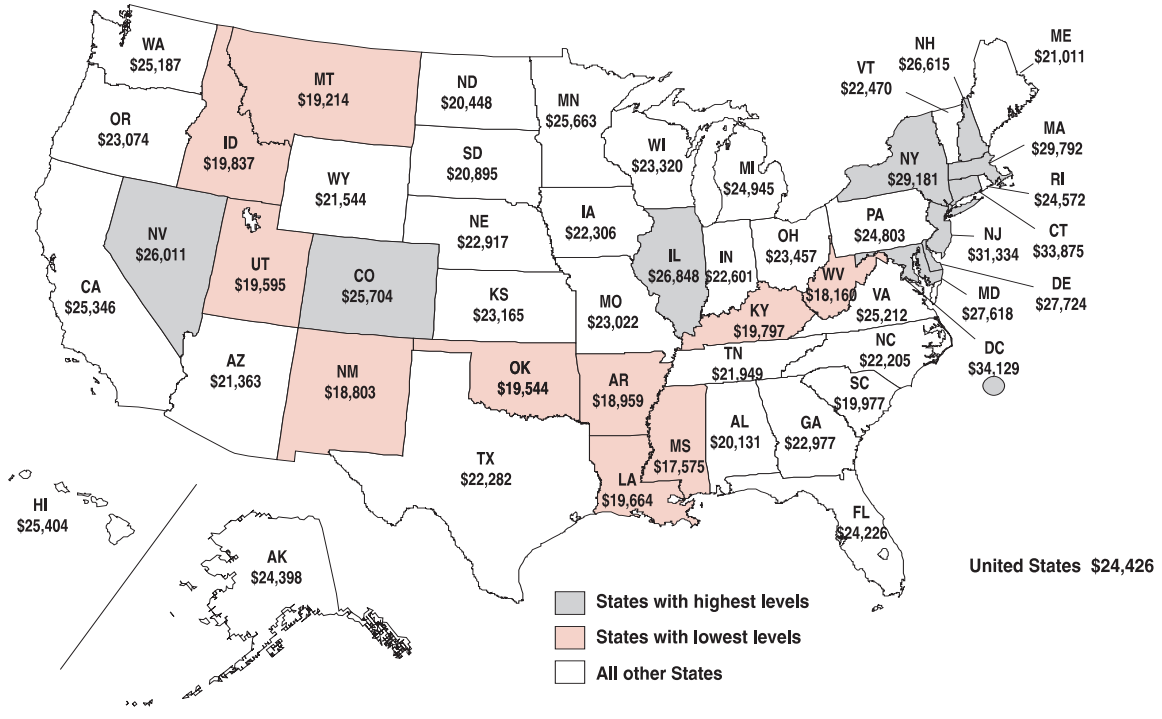
AVERAGE ANNUAL GROWTH RATE OF PERSONAL INCOME, 1969-96



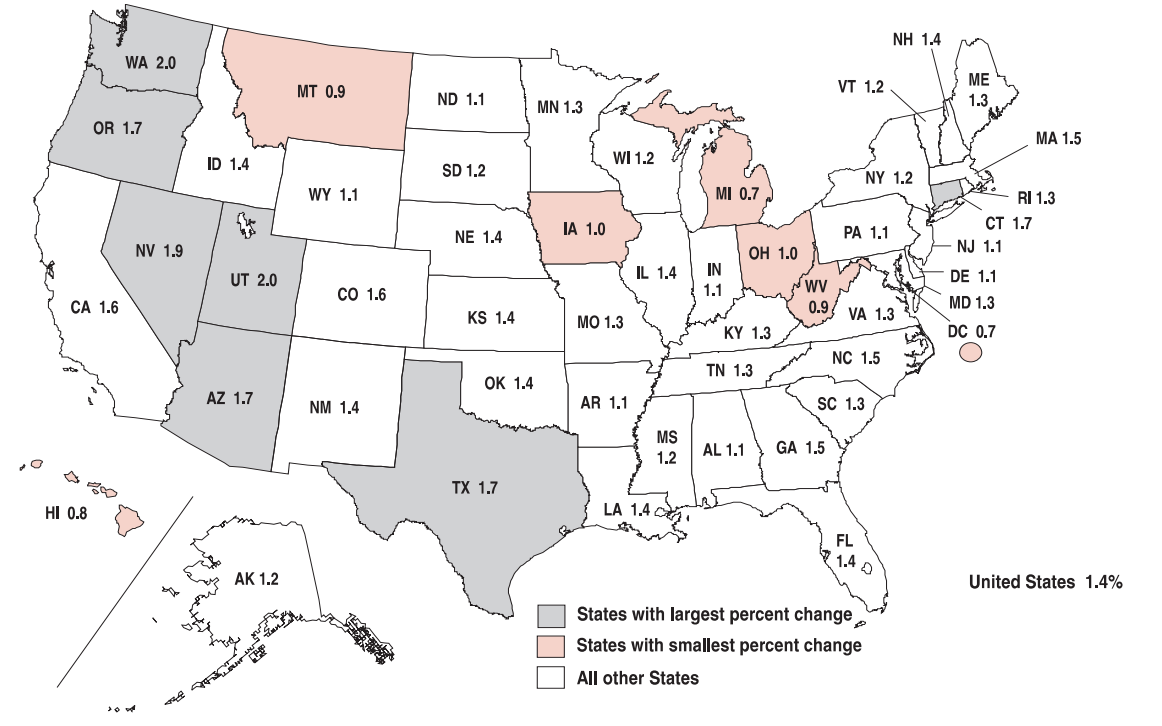
U.S. Department of Commerce, Bureau of Economic Analysis

SELECTED REGIONAL ESTIMATES

PER CAPITA PERSONAL INCOME, 1996



PERSONAL INCOME GROWTH: AVERAGE QUARTERLY PERCENT CHANGE, 1996:III–1997:III



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

Appendix A
Additional Information About BEA's 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.)

Except for the most recent period, the annual and quarterly changes in real GDP and prices are "chain-type" measures that are both based on the "Fisher Ideal" formula that incorporates weights from two adjacent years. For example, the 1992–93 percent change in real GDP uses prices for 1992 and 1993 as weights, and the 1992–93 percent change in price uses quantities for 1992 and 1993 as weights. Because the quantity and price index numbers calculated in this way are symmetric, the product of the index of real GDP and the index of prices equals the index of current-dollar GDP.

In the most recent period, a variant of the formula is used because only 1 year's information is available for computing the index number weights. Accordingly, BEA uses the prices and quantities from the two adjacent quarters as weights to calculate Fisher chain-type measures for those estimates. For example, the 1996:II–1996:III percent change in real GDP uses prices for 1996:II and 1996:III as weights, and the 1996:II–1996:III percent change in the GDP price index uses quantities for 1996:II and 1996:III as weights.

BEA also presents another measure, known as the "implicit price deflator," in the NIPA tables. The implicit price deflator is calculated as the ratio of current-dollar value to the corresponding chained-dollar value multiplied by 100.

In addition, BEA prepares measures of real GDP and its components in a dollar-denominated form, designated "*chained (1992) dollar estimates.*" These estimates are computed by multiplying the 1992 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 1992 and if real output for this component increased by 10 percent in 1993, then the "chained (1992) dollar" value of this component in 1993 would be $110 ($100 × 1.10). Note that percentage changes in the chained (1992) 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 (1992) 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. In cases where the residual is large, the table of contributions of the major components to the change in real GDP provides a better basis for determining the composition of GDP growth than the chained-dollar estimates.

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 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.

Reconciliation Tables

Table 1.—Reconciliation of Changes in BEA-Derived Compensation Per Hour With BLS Average Hourly Earnings

[Percent change from preceding period]

	1995	1996	1997 P	Seasonally adjusted at annual rates				
				1996	1997			
				IV	I	II	III	IV P
BEA-derived compensation per hour of all persons in the nonfarm business sector (less housing)	**2.4**	**3.2**	**3.8**	**3.3**	**4.5**	**3.3**	**4.3**	**4.4**
Less: Contribution of supplements to wages and salaries per hour	–.6	–.6	–.5	–1.0	–.4	–.2	–.1	–.8
Plus: Contribution of wages and salaries per hour of persons in housing and in nonprofit institutions	0	–.1	–.1	–.4	.1	0	–.2	–.4
Less: Contribution of wages and salaries per hour of persons in government enterprises, unpaid family workers, and self-employed	.2	.1	.2	–.2	.1	0	.3	.1
***Equals*: BEA-derived wages and salaries per hour of all employees in the private nonfarm sector**	**2.8**	**3.6**	**4.1**	**4.0**	**4.9**	**3.5**	**3.9**	**4.8**
Less: Contribution of wages and salaries per hour of nonproduction workers in manufacturing	.1	–.2	–.3	–.3	–.3	–.1	–.1	–.1
Less: Other differences [1]	–.1	.5	.5	.5	1.1	.6	.2	–.1
***Equals*: BLS average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls**	**2.9**	**3.3**	**3.8**	**3.9**	**4.2**	**3.0**	**3.8**	**5.0**
Addendum:								
BLS estimates of compensation per hour in the nonfarm business sector [2]	2.5	3.1	.....	3.3	4.5	3.3	3.9	.....

P Preliminary.

1. Includes BEA use of non-BLS data and differences in detailed weighting. Annual estimates also include differences in BEA and BLS benchmark procedures; quarterly estimates also include differences in seasonal adjustment procedures.

2. These estimates differ from the BEA-derived estimates (first line) because the BLS estimates include compensation and hours of tenant-occupied housing.

Table 2.—Relation of Net Exports of Goods and Services and Net Receipts of Factor Income in the National Income and Product Accounts (NIPA's) to Balance on Goods, Services, and Income in the Balance of Payments Accounts (BPA's)

[Billions of dollars]

	Line	1995	1996	Seasonally adjusted at annual rates					
				1996			1997		
				II	III	IV	I	II	III
Exports of goods, services, and income, BPA's	**1**	**991.5**	**1,055.2**	**1,049.3**	**1,047.9**	**1,098.2**	**1,118.1**	**1,175.5**	**1,182.4**
Less: Gold, BPA's	2	5.1	6.9	12.5	5.2	3.7	6.7	9.3	3.4
Statistical differences [1]	3	0	0	0	0	0	.6	5.6	6.1
Other items	4	.9	1.1	1.0	1.5	1.1	.8	.7	.6
Plus: Adjustment for grossing of parent/affiliate interest payments	5	8.0	8.7	7.3	8.4	8.9	8.6	8.4	9.9
Adjustment for U.S. territories and Puerto Rico	6	33.3	34.0	34.1	33.6	34.9	35.4	36.5	36.0
Services furnished without payment by financial intermediaries except life insurance carriers and private noninsured pension plans	7	14.5	15.3	14.8	15.9	16.3	16.5	17.0	17.1
***Equals*: Exports of goods and services and receipts of factor income, NIPA's**	**8**	**1,041.2**	**1,105.1**	**1,092.0**	**1,099.0**	**1,153.4**	**1,170.4**	**1,221.9**	**1,235.2**
Imports of goods, services, and income, BPA's	**9**	**1,086.5**	**1,163.4**	**1,156.9**	**1,183.5**	**1,198.0**	**1,243.2**	**1,291.0**	**1,314.2**
Less: Gold, BPA's	10	5.3	7.7	14.6	6.2	3.4	8.7	11.0	3.0
Statistical differences [1]	11	0	0	0	0	0	–3.4	–3.6	–4.7
Other items	12	0	0	0	0	0	0	0	0
Plus: Gold, NIPA's	13	–3.6	–3.8	–3.6	–4.0	–4.2	–3.6	–3.9	–3.6
Adjustment for grossing of parent/affiliate interest payments	14	8.0	8.7	7.3	8.4	8.9	8.6	8.4	9.9
Adjustment for U.S. territories and Puerto Rico	15	21.9	22.4	22.3	22.4	23.4	24.1	26.1	27.9
Imputed interest paid to rest of world	16	14.5	15.3	14.8	15.9	16.3	16.5	17.0	17.1
***Equals*: Imports of goods and services and payments of factor income, NIPA's**	**17**	**1,122.0**	**1,198.3**	**1,183.0**	**1,219.9**	**1,238.8**	**1,283.5**	**1,331.3**	**1,367.2**
Balance on goods, services, and income, BPA's (1–9)	**18**	**–95.0**	**–108.2**	**–107.6**	**–135.6**	**–99.8**	**–125.1**	**–115.5**	**–131.8**
Less: Gold (2–10+13)	19	–3.8	–4.6	–5.7	–5.0	–3.9	–5.6	–5.6	–3.2
Statistical differences (3–11) [1]	20	0	0	0	0	0	4.0	9.2	10.8
Other items (4–12)	21	.9	1.1	1.0	1.5	1.1	.8	.7	.6
Plus: Adjustment for U.S. territories and Puerto Rico (6–15)	22	11.4	11.6	11.8	11.2	11.5	11.3	10.4	8.1
***Equals*: Net exports of goods and services and net receipts of factor income, NIPA's (8–17)**	**23**	**–80.8**	**–93.2**	**–91.0**	**–120.9**	**–85.4**	**–113.1**	**–109.4**	**–132.0**

1. Consists of statistical revisions in the NIPA's that have not yet been incorporated into the BPA's (1997:III) and statistical revisions in the BPA's that have not yet been incorporated in the NIPA's (1997:I–1997:III).

Appendix B
Suggested Reading

Mid-Decade Strategic Plan

BEA has published the following articles in the SURVEY OF CURRENT BUSINESS on the development and implementation of its strategic plan for improving the accuracy, reliability, and relevance of the national, regional, and international accounts.

"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)*

Mid-Decade Strategic Review of BEA's Economic Accounts: Background Papers (1995) presents seven background papers that evaluate the state of the U.S. economic accounts and that identify the problems and the prospects for improving the accounts.

Methodology

BEA has published a wealth of information about the methodology used to prepare its national, regional, and international estimates.

National

National income and product accounts (NIPA's)

NIPA Methodology Papers: This series documents the conceptual framework of the NIPA's and the methodology used to prepare the estimates.

An Introduction to National Economic Accounting (NIPA Methodology Paper No. 1, 1985) [Also appeared in the March 1985 issue of the SURVEY]

Corporate Profits: Profits Before Tax, Profits Tax Liability, and Dividends (NIPA Methodology Paper No. 2, 1985)

Foreign Transactions (NIPA Methodology Paper No. 3, 1987)

GNP: An Overview of Source Data and Estimating Methods (NIPA Methodology Paper No. 4, 1987) [Also appeared in the July 1987 issue of the SURVEY]

Government Transactions (NIPA Methodology Paper No. 5, 1988)*

Personal Consumption Expenditures (NIPA Methodology Paper No. 6, 1990)

The methodologies described in these papers are subject to periodic improvements that are typically introduced as part of the annual and comprehensive revisions of the NIPA's; these improvements are described in the SURVEY articles that cover these revisions.

"Annual Revision of the U.S. National Income and Product Accounts": This series of SURVEY articles, the latest of which was published in the August 1997 issue,* describes the annual NIPA revisions and the improvements in methodology.

The most recent comprehensive revision of the NIPA's is described in the following series of SURVEY articles.

"Preview of the Comprehensive Revision of the National Income and Product Accounts: BEA's New Featured Measures of Output and Prices" (July 1995)*

"Preview of the Comprehensive Revision of the National Income and Product Accounts: Recognition of Government Investment and Incorporation of a New Methodology for Calculating Depreciation" (September 1995)*

"Preview of the Comprehensive Revision of the National Income and Product Accounts: New and Redesigned Tables" (October 1995)*

"Improved Estimates of the National Income and Product Accounts for 1959–95: Results of the Comprehensive Revision" (January/February 1996)*

"Completion of the Comprehensive Revision of the National Income and Product Accounts, 1929–96" (May 1997)*

"Updated Summary NIPA Methodologies" (September 1997 SURVEY)* identifies the principal source data and estimating methods that are used to prepare the estimates of gross domestic product (GDP).

Availability

For the availability of some of these publications, see the inside back cover of this issue. See also the *User's Guide to BEA Information*: To request a copy, write to the Public Information Office, BE–53, Bureau of Economic Analysis, U.S. Department of Commerce, Washington DC 20230, call 202–606–9900, or visit BEA's Internet site at <http://www.bea.doc.gov>.

* Items with an asterisk can be found on BEA's Internet site at <http://www.bea.doc.gov>.

Information on the sources and methods used to prepare the national estimates of personal income, which provide the basis for the State estimates of personal income, can be found in *State Personal Income, 1929–93* (1995).*

"Gross Domestic Product as a Measure of U.S. Production" (August 1991 SURVEY)* briefly explains the difference between GDP and gross national product.

The conceptual basis for the chain-type measures of real output and prices used in the NIPA's is described in the following SURVEY articles.

"Alternative Measures of Change in Real Output and Prices" (April 1992)*

"Economic Theory and BEA's Alternative Quantity and Price Indexes" (April 1992)*

"Alternative Measures of Change in Real Output and Prices, Quarterly Estimates for 1959–92" (March 1993)*

"Preview of the Comprehensive Revision of the National Income and Product Accounts: BEA's New Featured Measures of Output and Prices" (July 1995)*

"BEA's Chain Indexes, Time Series, and Measures of Long-Term Economic Growth" (May 1997)*

"Reliability and Accuracy of the Quarterly Estimates of GDP" (October 1993 SURVEY)* evaluates GDP estimates by examining the record of revisions in the quarterly estimates.

"A Look at How BEA Presents the NIPA's" (May 1996 SURVEY)* explains how to locate the NIPA estimates and some of the conventions used in their presentation.

Wealth and related estimates

"Improved Estimates of Fixed Reproducible Tangible Wealth, 1929–95" (May 1997 SURVEY)* describes the most recent comprehensive revision of the estimates of fixed reproducible tangible wealth.

Gross product by industry

"Improved Estimates of Gross Product by Industry, 1959–94" (August 1996 SURVEY)* describes the most recent comprehensive revision of the estimates of gross product by industry.

"Gross Product by Industry, 1947–96" (November 1997 SURVEY)* presents the most recent revision to the estimates of gross product by industry and briefly describes changes in methodology.

Input-output accounts

"Benchmark Input-Output Accounts for the U.S. Economy, 1992" (November 1997 SURVEY)* describes the preparation of the 1992 input-output accounts and the concepts and methods underlying the U.S. input-output accounts.

International

Balance of payments accounts (BPA's)

The Balance of Payments of the United States: Concepts, Data Sources, and Estimating Procedures (1990)* describes the methodologies used in preparing the estimates in the BPA's and of the international investment position of the United States. These methodologies are subject to periodic improvements that are typically introduced as part of the annual revisions of the BPA's.

"U.S. International Transactions, Revised Estimates": This series of SURVEY articles, the latest of which was published in the July 1997 issue,* describes the annual BPA revisions and the improvements in methodology.

Direct investment

The coverage, concepts, definitions, and classifications used in the benchmark surveys of U.S. direct investment abroad and of foreign direct investment in the United States are presented in the publications of the final results of the following benchmark surveys.

U.S. Direct Investment Abroad: 1989 Benchmark Survey, Final Results (1992)*

Foreign Direct Investment in the United States: 1992 Benchmark Survey, Final Results (1995)*

The types of data on direct investment that are collected and published by BEA and the clarifications of the differences between the data sets are presented in the following SURVEY articles.

"A Guide to BEA Statistics on U.S. Multinational Companies" (March 1995)*

"A Guide to BEA Statistics on Foreign Direct Investment in the United States" (February 1990)*

Regional

Personal income

State Personal Income, 1929–93 (1995)* includes a description of the methodology used to prepare the estimates of State personal income. [Also available on the CD-ROM "State Personal Income, 1958–96"]

Local Area Personal Income, 1969–92 (1994)* includes a description of the methodology used to prepare the estimates of local area personal income. [Also available on the CD-ROM "Regional Economic Information System, 1969–95"]

Gross state product

"Comprehensive Revision of Gross State Product by Industry, 1977–94" (June 1997 SURVEY)* summarizes the sources and methods for BEA's estimates of gross state product.