

Bureau of Economic Analysis

Survey of Current Business

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Special in this issue

12. Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income

The BEA estimates of personal income and the IRS estimates of adjusted gross income (AGI)---two widely used measures of household income---are reconciled through a series of adjustments for definitional differences between the two measures. This reconciliation incorporates the results of the recent comprehensive revision of the NIPA's, updates to the AGI estimates, and several improvements to the reconciliation items.

24. Accounting for Subsoil Mineral Resources

[Reprint of chapter 3 of Nature's Numbers: Expanding the National Economic Accounts to Include the Environment]

Last summer, a blue-ribbon panel of the National Academy of Sciences' National Research Council completed a congressionally mandated review of BEA's prototype integrated economic and environmental accounts. As part of its promise to inform users of the results of this evaluation, BEA is reprinting chapters from the panel's final report.

70. Industrial Composition of State Earnings in 1958--98

The industrial composition of earnings across States has become more similar over time. This convergence primarily reflects the relatively stronger growth in services than in farming and manufacturing; services-producing industries tend to be more evenly distributed across the Nation than goods-producing industries. In 1998, the States with industrial compositions that were most similar to that of the United States were California, Washington, Arizona, Pennsylvania, and Missouri. The States that were least similar were Wyoming, Alaska, Nevada, Hawaii, and New Mexico.

Regular features

1. Business Situation

U.S. economic activity registered another strong increase in the fourth quarter of 1999, while inflation picked up somewhat. Real GDP increased 5.8 percent after increasing 5.7 percent in the third quarter. The price index for gross domestic purchases increased 2.3 percent after increasing 1.7 percent.

7. Motor Vehicles, 1999

Sales of motor vehicles surged to a record 17.4 million units in 1999 from 16.0 million units in 1998. Sales of new trucks again increased strongly, reaching a record 8.7 million units; sales of new cars also increased to 8.7 million units, following 4 consecutive years of declines.

51. State Personal Income, Third Quarter 1999

Personal income in the Nation increased 1.3 percent in the third quarter of 1999, the same pace as in the second quarter. In the third quarter, the States with the fastest growth in personal income were Nevada, Arizona, and Florida. The States with the slowest growth were North Dakota, South Dakota, and North Carolina.

Reports and statistical presentations

23. Comprehensive NIPA Revision: Newly Available Tables

D-1. BEA Current and Historical Data

B U S I N E S S S I T U A T I O N

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

REAL GROSS domestic product (GDP) increased 5.8 percent in the fourth quarter of 1999, according to the "advance" estimates of the national income and product accounts (NIPA's), after increasing 5.7 percent in the third quarter (table 1 and chart 1).¹ The price index for gross domestic purchases increased 2.3 percent after increasing 1.7 percent. Real disposable personal income increased 4.6 percent after increasing 2.9 percent; the personal saving rate (personal saving as a percentage of current-dollar disposable personal income) continued its

downtrend, decreasing to 1.9 percent from 2.1 percent.

The largest contributors to the fourth-quarter increase in real GDP were personal consumption expenditures (PCE), government spending, inventory investment, and exports (table 2). (These components, along with private nonresidential fixed investment, also contributed substantially to the third-quarter increase in real GDP.) PCE increased 5.3 percent in the fourth quarter and contributed 3.6 percentage points to the growth in GDP; expenditures for durable goods, for non-durable goods, and for services all increased. Government spending increased 8.4 percent and contributed 1.5 percentage points; spending by the Federal Government and by State and local governments both increased. Inventory investment increased \$27.4 billion, as the pace of ac-

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

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

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

[Quarterly estimates seasonally adjusted at annual rates]

	Billions of chained (1996) dollars						Percent change from preceding period							
	Change from preceding period						1998	1999	1999					
	1998	1999	1999						I	II	III	IV		
			I	II	III	IV								
Gross domestic product	351.2	344.7	78.7	40.7	122.0	126.3	4.3	4.0	3.7	1.9	5.7	5.8		
Less: Exports of goods and services	21.7	35.4	-14.4	10.0	28.4	17.6	2.2	3.5	-5.5	4.0	11.5	6.9		
Plus: Imports of goods and services	127.0	144.8	37.8	44.5	47.6	35.6	11.6	11.8	12.5	14.4	14.9	10.6		
Equals: Gross domestic purchases	449.3	442.3	125.9	70.8	138.7	142.5	5.4	5.1	5.8	3.2	6.3	6.3		
Less: Change in private inventories	5.2	-32.4	-20.6	-36.1	24.0	27.4	.....	.....	.....	.....	.....	.....
Nonfarm	7.0	-31.0	-15.1	-30.0	28.1	30.2	.....	.....	.....	.....	.....	.....
Farm	-2.1	-1.6	-5.4	-6.5	-4.7	-3.4	.....	.....	.....	.....	.....	.....
Equals: Final sales to domestic purchasers	443.6	470.2	144.2	103.0	114.4	116.1	5.4	5.4	6.7	4.7	5.2	5.2		
Personal consumption expenditures	264.9	300.1	92.6	73.4	71.5	77.9	4.9	5.3	6.5	5.1	4.9	5.3		
Durable goods	74.1	83.6	22.8	17.3	15.1	23.3	11.3	11.4	12.4	9.1	7.7	11.8		
Nondurable goods	65.4	89.3	36.9	14.2	15.6	26.6	4.0	5.3	8.9	3.3	3.6	6.1		
Services	127.8	132.3	34.5	42.7	41.4	30.0	4.0	4.0	4.2	5.2	5.0	3.5		
Gross private domestic fixed investment	155.8	117.6	33.4	25.1	26.3	6.2	11.8	8.0	9.1	6.6	6.8	1.5		
Nonresidential fixed investment	126.8	92.9	21.9	20.2	31.4	7.6	12.7	8.3	7.8	7.0	10.9	2.5		
Structures	10.1	-6.8	-3.8	-3.4	-2.4	-3.3	4.1	-2.7	-5.8	-5.3	-3.8	-5.3		
Equipment and software	118.7	104.9	27.2	25.2	35.7	12.1	15.8	12.0	12.5	11.2	15.7	4.9		
Residential investment	29.6	25.2	11.1	5.1	-3.7	-1.1	9.2	7.2	12.9	5.5	-3.8	-1.2		
Government consumption expenditures and gross investment	25.2	54.3	18.7	4.9	17.0	31.2	1.7	3.7	5.1	1.3	4.5	8.4		
Federal	-4.8	15.2	-6	2.8	5.5	20.4	-9	2.9	-5	2.1	4.1	16.0		
National defense	-6.6	6.4	-3.5	-2.2	9.1	15.4	-1.9	1.9	-4.0	-2.6	11.2	18.9		
Nondefense	1.7	8.7	2.8	5.0	-3.6	5.1	1.0	4.7	6.1	10.9	-7.1	11.0		
State and local	29.8	39.1	19.3	2.2	11.5	10.9	3.2	4.1	8.2	9	4.8	4.4		
Addendum: Final sales of domestic product	345.6	372.4	96.9	72.7	97.9	100.1	4.3	4.4	4.6	3.4	4.5	4.6		

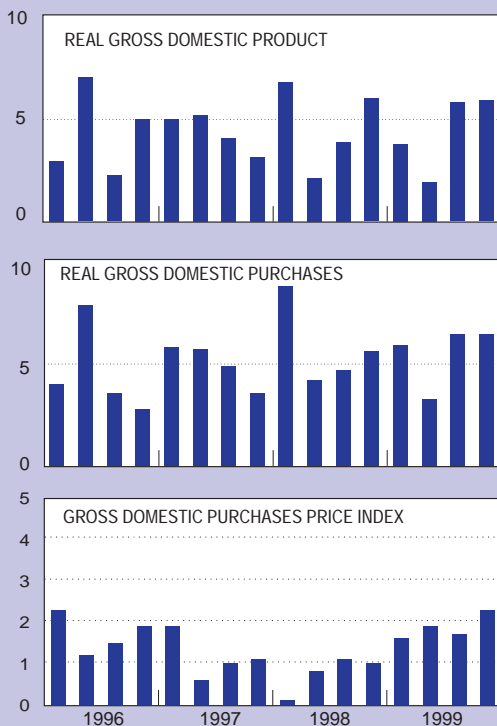
NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates usually are not additive. Chained (1996) dollar levels and residuals,

which measure the extent of nonadditivity in each table, are in NIPA tables 1.2, 1.4, and 1.6. Percent changes are calculated from unrounded data. Percent changes in major aggregates are in NIPA table S.1. (See "Selected NIPA Tables," which begins on page D-2 of this issue.)

CHART 1

**Selected Measures:
Change From Preceding Quarter**

Percent



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

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

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

[Quarterly estimates seasonally adjusted at annual rates]

	1998	1999	1999			
			I	II	III	IV
Percent change at annual rate:						
Gross domestic product	4.3	4.0	3.7	1.9	5.7	5.8
Percentage points at annual rates:						
Personal consumption expenditures						
Durable goods	3.24	3.52	4.27	3.36	3.33	3.59
Nondurable goods .....	.86	.89	.96	.71	.62	.93
Services .....	.79	1.04	1.68	.64	.73	1.22
Total	1.59	1.59	1.63	2.01	1.97	1.43
Gross private domestic investment						
Fixed investment	1.93	.99	.67	-.36	2.25	1.46
Nonresidential	1.86	1.32	1.48	1.10	1.16	.28
Structures	1.49	1.02	.94	.86	1.33	.33
Equipment and software .....	.13	-.08	-.18	-.16	-.11	-.15
Residential	1.37	1.10	1.12	1.02	1.44	.48
Change in private inventories .....	.37	.31	.53	.24	-.17	-.05
Total .....	.07	-.33	-.80	-1.46	1.09	1.18
Net exports of goods and services						
Exports	-1.18	-1.11	-2.13	-1.35	-.72	-.70
Imports .....	.25	.38	-.61	.42	1.19	.74
Goods .....	.17	.29	-.74	.32	1.19	.57
Services .....	.08	.09	.13	.10	0	.17
Total	-1.43	-1.49	-1.52	-1.77	-1.91	-1.44
Goods	-1.21	-1.33	-1.28	-1.59	-1.83	-1.13
Services	-.22	-.16	-.24	-.19	-.08	-.30
Government consumption expenditures and gross investment						
Federal .....	.31	.64	.87	.23	.81	1.45
National defense	-.06	.18	-.03	.13	.26	.94
Nondefense	-.08	.08	-.16	-.10	.42	.70
State and local .....	.02	.10	.13	.23	-.16	.24
Total .....	.37	.47	.90	.10	.55	.52

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

Table 3.—Motor Vehicle Output, Sales, and Inventories

[Seasonally adjusted at annual rates]

	Billions of chained (1996) dollars					Percent change from preceding quarter			
	Level	Change from preceding quarter				1999			
		1999	1999				I	II	III
	IV	I	II	III	IV	I	II	III	IV
Output	361.1	-19.7	6.7	20.1	5.3	-20.7	8.4	26.2	6.1
Autos	137.0	-22.0	2.3	2.4	7.2	-47.7	7.5	7.6	24.2
Trucks	223.6	2.0	4.4	17.6	-1.8	4.1	9.0	38.3	-3.1
Less: Exports	26.7	-1.8	2.3	-1.9	2.4	-25.2	43.3	-25.5	44.7
Autos	17.0	-1.6	2.1	-2.2	1.8	-33.0	67.0	-41.8	56.4
Trucks	9.7	-.2	.2	.3	.6	-8.8	8.4	14.6	27.2
Plus: Imports	117.4	9.2	.6	6.8	-.3	41.6	2.2	26.8	-.9
Autos	97.7	6.6	-2.3	8.1	0	34.4	-9.7	41.2	.1
Trucks	19.6	2.6	2.9	-1.3	-.3	85.7	80.7	-21.8	-5.2
Equals: Gross domestic purchases	452.2	-8.3	5.0	28.9	2.6	-7.6	4.9	30.4	2.3
Autos	218.3	-13.3	-2.3	12.9	5.3	-22.5	-4.5	28.5	10.3
Trucks	233.7	4.9	7.2	15.9	-2.6	9.8	14.3	32.2	-4.4
Less: Change in private inventories	16.2	-10.2	-4.0	10.8	2.9				
Autos	5.7	-11.2	-9.6	11.1	2.5				
Trucks	9.9	.5	4.7	.2	.5				
Equals: Final sales to domestic purchasers	435.6	1.9	9.0	17.9	-.4	1.9	9.1	18.3	-.4
Autos	212.6	-2.4	6.9	2.1	2.8	-4.7	14.6	4.0	5.5
Trucks	223.0	4.3	2.1	15.8	-3.2	8.7	4.0	33.5	-5.6
Addenda:									
Personal consumption expenditures	256.2	.9	6.1	1.5	3.4	1.4	10.3	2.4	5.5
Private fixed investment	163.6	2.2	3.8	14.0	-6.4	6.0	10.3	41.0	-14.2
Gross government investment	15.6	-1.1	-.9	2.3	2.5	-30.9	-26.7	115.7	102.7

NOTE.—See note to table 1 for an explanation of chained (1996) dollars. Truck output includes motor vehicle output, auto and truck output, and residuals, which measure the extent of nonadditivity in each table, are in NIPA tables 1.4 and 8.9B.

cumulation increased to \$65.4 billion from \$38.0 billion, and contributed 1.2 percentage points to GDP growth. Exports increased 6.9 percent and contributed 0.7 percentage point. The increases in these components were partly offset by a 10.6-percent increase in imports, which subtracted 1.4 percentage points from GDP growth.

Motor vehicles.—Real motor vehicle output increased 6.1 percent in the fourth quarter after increasing 26.2 percent in the third (table 3).² The slowdown was more than accounted for by truck output, which decreased after increasing substantially; auto output accelerated.

2. For more information on motor-vehicle developments, see "Motor Vehicles, 1999" in this issue.

Fourth-Quarter 1999 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 (2), shipments of civilian aircraft (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 private 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: 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 from STAT-USA/Internet, a service of the U.S. Department of Commerce, or from the BEA Web site <www.bea.doc.gov>.

Table A.—Summary of Major Data Assumptions for Advance Estimates, 1999:IV

[Billions of dollars, seasonally adjusted at annual rates]

	1999					
	July	August	September	October	November	December ¹
Fixed investment:						
Nonresidential structures:						
Buildings, utilities, and farm:						
Value of new nonresidential construction put in place	183.3	181.0	180.9	178.1	183.9	183.4
Equipment and software:						
Manufacturers' shipments of complete civilian aircraft	37.9	56.2	29.7	46.8	38.9	48.3
Manufacturers' shipments of nondefense capital goods other than aircraft	585.3	575.0	568.7	579.9	573.5	571.2
Residential structures:						
Value of new residential construction put in place:						
1-unit structures	211.3	210.7	211.0	212.7	215.0	220.1
2-or-more-unit structures	27.6	27.9	28.1	27.0	28.9	28.1
Change in private inventories, nonfarm:						
Change in inventories for manufacturing and trade (except nonmerchant wholesalers) for industries other than motor vehicles and equipment in trade	49.9	35.4	57.3	56.5	84.7	73.6
Net exports: ²						
Exports of goods:						
U.S. exports of goods, balance-of-payments basis	670.7	709.7	707.2	707.1	714.5	723.6
Excluding nonmonetary gold	668.9	704.9	695.5	702.3	702.4	713.8
Imports of goods:						
U.S. imports of goods, balance-of-payments basis	1,047.7	1,071.2	1,069.7	1,088.9	1,103.8	1,115.2
Excluding nonmonetary gold	1,045.0	1,063.3	1,058.2	1,082.5	1,091.8	1,105.4
Net exports of goods (exports less imports)	-377.1	-361.6	-362.5	-381.8	-389.3	-391.6
Excluding nonmonetary gold	-376.1	-358.4	-362.7	-380.2	-389.3	-391.6
Government consumption expenditures and gross investment:						
State and local:						
Structures:						
Value of new construction put in place	141.9	143.3	144.6	142.8	152.4	146.2

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.

Final sales of motor vehicles to domestic purchasers decreased 0.4 percent after increasing 18.3 percent, as a step-up in consumer purchases was more than offset by a downturn in purchases by businesses (private fixed investment). Truck sales decreased after a sharp increase; auto sales increased a little more than in the third quarter.

Factors frequently considered in analyses of consumer spending were favorable in the fourth quarter. The growth of real disposable personal income picked up to 4.6 percent from 2.9 percent, and the unemployment rate decreased to 4.1 percent from 4.2 percent. The Index of Consumer Sentiment (a measure of consumer attitudes and expectations prepared by the University of Michigan's Survey Research Center) remained at a high level.

Factors specific to motor vehicle purchases were mixed. Interest rates on new-car loans increased, but manufacturers continued to offer attractive sales-incentive programs.

Imports of motor vehicles decreased slightly after a substantial increase, and exports increased substantially after decreasing.

Motor vehicle inventory investment increased less than in the third quarter. The inventory-sales ratio for new domestic autos, which is calculated from units data, increased to 2.3 at the end of the fourth quarter from 2.1 at the end of the third; the traditional industry target is 2.4.

Prices

The price index for gross domestic purchases, which measures the prices paid for goods and services purchased by U.S. residents, increased 2.3 percent in the fourth quarter after increasing 1.7 percent in the third (table 4). Prices of gross domestic purchases less food and energy increased 2.0 percent after increasing 1.2 percent (chart 2). The step-ups were accounted for by prices of PCE and of private nonresidential fixed investment.

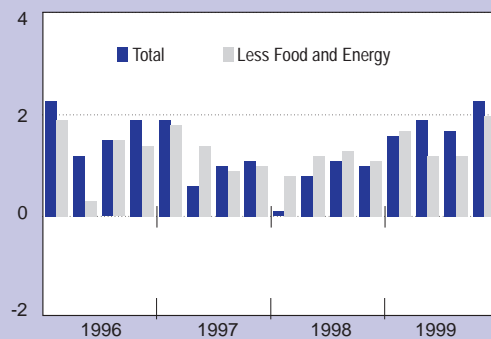
PCE prices increased 2.5 percent after increasing 1.8 percent. Prices of PCE other than food and energy increased 2.1 percent after increasing 1.2 percent; prices of clothing and shoes turned up, and prices of brokerage services, of housing, and of household operation other than electricity and gas accelerated. Food prices increased about the same as in the third quarter; step-ups in meat and dairy prices were offset by downturns in prices of poultry and of fruits and vegetables. Prices of energy goods and services increased 10.6 percent after increasing 14.2 percent, reflecting decelerations in the prices of gasoline and oil and of natural gas.

Prices of private nonresidential fixed investment increased 0.1 percent after decreasing 1.3 percent. Prices of equipment and software decreased 1.0 percent after decreasing 2.7 percent; software prices stepped up, and auto prices decreased much less than in the third quarter. Prices of structures increased 3.9 percent after increasing 3.4 percent.

CHART 2

Gross Domestic Purchases Prices: Change From Preceding Quarter

Percent



Note.—Percent change at annual rate from preceding quarter; based on seasonally adjusted index numbers (1996=100).

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

Table 4.—Price Indexes

[Percent change at annual rates; quarterly estimates based on seasonally adjusted index numbers (1996=100)]

	1998	1999	1999			
			I	II	III	IV
Gross domestic product	1.2	1.4	2.0	1.3	1.1	2.0
Less: Exports of goods and services	-2.3	-4	-5	.7	1.3	2.4
Plus: Imports of goods and services	-5.3	.3	-3.0	5.2	6.2	4.2
Equals: Gross domestic purchases .....	.7	1.5	1.6	1.9	1.7	2.3
Less: Change in private inventories						
Equals: Final sales to domestic purchasers .....	.8	1.5	1.7	2.0	1.8	2.3
Personal consumption expenditures .....	.9	1.6	1.4	2.2	1.8	2.5
Food	1.7	2.0	2.5	1.2	2.1	2.2
Energy goods and services ¹	-7.5	3.7	-2.5	26.9	14.2	10.6
Other personal consumption expenditures	1.3	1.4	1.4	1.3	1.2	2.1
Private nonresidential fixed investment	-1.8	-1.3	-9	-1.4	-1.3	.1
Structures	3.1	2.7	1.3	2.2	3.4	3.9
Equipment and software	-3.4	-2.5	-1.6	-2.5	-2.7	-1.0
Private residential investment	2.6	4.0	4.0	3.6	4.1	3.5
Government consumption expenditures and gross investment	1.5	2.7	3.8	2.9	3.3	3.0
Federal	1.1	3.0	8.6	.9	1.8	2.2
National defense .....	.8	2.7	7.6	1.0	1.8	2.0
Nondefense	1.6	3.6	10.4	.7	1.8	2.6
State and local	1.8	2.5	1.4	4.0	4.2	3.4
Addendum: Gross domestic purchases less food and energy	1.0	1.4	1.7	1.2	1.2	2.0

1. Consists of gasoline, fuel oil, and other energy goods and of electricity and gas.

NOTE.—Percent changes in major aggregates are in NIPA table 8.1. Index number levels are in tables 7.1, 7.2, and 7.4.

Prices of government consumption expenditures and gross investment increased 3.0 percent after increasing 3.3 percent. A slowdown in prices paid by State and local governments more than offset a step-up in prices paid by the Federal Government. Prices paid by State and local governments increased 3.4 percent after increasing 4.2 percent. Prices paid by the Federal Government increased 2.2 percent after increasing 1.8 percent.

The GDP price index, which measures the prices paid for goods and services produced in the United States, increased 2.0 percent after increasing 1.1 percent. The GDP price index, unlike the price index for gross domestic purchases, includes the prices of exports and excludes the prices of imports. Export prices increased 2.4 percent after increasing 1.3 percent; prices accelerated for automotive vehicles, engines, and parts, for civilian aircraft, engines, and parts, and for durable

industrial supplies and materials. Import prices increased 4.2 percent after increasing 6.2 percent; prices slowed substantially for nonpetroleum industrial supplies and materials and for petroleum and products.

Personal income

Current-dollar disposable personal income (DPI) increased 7.2 percent in the fourth quarter af-

Table 5.—Personal Income and Its Disposition

(Billions of dollars; quarterly estimates seasonally adjusted at annual rates)

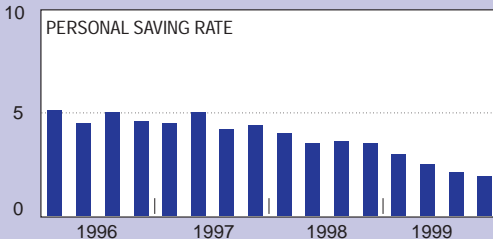
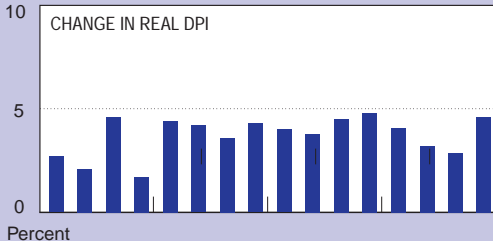
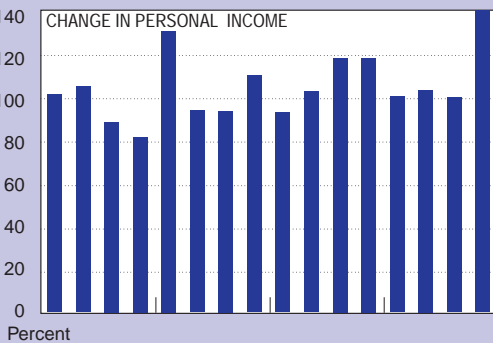
	Level		Change from preceding period						
	1999	1999 IV	1998	1999	1999				
					I	II	III	IV	
Wage and salary disbursements	4,472.7	4,577.2	297.1	286.7	74.2	61.1	76.8	67.8	
Private industries	3,746.3	3,839.0	268.8	253.1	61.2	55.6	67.8	59.9	
Goods-producing industries	1,082.6	1,102.2	63.2	43.9	6.3	12.2	15.1	12.0	
Manufacturing	779.9	791.4	38.7	22.4	1.4	7.8	11.6	5.0	
Distributive industries	1,005.5	1,024.8	65.5	60.9	16.4	11.3	15.8	11.4	
Service industries	1,658.1	1,711.9	140.1	148.2	38.6	31.9	37.0	36.4	
Government	726.4	738.2	28.4	33.6	13.0	5.5	9.0	7.9	
Other labor income	535.8	543.8	14.8	20.1	5.9	5.0	5.5	5.3	
Proprietors' income with IVA and CCAdj	658.0	682.7	27.5	51.9	2.8	15.4	-1.3	28.7	
Farm	31.3	37.5	-4.4	6.2	-8.6	1.6	-13.1	16.5	
Nonfarm	626.7	645.2	31.9	45.7	11.5	13.7	11.8	12.2	
Rental income of persons with CCAdj	146.1	148.2	7.2	8.7	1.6	.2	-9.8	9.2	
Personal dividend income	364.3	373.1	14.9	16.0	4.2	5.1	5.8	6.1	
Personal interest income	930.6	955.6	42.9	32.8	1.0	13.1	18.3	16.8	
Transfer payments to persons	1,018.2	1,030.2	21.2	34.6	16.8	5.8	7.7	8.9	
Less: Personal contributions for social insurance	334.5	340.2	17.8	18.6	6.9	3.4	4.4	3.5	
Personal income	7,791.2	7,970.6	407.8	432.3	99.4	102.4	98.8	139.2	
Less: Personal tax and nontax payments	1,152.0	1,183.2	104.3	79.4	11.8	14.6	21.0	22.8	
Equals: Disposable personal income	6,639.2	6,787.4	303.4	353.0	87.6	87.8	77.8	116.4	
Less: Personal outlays	6,480.9	6,656.6	344.9	424.3	120.0	114.9	106.3	125.1	
Equals: Personal saving	158.3	130.8	-41.4	-71.4	-32.4	-27.1	-28.5	-8.7	
Addenda: Special factors in personal income:									
In wages and salaries:									
Manufacturing bonus payments		2.5			0	0	0	2.5	
Due to Hurricane Floyd		0			0	0	.3	-.3	
Federal Government and Postal Service pay adjustments		6.2			6.2	0	0	0	
In farm proprietors' income:									
Subsidies		17.0			3.1	4.9	-7.9	16.8	
Due to Hurricane Floyd		0			0	0	-.6	.6	
In nonfarm proprietors' income:									
Due to Hurricane Floyd		0			0	0	-.4	.4	
In rental income of persons with CCAdj:									
Subsidies		3.7			.4	1.4	-1.8	3.7	
Due to Hurricane Floyd		-2			0	0	-4.7	4.5	
In transfer payments to persons:									
Social security retroactive payments		1.2			-1.2	0	0	1.2	
Cost-of-living adjustments in Federal transfer programs		6.6			6.3	0	0	.3	
Earned Income Tax Credit and Child Tax Credit payments		3.4			3.4	0	0	0	
In personal contributions for social insurance:									
Tax rate, base, and law change		3.0			3.0	0	0	0	
Supplementary medical insurance premiums .....		.8			.8	0	0	0
In personal tax and nontax payments:									
Tax law changes		-5.7			-5.7	0	0	0	
Minnesota's tax rebate		0			0	0	-5.2	5.2	

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

CHART 3

Selected Personal Income and Saving Measures

Billions \$



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

ter increasing 4.8 percent in the third. The personal saving rate (saving as a percentage of current-dollar DPI) decreased to 1.9 percent from 2.1 percent, as personal outlays increased more than DPI; the decrease in the saving rate was the smallest in several quarters (chart 3).

Personal income increased \$139.2 billion after increasing \$98.8 billion (table 5). The step-up was primarily accounted for by upturns in farm proprietors' income and in rental income of persons; wage and salary disbursements increased less than in the third quarter, and other components of personal income increased about the same amount in both quarters.

Farm proprietors' income increased \$16.5 billion after decreasing \$13.1 billion. The upturn primarily reflected the pattern of farm subsidy payments, which increased \$16.8 billion after decreasing \$7.9 billion.

Rental income of persons increased \$9.2 billion after decreasing \$9.8 billion. The upturn was largely accounted for by a rebound from \$4.7 billion of uninsured losses in the third quarter that had resulted from Hurricane Floyd.

Wage and salary disbursements increased \$67.8 billion after increasing \$76.8 billion. Disbursements slowed most in the goods-producing and the distributive industries. In private wages and salaries, the slowdown mainly reflected a downturn in average weekly hours and a slowdown in average hourly earnings.


The Year 1999

In 1999, the U.S. economy experienced another year of above-average growth in production and income and below-average inflation. Real GDP

and real DPI both increased 4.0 percent, a little less than in 1998 but above their average growth rates for the current expansion; for the expansion, which began in the second quarter of 1991, the average annual growth rates are 3.6 percent for real GDP and 3.0 percent for real DPI.³ The price index for gross domestic purchases increased 1.5 percent in 1999, up from 0.7 percent in 1998 but less than the 1.8-percent average rate of increase for the expansion as a whole.

PCE increased 5.3 percent in 1999 and contributed 3.5 percentage points to the growth of real GDP; almost half of the PCE increase was in services. Nonresidential fixed investment increased 8.3 percent and contributed 1.0 percentage points to real GDP growth; equipment and software more than accounted for the increase. Government spending increased 3.7 percent and contributed 0.6 percentage point; most of the increase was accounted for by State and local government. The contributions of these components were partly offset by imports, which increased 11.8 percent and subtracted 1.5 percentage points from GDP growth.

The growth in real DPI reflected a larger increase in current-dollar DPI than in PCE prices. The increase in current-dollar DPI was largely accounted for by wage and salary disbursements, which increased \$286.7 billion (or 6.8 percent); proprietors' income, transfer payments to persons, and personal interest income also contributed. Personal tax and nontax payments increased \$79.4 billion. The personal saving rate decreased to 2.4 percent from 3.7 percent.

The increase in the price index for gross domestic purchases mainly reflected increases in prices of PCE and of government consumption expenditures and gross investment that were partly offset by a decrease in prices of nonresidential fixed investment. About half of the step-up in gross domestic purchases prices was attributable to an acceleration in food prices and an upturn in energy prices; the price index for gross domestic purchases excluding food and energy increased 1.4 percent after increasing 1.0 percent. 

Updated Schedule for Publication of Revised Estimates

In October 1999, BEA released revised estimates of the national income and product accounts (NIPA's) for 1959-99 that incorporated the latest comprehensive NIPA revision. Below is an approximate schedule for publication in the SURVEY OF CURRENT BUSINESS of additional NIPA estimates and of other estimates that will incorporate the results of this revision.

April 2000: Revised NIPA estimates, 1929-58

April 2000: Fixed assets and consumer durable goods (fixed reproducible tangible wealth), 1925-98

May 2000: Gross product by industry, 1987-98

June 2000: State personal income, 1969-99

July 2000: Local area personal income, 1969-98

Fall 2000: Gross state product, 1977-98

In addition, these estimates will be posted on BEA's Web site at <www.bea.doc.gov> as soon as they are available.

3. The 1999 increases are calculated from *annual levels* for 1998 and 1999. From fourth-quarter 1998 to fourth-quarter 1999, real GDP increased 4.2 percent, and real DPI increased 3.8 percent.

Motor Vehicles, 1999

By Ralph W. Morris

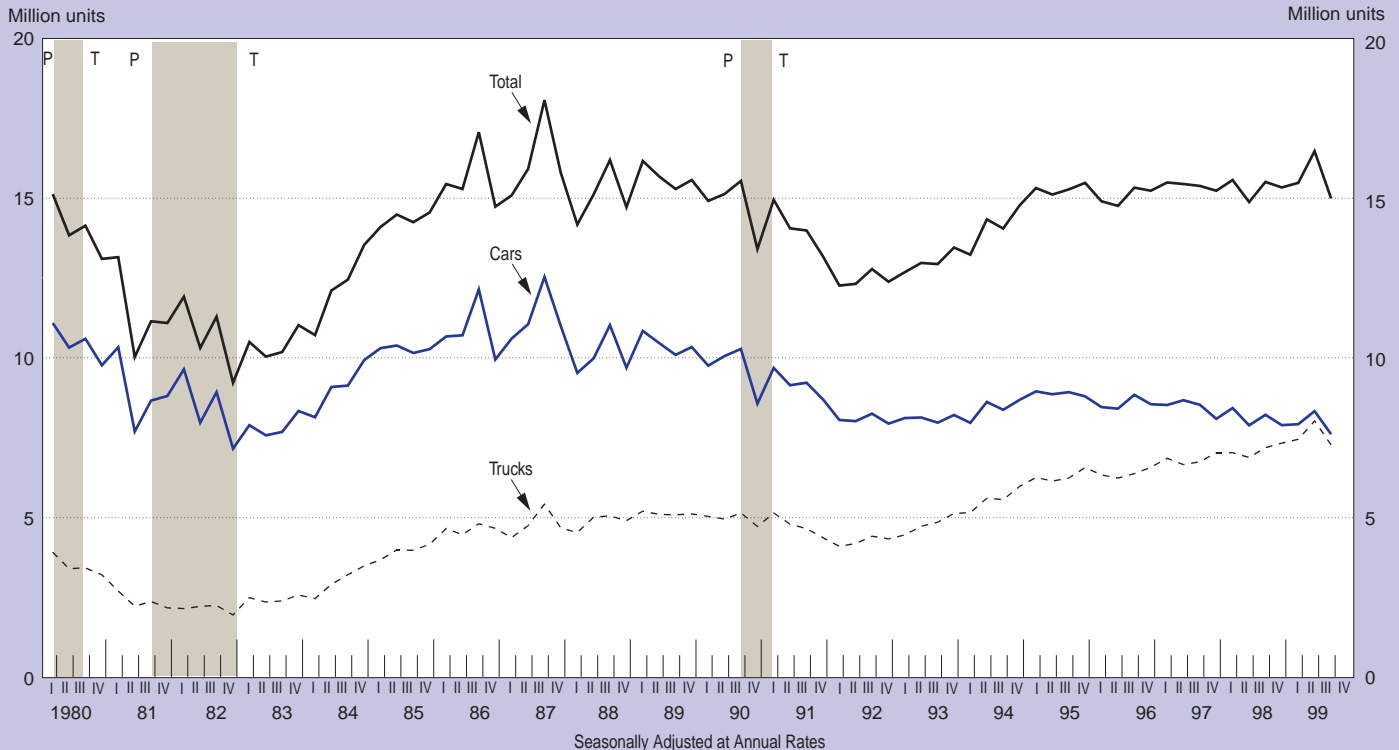
SALES of new motor vehicles in the United States totaled 17.4 million units in 1999 (chart 1 and table 1).¹ This level of sales was the highest on record; the previous high was 16.3 million units in 1986. Sales increased 9.1 percent—nearly 1.5 million units—in 1999 after increasing 3.0 percent in 1998. The sharp acceleration was accounted for by sales of both cars and trucks.

1. Sales of motor vehicles are sales of new cars and trucks. The data on unit sales, inventories, and production in this article are mainly from *Ward's Automotive Reports* and the American Automobile Manufacturers Association, Inc., and the data on prices are mainly from the Bureau of Economic Analysis (BEA). These data underlie the estimates of motor vehicle output in the national income and product accounts. The quarterly data for domestic and imported cars and light trucks are seasonally adjusted by BEA using seasonal factors from the Federal Reserve Board.

The strength in motor vehicle sales in 1999 reflected developments in a number of factors—those related to general economic conditions and those that were industry specific. Real gross domestic product (GDP) increased 4.0 percent in 1999; this rate was above the 3.6-percent average annual growth rate for real GDP over the current expansion, which began in the second quarter of 1991. Many of the measures that are usually considered in analyses of consumer spending strengthened in 1999. The unemployment rate decreased for the seventh consecutive year, moving down from 4.5 percent in 1998 to 4.2 percent—the lowest rate in nearly 30 years.

CHART 1

New Motor Vehicle Sales



Note—Peak (P) indicates the end of business cycle expansion and the beginning of recession (shaded area). Trough (T) indicates the end of business cycle recession and the beginning of expansion. Business cycle peaks and troughs designated by the National Bureau of Economic Research, Inc.
Data: American Automobile Manufacturers Association, Inc. and *Ward's Automotive Reports*, seasonally adjusted by BEA.

Real disposable personal income (DPI) increased 4.0 percent in 1999; this rate was above the 3.0-percent average growth rate for real DPI over the current expansion. The Index of Consumer Sentiment (a measure of consumer attitudes and expectations prepared by the University of Michigan's Survey Research Center) increased to its highest level in 40 years. In addition, consumer spending may have been stimulated in recent years by the considerable additions in household wealth that have resulted from rising equity prices and from gains in real estate values.

Several factors specific to the motor vehicle industry also helped to boost sales. First, manufacturers offered sales-incentive programs to consumers throughout the year. These incentives included rebates, below-market-rate financing, and discount packages on options on selected models. Second, the consumer price index (CPI) for new cars decreased 1.2 percent in 1999 after decreasing 0.9 percent in 1998, and the CPI for new trucks increased only 0.9 percent after decreasing 0.4 percent.² These price changes reflected both the extensive sales-incentive programs and ongoing efforts by manufacturers to hold down production costs. Third, finance terms on new-vehicle loans remained favor-

able in 1999. Interest rates on new-car loans made by commercial banks averaged 8.4 percent, down from 8.8 percent in 1998, and rates on new-car loans made by motor vehicle finance companies averaged 6.7 percent, up from 6.3 percent (chart 2). (The rates at motor vehicle finance companies may partly reflect manufacturers' sales-incentive programs.) In addition, the average length to maturity of new-car loans made by the finance companies increased to 52.7 months from 52.1 months. (Longer term loans tend to increase sales to marginal buyers because monthly payments are reduced.)

The combined sales of cars and light trucks increased to 16.8 million units in 1999; sales were 12.5 million units in 1991, the year the current expansion began (chart 3).³ Sales increased 8.6 percent in 1999 after increasing 2.5 percent in 1998; sales of both cars and light trucks contributed to the 1999 increase. The combined sales of domestic cars and light domestic trucks increased 6.5 percent after increasing 2.2 percent.⁴ The combined sales of imported cars and light imported trucks increased 22.6 percent after increasing 4.5 percent; their share of total car and

2. The Bureau of Labor Statistics (BLS) calculates the CPI. Effective with the release of the January 1999 data, the CPI for new cars and for new trucks is no longer adjusted for changes in vehicles that are made in response to air pollution mandates. For an explanation of this change in treatment and the implications for the CPI, see "The Treatment of Mandated Pollution Control Measures in the CPI" on the BLS Internet site at <www.bls.gov/cpihe00.htm> or contact the BLS.

3. Light trucks have a gross vehicle weight of up to 10,000 pounds; these trucks include light conventional pickups, compact pickups, sport-utility vehicles, and passenger vans.

4. Sales of domestic vehicles consist of the sales in the United States of vehicles manufactured in North America—that is, in Canada, the United States, and Mexico. Sales of imported vehicles consist of vehicles manufactured outside North America and sold in the United States.

Table 1.—Selected Motor Vehicle Indicators

	1992	1993	1994	1995	1996	1997	1998	1999	Seasonally adjusted at annual rates				
									1998		1999		
									IV	I	II	III	IV
Thousands of units													
New motor vehicle sales	13,118	14,199	15,413	15,118	15,456	15,498	15,963	17,414	16,549	16,877	17,365	17,816	17,570
New-car sales	8,214	8,518	8,990	8,636	8,527	8,273	8,142	8,697	8,293	8,401	8,773	8,813	8,793
Domestic	6,277	6,734	7,255	7,129	7,254	6,906	6,764	6,982	6,885	6,889	7,078	7,102	6,835
Import	1,938	1,784	1,735	1,507	1,273	1,366	1,378	1,715	1,408	1,512	1,695	1,711	1,957
New-truck sales	4,903	5,681	6,422	6,481	6,929	7,226	7,821	8,717	8,256	8,476	8,592	9,003	8,777
Light	4,629	5,346	6,034	6,053	6,519	6,797	7,297	8,072	7,663	7,847	7,970	8,348	8,099
Domestic	4,233	4,981	5,638	5,663	6,088	6,226	6,651	7,310	6,941	7,100	7,246	7,608	7,254
Import	396	365	396	391	431	571	646	763	721	747	724	740	846
Other	275	336	388	428	411	429	524	645	593	629	622	655	678
Domestic-car production	5,666	5,979	6,614	6,350	6,080	5,927	5,547	5,641	5,813	5,599	5,451	5,854	5,658
Domestic-car inventories ¹									1,288	1,303	1,214	1,251	1,291
Domestic-car inventory-sales ratio ²									2.25	2.27	2.06	2.11	2.27
Dollars													
Average expenditure per new car ³	16,336	16,871	17,903	17,959	18,777	19,551	20,849	21,022	21,257	20,720	20,898	21,049	21,420
Domestic	15,644	15,976	16,930	16,864	17,468	17,838	18,579	18,725	18,885	18,609	18,648	18,855	18,787
Import	18,593	20,261	21,989	23,202	26,205	28,193	31,986	30,350	32,849	30,339	30,291	30,154	30,617

1. End of quarter, not at annual rate.

2. Ratio of end-of-quarter inventories to average monthly sales for the quarter.

3. BEA estimate, using average base price and adjustments for options, transportation charges, taxes, discounts, and rebates for each model, weighted by that model's share of sales; not at annual rate.

Source: American Automobile Manufacturers Association, Inc., and Ward's Automotive Reports; data are seasonally adjusted by BEA.

light-truck sales increased to 14.8 percent from 13.1 percent.

New Cars

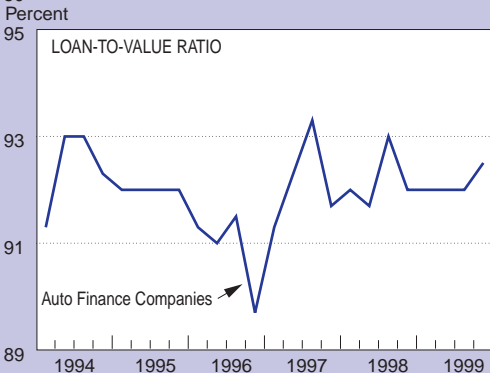
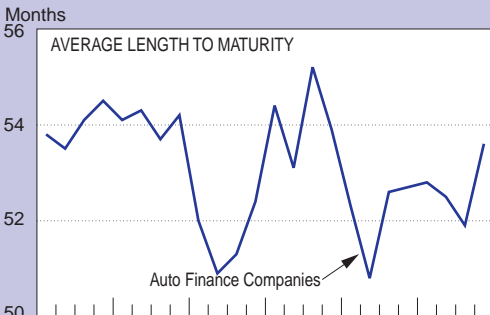
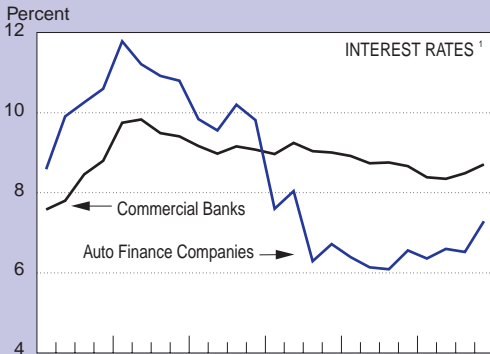
Sales of new cars increased 6.8 percent to 8.7 million units in 1999 after decreasing 1.6 percent in 1998. Sales of domestic cars and of imported cars both contributed to the turnaround. Sales of domestic cars increased 3.1 percent to 7.0 million units; sales decreased in each of the preceding 2 years. Sales of imported cars increased 24.7 percent after increasing 0.8 percent; sales of cars imported from Germany and from the Republic

of Korea increased strongly. In 1999, sales of cars imported from Japan increased; the increase interrupted a decade-long trend of decreases.

Sales of small cars remained at 2.0 million units, and their share of total car sales decreased to 23.2 percent from 24.7 percent (chart 4). Sales of middle-sized cars increased to 4.6 million, and their market share increased to 52.7 percent from 51.1 percent. Sales of large cars remained at 0.7 million, and their market share decreased to 7.6 percent from 8.2 percent. Sales of luxury cars

CHART 2

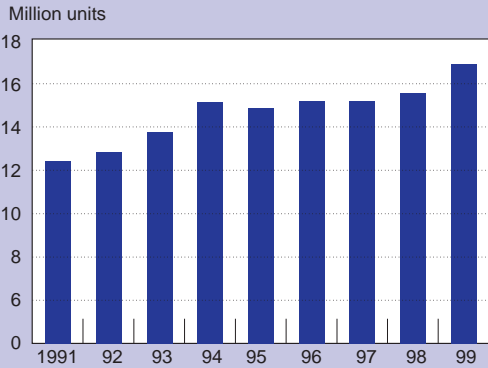
Finance Terms on 48-Month New Car Installment Loans



1. Most common interest rates (annual percentage rate) at reporting institutions. Data: Federal Reserve Board.

CHART 3

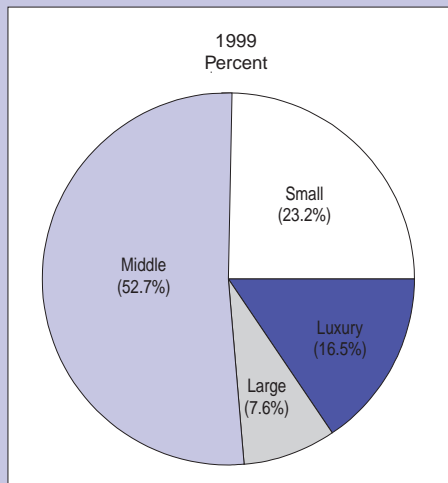
Car and Light Truck Sales



Note—Light trucks have a gross vehicle weight up to 10,000 pounds; these trucks include conventional pickups, compact pickups, and passenger vans. Data: American Automobile Manufacturers Association, Inc. and Ward's Automotive Reports, seasonally adjusted by BEA.

CHART 4

Share of New Car Sales by Size Class



Data: Ward's Automotive Reports

increased to 1.4 million, and their market share increased to 16.5 percent from 16.0 percent.

The average expenditure per new car increased 0.8 percent to \$21,022 in 1999.⁵ The increase partly reflected the shift in the market toward imported cars, which have a higher average expenditure than domestic cars. Even so, the average expenditure per new car for imported cars decreased 5.1 percent to \$30,350 in 1999; the decrease was partly attributable to a shift in the composition of imported-car sales from luxury cars to small cars and middle-sized cars. For domestic cars, the average expenditure per new car increased 0.8 percent to \$18,725; the modest increase partly reflected increased sales of models equipped with extra features such as keyless remote entry, compact disk players, and side air bags.

Domestic-car production—that is, cars made in the United States—increased to 5.6 million units in 1999 after 4 consecutive years of decline.

Domestic-car inventories were 1.3 million units at the end of 1999, the same as at the end of 1998. The inventory-sales ratio was 2.3 at the end of 1999; the traditional industry target is 2.4.

5. BEA derives the average expenditure per new car by using data mainly from the Automotive Invoice Service and BLS; the measure consists of the average base price and adjustments for options, transportation charges, taxes, discounts, and rebates for each model, weighted by that model's share of sales. Movements in the average expenditure differ from movements in the new-car component of the CPI for at least two reasons: First, the average expenditure, unlike the CPI, reflects changes in the mix of models and options sold and includes cars sold to businesses and to governments, as well as cars sold to consumers; and second, because the CPI, unlike the average expenditure, is adjusted to remove the influence of quality change on prices.

Data Availability

BEA prepares seasonally adjusted estimates of auto and truck unit sales, of auto unit production and inventory change, and of average expenditure per new car. These estimates are available online by subscribing to STAT-USA/Internet, a service of the U.S. Department of Commerce; for more information, visit STAT-USA's Web site at <www.stat-usa.gov> or call 1-800-STAT-USA OR 202-482-1986.

These estimates are also available monthly in printout or on diskette by monthly subscription from BEA, as follows:

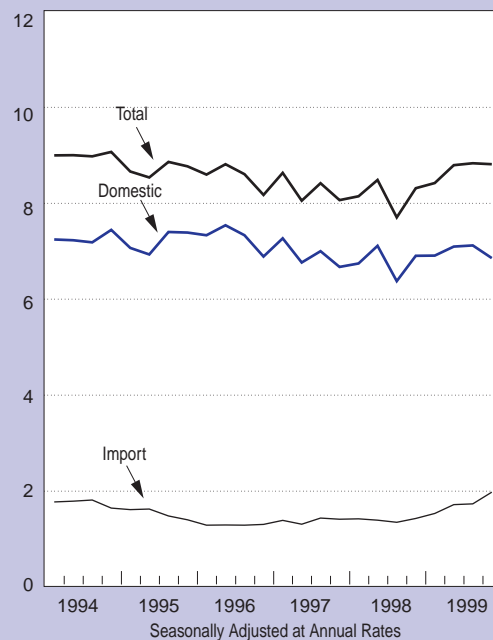
- "Auto Output Printout Subscription"—product number NLS-0167, price \$108.00; or
- As part of the "NIPA Monthly Update Diskette Subscription"—product number NDS-0171, price \$204.00.

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

CHART 5

Retail Sales of New Cars

Million Units



Data: American Automobile Manufacturers Association, Inc. and Ward's Automotive Reports, seasonally adjusted by BEA.

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

By quarter, new-car sales increased in the first, second, and third quarters of 1999 and decreased in the fourth (chart 5).

New Trucks

Sales of new trucks increased 11.4 percent to a record 8.7 million units in 1999 after increasing 8.2 percent in 1998. Sales of light domestic trucks, light imported trucks, and "other" trucks all increased.⁶

Sales of light trucks—that is, light domestic trucks and light imported trucks—increased 10.6 percent after increasing 7.4 percent. The 1999 increase was mostly accounted for by sport-utility vehicles, but sales of pickups and vans also contributed. In recent years, the composition of truck sales has shifted toward "upscale" models, which offer more power, luxury, and options than basic models.

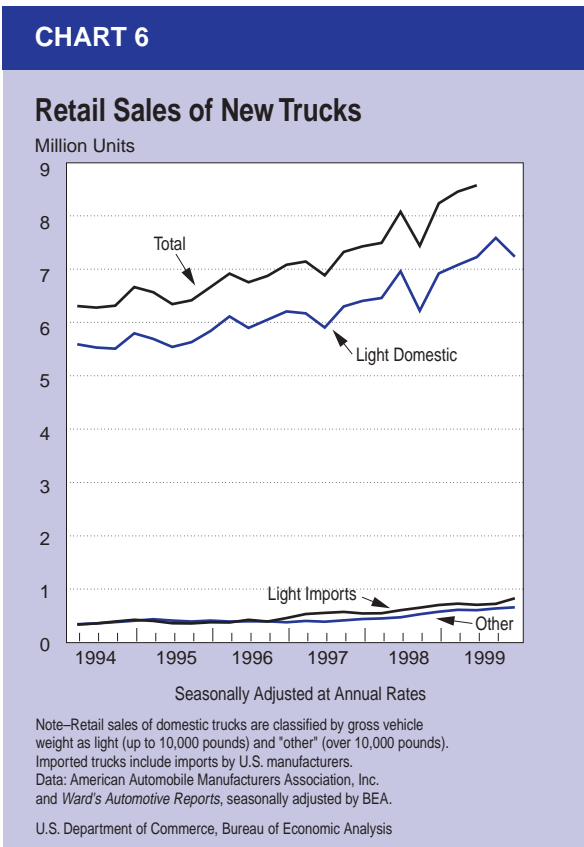
Sales of light domestic trucks increased 9.9 percent to 7.3 million units after increasing 6.8 percent to 6.7 million units.

Sales of imported light trucks increased 18.1 percent to 0.8 million units, and their share of

6. "Other" trucks have a gross vehicle weight of over 10,000 pounds; these trucks range from medium-duty general delivery trucks to heavy-duty diesel tractor trailers. Nearly all of these trucks are purchased by businesses.

total light-truck sales increased to 9.5 percent. The increase in sales of imported light trucks was largely accounted for by sport-utility vehicles, mainly those vehicles imported from Japan and Korea. In recent years, sales of these vehicles may have been boosted by the introduction of several new models into the small-vehicle segment of the U.S. market. In addition, sales of “upscale” imported sport-utility vehicles increased considerably. In contrast, sales of imported pickup trucks have virtually ceased, as foreign manufacturers have shifted production from overseas plants to plants in North America.

Sales of “other” trucks increased 20.0 percent to 0.6 million units after increasing 22.1 percent. The domestic share of “other” truck sales was 95.1 percent. Annual sales of “other” trucks have more than doubled since the current economic expansion began in 1991. Demand for heavy trucks has been high in recent years, partly because of the growth in spending on durable goods; these trucks are used extensively to transport goods—such as computers, machine tools, motor vehicles, and appliances—and parts for these goods. In addition, the increase in the use of “just-in-time” assembly practices has required manufacturers to ship parts more frequently.



By quarter, new-truck sales increased in the first, second, and third quarters of 1999 and decreased in the fourth (chart 6).

Comparison of BEA Estimates of Personal Income and IRS Estimates of Adjusted Gross Income

- New Estimates for 1997
- Revised Estimates for 1959–96

By Thae S. Park

THIS ARTICLE presents a comparison of the Bureau of Economic Analysis (BEA) measure of personal income and the Internal Revenue Service (IRS) measure of adjusted gross income (AGI) of individuals by type of income. The article explains the major definitional and statistical differences between the BEA and the IRS measures, describes the various uses of the two measures, and presents a partial reconciliation of the two measures that is prepared by converting BEA's measure of personal income by type of income to the same definitional basis as the IRS measure. It also discusses the sources of the "AGI gap"—the unexplained difference remaining between the BEA estimate of AGI and the IRS AGI, the trends in the AGI gap for 1959–97, and the sources of the revision to the AGI gap for 1959–96.¹

BEA's measure of personal income and the IRS measure of AGI are two widely used measures of household income. In general, personal income, which is prepared as an integral part of the national income and product accounts (NIPA's), is the more comprehensive measure. Personal income is a measure of the current incomes earned by households and by nonprofit institutions serving individuals, and thus, it is often used in assessing trends in consumer spending, saving, and investment. It includes income that is generally taxed, such as wages and salaries, income from rent, self-employment earnings, dividends, and interest; income that is partly taxed, such

as social security benefit payments; and several types of income that are not taxed, such as tax-exempt interest and nontaxable transfer payments, including medicare, medicaid, and welfare benefit payments. Personal income includes income whether or not it is properly reported to IRS. In order to provide a comprehensive measure of personal saving, personal income also includes other types of income, such as employer contributions to private and government employee retirement plans, the investment income of these plans, and imputed income related to home ownership. Personal income excludes net gains from sale of assets, pension benefit payments, and personal contributions for social insurance.

AGI, on the other hand, is an income concept defined by tax law, so AGI consists only of taxable sources of income net of specific adjustments as reported on IRS Form 1040. Therefore, it excludes many of the types of income that are included in the BEA measure.

Although the two series are based on different concepts and serve different purposes, they are often used in conjunction with one another. In particular, personal income, which is available much sooner than AGI, is frequently used as an extrapolator for AGI (this article provides information that enables users to adjust the BEA measure to bring it closer in definition to AGI). In addition, the AGI gap is used as a rough indicator of the noncompliance by individuals with the Federal tax code.

The new and revised estimates presented in this article reflect the incorporation of the results of the comprehensive revision of the NIPA's that was released in October 1999, of updated estimates of AGI from the *Statistics of Income Bulletin*, and of improved estimates of the items used to partially

1. Annual and quarterly estimates of BEA personal income are published monthly in table 2.1 of the national income and product accounts (NIPA's) in the section "BEA Current and Historical Data" of the SURVEY OF CURRENT BUSINESS (monthly estimates are shown in table B.1). Estimates of IRS AGI are published annually in *Statistics of Income—Individual Income Tax Returns*. The estimates of the relationship between total personal income and total AGI are presented annually in NIPA table 8.28, most recently for 1995–97 in this issue. All the estimates are available on the BEA Web site at <www.bea.doc.gov> and on the STAT-USA Web site at <www.stat-usa.gov>. The reconciliation by type of income for 1959–97 is available on request; for information, write to the Government Division (BE-57), Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230. Estimates for 1947–58 will be available in April of this year.

reconcile the two measures.² As explained in the section “Sources of the Revision to the AGI Gap,” most of the revisions to personal income reflected the incorporation of definitional changes that did not affect the AGI gap.³

BEA Estimates of AGI

The preparation of BEA estimates of AGI, “BEA-derived AGI,” begins with the NIPA estimates of personal income. Personal income consists of the current income received by persons from all sources—that is, from participation in current production and from both government and business transfer payments.⁴ It is calculated as the sum of wage and salary disbursements, other labor income, proprietors’ income with inventory valuation and capital consumption adjustments, rental income of persons with capital consumption adjustment, personal dividend income, personal interest income, and transfer payments to persons, less personal contributions for social insurance.

The IRS measure of AGI is defined as the sum of all the items of “total income” less a set of specific adjustments to total income that are authorized by legislation. Total income includes all income that is received in the form of money, property, and services and that is not expressly exempt from taxation; it excludes, for example, interest on tax-exempt State and local government bonds, voluntary contributions to thrift savings plans, and nontaxable social security benefit payments. The specific adjustments to total income include subtractions for contributions to individual retirement accounts and Keogh plans, for alimony paid, for moving expenses, and for several items related to self-employment income.

Tables 1 and 2 show the reconciliation between personal income and AGI, by type of income, for 1996–97. Personal income and AGI each include items that the other omits by definition. The reconciliation items that convert personal income to AGI are shown in two groups: First, those items that are included in personal income but not in AGI, and second, items included in AGI but not in personal income. A third group of reconciliation

items, “intercomponent reallocations,” reallocates certain income components to make the BEA and IRS estimates of AGI comparable by type of income. The specific items included in each of these groups are discussed in the appendix to this article.

The AGI Gap

The estimates of the BEA-derived AGI differ significantly from the IRS estimates of AGI. The “AGI gap” is the difference between the total BEA-derived AGI (line 22) and total IRS AGI (line 23), and the AGI gap for each type of income (line 29) is the difference between the BEA-derived AGI for that type of income (line 22) and the reallocated IRS AGI for that type of income (line 28). The percent distribution of the AGI gap by type of income is shown in line 30, and the relative AGI gap for each type of income, which is the AGI gap for that type of income (line 29) as a percentage of the BEA-derived AGI for that type of income (line 22), is shown in line 31.

The AGI gap results from several sources. First, there are errors in the source data used to estimate the personal income components.⁵ Second, there are errors in the IRS measure of total AGI and its components because the estimates are based on a probability sample. Third, there are errors in reconciliation items because (1) reliable data are unavailable to estimate some known items, such as income earned by individuals who are not required to file income tax returns, (2) some of the source data used to estimate known items contain errors, and (3) some of the differences between the definition of personal income and AGI are unknown. Fourth, the estimates of BEA-derived AGI include both explicit and implicit adjustments for tax-return misreporting—that is, noncompliance. Explicit adjustments are made for the effects of tax-return misreporting on the source data used to prepare the estimates of wage and salary disbursements, nonfarm proprietors’ income, royalty income, and personal interest income (line 32).⁶ Implicit

5. AGI data are used only for the estimates of nonfarm proprietors’ income and royalty payments in rental income of persons. For these components of personal income, the AGI gap does not result from errors in the source data, because the same errors are in the personal income components. The principal source data used to prepare other components of personal income are not based on AGI data. For additional detail, see “Updated Summary NIPA Methodologies,” SURVEY 78 (September 1998): 14–35 and the text on the CD-ROM *State Personal Income, 1929–97*; this information is also available on BEA’s Web site. For changes in methodologies introduced in the 1999 comprehensive revision, see Seskin, “Improved Estimates,” 37–39.

6. The major source data for these adjustments are the 1988 Taxpayer Compliance Measurement Program and Census Bureau “exact-match” files for 1990. For additional information about the calculation of these adjustments, see Robert P. Parker, “Improved Adjustments for Misreporting of Tax

2. For additional details of the 1999 comprehensive revision, see Eugene P. Seskin, “Improved Estimates of the National Income and Product Accounts for 1959–98: Results of the Comprehensive Revision,” SURVEY 79 (December 1999): 15–43. For AGI data, see Internal Revenue Service, *Statistics of Income Bulletin* (Washington, DC: U.S. Government Printing Office, Spring 1999).

3. For additional details about the effects of the definitional changes on personal income and its disposition, see table 15 in Seskin, “Improved Estimates,” 17.

4. “Persons” in the NIPA’s consists of individuals, nonprofit institutions that primarily serve individuals, private and government employee retirement plans, and private trust funds.

adjustments are also embedded in the source data used for some components of personal income because the source data are from the payers of the income. The IRS estimates of AGI are based on unaudited tax returns that are not adjusted for misreporting. (However, the sample returns are edited for consistent statistical definitions and for incorrect or missing entries in order to make them consistent with other entries on the returns and with accompanying schedules.)

BEA believes that the explicit and implicit adjustments for misreporting account for a major part of the AGI gap. In 1997, the explicit adjust-

ments accounted for \$311.5 billion of the \$630.3 billion gap. Thus, the AGI gap can be considered a rough indicator of noncompliance with the Federal tax code, and the relative AGI gap—the AGI gap as a percentage of the BEA-derived AGI—can be considered a rough indicator of the noncompliance rate in the reporting of income included in AGI.⁷

The AGI Gap by Type of Income for 1959–97

Table 3 shows the estimates of the AGI gap for total income and for each type of income for 1959–97, and table 4 shows the relative AGI gap

Return Information Used To Estimate the National Income and Product Accounts, 1977” SURVEY 64 (June 1984): 17–25; “The Comprehensive Revision of the U.S. National Income and Product Accounts: A Review of Revisions and Major Statistical Changes,” SURVEY 71 (December 1991): 39–40; and “Improved Estimates of the National Income and Product Accounts for 1959–95: Results of the Comprehensive Revision,” SURVEY 76 (January/February 1996): 24–25.

7. The income items that are excluded from personal income—such as net gains from the sale of assets, income from small business corporations, and alimony—are not adjusted for misreporting; thus, misreporting of these items may also contribute to the AGI gap.

Table 1.—Comparison of Personal Income with AGI, by Type of Income, 1996

(Billions of dollars)

Line		Personal income	Wage and salary disbursements	Proprietors' income with IVA and CCAj		Rental income of persons with CCAj	Personal dividend income	Personal interest income	Taxable pensions and annuities	Taxable unemployment compensation	Taxable social security benefits ¹	Other personal income ²	Income not included in personal income
				Farm	Non-farm								
1	Personal income	6,547.4	3,626.5	34.3	510.5	129.7	297.4	810.6	³ 2.9	22.6	60.4	1,052.5	0
2	Less: Portion of personal income not included in adjusted gross income ...	2,373.8	86.8	9.0	-1.6	93.0	186.1	627.5	0	0	0	1,330.3	42.6
3	Nontaxable transfer payments	842.3	0	0	0	0	0	0	0	0	0	842.3	0
4	Other labor income except fees	487.5	0	0	0	0	0	0	0	0	0	487.5	0
5	Imputed income in personal income ⁴	264.3	10.2	.4	6.2	70.5	0	177.0	0	0	0	0	0
6	Investment income of life insurance carriers and pension plans ⁵	366.7	0	0	0	1.2	45.5	320.0	0	0	0	0	0
7	Investment income received by nonprofit institutions or retained by fiduciaries	59.9	0	0	.3	5.5	20.8	32.8	0	0	0	.6	0
8	Differences in accounting treatment between NIPA's and tax regulations, net	79.9	0	8.5	-8.1	15.9	16.4	47.1	0	0	0	0	0
9	Other personal income exempt or excluded from adjusted gross income	273.2	76.6	0	0	0	103.5	50.5	0	0	0	0	⁶ 42.6
10	Plus: Portion of adjusted gross income not included in personal income ...	978.0	16.0	0	2.8	2.8	0	0	311.7	0	0	279.8	365.0
11	Personal contributions for social insurance	280.4	0	0	0	0	0	0	0	0	0	280.4	0
12	Gains, net of losses, from sale of property	249.5	0	0	0	0	0	0	0	0	0	0	249.5
13	Taxable pensions ⁷	311.6	0	0	0	0	0	0	311.6	0	0	0	0
14	Small business corporation income	89.3	0	0	0	0	0	0	0	0	0	0	89.3
15	Other types of income	47.1	16.0	0	2.8	2.8	0	0	0	0	0	-6	26.1
16	Plus: Intercomponent reallocation	0	9.1	0	-6	0	38.4	-38.4	-6.6	0	0	-2.0	0
17	Fees in other labor income	0	2.5	0	0	0	0	0	0	0	0	-2.5	0
18	Fiduciaries' share of partnership income ⁸	0	0	0	-6	0	0	0	0	0	0	.6	0
19	Interest received by nonfarm proprietors	0	0	0	0	0	0	0	0	0	0	0	0
20	Interest distributed by regulated investment companies	0	0	0	0	0	38.4	-38.4	0	0	0	0	0
21	Taxable disability income payments	0	6.6	0	0	0	0	0	-6.6	0	0	0	0
22	Equals: BEA-derived adjusted gross income	5,151.6	3,564.8	25.3	514.3	39.5	149.7	144.8	308.0	22.6	60.4	0	322.3
23	Adjusted gross income of IRS (as reported)	4,536.0	3,376.9	-7.1	176.9	20.6	104.3	165.7	238.8	19.3	53.2	65.2	322.3
24	Plus: Intercomponent reallocation	0	0	.3	59.3	5.6	0	0	0	0	0	-65.2	0
25	Estate or trust income	0	0	0	2.1	5.6	0	0	0	0	0	-7.7	0
26	Partnership income	0	0	.3	57.2	0	0	0	0	0	0	-57.5	0
27	Other reallocations	0	0	0	0	0	0	0	0	0	0	0	0
28	Adjusted gross income of IRS (reallocated)	4,536.0	3,376.9	-6.8	236.2	26.1	104.3	165.7	238.8	19.3	53.2	0	322.3
29	Adjusted gross income gap	615.6	188.0	32.1	278.1	13.4	45.4	-20.9	69.2	3.2	7.2	0	0
30	Percent distribution of AGI gap	100.0	30.5	5.2	45.2	2.2	7.4	-3.4	11.2	.5	1.2		
31	Relative AGI gap ⁹	12.0	5.3	126.8	54.1	33.8	30.3	-14.4	22.5	14.3	12.0		
32	Addendum: Misreporting adjustments included in personal income	299.1	83.5		224.4	1.2		-10.0					

See the footnotes at the end of table 2.

for total income and for each type of income for 1959–97. Over this period, the relative AGI gap for total income averaged about 11 percent: It declined from 10 percent in 1959 to a low of about 9 percent in the late 1960's, increased to a high of 13½ percent in 1984, and then moved irregularly downward to about 11 percent in 1997.

The relative AGI gap for wage and salary disbursements is the smallest among the types of income, primarily because income tax withholding at the source is required for wage and salary disbursements. The relative AGI gap for wage and salary disbursements averaged about 3 percent over the period; it declined from 3 percent

in 1959 to a low of 1 percent in 1982 and then increased to about 5 percent in 1997.

The trends in the relative AGI gaps for nonwage incomes partly offset each other (see the addenda in table 4). For nonwage incomes subject to the requirements for filing information returns, the trend in the combined relative AGI gap is generally downward.⁸ The combined relative AGI gap

8. Personal dividend income and personal interest income are the primary examples of nonwage incomes subject to the requirements for filing information returns. A combined AGI gap for personal dividend and personal interest income is also shown in tables 3 and 4 because of the difficulty in recent years of accurately estimating separate gaps for these incomes. The estimation difficulty is largely related to the types of income received by individuals from mutual funds and from private noninsured pension plans. The taxable portion of interest received by individuals from mutual funds is

Table 2.—Comparison of Personal Income with AGI, by Type of Income, 1997

[Billions of dollars]

Line		Personal income	Wage and salary disbursements	Proprietors' income with IVA and CCAj		Rental income of persons with CCAj	Personal dividend income	Personal interest income	Taxable pensions and annuities	Taxable unemployment compensation	Taxable social security benefits ¹	Other personal income ²	Income not included in personal income
				Farm	Non-farm								
1	Personal income	6,951.1	3,888.9	29.5	549.1	130.2	333.4	854.9	³ 2.9	20.4	68.2	1,073.6	0
2	Less: Portion of personal income not included in adjusted gross income	2,498.4	92.4	5.3	5.4	94.6	207.6	678.6	0	0	0	1,368.8	45.6
3	Nontaxable transfer payments	870.1	0	0	0	0	0	0	0	0	0	870.1	0
4	Other labor income except fees	498.2	0	0	0	0	0	0	0	0	0	498.2	0
5	Imputed income in personal income ⁴	293.0	10.6	.4	6.7	72.0	0	203.3	0	0	0	0	0
6	Investment income of life insurance carriers and pension plans ⁵	394.9	0	0	0	1.2	51.7	342.0	0	0	0	0	0
7	Investment income received by nonprofit institutions or retained by fiduciaries	60.0	0	0	.3	5.4	21.9	31.8	0	0	0	.6	0
8	Differences in accounting treatment between NIPA's and tax regulations, net	87.4	0	4.9	-1.7	16.0	17.2	50.9	0	0	0	0	0
9	Other personal income exempt or excluded from adjusted gross income	294.8	81.9	0	0	0	116.8	50.5	0	0	0	0	⁶ 45.6
10	Plus: Portion of adjusted gross income not included in personal income ...	1,151.2	17.3	0	3.0	2.9	0	0	341.1	0	0	297.3	489.7
11	Personal contributions for social insurance	298.1	0	0	0	0	0	0	0	0	0	298.1	0
12	Gains, net of losses, from sale of property	338.2	0	0	0	0	0	0	0	0	0	0	338.2
13	Taxable pensions ⁷	341.0	0	0	0	0	0	0	341.0	0	0	0	0
14	Small business corporation income	100.7	0	0	0	0	0	0	0	0	0	0	100.7
15	Other types of income	73.2	17.3	0	3.0	2.9	0	0	0	0	0	-7	50.8
16	Plus: Intercomponent reallocation	0	9.8	0	-6	0	42.2	-42.2	-7.1	0	0	-2.1	0
17	Fees in other labor income	0	2.7	0	0	0	0	0	0	0	0	-2.7	0
18	Fiduciaries' share of partnership income ⁸	0	0	0	-6	0	0	0	0	0	0	.6	0
19	Interest received by nonfarm proprietors	0	0	0	0	0	0	0	0	0	0	0	0
20	Interest distributed by regulated investment companies	0	0	0	0	0	42.2	-42.2	0	0	0	0	0
21	Taxable disability income payments	0	7.1	0	0	0	0	0	-7.1	0	0	0	0
22	Equals: BEA-derived adjusted gross income	5,604.0	3,823.5	24.1	546.2	38.4	168.0	134.1	336.9	20.4	68.2	0	444.1
23	Adjusted gross income of IRS (as reported)	4,973.6	3,636.5	-6.3	181.8	22.7	118.3	163.2	264.3	17.2	62.5	69.3	444.1
24	Plus: Intercomponent reallocation	0	0	.5	63.3	5.5	0	0	0	0	0	-69.3	0
25	Estate or trust income	0	0	0	2.1	5.5	0	0	0	0	0	-7.6	0
26	Partnership income	0	0	.5	61.2	0	0	0	0	0	0	-61.7	0
27	Other reallocations	0	0	0	0	0	0	0	0	0	0	0	0
28	Adjusted gross income of IRS (reallocated)	4,973.6	3,636.5	-5.8	245.1	28.2	118.3	163.2	264.3	17.2	62.5	0	444.1
29	Adjusted gross income gap	630.3	186.9	29.9	301.2	10.2	49.7	-29.1	72.6	3.3	5.7	0	0
30	Percent distribution of AGI gap	100.0	29.7	4.7	47.8	1.6	7.9	-4.6	11.5	.5	.9	.....	.....
31	Relative AGI gap ⁹	11.2	4.9	123.9	55.1	26.6	29.6	-21.7	21.5	15.9	8.3	.....	.....
32	Addendum: Misreporting adjustments included in personal income	311.5	89.9	.....	231.8	1.1	.....	-11.3	.....	.....	.....	.....	.....

1. Taxable social security benefits also include the social security equivalent benefit portion of tier 1 railroad retirement benefits.
 2. Consists primarily of other labor income and the nontaxable transfer payments to persons, less personal contributions for social insurance.
 3. Consists of tier 2 railroad retirement benefits that are taxed in the same manner as benefits paid under private employer retirement plans.
 4. Consists of the imputations included in personal income shown in NIPA table 8.21 (line 53), except for employer contributions for health and life insurance premiums (line 146). In this table, these premiums are included in line 4.
 5. Consists of imputed interest received by persons from life insurance carriers shown in NIPA table 8.20 (line 53) and investment income of private and government employee pension plans.

6. Statutory adjustments or specific adjustments ("above-the-line deductions") from gross income taken to arrive at AGI.
 7. Consists of the taxable portion of private and government employee retirement plan benefit payments.
 8. Consists of partnership income retained by fiduciaries.
 9. Adjusted gross income gap (line 29) as a percentage of the BEA-derived AGI (line 22).
 BEA Bureau of Economic Analysis
 CCAj Capital consumption adjustment
 IVA Inventory valuation adjustment
 IRS Internal Revenue Service
 NIPA National income and product accounts

for nonwage incomes subject to the filing requirements declined from about 39 percent in 1959 to 14 percent in 1997.⁹

The combined relative AGI gap for incomes not subject to the filing requirements (the second addenda item in table 4) averaged about 50 percent over the period; it increased from about 32 percent in 1959 to the highest level of about 80 percent in 1984, decreased to about 48 percent in 1990, and then increased to about 56 percent in 1997.

reallocated from personal interest income to personal dividend income (line 19); thus, the estimation difficulty affects both income gaps. In addition, the allocation of income received from private noninsured pension plans (part of line 6) between interest and dividends is based on incomplete data. Another estimation difficulty relates to possible misreporting by individuals of income from mutual funds on their tax returns. Although the IRS instructs individuals to report the income as dividends, some may have inadvertently reported it as interest.

9. Beginning with 1984, taxes have been withheld on taxable pension benefit payments unless the recipient elects not to have the tax withheld and on interest and dividends if the recipient fails to furnish a correct taxpayer identification number or has interest or dividends that were underreported on past returns.

Sources of the Revision to the AGI Gap

Table 5 shows the revisions to personal income, reconciliation items, BEA-derived AGI, and the AGI gap for 1959–96. The revisions to the AGI gap reflected the definitional and statistical changes made in the 1999 comprehensive NIPA revision.

In general, revisions to the AGI gap result from three sources: Revisions to personal income that carry through to the AGI gap, revisions to reconciliation items that are unrelated to the revisions to personal income or to AGI, and revisions to AGI that carry through to the AGI gap.

For 1996, the AGI gap was revised down \$54.0 billion (line 29), reflecting upward revisions of \$122.2 billion to personal income (line 1) and net revisions of \$176.2 billion to reconciliation items (lines 2 and 10). The revisions to personal income that resulted from definitional changes did not affect the AGI gap, because these changes also resulted in offsetting revisions to reconcili-

Table 3.—The BEA and IRS Measures of AGI and the AGI Gap by Type of Income, 1959–97

(Billions of dollars)

Year	BEA-derived AGI	IRS AGI	AGI gap	Wage and salary disbursements	Proprietors' income		Rental income of persons	Personal dividend and personal interest income			Taxable pensions and annuities	Taxable unemployment compensation	Taxable social security benefits
					Farm	Nonfarm		Total	Personal dividend income	Personal interest income			
1959	339.1	305.1	34.0	7.7	7.1	9.7	-0.1	7.9	0.8	7.1	1.7	0	0
1960	351.4	315.5	36.0	8.8	6.4	10.1	0	8.7	1.2	7.6	1.9	0	0
1961	365.8	329.9	36.0	7.5	5.6	11.5	.4	8.9	1.2	7.7	2.1	0	0
1962	387.8	348.7	39.1	9.1	6.2	11.8	.4	9.4	1.2	8.2	2.2	0	0
1963	409.2	368.8	40.4	8.3	7.0	12.6	.7	9.4	1.3	8.1	2.4	0	0
1964	442.2	396.7	45.6	10.2	6.3	14.1	.8	11.4	2.0	9.5	2.8	0	0
1965	479.8	429.2	50.6	11.7	7.1	14.2	1.2	13.3	2.3	11.0	3.2	0	0
1966	521.7	468.5	53.3	13.5	7.3	15.9	1.0	12.0	.5	11.5	3.5	0	0
1967	555.4	504.8	50.6	11.0	5.7	16.6	.9	12.4	.5	11.9	4.0	0	0
1968	609.3	554.4	54.9	13.6	5.5	17.0	.7	13.7	.9	12.9	4.3	0	0
1969	663.3	603.5	59.7	12.4	7.7	18.7	.7	15.2	.7	14.5	5.0	0	0
1970	699.3	631.7	67.6	13.1	9.3	20.5	.9	17.7	1.0	16.7	6.1	0	0
1971	744.8	673.6	71.2	13.3	8.3	23.7	.8	18.3	1.4	16.9	7.1	0	0
1972	825.5	746.0	79.5	10.8	10.9	28.8	1.6	19.2	2.0	17.2	8.2	0	0
1973	926.1	827.1	99.0	16.4	16.7	32.2	1.5	23.5	3.4	20.1	8.6	0	0
1974	1,005.4	905.5	99.8	8.8	17.8	38.1	.4	25.2	2.7	22.5	9.5	0	0
1975	1,048.0	947.8	100.2	13.6	12.6	42.2	.1	21.1	1.0	20.0	10.7	0	0
1976	1,169.1	1,053.9	115.2	13.2	11.7	53.6	-.4	25.3	3.8	21.5	11.8	0	0
1977	1,297.6	1,158.5	139.1	19.3	9.9	61.3	1.8	34.5	6.2	28.3	12.3	0	0
1978	1,469.6	1,302.4	167.1	24.7	13.0	73.5	2.2	38.9	7.3	31.6	14.9	0	0
1979	1,658.5	1,465.4	193.1	19.7	15.3	84.6	3.9	50.6	9.2	41.4	18.5	.4	0
1980	1,831.6	1,613.7	217.9	21.3	19.6	89.2	7.1	56.5	12.5	44.1	23.4	.8	0
1981	2,016.3	1,772.6	243.7	21.0	21.3	90.5	12.5	68.7	22.4	46.3	28.8	.9	0
1982	2,094.7	1,852.1	242.6	16.5	17.5	95.5	15.5	62.1	18.4	43.7	33.5	2.0	0
1983	2,225.7	1,942.6	283.1	23.5	29.5	109.9	15.6	62.7	23.4	39.3	39.3	2.6	0
1984	2,473.3	2,139.9	333.4	27.5	28.8	141.4	19.9	62.7	28.9	33.7	47.2	1.3	4.6
1985	2,629.9	2,306.0	323.9	41.8	25.0	147.2	22.4	34.8	22.1	12.7	48.2	1.4	3.2
1986	2,848.3	2,481.7	366.6	55.1	29.5	147.2	29.5	45.3	19.7	25.6	65.7	1.2	3.1
1987	3,125.4	2,773.8	351.6	76.3	32.6	121.6	15.1	45.7	27.5	18.1	55.0	2.6	2.8
1988	3,415.8	3,083.0	332.8	80.0	36.6	122.9	8.3	37.9	23.1	14.8	42.4	1.9	2.8
1989	3,658.6	3,256.4	402.3	108.2	31.0	127.4	3.9	71.6	40.9	30.7	54.8	2.4	3.0
1990	3,813.2	3,405.4	407.8	112.8	28.4	134.4	4.4	67.4	42.0	25.4	54.3	2.8	3.0
1991	3,864.4	3,464.5	399.9	100.4	30.9	139.3	7.4	65.3	43.8	21.5	49.8	3.6	3.2
1992	4,108.3	3,629.1	479.2	127.3	32.4	165.1	12.0	72.9	32.7	40.2	56.6	8.3	4.5
1993	4,260.0	3,723.3	536.7	145.4	39.0	200.5	10.1	71.5	31.6	39.9	56.7	7.3	6.1
1994	4,485.7	3,907.5	578.2	154.3	28.5	223.5	12.7	84.0	50.5	33.5	63.4	3.9	8.0
1995	4,766.4	4,189.4	577.0	162.8	37.3	246.4	15.5	35.9	35.2	.7	67.7	2.6	8.8
1996	5,151.6	4,536.0	615.6	188.0	32.1	278.1	13.4	24.5	45.4	-20.9	69.2	3.2	7.2
1997	5,604.0	4,973.6	630.3	186.9	29.9	301.2	10.2	20.6	49.7	-29.1	72.6	3.3	5.7

AGI Adjusted gross income
BEA Bureau of Economic Analysis
IRS Internal Revenue Service

ation items.¹⁰ The \$54.0 billion revision to the AGI gap reflected downward revisions of \$14.7 billion to personal income as a result of statistical changes that were not offset by revisions to reconciliation items and upward revisions of \$39.2 billion to reconciliation items that were unrelated to the revisions to personal income. There was no revision to the IRS estimate of AGI (line 23).

Not all of the \$122.2 billion revision to personal income carried through to the AGI gap because these revisions resulted in \$136.9 billion of offsetting revisions to reconciliation items. Of the \$122.2 billion, \$114.2 billion was attributable to definitional changes that were entirely offset by

revisions to reconciliation items.¹¹ The \$14.7 billion difference between the revisions to personal income and the offsetting revisions to reconciliation items reflected downward statistical revisions to some components of personal income that were carried through to reduce the AGI gap.¹²

The definitional change that resulted in the largest revision was the reclassification of government employee retirement plans, which added \$108.2 billion to personal income in 1996 and which resulted in several offsetting revisions to reconciliation items.¹³ As a result of the reclas-

11. For additional details, see table 15 in Seskin, "Improved Estimates," 27.

12. For example, rental income of persons for 1996 was revised down \$21.7 billion with \$3.9 billion offsetting revisions to reconciliation items. The difference (\$16.6 billion) was statistical revisions that were carried through to reduce the AGI gap. Nonoffsetting statistical revisions were also in other components of personal income.

13. Government employee retirement plans, which were previously classified as social insurance funds within the government sector, are treated similarly to private pension plans. For more detail, see Seskin, "Improved

Table 4.—The Relative AGI Gap by Type of Income, 1959–97

[Percent]

Year	Total	Wage and salary disbursements	Proprietors' income		Rental income of persons	Personal dividend and personal interest income			Taxable pensions and annuities	Taxable unemployment compensation	Taxable social security benefits	Addenda	
			Farm	Nonfarm		Total	Personal dividend income	Personal interest income				Incomes, except wages and salaries, subject to filing requirements ¹	Incomes not subject to filing requirements ²
1960	10.2	3.3	66.1	27.1	1.0	37.4	10.8	60.0	54.1	0	0	39.6	32.7
1961	9.8	2.7	59.0	29.1	10.1	36.3	10.7	57.5	53.5	0	0	38.7	33.0
1962	10.1	3.1	61.5	28.4	9.3	34.5	10.3	53.3	48.5	0	0	36.5	33.1
1963	9.9	2.7	68.0	29.5	17.0	31.2	9.9	46.8	47.4	0	0	33.6	35.4
1964	10.3	3.0	66.6	30.1	19.0	34.1	14.1	48.3	47.2	0	0	36.1	35.1
1965	10.5	3.3	63.8	28.8	25.8	35.5	15.1	49.4	47.0	0	0	37.2	34.5
1966	10.2	3.4	60.6	30.2	21.6	30.7	3.4	46.6	44.0	0	0	32.9	34.9
1967	9.1	2.6	59.3	29.8	19.8	29.9	3.2	44.5	44.2	0	0	32.4	33.2
1968	9.0	2.9	59.2	28.6	15.9	30.0	5.5	43.4	41.8	0	0	32.2	31.6
1969	9.0	2.4	64.6	30.5	15.0	30.1	4.5	42.5	42.1	0	0	32.4	34.9
1970	9.7	2.4	73.0	32.9	19.0	31.9	6.2	43.1	43.5	0	0	34.2	38.5
1971	9.6	2.3	75.5	35.3	15.9	31.2	8.4	40.5	43.2	0	0	33.8	39.5
1972	9.6	1.7	69.1	38.6	25.2	30.2	10.6	38.5	42.8	0	0	33.2	42.7
1973	10.7	2.3	65.7	39.7	20.2	31.6	15.3	38.5	39.5	0	0	33.4	44.3
1974	9.9	1.1	73.8	43.2	6.4	29.5	11.5	36.3	36.2	0	0	31.0	47.3
1975	9.6	1.7	72.7	45.5	1.8	24.4	4.6	31.5	33.9	0	0	26.9	47.1
1976	9.9	1.5	72.2	48.6	-6.8	25.8	13.6	30.7	32.4	0	0	27.5	48.7
1977	10.7	2.0	89.7	49.1	21.8	29.7	18.7	34.1	29.6	0	0	29.7	50.6
1978	11.4	2.2	73.2	51.6	22.9	29.9	19.5	34.0	31.3	0	0	30.3	52.3
1979	11.6	1.6	83.9	54.7	37.0	32.0	21.6	35.9	33.1	30.7	0	32.3	56.5
1980	11.9	1.6	106.8	57.4	52.5	28.7	24.3	30.2	35.1	27.0	0	30.2	61.9
1981	12.1	1.4	156.2	62.5	69.6	27.8	32.7	26.0	35.7	27.3	0	29.8	70.4
1982	11.6	1.0	228.1	64.8	81.1	22.9	26.1	21.8	35.8	21.8	0	26.1	73.8
1983	12.7	1.4	146.4	64.5	97.1	23.7	32.5	20.4	36.0	27.1	0	27.3	75.0
1984	13.5	1.5	198.6	68.0	123.7	21.8	37.3	16.1	37.0	17.8	36.7	26.6	79.7
1985	12.3	2.1	202.5	66.2	134.2	12.8	28.6	6.5	33.6	17.6	25.0	20.1	77.4
1986	12.9	2.6	135.4	64.7	190.6	16.5	24.2	13.2	37.9	15.0	22.6	24.5	75.6
1987	11.2	3.4	102.0	51.9	139.4	16.2	29.2	9.7	30.6	17.2	18.1	21.6	61.1
1988	9.7	3.3	101.0	45.2	83.4	12.6	23.0	7.4	23.4	13.9	16.4	16.5	52.7
1989	11.0	4.2	96.2	44.3	51.2	19.2	33.4	12.2	27.1	16.8	14.6	21.6	49.6
1990	10.7	4.2	96.2	43.9	39.7	18.0	34.4	10.1	25.4	15.5	13.2	20.3	48.2
1991	10.3	3.6	105.0	44.6	47.9	18.5	36.2	9.3	22.0	13.5	13.1	19.4	49.7
1992	11.7	4.3	103.7	46.1	48.5	23.3	29.5	19.9	23.3	21.0	16.2	22.8	50.6
1993	12.6	4.8	107.7	50.4	37.4	25.3	28.4	23.3	22.6	21.0	19.9	23.7	54.2
1994	12.9	4.8	132.2	51.6	38.7	28.7	38.0	21.0	23.6	16.0	17.2	25.2	54.3
1995	12.1	4.8	125.5	53.2	41.6	12.6	27.1	.5	23.4	11.9	16.2	17.7	56.4
1996	12.0	5.3	126.8	54.1	33.8	8.3	30.3	-14.4	22.5	14.3	12.0	15.2	55.9
1997	11.2	4.9	123.9	55.1	26.6	6.8	29.6	-21.7	21.5	15.9	8.3	14.0	56.1

1. Consists of personal dividend income, personal interest income, taxable pensions, taxable unemployment compensation, and taxable social security benefits. These types of income have been subject to varying degrees of withholding since 1984.

2. Consists of farm proprietors' income, nonfarm proprietors' income, and rental income of persons.

is shown in line 31 of tables 1-2.
AGI Adjusted gross income
BEA Bureau of Economic Analysis

NOTE.—The relative AGI gap is the AGI gap as a percentage of the BEA-derived AGI and

sification, employer contributions, which were previously excluded from personal income, are added to personal income (line 1) and to other labor income (line 4); dividends and interest received by these plans are added to personal income and to investment income of pension plans (line 6); personal contributions to these plans are no longer included in personal contributions for social insurance (line 11)—a component deducted in the calculation of personal income—and thus are no longer deducted in the calculation of personal income; and benefit payments by these plans are no longer included in government transfer payments, thus reducing personal income but increasing taxable pensions (line 13) by the amount of benefit payments.

The \$39.2 billion upward revision to reconciliation items unrelated to the revisions to personal income included revisions to investment income of pension plans (part of line 6), investment income received by nonprofit institutions or retained by fiduciaries (line 7), part of other personal income exempt or excluded from AGI (line 9), and other types of income (line 15). The revisions unrelated to the revisions to personal income reflected the introduction of new and improved methodologies or the incorporation of newly available and revised source data for reconciliation items that are prepared separately from NIPA revisions only for reconciliation purposes.

Reconciliation items shown in lines 6, 7, and 9 are components of personal income, but they are derived in aggregate in the estimate of personal income. Similarly, reconciliation items shown in line 15 are components of AGI, but they are also derived in aggregate in the estimate of AGI. Separate estimates for these reconciliation items are prepared only for reconciliation purposes. Thus, revisions to the separately estimated reconciliation items resulting from the introduction of new and improved methodologies or the incorporation of newly available and revised source data are unrelated to the revisions to personal income

Estimates,” 26–29. Other definitional changes that resulted in revisions to personal income and to reconciliation items are the modification of the treatment of private noninsured pension plans; the redefinition of dividend payments by regulated investment companies (RIC’s) to exclude distributions that reflect capital gains income; the redefinition of the value of imputed services of RIC’s; and the reclassification of directors’ fees. As mentioned in the text, these definitional changes did not affect the AGI gap, because the revisions to personal income from these changes were matched by offsetting revisions to reconciliation items.

The following reconciliation lines include revisions resulting from definitional changes: Nontaxable transfer payments (line 3), other labor income except fees (line 4), imputed income in personal income (line 5), investment income of pension plans (part of line 6), personal contributions for social insurance (line 11), gains, net of losses, from sale of property (line 12), and taxable pensions (line 13).

or to AGI and so are carried through to the AGI gap

In general, the incorporation of the results of the 1999 comprehensive revision resulted in small downward revisions to the relative AGI gap for total income (line 31) for all years except for 1991–93. However, the trend in the relative AGI gap for 1959–97 was largely unchanged.

Appendix

In this appendix, the reconciliation items shown in tables 1 and 2 are explained in detail. The first group of reconciliation items consists of the items that are included in personal income but not in AGI; the second group consists of the items that are included in AGI but not in personal income; and the third group consists of the intercomponent reallocation items that make the BEA and IRS estimates of AGI comparable by type of income.

Personal income items not included in AGI

The first group of reconciliation items (lines 3–9) consists of the portion of personal income that is not taxable and therefore is not included in AGI.

Most transfer payments to persons from governments and all transfer payments to persons from business (line 3) are nontaxable.¹⁴ The taxable portion of transfer payments to persons from governments consists primarily of unemployment compensation benefit payments and a portion of social security and railroad retirement benefit payments.¹⁵

Most of the NIPA category of “other labor income” (line 4) is nontaxable.¹⁶ The nontaxable components of other labor income are employer contributions to pension and profit-sharing plans, private group health and life insurance plans, privately administered workers’

14. NIPA table 3.12 shows government transfer payments to persons. Government transfer payments to persons include benefit payments from social insurance funds—such as old-age, survivors, and disability insurance (social security), hospital insurance, supplementary medical insurance, and unemployment insurance—and from certain other programs. NIPA table 8.16 shows business transfer payments to persons. Business transfer payments to persons consists primarily of liability payments for personal injury and of corporate gifts to nonprofit institutions.

15. In the 1999 comprehensive revision, the treatment of government employee retirement plans was changed to make it more similar to the treatment of private pension plans. This definitional change resulted in a shift of the savings associated with government employee retirement plans from the government sector to the personal sector. Previously, government employee retirement plans were treated as social insurance funds within the government sector, and benefits paid by the plans were treated as government transfer payments to persons. For additional details, see Brent R. Moulton, Robert P. Parker, and Eugene Seskin, “A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts: Definitional and Classification Changes,” SURVEY OF CURRENT BUSINESS 79 (August 1999): 11–12.

16. NIPA table 6.11c shows other labor income by industry group and by type.

Table 5.—Sources of Revision to the AGI Gap for 1959–96

[Billions of dollars]

Line ¹		1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
1	Personal income	-0.4	0.2	0.3	0.9	1.0	1.3	0.7	0.7	-0.4	-0.1	1.6	4.0	4.9	5.4
2	Less: Portion of personal income not included in adjusted gross income	2.9	3.4	3.6	4.2	4.6	5.5	5.6	6.2	6.4	7.2	10.2	12.1	13.4	15.6
3	Nontaxable transfer payments	-9	-1.0	-1.1	-1.2	-1.3	-1.4	-1.4	-1.8	-2.0	-2.0	-2.3	-2.6	-2.9	-3.2
4	Other labor income except fees	3.0	3.4	3.6	3.9	4.3	4.9	5.2	5.9	6.9	7.6	8.6	9.9	11.8	12.9
5	Imputed income in personal income	-2	-1	-2	.1	-2	0	-4	-5	-1.4	-1.6	.4	.3	-7	-5
6	Investment income of life insurance carriers and pension plans .....	.9	1.0	1.1	1.3	1.5	1.7	1.9	2.2	2.6	2.8	3.1	4.0	4.7	5.6
7	Investment income received by nonprofit institutions or retained by fiduciaries .....	.1	.2	.2	.3	.3	.4	.5	.5	.5	.5	.5	.6	.6	.7
8	Differences in accounting treatment between NIPA's and tax regulations, net .....	.1	0	0	-1	-1	-1	-1	-1	-2	-2	-1	-1	-1	2
9	Other personal income exempt or excluded from adjusted gross income	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10	Plus: Portion of adjusted gross income not included in personal income .....	.5	.6	.8	.8	1.1	1.3	1.9	2.7	3.3	4.3	4.5	3.7	3.8	5.7
11	Personal contributions for social insurance	-2.0	-2.1	-2.3	-2.4	-2.5	-2.8	-3.0	-3.3	-3.8	-4.1	-4.9	-5.3	-5.9	-6.4
12	Gains, net of losses, from sale of property .....	.5	.5	.6	.6	.5	.6	1.0	1.4	1.8	2.5	2.6	1.1	.4	1.1
13	Taxable pensions	1.8	2.1	2.3	2.5	2.9	3.3	3.7	4.3	5.0	5.6	6.4	7.6	9.0	10.6
14	Small business corporation income	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Other types of income .....	.2	.1	.1	.1	.2	.2	.2	.3	.3	.3	.3	.3	.3	.4
22	Equals: BEA-derived adjusted gross income	-2.8	-2.6	-2.6	-2.5	-2.5	-2.8	-3.0	-2.8	-3.5	-3.0	-4.1	-4.4	-4.7	-4.4
23	Adjusted gross income of IRS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Adjusted gross income (AGI) gap	-2.8	-2.6	-2.6	-2.5	-2.5	-2.8	-3.0	-2.8	-3.5	-3.0	-4.1	-4.4	-4.7	-4.4
31	Relative AGI gap	-7	-7	-6	-6	-5	-6	-6	-5	-6	-4	-6	-6	-6	-5

Line ¹		1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986
1	Personal income	5.9	9.7	12.7	16.0	21.0	22.4	25.7	31.0	30.9	44.3	52.5	63.4	74.1	72.9
2	Less: Portion of personal income not included in adjusted gross income	18.0	21.7	27.9	33.6	40.5	45.2	52.0	61.5	71.4	84.9	100.2	118.7	140.5	151.4
3	Nontaxable transfer payments	-3.9	-4.2	-4.1	-4.1	-4.3	-4.8	-5.3	-6.0	-6.8	-7.8	-7.2	-9.9	-10.1	-10.4
4	Other labor income except fees	14.3	17.5	22.4	26.4	31.6	34.4	39.5	46.9	53.3	59.1	63.2	75.2	81.5	84.9
5	Imputed income in personal income .....	.4	.6	.5	.2	.5	.8	1.6	.8	1.2	.3	.6	1.9	2.0	-4.8
6	Investment income of life insurance carriers and pension plans	6.2	7.2	8.6	10.4	11.7	13.6	16.3	19.9	23.8	32.3	41.1	50.9	63.2	74.6
7	Investment income received by nonprofit institutions or retained by fiduciaries .....	.6	.1	.1	0	0	0	-3	-1	-3	0	-2	-6	-5	-5
8	Differences in accounting treatment between NIPA's and tax regulations, net .....	.4	.5	.4	.6	1.0	1.2	.2	-1	-2	.6	2.0	-1	2.5	5.2
9	Other personal income exempt or excluded from adjusted gross income	0	0	0	0	0	0	0	0	.3	.4	.8	1.4	2.0	2.4
10	Plus: Portion of adjusted gross income not included in personal income	6.4	8.0	11.4	14.3	16.5	19.3	22.9	30.0	35.0	36.0	38.6	40.1	44.5	47.9
11	Personal contributions for social insurance	-6.9	-7.4	-7.8	-8.6	-9.2	-10.0	-10.8	-11.4	-12.4	-13.2	-13.6	-14.3	-15.4	-16.5
12	Gains, net of losses, from sale of property .....	.7	.2	.3	.5	.6	.8	1.3	2.7	3.5	0	0	0	0	0
13	Taxable pensions	12.2	14.8	18.5	21.8	24.4	27.5	31.2	36.5	41.9	46.5	50.4	52.6	58.0	61.7
14	Small business corporation income	0	0	0	0	0	0	0	0	0	0	0	0	0	0
15	Other types of income .....	.4	.4	.5	.6	.7	.9	1.2	2.2	2.0	2.6	1.8	1.9	2.0	2.7
22	Equals: BEA-derived adjusted gross income	-5.7	-4.0	-3.8	-3.3	-3.0	-3.5	-3.5	-5	-5.5	-4.7	-9.1	-15.2	-21.8	-30.6
23	Adjusted gross income of IRS	0	0	0	0	0	0	0	0	0	0	0	0	0	0
29	Adjusted gross income (AGI) gap	-5.7	-4.0	-3.8	-3.3	-3.0	-3.5	-3.5	-5	-5.5	-4.7	-9.1	-15.2	-21.8	-30.6
31	Relative AGI gap	-5	-4	-3	-3	-2	-2	-2	0	-2	-2	-4	-5	-7	-9

Line ¹		1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
1	Personal income	84.7	93.2	103.4	107.0	119.7	134.7	128.9	130.1	128.9	122.2
2	Less: Portion of personal income not included in adjusted gross income	170.0	167.1	174.5	184.7	195.3	208.7	210.5	233.8	252.4	281.0
3	Nontaxable transfer payments	-9.9	-9.3	-9.1	-10.8	-10.4	-11.7	-10.4	-10.9	-11.3	-14.0
4	Other labor income except fees	86.5	87.6	90.2	92.2	95.6	101.0	100.5	105.4	98.2	106.0
5	Imputed income in personal income	4.1	2.2	-2.2	-6.3	-4.1	-7.1	-3.8	.7	2.4	4.3
6	Investment income of life insurance carriers and pension plans	83.6	79.3	82.9	89.1	93.0	101.0	105.1	114.5	131.1	136.7
7	Investment income received by nonprofit institutions or retained by fiduciaries	-4	-6	-8	-7	-7	-1.1	0	2.4	6.7	8.7
8	Differences in accounting treatment between NIPA's and tax regulations, net	3.4	5.1	9.9	16.5	17.1	22.3	21.4	20.0	21.7	34.1
9	Other personal income exempt or excluded from adjusted gross income	2.6	2.9	3.5	4.6	4.8	4.3	-2.2	1.6	3.5	5.3
10	Plus: Portion of adjusted gross income not included in personal income	54.2	59.0	63.3	69.4	75.9	80.6	87.0	100.9	101.4	104.8
11	Personal contributions for social insurance	-16.8	-17.3	-19.2	-20.2	-20.8	-21.9	-22.5	-23.4	-24.8	-25.9
12	Gains, net of losses, from sale of property	0	0	0	0	0	0	0	0	0	0
13	Taxable pensions	67.6	74.1	79.5	85.7	92.5	98.5	106.0	121.4	123.2	127.1
14	Small business corporation income	0	0	0	0	0	0	0	0	0	0
15	Other types of income	3.4	2.2	3.0	3.9	4.1	4.0	3.5	2.9	2.9	3.7
22	Equals: BEA-derived adjusted gross income	-31.1	-14.9	-7.9	-8.3	.3	6.6	5.4	-2.8	-22.2	-54.0
23	Adjusted gross income of IRS	0	0	0	0	0	0	0	0	0	0
29	Adjusted gross income (AGI) gap	-31.1	-14.9	-7.9	-8.3	.3	6.6	5.4	-2.8	-22.2	-54.0
31	Relative AGI gap	-9	-4	-2	-2	0	.1	.1	-1	-4	-9

1. Line numbers in this table correspond to those in tables 1–2.
 AGI Adjusted gross income
 BEA Bureau of Economic Analysis
 IRS Internal Revenue Service

NIPA's National income and product accounts

compensation plans, and supplemental unemployment benefit plans. Employer contributions are nontaxable, but some benefit payments—such as pension benefit payments and supplemental unemployment benefit payments—are taxable; they are in lines 13 and 15, respectively. Taxable components of other labor income include judicial fees to jurors and witnesses, compensation of prison inmates, and marriage fees paid to justices of the peace.¹⁷

Imputed income in personal income (line 5) is certain incomes imputed to persons according to NIPA definitions.¹⁸ Personal income wage and salary disbursements include three categories of wages and salaries in kind, the largest of which is the value of food furnished to military personnel and to other employees. Farm proprietors' income includes the imputed net rental income of owner-occupants of farm dwellings; nonfarm proprietors' income includes the imputed income of persons who participate in the construction of their own housing (the margins on owner-built housing). Rental income includes the imputed net rental income of owner-occupants of nonfarm dwellings. Net interest includes imputed income for services furnished to persons without payment by financial intermediaries except life insurance carriers.

Life insurance carriers and pension plans are not defined as persons in the NIPA's, but their investment income is included in personal income in the year it is accrued (line 6). Investment income of life insurance carriers attributed to persons is included in personal interest income.¹⁹ Investment income of pension plans—rents, dividends, and interest—is recorded as being received directly by persons in the corresponding components of personal income.²⁰

Both nonprofit institutions and fiduciaries are defined as persons in the NIPA's, and their investment incomes are included, but not separately identified, in nonfarm proprietors' income, rental income of persons, personal interest income, and personal dividend income (line 7). Only the portion of the income of fiduciaries that is dis-

tributed to beneficiaries is taxable to individuals; the portion retained by fiduciaries is taxable to the fiduciaries and is not reported on individual income tax returns. Thus, investment income of fiduciaries included in line 7 represents the portion of fiduciaries' investment income that is retained by the fiduciaries.

The differences between NIPA accounting and income tax accounting for incomes included in both measures (line 8) consist mainly of differences in the valuation of inventories and depreciation and of differences in the methods of accounting for interest on bonds and for the earnings of individual retirement accounts and Keogh plans.

The inventory valuation adjustment for nonfarm proprietors' income is the difference between the cost of inventory withdrawals valued at their acquisition (historical) cost and the cost of inventory withdrawals valued at their replacement cost (the concept underlying the NIPA's). This difference is an estimate of inventory profits, but with the sign reversed. These profits are excluded from personal income but are included in AGI.

The NIPA measure of depreciation (consumption of fixed capital) is based on consistent accounting and is valued at current replacement cost, whereas the IRS measure of depreciation is based on varying service lives and depreciation formulas and is valued at historical cost.²¹ The adjustment in line 8 consists of the differences for proprietors' income and rental income of persons except for depreciation on owner-occupied dwellings. (The entire amount of the rental income on owner-occupied dwellings, which is a NIPA imputation, is included in line 5.)

Interest on U.S. savings bonds, State and local government bonds, and corporate bonds is included in personal income on an accrual basis but is mostly reported on a cash basis in AGI. Similarly, earnings of IRA's and Keogh plans, excluding capital gains, are included in personal income on an accrual basis but are included as benefit payments in AGI.

Other personal income exempt or excluded from AGI (line 9) consists mainly of voluntary contributions by employees to thrift savings

17. In the 1999 comprehensive revision, corporate directors' fees paid to "outside directors," which were previously in other labor income, were reclassified to nonfarm proprietors' income. Outside directors are directors who are not employees of the company on whose board they serve. Directors' fees paid to employees who serve on their company's board of directors are classified as wages and salaries.

18. Employer-paid health and life insurance premiums, which are treated as an imputation in the NIPA's, are excluded from line 5; these premiums are included in line 4. NIPA table 8.21 (line 53) shows the imputations that are included in personal income.

19. NIPA table 8.20 (line 53) shows imputed interest attributed to persons from life insurance carriers.

20. For additional details, see Moulton, Parker, and Seskin, "Definitional and Classificational Changes," 12–13.

21. The NIPA methodology for depreciation reflects empirical evidence on prices of used equipment and structures in resale markets, which has shown that depreciation for most types of assets approximates a geometric pattern. See Robert P. Parker and Jack E. Triplett, "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," SURVEY 75 (September 1995): 39–41, and Barbara M. Fraumeni, "The Measurement of Depreciation in the U.S. National Income and Product Accounts," SURVEY 77 (July 1997): 7–23.

plans, tax-exempt interest received by individuals, tax-exempt military pay and allowances, the small business corporation dividend adjustment, and statutory adjustments to AGI.

Employee contributions to thrift savings plans, primarily 401(k) plans, are included in personal income as wage and salary disbursements but are excluded from AGI.

Tax-exempt interest received by individuals, primarily on State and local government bonds, is included in personal income but is excluded from AGI.

Certain types of pay and cash allowances to members of the armed forces, such as allowances to defray a portion of the cost of subsistence or to assist in obtaining civilian housing as a substitute for government quarters, are included in personal income but are excluded from AGI.

The small business corporation (S corporation) dividend adjustment is the difference between S corporation distributions that are included in personal income as personal dividend income and S corporation distributions that are considered as dividends in AGI. In the NIPA's, these distributions to individuals are, in their entirety, treated as personal dividend income for all time periods. In AGI, they have been treated at different times as dividends, partnership income, or small business corporation income.²²

Statutory adjustments are specific adjustments to total income that are allowed as deductions in the calculation of AGI. For 1997, statutory adjustments consist of contributions to Keogh and self-employed simplified employee pension plans and to savings incentive match plans for employees, certain contributions to IRA's, one-half of self-employment tax, a portion of self-employed health insurance premiums, forfeited interest and penalties incurred by persons who prematurely withdrew funds from time savings accounts, alimony payments, medical savings account contributions, certain moving expenses, foreign housing exclusion, repayments of supplemental unemployment compensation, certain expenses of qualified performing artists, and the amount of jury duty pay reported on Form 1040 that was repaid to employers.

AGI items not included in personal income

The second group of reconciliation items (lines 11–15) consists of the portion of AGI that is excluded from personal income.

Personal contributions for social insurance (line 11), which is subtracted in the calculation of personal income, is included in AGI.

Net gain from sale of property (line 12) includes net gain from sale of property held for personal use or investment (capital assets) and of property of a business nature (business assets).

Taxable pension benefit payments from pension plans (line 13), which are in AGI, are excluded from personal income because of the NIPA treatment of pension plans.

Small business corporation income (line 14) in AGI is the amount of distributions from small business corporations that is taxable to individuals as ordinary income. As mentioned before, the amount taxable to individuals as dividends is in the IRS measure of dividends. In the NIPA's, small business corporation income is part of corporate profits, and the distributions to individuals are treated, in their entirety, as personal dividend income.

Other types of income (line 15) consists of income of U.S. citizens living abroad for more than a year, supplemental unemployment benefit payments, and "other AGI items" excluded from personal income. Personal income excludes income of U.S. citizens living abroad for more than a year because they are considered nonresidents of the United States for NIPA purposes, whereas AGI includes their income.²³ U.S. citizens are generally taxed on their worldwide income regardless of the geographic sources of their income and regardless of how long they have been living abroad. AGI from abroad mainly consists of wages, but a small amount is nonfarm proprietors' income.

Supplemental unemployment benefit payments from company-financed funds are reported as wages in AGI.

Other AGI items excluded from personal income include withdrawals from individual retirement accounts and Keogh plans, alimony

23. In the NIPA's, U.S. citizens who reside outside the United States for less than 1 year are considered U.S. residents, but those who reside outside the United States for 1 year or more are, with certain exceptions such as diplomats and members of the armed forces, considered nonresidents. Similarly, aliens who reside in the United States for less than 1 year are considered nonresidents in the NIPA's. Personal income excludes income of NIPA nonresidents, but a reconciliation is not needed because AGI also excludes their income. AGI is based on a sample of individual income tax returns that is drawn from filers of forms 1040, 1040A, 1040EZ, and 1040PC, including electronic returns; the sample excludes filers of forms 1040NR and 1042, which are used by NIPA nonresident aliens to report their income.

22. For many of the years prior to 1983, IRS instructed taxpayers to report actual distributions to individuals as dividends on Schedule B (Form 1040) and to report the retained earnings as part of supplemental income on Schedule E (Form 1040), which was tabulated as "small business corporation income" in AGI. Beginning in 1983, individuals were instructed to report only the distributions from pre-1983 accumulated earnings and profits as dividends on Schedule B (Form 1040) and to report other distributions as supplemental income on Schedule E (Form 1040).

received, State income tax refunds, net operating loss, gambling earnings, prizes, awards, and sweepstakes winnings.

Intercomponent reallocation

The third group of reconciliation items consists of “intercomponent reallocations.” The types of income used for reconciliation purposes in tables 1 and 2 represent the types of income that are common for both personal income and AGI. However, certain components of personal income and of AGI do not fit into this income classification or are classified differently. These income components are reallocated, when possible, to make the BEA and IRS estimates of AGI comparable by type of income. The reallocations affecting personal income are shown in lines 17–21, and those affecting AGI are shown in lines 25–27. The reallocated personal income and AGI by type of income are shown in lines 22 and 28, respectively.

The fees components of other labor income (line 17) are reallocated from other labor income to wage and salary disbursements because they are largely reported as wages.²⁴

Partnership income retained by fiduciaries (line 18) is reallocated to farm and nonfarm proprietors’ incomes. Partnership income retained by fiduciaries is part of “income retained by fiduciaries,” which is prepared specially for this reconciliation (line 7). Partnership income requires a reallocation because this type of income is not a type of income used for reconciliation purposes.


Interest received by, but not related to business operations of, nonfinancial proprietors and partnerships (line 19) is reallocated from personal interest income to nonfarm proprietors’ income for years prior to 1987. This interest, which was tabulated in AGI as part of the income of proprietors and partnerships prior to 1987, is treated in the NIPA’s as personal interest income in all time periods.

Taxable interest received by individuals from regulated investment companies (mutual funds) is reallocated (line 20) from personal interest income to personal dividend income because IRS requires that it be reported as dividends. Only the portion that is taxable to individuals is reallocated; interest paid by mutual funds to pension plans, IRA and Keogh plans, and holders of State and local government securities is tax-exempt. Because of difficulties encountered in allocating total interest paid by regulated investment companies to these different categories, this estimate

of the amount reallocated from interest to dividends must be regarded as an approximation; the separate estimates of BEA-derived AGI for interest and dividends are therefore less reliable than those for the combination of the two.²⁵

Taxable disability income payments received prior to reaching minimum retirement age (line 21) are reallocated from taxable pension benefit payments to wage and salary disbursements because these payments are reported as wages on tax returns but are treated as pension benefit payments in personal income.

The AGI components that require a reallocation are estate or trust income (line 25), partnership income (line 26), and other reallocations (line 27). Estate or trust income is not a type of income that is used for reconciliation purposes; this income is reallocated to farm proprietors’ income, nonfarm proprietors’ income, and rental income of persons. Partnership income is reallocated to farm and nonfarm proprietors’ incomes because this income is not a type of income that is used for reconciliation purposes.

Other reallocations (line 27) includes several reallocations that are not shown separately and are not applicable in recent years. For certain AGI components, the AGI classification has changed over the years, and the earlier classification must be adjusted to conform with the present AGI classification and with types of income used for reconciliation purposes. IRS business or profession net profit prior to 1963 is reallocated between farm and nonfarm proprietors’ income because IRS did not tabulate farm proprietors’ income separately. For 1958–65, the dividends distributed by small business corporations are reallocated from partnership income to personal dividend income; these dividends were tabulated by IRS as partnership income because the two types of business organizations were treated alike under tax laws. For 1957–65, Form 1040A wages that were not subject to withholding were tabulated by IRS as other income; this amount is reallocated to wages. For 1964–65, estate or trust income was tabulated as part of other income in AGI; this amount is reallocated to farm proprietors’ income, nonfarm proprietors’ income, and rental income of persons. For 1961, wage earners who had \$200 or less of dividends and interest could report the combined amount as a single figure; this amount is reallocated to personal interest income and personal dividend income. 

24. See the previous discussion of other labor income (line 4) in the “BEA Estimate of AGI” section.

25. Several statistical problems cause the separate estimates of the AGI gap for interest and dividends to be less reliable than the estimates for the combination of the two. See footnote 8.

Comprehensive NIPA Revision: Newly Available Tables

The national income and product account (NIPA) tables 3.13 and 8.28 are presented below; these tables were not available for inclusion with most of the full set of NIPA tables that were published as part of the comprehensive NIPA revision in the December 1999 SURVEY OF CURRENT BUSINESS. Tables 3.18–3.20, 5.16, and 9.1–9.6 are scheduled to be published in the April SURVEY. Tables 3.15–3.17, which present estimates of government current expenditures and gross investment by function, will be published in the SURVEY later this year along with an article that discusses the improved presentation of these estimates.

Table 3.13.—Subsidies Less Current Surplus of Government Enterprises
[Billions of dollars]

	Line	1995	1996	1997	1998
Subsidies less current surplus of government enterprises.	1	22.2	22.6	19.0	20.8
Federal	2	32.4	35.1	30.4	32.1
Subsidies	3	32.9	33.4	31.9	35.1
Agricultural	4	7.3	7.3	7.5	12.2
Housing	5	23.6	24.5	22.9	21.9
Maritime	6	.3	.2	.1	.1
Air carriers	7	0	0	0	0
Other ¹	8	1.8	1.4	1.3	.9
Less: Current surplus of government enterprises	9	.6	-1.7	1.5	3.0
Postal Service	10	-2.0	-3.9	-3.7	-2.8
Federal Housing Administration	11	1.3	2.0	2.2	2.8
Tennessee Valley Authority	12	1.6	2.0	2.4	2.7
Other ²	13	-.4	-1.8	.7	.4
State and local	14	-10.2	-12.5	-11.4	-11.3
Subsidies	15	.3	.3	.4	.5
Less: Current surplus of government enterprises	16	10.5	12.8	11.8	11.7
Water and sewerage	17	4.2	5.0	5.4	5.8
Gas and electricity	18	6.6	7.1	7.4	7.7
Toll facilities	19	1.7	1.8	1.9	1.9
Liquor stores	20	.6	.6	.7	.7
Air and water terminals	21	1.8	2.0	2.2	2.3
Housing and urban renewal	22	-2.7	-2.3	-4.9	-6.0
Public transit	23	-13.0	-13.4	-14.1	-14.7
Other ³	24	11.2	12.0	13.2	13.9

1. Consists largely of subsidies to railroads and mass transit systems.

2. Consists largely of the Bonneville Power Administration, other electric power agencies, and insurance agencies other than those insuring deposits in financial institutions.

3. Consists of lotteries, off-track betting, local parking, and miscellaneous activities.

Table 8.28.—Comparison of Personal Income in the National Income and Product Accounts (NIPA's) with Adjusted Gross Income as Published by the Internal Revenue Service (IRS)

	Line	1995	1996	1997	1998
Personal income, NIPA's	1	6,200.9	6,547.4	6,951.1	7,358.9
Less: Portion of personal income not included in adjusted gross income.	2	2,275.3	2,373.8	2,498.4	.....
Nontaxable transfer payments	3	806.0	842.3	870.1	.....
Other labor income except fees	4	494.6	487.5	498.2	.....
Imputed income in personal income ¹	5	242.7	264.3	293.0	.....
Investment income of life insurance carriers and pension plans.	6	358.8	366.7	394.9	.....
Investment income received by nonprofit institutions or retained by fiduciaries.	7	59.8	59.9	60.0	.....
Differences in accounting treatment between NIPA's and tax regulations, net.	8	72.9	79.9	87.4	.....
Other personal income exempt or excluded from adjusted gross income.	9	240.6	273.2	294.8	.....
Plus: Portion of adjusted gross income not included in personal income.	10	840.7	978.0	1,151.2	.....
Personal contributions for social insurance	11	268.8	280.4	298.1	315.9
Gains, net of losses, from sales of property	12	167.4	249.5	338.2	.....
Taxable pensions	13	292.2	311.6	341.0	.....
Small business corporation income	14	79.2	89.3	100.7	.....
Other types of income	15	33.2	47.1	73.2	.....
Equals: BEA-derived adjusted gross income	16	4,766.4	5,151.6	5,604.0	.....
Adjusted gross income, IRS	17	4,189.4	4,536.0	4,973.6	.....
Adjusted gross income (AGI) gap²	18	577.0	615.6	630.3	.....
AGI gap (line 18) as a percentage of BEA-derived AGI (line 16).	19	12.1	12.0	11.2	.....
AGI of IRS (line 17) as a percentage of BEA-derived AGI (line 16).	20	87.9	88.0	88.8	.....

1. Consists of the imputations included in personal income shown in table 8.21 except for employer contributions for health and life insurance (line 146). In table 8.28, these premiums are included in line 4.

2. Consists of income earned by low-income individuals who are not required to file income tax returns, of unreported income that is included in the NIPA measure, and of gross errors and omissions in lines 2 through 15. Also includes the net effect of errors in the IRS adjusted gross income (line 17) and NIPA personal income (line 1) measures. Such errors can arise from the sample used by IRS to estimate line 17 and from the source data used by BEA to estimate line 1.

Accounting for Subsoil Mineral Resources

LAST SUMMER, A blue-ribbon panel of the National Academy of Sciences' National Research Council completed a congressionally mandated review of the work that the Bureau of Economic Analysis (BEA) had published on integrated economic and environmental accounts. The panel's final report commended BEA for its initial work in producing a set of sound and objective prototype accounts. The November 1999 issue of the SURVEY OF CURRENT BUSINESS contained an article by William D. Nordhaus, the Chair of the Panel, that presented an overview of the major issues and findings and a reprint of chapter 5, "Overall Appraisal of Environmental Accounting in the United States," from the final report. As part of its promise to inform users of the results of this evaluation, BEA is reprinting additional chapters from the panel's report; below is a reprint of chapter 3, which reviews BEA's development of a set of subsoil mineral accounts.

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INTRODUCTION

SUBSOIL minerals—particularly petroleum, natural gas, and coal—have played a key role in the American economy over the last century. They are important industries in themselves, but they also are crucial inputs into every sector of the economy, from the family automobile to military jets. In recent years, the energy sector has been an important contributor to many environmental problems, and the use of fossil fuels is high on the list of concerns about greenhouse warming.

The National Income and Product Accounts (NIPA) currently contain estimates of the production of mineral products and their flows through the economy. But the values of and changes in the stocks of subsoil assets are currently omitted from the NIPA. The current treatment of these resources leads to major anomalies and inaccuracies in the accounts. For example, both exploration and research and development generate new subsoil mineral assets just as investment creates new produced capital assets. Similarly, the extraction of mineral deposits results in the depletion of subsoil assets just as use and time

cause produced capital assets to depreciate. The NIPA include the accumulation and depreciation of capital assets, but they do not consider the generation and depletion of subsoil assets.

The omission is troubling. Mineral resources, like labor, capital, and intermediate goods, are basic inputs in the production of many goods and services. The production of mineral resources is no different from the production of consumer goods and capital goods. Therefore, economic accounts that fail to include mineral assets may seriously misrepresent trends in national income and wealth over time.

Omission of minerals is just one of the issues addressed in the construction of environmental accounts. Still, extending the NIPA to include minerals is a natural starting point for the project of environmental accounting. These assets—which include notably petroleum, natural gas, coal, and nonfuel minerals—are already part of the market economy and have important links to environmental policy. Indeed, production from these assets is already included in the nation's gross domestic product (GDP). Mining is a significant segment of the nation's output; gross output originating in mining totaled \$90 billion, or 1.3 percent of GDP, in 1994. This figure masks the importance of production of subsoil minerals in certain respects, however, for they are intimately linked to many serious environmental problems. Much air pollution and the preponderance of emissions of greenhouse gases are derived directly or indirectly from the combustion of fossil fuels—a linkage that is explored further in the next chapter. Moreover, while the value of mineral assets may be a small fraction of the nation's total assets, subsoil assets account for a large proportion of the assets of certain regions of the country.

Current treatment of subsoil assets in the U.S. national economic accounts has three major limitations. First, there is no entry for additions to the stock of subsoil assets in the production or asset accounts. This omission is anomalous because businesses expend significant amounts of resources on discovering or proving reserves for future use. Second, there is no entry for the using up of the stock of subsoil assets in the production

or asset accounts. When the stock of a valuable resource declines over time through intensive exploitation, this trend should be recognized in the economic accounts: if it is becoming increasingly expensive to extract the subsoil minerals necessary for economic production, the nation's sustainable production will be lowered. Third, there is no entry for the contribution of subsoil assets to current production in the production accounts. The contribution of subsoil assets is currently recorded as a return to other assets, primarily as a return to capital.

There is a well-developed literature in economics and accounting with regard to the appropriate treatment of mineral resources. The major difficulty for the national accounts has been the lack of adequate data on the quantities and transaction prices of mineral resources. Unlike new capital goods such as houses or computers, additions to mineral reserves are not generally reflected in market transactions, but are determined from internal and often proprietary data on mineral resources. Moreover, there are insufficient data on the transactions of mineral resources, and because these resources are quite heterogeneous, extrapolating from existing transactions to the universe of reserves or resources is questionable.

Notwithstanding the difficulties that arise in constructing mineral accounts, the Bureau of Economic Analysis (BEA) decided this was the best place to begin development of its Integrated Environmental and Economic Satellite Accounts (IEESA). BEA in the United States and comparable agencies in other countries have in recent years developed satellite accounts that explicitly identify mineral assets, along with the changes in these assets over assets, along with the changes in these assets over time. This chapter analyzes general issues involved in minerals accounting and assesses the approach taken by BEA (as described in Bureau of Economic Analysis [1994b]). The first section provides an overview of the nature of subsoil mineral resources and describes the basic techniques for valuing subsoil assets. The second section describes BEA's approach to valuation, including the five different methods it uses to value subsoil mineral assets. The third section highlights the specific strengths and weaknesses of BEA's approach, while the fourth considers other possible approaches. The chapter ends with conclusions and recommendations regarding future efforts to incorporate subsoil mineral assets into the national economic accounts.

GENERAL ISSUES IN ACCOUNTING FOR MINERAL RESOURCES

Basics of Minerals Economics

A mineral resource is "a concentration of naturally occurring solid, liquid, or gaseous material, in or on the earth's crust, in such form and amount that economic extraction of a commodity from the concentration is currently or potentially feasible" (Craig et al., 1998:20). The size and nature of many mineral resources are well known, whereas others are undiscovered and totally unknown. Figure 3-1 shows a spectrum of resources that differ in their degree of certainty, commonly described as measured, indicated, inferred, hypothetical, and speculative. Another important dimension is the economic feasibility or cost of extracting and using the resources. Some resources are currently profitable to exploit; others may be economical in the future, but currently are not. Along this dimension, mineral resources are conventionally described as economic (profitable today), marginally economic, subeconomic, and other.

Resources that are both currently profitable to exploit (economic) and known with considerable certainty (measured or indicated) are called reserves (or ores when referring to metal deposits). This means reserves are always resources, though not all resources are reserves.¹

Over time, reserves may increase. Exploration may result in the discovery of previously unknown deposits or demonstrate that a known deposit is larger than formerly indicated. Research and development may produce new techniques that allow previously known but uneconomic resources to be profitably extracted. A rise in a mineral commodity's price may also increase reserves by making previously unprofitable resources economic.

The exploration required to convert resources into reserves entails a cost. As a result, companies have an incentive to invest in the generation of new reserves only up to the point at which reserves are adequate for current production plans. For many mineral commodities, therefore, reserves as a multiple of current extraction tend to remain fairly stable over time.

1. Two additional categories of mineral endowment are worth noting since they are commonly encountered. The reserve base encompasses the categories of reserves and marginal reserves, as well as part of the category of demonstrated subeconomic resources shown in Figure 3-1. While reserves and the reserve base are typically a small subset of resources, resources in turn are a small subset of the resource base. The resource base, not illustrated in Figure 3-1, encompasses all of a mineral commodity found in the earth's crust.

While by definition all reserves can be exploited profitably, the costs of extraction, processing, and marketing, even for reserves of the same mineral commodity, may vary greatly as a result of the reserves' heterogenous nature. Deposit depth, presence of valuable byproducts or costly impurities, mineralogical characteristics, and access to markets and infrastructure (such as deepwater ports) are some of the more important factors that give rise to cost differences among reserves.

Figure 3-2 reflects the heterogenous nature of mineral resources by separating the reserves and other known resources for a particular mineral commodity according to their exploitation costs.² The lowest-cost reserves are in class A; their quantity is indicated in the figure as OA and their exploitation costs as OC_1 . The next least costly reserves are found in class B, with a quantity of AB and a cost of OC_2 . The most expensive reserves are found in class M. These reserves are

marginally profitable. The market price OP just covers the extraction cost of class M (OC_m) plus the opportunity cost ($C_m P$) of using these reserves now rather than saving them for future use. This opportunity cost, which economists refer to as *Hotelling rent* (or sometimes scarcity rent or user cost) is the present value of the additional profit that would be earned by exploiting these reserves at the most profitable time in the future rather than now.³

Known resources in Figure 3-2 with costs above those of class M, such as those in classes N, O, and P, are by convention not reserves. In this case, mineral producers, like other competitive firms, will have an incentive to produce up to the point where the current production costs of the next unit of output, inclusive of rents, just equals the market price. When Hotelling rents exist,

2. Similar comparative cost curves are used to illustrate the relative costs of mineral production for major producing countries or companies. See, for example, Bureau of Mines (1987) and Torries (1988, 1995).

3. Where the relevant market for a mineral commodity is global and transportation costs are negligible, Figure 3-2 reflects cost classes for reserves and other known resources throughout the world. Where a mineral commodity is sold in regional markets, a separate figure would be required for each regional market, and the cost classes shown in any particular figure are only for the reserves and other known resources in the regional market portrayed.

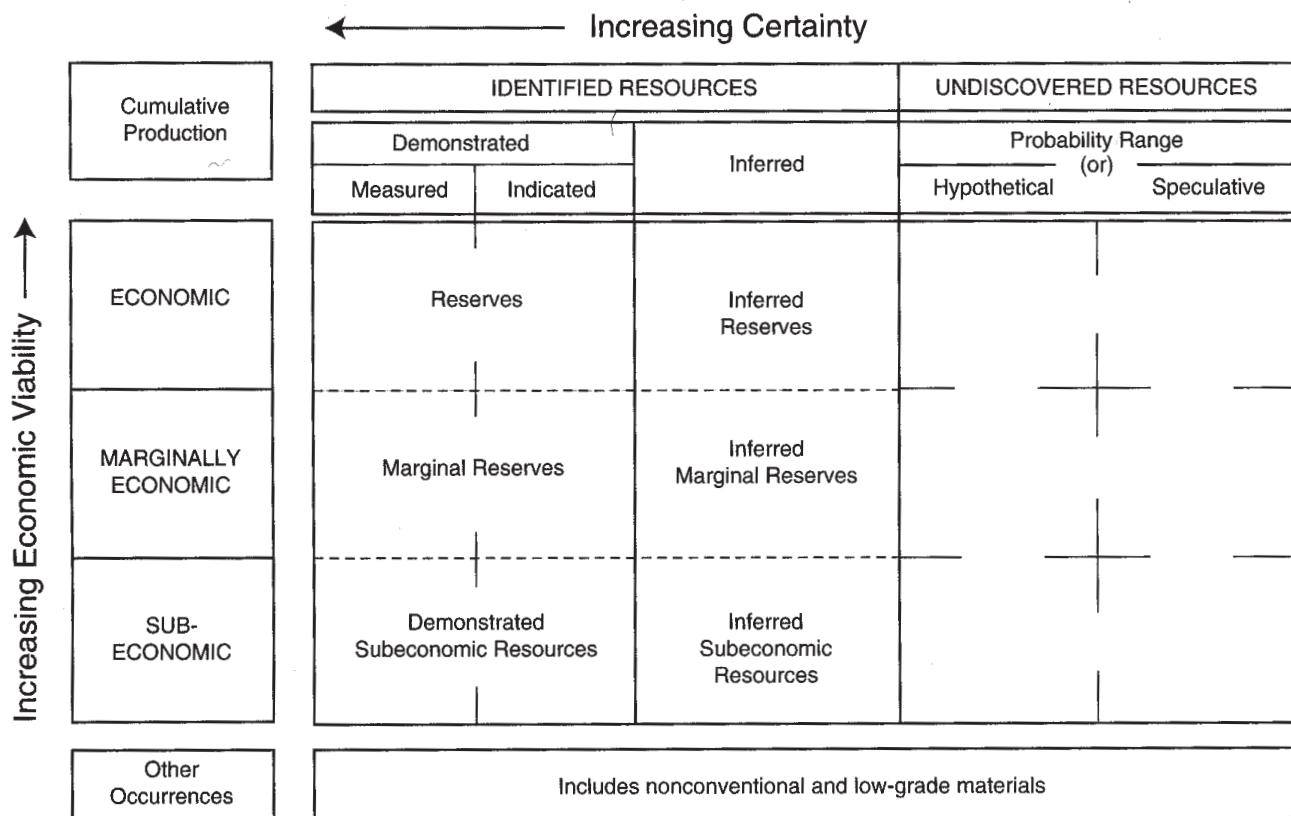


FIGURE 3-1 Classification of Mineral Resources. Source: Mineral Commodities Summaries, U.S. Geological Survey (1992:203)

they are the same for all classes of reserves for a particular mineral commodity market. Thus, the total Hotelling rent shown in Figure 3-2 is simply the Hotelling rent earned on marginal reserves ($C_m P$) times total reserves (OM).

Those reserves whose marginal extraction costs are below those of the marginal reserves in class M are called inframarginal reserves. As a result of their relatively low costs, they yield additional profits when they are exploited. Mineral economists refer to these additional profits as Ricardian rents. In Figure 3-2, the Ricardian rents per unit of output equal $C_1 C_m$ for reserves in class A, $C_2 C_m$ for reserves in class B, and so on.

Unless technical or other considerations intervene, mineral producers will generally exploit first those reserves that have relatively low production costs and thus high Ricardian rents (like classes A and B). This implies that the reserves currently being extracted have lower costs than the average of all reserves and that their Ricardian rents are likely to be above average.

Since reserves by definition are known and profitable to exploit, they are assets in the sense that they have value in the marketplace. Although mineral resources other than those classified as reserves might have in-completely

defined characteristics (in terms of costs and quantities) or be currently unprofitable to exploit, they still may command a positive price in the marketplace. Petroleum companies, for example, pay millions of dollars for offshore leases to explore for oil deposits that are not yet proved reserves. Mining companies pay for and retain subeconomic deposits. The option of developing such deposits in the future has a positive value because the price may rise, or some other developments may make the deposits economic.

Thus, a full accounting of subsoil assets should consider not only reserves, but also other mineral resources with positive market value. In the case of reserves, market value may reflect Hotelling rent, Ricardian rent, and option value.⁴ In the case of mineral resources other than reserves, a positive market value is due solely to their option value.

Key Definitions in Mineral Accounting

Changes in the value of the mineral stock come about through additions, depletions, and revaluations of reserves.

4. The total value of reserves is $V = \sum_i v_i R_i$, where v_i is the unit value of reserves in class i ($i = A, B, \dots, M$), and R_i is the quantity of reserves of class i .

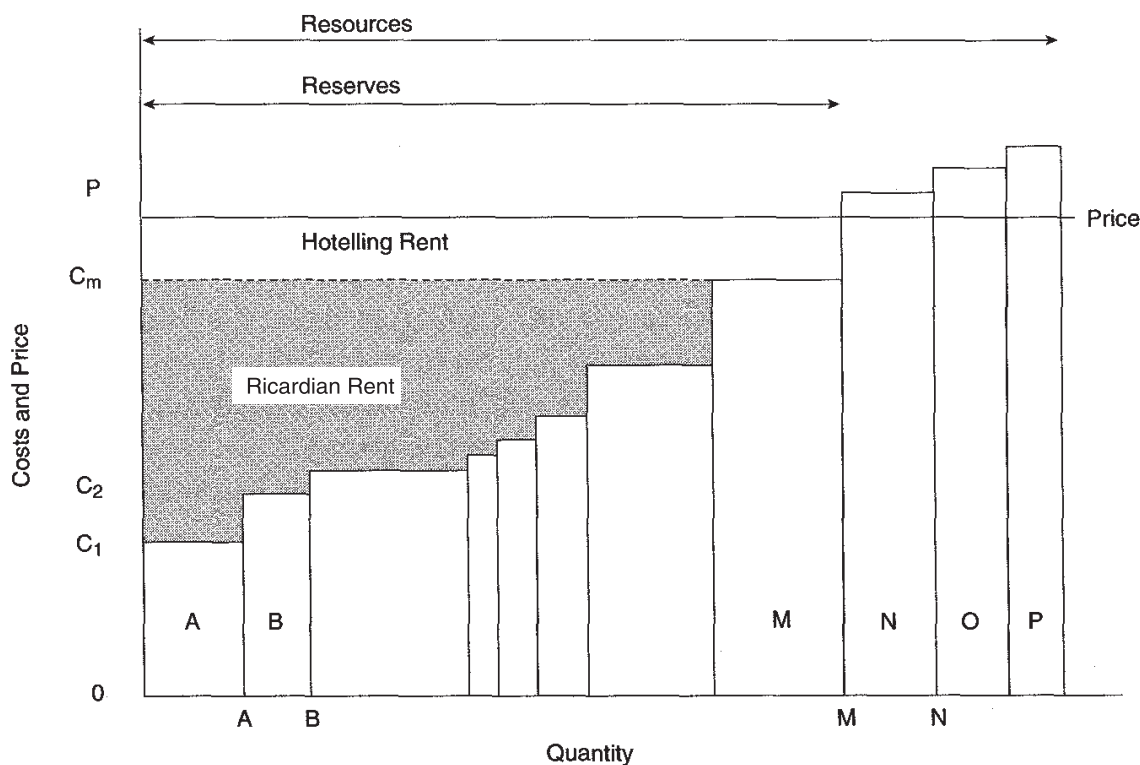


FIGURE 3-2 Mineral Reserves and Other Known Resources by Cost Class.

- *Additions* are the increases in the value of reserves over time due to reserve augmentations. They are calculated as the sum of the price of new reserves times the quantity of new reserves for each reserve class.
- *Depletions* are the decreases in the value of reserves over time due to extraction. They are similar to capital consumption (depreciation) and parallel the concept of additions.
- *Revaluations* are changes in the value of reserves due to price changes. They measure the residual change in the value of reserves after correcting for additions and depletions.

Techniques for Valuing Mineral Assets

As noted in the last section, the major challenge in extending the national accounts to include subsoil minerals is to broaden the treatment of mineral assets to include additions and depletions and to incorporate depletion in the production accounts. This task involves estimating the value of the subsoil assets. A specific subsoil asset consists of a quantity of a mineral resource and the invested capital associated with finding and developing that resource. Invested capital includes physical structures such as roads and shafts, as well as capitalized exploration and drilling expenses. The total value of the subsoil assets equals the sum of the value of the mineral and the value of the associated capital (see Figure 3-3). Currently, U.S. national economic accounts include the value of the associated capital, but exclude the value of the mineral resource. One of the goals of natural-resource accounting is to estimate the total value of subsoil assets and to

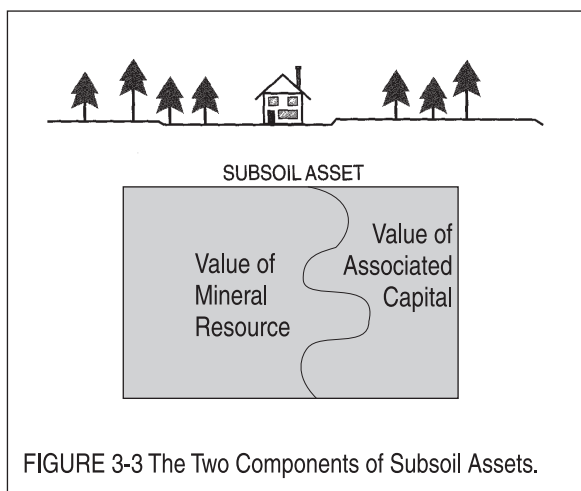


FIGURE 3-3 The Two Components of Subsoil Assets.

separate this estimate into the value of the mineral and the value of the associated capital. An additional goal is to track over time changes in the value of the stock that result from additions, depletions, and revaluations.

Three alternative methodologies are used in valuing mineral resources: (1) transaction prices, (2) replacement value, and (3) net present value. In developing its mineral accounts, BEA used one version of the first method and four versions of the third. This section explains the basic elements of each approach.

Transaction Prices

The most straightforward approach to valuing mineral resources relies on market transaction prices. This is the standard approach used across the national economic accounts for capital assets. When resources of petroleum, copper, gold, and other minerals are sold, the value of the transaction provides a basis for calculating the market value of the mineral component of the asset.

A close look at the transaction-prices approach reveals, however, a number of difficulties that need to be resolved. The major difficulty is that a market transaction usually encompasses a number of assets and liabilities, such as the associated capital (e.g., surface roads, shafts, and refining operations), taxes, royalty obligations, and environmental liabilities. Because the transaction usually includes not only the mineral resources, but also associated capital, the value of the capital must be subtracted to obtain the mineral value. In addition, the property is usually encumbered with royalty obligations to prior owners or to owners of the land. Many mineral properties also have associated environmental problems, such as contaminated soils and water, and they may even be involved in complicated legal disputes, such as connection to a Superfund site with joint and several liability. Some of these associated assets and liabilities (such as mining structures) are true social costs or assets, while others (such as royalty obligations) are factor payments.

Another difficulty with using transaction prices is the sporadic nature of the transactions. The infrequency of the transactions, coupled with the heterogeneity of the grade of the resource, makes it difficult to apply the transaction price for one grade or location of the resource to other grades in other locations.

Because of the complex assortment of assets and liabilities associated with transactions of mineral resources, the price must be adjusted to obtain the value of a resource. As noted

above, the working capital and the associated capital must be subtracted from the transaction price, while any extrinsic environmental liabilities should be added, as should any factor payments, such as royalties or taxes, to obtain the value of the underlying resource.

Box 3-1 provides an example of how to adjust the transaction price to obtain the market value of a mineral resource for a hypothetical sale involving the purchase of 500,000 barrels of oil. In this example, the buyer pays \$2 million for a property containing 500,000 barrels of oil, and this is recorded as the transaction value. Attached to those reserves is a long-term debt of \$1.0 million; this liability must be added to the purchase price. If the acquired reserves also include associated working capital of \$0.2 million, this amount must be deducted from the purchase price. Correcting for these two items creates an effective purchase price or market value of the asset of \$2.8 million.

An additional issue arises because of payments such as future taxes and royalties. In acquiring the above property, the new owner must, for example, pay a 10 percent overriding royalty to the landowner. Such payments should be included in the value of the resource even though they do not accrue to the seller of the property. In the example shown in **Box 3-1**, future royalties and taxes are assumed to have a present value of \$0.6 million. These payments introduce a major new complication because taxes and royalties depend on future production. Not only are they uncertain, but they also cannot be easily estimated from market or transaction data. One approach is to adjust the transaction price by marking up the value of the transaction by a certain amount. Adelman and Watkins (1996:4), for example, suggest that 27 percent be added to the "effective purchase price" to account for transfers. After adjusting for royalties, this yields a social asset value for the above property of \$3.4 million. The final adjustment is for associated capital, which is assumed to have a value of \$0.8 million. After this amount is subtracted, the estimated social value of the underlying petroleum reserve is calculated to be \$2.6 million.

Replacement Value

A second approach uses the costs of replacing mineral assets to determine their value. Under this approach, it is assumed that firms have an incentive to undertake investments to find new resources up to the point where the additional cost of finding one more unit just equals the price

Box 3-1: Transaction Price Method^a

Recorded Dollar Transaction (500,000 barrels)	\$2.0 million
Adjustments	
Add: assumed liabilities	\$1.0 million
Subtract: working capital	\$0.2 million
Effective Purchase Price of Asset	\$2.8 million
Add: present value of taxes, royalty transfers	\$0.6 million
Value of Assets	\$3.4 million
Subtract: value of associated capital	\$0.8 million
Value of Petroleum Reserve	\$2.6 million

^aThis methodology is not followed in the conventional accounts. For instance, in valuing the stock of cars, we do not subtract tax credits, nor do we add in future liabilities such as property taxes. Similarly, to the extent that royalties are regarded as a sharing of profits (like dividends), they should not affect the value of an asset; to the extent that royalties are actually a deferred part of the purchase price, they can be capitalized to increase the value of an asset.

Box 3-2: Definitions of Symbols and Basic Concepts in Minerals Accounting

For this discussion, assume that there is only one class of a mineral reserve, that extraction costs are constant, and that the unit value of the reserve rises at the social rate of discount. Variables are:

R_t = total quantity of reserves of the mineral commodity at year end
 H_t = unit value of the reserves (say, petroleum reserves), which equals Hotelling rent under the above assumptions
 A_t = quantity of new reserves discovered during the year
 Q_t = quantity of extraction or production during the year
 V_t = total value of the reserves at year end

In a given year, petroleum firms might discover new reserves totaling A_t . Then the additions are given by:

$$\text{additions}_t = H_t A_t \tag{3.1}$$

During that year, petroleum production, and therefore depletion of existing reserves, is measured by Q_t . Depletion is, under the special assumptions listed above, quantity times the value of reserves:

$$\text{depletions}_t = H_t Q_t \tag{3.2}$$

The total value of reserves at year end is:

$$\text{value of reserves} = V_t = H_t R_t \tag{3.3}$$

The change in the value from the end of year $t - 1$ to the end of year t is given by:

$$\text{change in value of reserves} = V_t - V_{t-1} = H_t R_t - H_{t-1} R_{t-1} \tag{3.4}$$

Revaluations are the change in the value corrected for the value of additions and depletions:

$$\text{revaluation} = H_t R_t - H_{t-1} R_{t-1} - H_t A_t + H_t Q_t \tag{3.5}$$

at which firms can buy that unit—that is, up to the market value. Therefore, the additional or marginal cost of finding a mineral resource should be close to its market price. Associated with this approach, however, are many of the same issues discussed above under transaction prices. For example, a particular replacement cost is relevant only for valuing deposits of comparable quality and cannot be used to value resources of another grade. This point can be illustrated using Figure 3–2. Assume that exploration is resulting in the discovery of resources of class M . The market value of this class would be a function of the difference between OP and production cost OC_M . It would be profitable for firms to continue exploring for such deposits until the finding costs (that is, the replacement costs) just reached the value of this class of resource. However, the replacement cost of class M cannot be used to value other classes, such as class A , which have a lower extraction cost and therefore a higher value. Because of cost differences, using class M to value classes A through L would yield an underestimate of the value of these reserves.

Net Present Value

A third valuation technique, the net present value or NPV method, entails forecasting the stream of future net revenues a mineral resource would generate if exploited optimally, and then discounting this revenue stream using an appropriate cost of capital.⁵ Under certain conditions—such as no taxes—the sum of the discounted revenue values from each time period will equal the market value of the resource. For example, assume that a 100 million-ounce gold asset generates a stream of net revenues (after accounting for all extraction and processing costs) that, when discounted at a rate of 10 percent per year, has a present value of \$1.5 billion. According to this approach, the value of the asset is taken to be \$1.5 billion. If the value of the plant, equipment, and other invested capital ultimately associated with the asset is estimated to be \$500 million, the current value of the gold reserves is \$1 billion, and their unit value is \$10 per ounce. Again, as with the previous two methods, each class of resource should be separately valued, since the stream of revenues from a higher class of resource will be greater than that from a lower class.

5. The appropriate discount rate for energy and environmental resources is debatable. See Lind (1990, 1997), Schelling (1995), and Portney and Weyant (1999).

A special case of the NPV approach, known as the Hotelling valuation principle (see Miller and Upton, 1985), avoids the difficulties of forecasting future net revenues and then discounting them back to the present. This approach makes the strong and generally unrealistic assumption that the unit value of a resource grows at exactly the same rate as the appropriate discount rate. In the above example, this would imply that the unit value of the gold resource would grow at the discount rate of 10 percent per year; that is, the unit value would be \$10 in the first year, \$11 in the next year, \$12.1 in the following year, and so forth. Under this assumption, the present value of the resource would easily be calculated as the current period's resource price multiplied by the current physical stock of the resource. Under a further set of assumptions, such as homogeneous resources and constant extraction costs, the current period resource price is simply the current net revenue (unit price less unit extraction cost).

For example, assume that in a given year the United States has 100 million ounces of homogeneous gold reserves, that the price of gold in that year is \$350 per ounce, and that the average extraction cost is \$335 per ounce. Under the Hotelling valuation principle, the price of the gold reserves would be \$15 per ounce, and the total value of the gold assets would be calculated as \$1.5 billion. Note that it would still be necessary to deduct the value of capital from the \$1.5 billion to obtain the value of the mineral reserve. Again, for this approach to be valid, the per unit price of gold reserves (\$15 in this example) would need to grow at the discount rate appropriate for these assets.

BEA'S VALUATION OF SUBSOIL MINERALS

This section presents a more detailed description of BEA's valuation methods (as set forth in Bureau of Economic Analysis, 1994b). In the absence of observable market prices for reserves, BEA estimates mineral reserve and flow values using five valuation methods. These calculations are performed for reserves of fuel minerals (petroleum, natural gas, and coal) and other minerals (uranium, iron ore, copper, lead, zinc, gold, silver, molybdenum, phosphate rock, sulfur, boron, diatomite, gypsum, and potash) for each year from 1958 through 1991 (oil and gas figures are calculated from 1947 to 1991). In addition, aggregate stock and flow values for five mineral categories (oil, gas, coal, metals, and other minerals) are en-

tered in the appropriate rows and columns of the IEESA Asset Account for 1987. This section first examines the five methods used by BEA in estimating mineral values, along with the data they require, and then describes BEA's findings. Box 3-2 provides definitions of the symbols used in minerals accounting.

BEA's Five Basic Valuation Methods

Current Rent Method I

Current rent methods I and II are NPV methods based on the Hotelling valuation principle. The attraction of the Hotelling valuation principle is the ease with which the calculation can be performed, avoiding the need to forecast mineral prices and to assume an explicit discount factor. In both methods, the value of the aggregate stock is calculated as the net price times the quantity of reserves, where the net price is as described below. Additions or depletions are similarly calculated as net price times the quantity of additions or depletions. One of the difficulties with this approach is that the Hotelling valuation principle tends to provide a systematic overvaluation of reserves, the reason for which is discussed in a later section.

Current rent methods I and II are quite similar in construction. They differ primarily in the method of adjusting for the value of associated capital. (The algebra of the different formulas is shown in the boxes in this section.) Current rent method I (see Box 3-3) uses the normal rate of return on capital to determine the return on associated capital in the mining industry that should be subtracted from revenues. It then calculates the "resource rent per unit of reserve" by taking the net profits from mining, subtracting the return and depreciation on the associated capital, and dividing that sum (called "resource rent" by BEA) by the quantity of resource extracted during the year. The method thus yields an estimate of the unit value of the reserves currently extracted.

To calculate the total value of the mineral reserve, the current resource rent per unit is multiplied by the total reserves, in the spirit of the Hotelling valuation principle. Additions and depletions are calculated as those quantities times the resource rent per unit. Revaluations are simply the residual of the change in the value of the stocks plus depletions minus additions. It has been observed that the value of the stock can be highly volatile; this volatility is due primarily to the revaluation effect.

Box 3-3: Formulas for Current Rent Method I

$$\begin{aligned} \text{total mineral reserve value}_t &= V_t = \\ & [p_t - a_t]R_t - rR_tK_t/q_t - R_tD_t/q_t = \\ & [p_t - a_t - rK_t/q_t - D_t/q_t] \times R_t \\ \text{additions}_t &= [p_t - a_t - rK_t/q_t - D_t/q_t] \times A_t \\ \text{depletions}_t &= [p_t - a_t - rK_t/q_t - D_t/q_t] \times q_t \\ \text{revaluations}_t &= V_t - V_{t-1} + \text{depletions}_t - \text{additions}_t \end{aligned}$$

where

V_t = value of mineral reserves
 p_t = price of commodity
 a_t = average cost of current production
 R_t = total quantity of reserves
 r = average rate of return on capital
 K_t = value of associated capital, valued at current replacement cost
 q_t = total quantity extracted
 D_t = depreciation of associated capital
 A_t = quantity of discoveries of new reserves
 additions_t = value of discoveries of new reserves
 depletions_t = value of depletions
 revaluations_t = change in value of reserves corrected for depletions and additions

The revaluation term is not directly calculated; it will include any errors in calculating additions, depletions, and opening and closing stock values.

Current Rent Method II

Current rent method II is virtually identical to current rent method I. The only difference is in the method of adjusting for associated capital. The value of the associated capital is subtracted from the total value of the mineral asset to obtain mineral-reserve values in current rent method II. Again employing the Hotelling valuation approach, the total value of the mineral asset (including the value of the associated capital) is calculated as the per unit net revenue times the total quantity of reserves. The total value of the mineral reserve is then calculated as the total value of the asset value minus the value of the associated capital. The unit resource value, which is used to price additions and depletions, is just this total reserve value divided by the total quantity of reserves. This approach is defined algebraically in Box 3-4.

As is discussed below, both current rent methods have major advantages in that they are easy to calculate on the basis of data BEA currently uses in its accounts (primarily profits and capital stock and consumption data). They both suffer from the serious disadvantage that they rely on

Box 3-4: Formulas for Current Rent Method II

$$\begin{aligned} \text{total mineral reserve value}_t &= V_t = \\ & [p_t - a_t - K_t/R_t]R_t \\ \text{additions}_t &= [p_t - a_t - K_t/R_t] \times A_t \\ \text{depletions}_t &= [p_t - a_t - K_t/R_t] \times Q_t \\ \text{revaluations}_t &= V_t - V_{t-1} + \text{depletions}_t - \text{additions}_t \\ \text{where variables are as defined in Box 3.3.} \end{aligned}$$

the Hotelling valuation principle, thereby tending to overvalue reserves.

Net Present Value Estimates

If the basic assumptions of the Hotelling valuation principle do not hold—and there is strong evidence that they do not, as discussed below—life becomes much more complicated for national accountants. One approach that is sound from an economic point of view is to value reserves by estimating the present discounted value of net revenues. To render the present value approach workable, BEA makes three simplifying assumptions. First, it assumes that the quantity of extractions from an addition to proved reserves is the same in each year of a field's life. The quantity of depletions in any year is assumed to result equally from all vintages (cohorts) still in the stock, i.e., all vintages whose current age is less than the assumed life. Second, the life for a new addition is assumed to be 16 years until 1972 and 12 years thereafter. Third, BEA assumes that the discount rate applied to future revenues is constant at a rate of either 3 percent per year or 10 percent per year above the rate of growth of the net revenues (where the latter equals the rate of growth of the price of the resource).⁶

These assumptions lead to a tractable set of calculations. The present discounted value of the mineral stock as calculated using this present value method is simply the stock and flow values calculated with current rent method II, multiplied by a “discount factor” of between 0.86 and 0.89 for the 3 percent discount rate and between 0.63 and 0.70 for the 10 percent discount rate.⁷

6. According to BEA, the rates were chosen to illustrate the effects of a broad range of approaches. The 3 percent per year discount rate has been used by some researchers to approximate the rate of time preference, while the 10 percent rate has been used by some researchers to approximate the long-term real rate of return to business investment.

7. At the 3 percent discount rate, the 0.86 discount factor holds for the years 1958 through 1977, with the rate edging upward thereafter as a result of commingling of reserves that were developed prior to 1973 (which BEA assumes are extracted over 16 years) with those developed in 1973 or later (for

The calculated values are, then, lower than the values derived using current rent method II, with the difference depending on the discount rate employed.

Additions and depletions are then calculated in a manner similar to that used with current rent method II. The average unit reserve value is calculated by dividing the total reserve value by the quantity of reserves, and then using this unit value to value additions and depletions. Additions would be calculated as 84 percent of the value of additions according to current rent method II if the discount rate is 3 percent per year, and 59 percent of the value of additions according to current rent method II if the discount rate is 10 percent. The calculated value of depletions would be 83 percent of the value of depletions under current rent method II at a 3 percent discount rate, and 60 percent at a 10 percent discount rate.

In summary, the present value method as implemented by BEA takes the values of additions, depletions, and stocks calculated according to current rent method II and multiplies them by discount factors of between 59 and 88 percent. The reason for the discount is straightforward. Under current rent method II, which relies on the Hotelling valuation principle, it is assumed that net revenues rise at the discount rate. Under the present value approach, net revenues are assumed to rise at rates that are 3 or 10 percent slower than the discount rate applicable to mineral assets. The higher percentage is the discrepancy between the rise in net revenues and the discount rate; the lower is the discount factor. The NPV approach is shown in Box 3-5.⁸

Replacement Cost

The fourth method of calculating the value of the mineral stock is used only for oil and gas reserves. Despite its name, this approach is similar to the NPV method, not to the replacement cost method described earlier. It adopts the approach of Adelman (1990), who calculates the present value of an oil field using special assumptions. It is assumed that the production from an oil or gas field declines exponentially over time. Under the assumption that the decline rate is constant and

which a 12-year life is assumed). For the 10 percent discount rate, the 0.63 factor holds for the years 1958 through 1974. In 1987, the year for which BEA calculates a more complete set of satellite accounts, the rate is 0.88 for the 3 percent discount rate and 0.69 for the 10 percent discount rate.

8. As with the calculation of mineral values, the factors shown in Box 3-5 vary depending on the year of the analysis. The factors reported are those for the 1987 calculation. The factors differ in the various formulas because of the differing treatment of the timing of depletions and additions from reserves.

that the net revenue rises at a fixed constant rate that is less than the discount rate, a barrel factor is calculated. This barrel factor is multiplied times net revenue to obtain the present value of the reserves. Adelman estimates that the barrel factor is usually around 0.5. BEA does not give the barrel factor used in its calculations, which should vary by deposit and depend on the rate at which future cash flows are discounted, but we estimate that it averages approximately 0.375.

The value of the asset—calculated with current rent method II using the Hotelling valuation principle—is then multiplied by the barrel factor. The justification is that this NPV approach, unlike the Hotelling approach, takes the physical specifics of oil and gas extraction into account and accordingly adjusts the unit value of reserves downward. As with the NPV approach discussed in the last section, this adjustment accounts for the overvaluation inherent in the Hotelling valuation principle.

Once the value has been adjusted downward, BEA must again subtract the value of capital associated with the asset. With this method, the value of capital associated with each unit of existing reserves is assumed to be the current-year expenditure on exploration and development for oil and gas, divided by the quantity of oil and gas extracted during the year. This approach is loosely based on Adelman's suggestion that the value of capital associated with a unit of production can be approximated by measuring the value of capital associated with finding new reserves. The replacement cost method is shown in Box 3-6.

Transaction Price Method

When oil and gas firms desire additional reserves, they can either buy them from other firms or find new ones through exploration and development. In the absence of risk, taxes, and other complications, the transaction price of purchasing new reserves should represent the market value of those reserves. For this reason, according to BEA, "if available, transaction prices are ideal for valuing reserves" (Bureau of Economic Analysis, 1994b:57).

In fact, transactions in reserves are few and far between outside of oil and gas, and even in oil and gas suffer from problems discussed above. To estimate transaction prices, BEA derived prices from publicly available data on the activities of large energy-producing firms for the period 1977 to 1991. The gross value of reserves was estimated by dividing expenditures for the purchase of the

Box 3-5: Formulas for Net Present Value Method

total mineral reserve value_t@ 3 percent discount rate =

$$0.88 [p_t - a_t] R_t - 0.88 K_t$$

total mineral reserve value_t@ 10 percent discount rate =

$$0.69 [p_t - a_t] R_t - 0.69 K_t$$

additions_t@ 3 percent discount rate = $0.84 [p_t - a_t - K_t/R_t] \times A_t$

additions_t@ 10 percent discount rate = $0.59 [p_t - a_t - K_t/R_t] \times A_t$

depletions_t@ 3 percent discount rate = $0.83 [p_t - a_t - K_t/R_t] \times q_t$

depletions_t@ 10 percent discount rate = $0.60 [p_t - a_t - K_t/R_t] \times q_t$

$$\text{revaluations}_t = V_t - V_{t-1} + \text{depletions}_t - \text{additions}_t$$

where variables are as defined in Box 3-3.

Note: The numerical values in this box apply to 1987. As explained in the text, slightly different values will apply for different years.

Box 3-6: Formulas for Replacement Cost Method

total mineral reserve value_t = $V_t =$

$$\{0.375 [p_t - a_t] - Z_t/q_t\} R_t$$

additions_t = $\{0.375 [p_t - a_t] - Z_t/q_t\} \times A_t$

depletions_t = $\{0.375 [p_t - a_t] - Z_t/q_t\} \times q_t$

revaluations_t = $V_t - V_{t-1} + \text{depletions}_t - \text{additions}_t$

where Z_t = value of exploration and development expenditures in year t , and other variables are as defined in Box 3-3.

Box 3-7: Formulas for Transaction Price Method

total mineral reserve value_t = $V_t =$

$$(TV_t/TQ_t - K_t/R_t) R_t$$

additions_t = $(TV_t/TQ_t - K_t/R_t) \times A_t$

depletions_t = $(TV_t/TQ_t - K_t/R_t) \times q_t$

revaluations_t = $V_t - V_{t-1} + \text{depletions}_t - \text{additions}_t$

where TV_t = value of reserve transactions, and TQ_t = total quantity of reserves transacted, and other variables are as defined in Box 3-3.

rights to the proved reserves by the quantity of purchased reserves. The result was then adjusted for associated capital using the same method as

in current rent method II. The transaction price method is shown in [Box 3-7](#).

Data Requirements

On the whole, the five valuation methods used by BEA are relatively parsimonious, and therefore the data requirements are not unduly burdensome. For quantity data, only reserves are considered, so the quantities of mineral stocks are easy to obtain. Most of the data required for valuation under the five methods either are already used by BEA in their construction of the NIPA or are publicly available or available at a modest cost from private sources. Constructing the accounts for subsoil minerals, therefore, required no independent data collection or survey by BEA. Nevertheless, there is no single consolidated source for the data needed, and considerable effort was expended by BEA staff in collecting the data.

Preliminary Results

The first set of estimates in the IEESA contains many important and useful conclusions. We highlight some of the key findings in this section.⁹

The calculations present a number of interesting findings for the overall economy. All five evaluation methods indicate that the value of the stock of oil and gas reserves in the United States exceeds the value for all other minerals combined. For all subsoil minerals, the calculated value of reserve additions has approximately equaled the value of depletions over the 1957-1991 period. Consequently, the value of reserves (in constant prices) has changed little during the reporting period. BEA finds that the value of the mineral component of a mineral asset is about 2 to 4 times the value of the associated capital, so the value of the mineral makes up 67 to 80 percent of the total value of any mineral asset.

The results are also helpful in understanding returns to capital of U.S. companies. Standard rate-of-return measures include profits on mineral assets in the numerator, but exclude the value of mineral reserves in the denominator. Gross rates of return for all private capital decline from 16 percent per year if mineral reserves are excluded to 14-15 percent if mineral reserves are included. BEA does not present net returns, however. Because net post-tax returns on non-financial corporate capital have averaged around

6 percent per year over the last three decades, our estimate of the profitability of American corporations would be significantly modified if the 1-2 percentage point decline in the gross return carried over to the net return.

In quantity terms, the physical stock of aggregate metal reserves has tended to decline over time, while the physical stock of coal reserves has increased. Quantities of oil, gas, and industrial minerals ("other minerals" in BEA's five broad categories) have remained stable. Revaluations have tended to be positive primarily because the prices of most subsoil minerals have risen over the period under investigation.

BEA estimates the value of the nation's stock of mineral reserves, after deduction of associated capital, to be between \$471 billion (current rent method I) and \$916 billion (current rent method II) for 1991; this figure amounts to between 3 and 7 percent of the value of produced assets (existing produced structures, equipment, and inventories). Current rent method II yields the highest stock and flow values for all mineral types. Current rent method I yields the lowest values for coal, metals, and other minerals, while the transaction price method yields the lowest value for oil, and the replacement cost method yields the lowest value for gas. (Recall that these last two methods are used only for oil and gas.) Given the algebra of the different valuation techniques, it is not surprising that the replacement cost method yields lower values than the current rent methods for gas since the replacement cost method is really current rent method II multiplied by 0.375.

One important question concerns the impact of including subsoil minerals in the overall national accounts. In 1987, the year for which BEA presents the IEESA asset accounts, the calculated value of reserve additions roughly offsets reserve depletions, so including mineral assets in the NIPA for that year would not substantially alter the estimate of the level of net domestic product (NDP). It would, however, increase the level of GDP by between \$17 and \$65 billion (0.4 to 1.4 percent of GDP), depending on the method used to value reserve additions. The only year in which the mineral accounts would have a substantial impact on the growth of real GDP or NDP is 1970, the year Alaskan reserves were added. [Box 3-8](#) shows the calculations of real GDP (in 1987 prices) with and without mineral additions for that year. The large surge of oil reserves erases the recession of 1970 and leads to a downturn in growth in 1971. While this kind of volatility is unique in the period analyzed by BEA, it does indicate that in-

9. These findings are presented in Bureau of Economic Analysis (1994b) and summarized in Table 4-1 in Chapter 4 of this report.

Box 3-8: Growth in Real Gross Domestic Product and Net Domestic Product With and Without Mineral Additions^a

	(1) Conventional GDP	(2) GDP with Mineral Additions
1969	2.72	2.37
1970	0.03	3.14
1971	2.85	-0.08

	(3) Conventional NDP	(4) NDP with Mineral Additions and Depletions
1969	2.53	2.13
1970	-0.40	2.98
1971	2.71	-0.48

^a Percent per year.

Source: Conventional GDP and NDP in 1987 prices were calculated by BEA (*U.S. Congress Economic Report of the President, 1995*). GDP with mineral additions was calculated based on data in columns (1) and (3) and estimates of mineral additions and depletions from Bureau of Economic Analysis (1994b:60). Mineral additions and depletions in this calculation rely on current rent method I.

BEA began this work in 1992 and completed it in April 1994. Given the late start and limited resources of the U.S. natural-resource accounting effort, along with the sparsity of observable market prices with which to value mineral additions, depletions, and stocks, the progress made by BEA to date is remarkable. Furthermore, the task was completed by a group of eight BEA officials working part time on this assignment while continuing with their regular duties. The result is a partially completed satellite account that fits into the current definitions of the U.S. NIPA and can be readily prepared in a short amount of time. BEA's approach is therefore clearly feasible and relatively inexpensive.

Consistency with Other Valuation and Accounting Frameworks

BEA treats mineral additions in parallel with other forms of capital formation. In this respect, the U.S. accounts differ from the System of Integrated Environmental and Economic Accounting (SEEA), an alternative satellite accounting system proposed by the United Nations. In both accounting systems, depletions are treated as depreciations of the fixed capital stock. Under the SEEA, however, additions are not included as income and do not appear in the production accounts as capital formation.

In calculating GDP, the SEEA considers as capital formation only investments in "made capital" and not mineral finds, treating discoveries as an "off-book" entry. This approach avoids the volatility associated with mineral finds, which, if included in GDP, makes GDP a volatile series (see Box 3-8). BEA, on the other hand, treats mineral assets on the same basis as fixed capital. For example, according to BEA calculations, booking the exceptional Alaskan oil finds in 1970 augmented the existing stock of U.S. oil assets by nearly 50 percent, or almost \$100 billion in 1987 prices, despite exploration investments on these reserves that were only a fraction of this amount. Including the increase in mineral reserves in private investment would have increased gross investment by 26 percent in 1970 and would have increased net investment by 42 percent. As is seen in Box 3-8, the trend in real nonminerals GDP growth would have been seriously distorted, wiping out the 1970 recession and causing an apparent recession in 1971. Thus, while including mineral additions as capital formation treats made and natural capital augmentations in a parallel fashion, the aggregate GDP series may become more volatile and may

producing minerals into the accounts might lead to large changes in measured output that would reflect primarily changes in mineral reserves.

EVALUATION OF BEA'S APPROACH

This section evaluates the methodology of BEA's preliminary approach to accounting for subsoil minerals. We begin with the advantages of the approach and then review some issues and concerns.

Advantages

Feasibility

Phase I of BEA's plan for extending the national accounts to include supplemental mineral accounts is now complete. In accordance with the recommendations of the United Nations System of National Accounts (SNA), BEA limited the focus of Phase I to mineral reserves. This is probably the simplest of the natural-resource sectors to include because the output is completely contained in the current national accounts and involves primarily estimating and valuing reserve changes. The data, although obtained from various sources, are publicly available from the (former) Bureau of Mines, the U.S. Geological Survey, the U.S. Department of Energy, and the Bureau of the Census. Some minor adjustments of the data were needed in cases where the definition of reserves changed over time.

not accurately reflect movements in production and employment.

A second concern with treating mineral additions as capital formation is that the two do not necessarily have the same effect on the economy. In particular, when fixed capital is added to the capital stock, payments have been made to the factors of production involved in producing the capital. Mineral-stock additions, in contrast, reveal themselves as increases in land value, which are balance sheet adjustments rather than payments to factors of production. It is for this reason that the United Nations *SEEA* approach omits additions from net investment in the production accounts and introduces a reconciliation term in the asset accounts to capture additions.

Finally, it has been argued by some that mineral stocks are inventory and should be treated as such in the *NIPA*. *BEA* chooses to treat mineral stocks as fixed capital, suggesting that, just as with produced fixed capital, expenditures of materials and labor are needed to produce these mineral assets, which in turn yield a stream of output over an extended period of time. The treatment of mineral stocks then becomes consistent with the treatment of traditional capital in the *NIPA*. Of course, the concept of a satellite account allows individual policy researchers to take the information in these accounts and make their own adjustments to the *NIPA*. The *BEA* approach is just one potential way of treating natural capital formation and depletion.

In terms of valuation methodology, the *BEA* approach is consistent with current mineral asset valuation theory.

Utility

BEA presents an *IEESA* Asset Account and an *IEESA* Product Account that supplement the *NIPA*. Researchers, businesses, and policy makers can use the satellite accounts to adjust output and income measures as they see fit, focusing on any or all of the five valuation methods used by *BEA*. Moreover, *BEA* presents separate entries for five types of mineral assets, including three types of fuels, and an aggregate mineral category.

This level of detail makes the satellite accounts useful to policy makers who wish to focus on particular mineral issues. The data on the value of mineral stocks, additions, depletions, and revaluations (the residual) are given annually for the 1947–1991 period for oil and gas (the two most important mineral groupings in terms of total stock value) and from 1958 to 1991 for the other three mineral groupings. The constant (1987)

dollar figures for the aggregate mineral stock show a price-weighted index of the stock, as well as of additions and depletions to the aggregate, and are useful for determining whether the aggregate price-weighted quantity of U.S. mineral reserves is changing over time. One of the important findings from the *BEA* data is that the index of the total constant-price stock of mineral assets has been approximately constant from 1957 to 1991. This implies that the nation has on average replaced reserve depletions with an equivalent quantity of reserve additions (or, more precisely, quantities of reserve additions and depletions of different minerals weighted by 1987 prices).

Issues and Concerns

BEA's approach to calculating mineral stock and flow values raises a number of issues related both to measurement problems and to conceptual concerns with the individual valuation techniques. Some of these issues are intrinsic to any accounting approach in which data on prices or quantities must be imputed or constructed, while other issues arise for particular methodologies. The major issues are reviewed here.

Heterogeneity of Reserves

A major problem with most accounting approaches is that they assume all reserves are homogeneous in terms of grade and costs. For example, under the Hotelling valuation principle, average extraction cost should be calculated as the average cost of extraction from all reserve classes. In practice, most techniques use the extraction cost of currently extracted reserves. The reality is that a nation's reserves are not all in one cost class. It has already been noted that reserves are likely to exist in a number of classes, ranging from high quality (low cost) to low quality (high cost). Resource accounting, such as that in the current *IEESA*, generally treats the entire national stock as one heterogeneous deposit whose value is calculated by multiplying the average unit value of that reserve by the quantity of the reserve.

An example will illustrate the issues raised by resource heterogeneity. Suppose that a nation owns 100 million ounces of subsoil gold reserves whose total value is \$1 billion, for an average unit value of \$10 per ounce. In a given year, the nation extracts 1 million ounces, with no additions, and the value of the remaining reserves with unchanging gold prices is \$989 million. Accordingly, the depletion is measured at \$11 million, with an average value of \$11 per ounce extracted. This

pattern is typical of many extraction profiles in which the lowest-cost and highest-value resources are extracted first.

Note that the correct depletion charge is the value of the extracted ore times the quantity extracted, for a total of \$11 million. If we were instead to use the average value of the ore of \$10 per ounce to value depletion, we would be underestimating depletion at \$10 million rather than \$11 million. Moreover, if we used the value of the extracted reserve to value the remaining reserves of 99 million ounces, we would incorrectly value reserves at $99 \times \$11 = \1089 million, rather than the correct \$989 million. This example shows that with reserve heterogeneity, using the average reserve value to estimate depletion is likely to understate depletion, while using the value of the extracted resource to value remaining reserves is likely to overstate the value of reserves.

This example is useful because common practice in constructing national resource accounts, and one of BEA's approaches, uses the average value of the extracted resource to value the entire reserve stock. Nor can average costs from current production be used to calculate the net present value of additions. Because of the random quality of additions, it is not possible to determine whether additions will be undervalued or overvalued using these cost data. Heterogeneity of reserves poses problems for the transactions approach because transaction values need not reflect the average value of the total reserves, as those parcels of reserves sold in any one period may have a quality above or below the average. All these problems of heterogeneity are particularly severe for metals, because there is a clear tendency for ore grades to fall over time. The issue is less clear for petroleum because new findings may have lower cost than current production, but the general trend in petroleum has been for lower finding rates per unit drilling.

Putting the point differently, the difficulty in valuing the stocks and flows arises because the prices of reserves are not readily available. Although the commodities, such as gold and oil, trade frequently, the underlying assets tend to trade infrequently. There is no organized market for oil or gold properties, and there is such great heterogeneity in these assets that there is no standard for classifying them as there is for oil or gold (in terms of sulfur content, purity, and the like). When reserves are transacted, the prices are not generally publicly available, which means the reserve prices are generally not observable. A further difficulty is that the tendency

is to observe the value of the total bundle of assets and liabilities (reserves, associated capital, environmental liabilities, royalty and tax obligations, and so on), so that even if the transaction price were observed, the price of the mineral reserve could not readily be determined. All these complications mean that the values of reserve stocks, additions, and depletions—which are essential for the construction of national accounts for subsoil assets by BEA and other statistical agencies—must be estimated using the relevant economic and financial theories of valuation.

In principle, the heterogeneity problem could be overcome by calculating reserve values for each reserve class and then aggregating across reserve classes. This approach is likely to be quite costly, and extraction data may not be available for all reserve classes, particularly those not yet being exploited. However, since these disaggregated calculations are not undertaken by BEA, its estimated values for the total reserve stock are likely to be too high for many of the minerals.

If in fact the lowest-cost and highest-value reserves are extracted first, the use of extraction costs from current depletion will provide a biased estimate of reserve values. All of the BEA valuation methods except the transaction cost method use an inappropriate measure of reserve values based on the cost of current extraction. Although BEA does not report total mineral asset and mineral resource values separately, the estimation bias in the asset value will flow through to the calculation of the mineral value that BEA does report in Table 1, rows 36 through 41 (Bureau of Economic Analysis, 1994a). The result will be an upward bias in the mineral-resource values calculated with current rent method II. Whether this bias carries through to the calculation of mineral-resource values in the other calculation methods is unknown since, as discussed below, the deductions for capital may be too high or too low with the other approaches.

A similar problem arises in valuing reserve additions, since BEA assumes they have the same characteristics as current depletions. Consequently, if the quantity of additions equals the quantity of depletions, the value of additions will equal the value of depletions, even though the grade of reserves may be quite different for depletions and additions. BEA's approach is likely to overvalue additions. With the best deposits extracted first, additions are likely to be of less value than current depletions. This discrepancy will affect the IEESA production account since with a lower value for additions, the adjusted GDP

and NDP figures will be lower. The discrepancy also introduces a downward bias into the revaluations of minerals because of the overstatement of additions.

Measures of Resource Quantities

Although most of the issues in minerals accounting involve valuation, issues involving the quantity of reserves or resources are also important in a few areas.

The first of these issues relates to the comprehensiveness of the resource base considered by BEA. In constructing product and asset accounts, one is concerned with valuing the stock of the nation's mineral resources and estimating changes in the value of the stock due to depletions, additions, and revaluations. These quantities are measured with considerable uncertainty. An important issue here (as it is throughout the federal statistical system) is developing measures of accuracy, both for satellite accounts and the main accounts. Mineral resources other than reserves are often unknown or not well established and thus are also quite difficult to measure with any accuracy. In all cases, even where quantities are known, their value is not easily calculated. For example, resource class N in Figure 3-2 has an average current extraction cost above price; thus, according to the Hotelling valuation principle, its value is zero. All resources other than reserves (classes N and above in Figure 3-2) are assigned zero value. For both practical and economic reasons, BEA considers only reserves in its IESAs. Hence, BEA's asset account includes a blank row for measures of stocks and of additions to and depletions from unproved subsoil assets. Yet these nonreserve resources are likely to have some positive market value because of their option value.

A related flaw in the BEA preliminary accounting framework is that current additions to reserves produce no compensating depletion of nonreserve resources. Yet every ton of reserves comes from nonreserve resources. If nonreserve resources have economic value (as they certainly do in the case of many oil and gas properties), the result will be an upward bias in the current estimates of net capital formation (additions minus depletions) in mineral resources. The failure to consider nonreserve resources means that additions to, as well as depletions from, different categories of nonreserve mineral assets are ignored. For example, adjacent drilling may lead to moving a resource from the speculative to the hypothetical category or from an inferred

submarginal resource to a demonstrated subeconomic resource (see Figure 3-1). Proven reserve quantities sometimes change dramatically because previously uncertain nonreserve resources are found to be economic (e.g., Alaskan oil). Because the option values of different grades will differ, the overall bias in mineral capital formation could be in either direction. The basic problem again is valuing nonreserve resources. BEA intends ultimately to include unproved resources as a part of nonproduced environmental assets.

It is recognized that current estimates of mineral capital formation are incomplete and likely to be biased. BEA correctly notes that an operational methodology for valuing these nonreserve resources is not yet available. As with reserves, market prices based on resource transactions are not widely available, especially outside of oil and gas, and unit prices must be deduced using related economic series. Economists are currently involved in developing methods for valuing such resources. However, official natural-resource accounting procedures have without exception omitted nonreserve mineral assets. Fortunately, the omitted value may not be great.¹⁰

A final issue is that BEA values only a subset of U.S. mineral reserves. Omitted are several heavily mined industrial minerals such as sand and gravel, which may have small scarcity or Hotelling rents because of their superabundance but Ricardian rents because of their location. In production terms, BEA considers minerals that made up 77 percent of the value of mineral and energy production in the United States in 1970, a year in the middle of the available time series (Bureau of Mines, 1972). The BEA series is incomplete, but it values the most important mineral reserves, at least in terms of production value, in the United States.

Measurement of Associated Capital

Accounting for minerals poses serious issues of jointness of value of the mineral resource

10. Kilburn (1990) suggests that the value of metalliferous ores in unexplored land is \$Canadian 400 per 16.3 hectares. This equates to \$US 7 per acre. Maintaining mineral claims in the United States requires an annual payment of \$5 per acre, which, at a discount rate of 10 percent per year, equates to a net present value of \$50 per acre. Hence, unexplored leased land with some indication of mineral potential would appear to have a market value of at least \$50 per acre. If 100 percent of the 387,000,000-acre U.S. land mass is mineable in the future (an obvious overestimate), the current value of subsoil mineral resources other than reserves is on the order of \$19.4 billion at \$50 per acre. Even when allowance is made for energy resources and industrial minerals and offshore petroleum potential, the total present value of resources, other than reserves, is unlikely to exceed \$100 billion. BEA calculates a current reserve stock value of some \$700 billion.

and the associated capital. Because these are complementary factors, dividing the total value between capital and minerals is difficult and involves somewhat arbitrary accounting conventions. Similarly, when minerals are extracted, the value of the existing mineral asset diminishes. Some of the decreased value is depreciation of capital, while some is depletion of the mineral reserve. The total depreciation in asset value due to extraction must be apportioned between the two in resource accounting. With capital depreciation being determined by guidelines that apply to capital more generally, the residual loss in value is then applied to depletion (see Cairns, 1997). The only rules that apply are that total depletions over the life of the asset must sum to the value of the resource, and the total depreciation over the life of the asset must sum to the value of installed capital. Hence in an accounting framework that must separate depletion from depreciation on an annual basis, the depletion numbers are based arbitrarily on the depreciation schedule chosen, being less than the total decrease in the value of the asset, but greater than zero. One comforting factor, however, is that although the breakdown in value or change in value between the capital component and the minerals component is somewhat arbitrary, this affects only the composition of the depletion and depreciation values and not the total asset value.

Once the value of a mineral asset has been calculated, the value of associated capital must be deducted to produce the mineral-reserve value. Only current rent method II and the transaction price method deduct associated capital appropriately. Because the value of the asset is likely to be overestimated through use of the Hotelling valuation principle, current rent method II will nevertheless tend to overvalue the stock of mineral reserves. Setting aside issues of heterogeneity and assuming that appropriate corrections are made for associated assets and liabilities, the transaction price method is the only method that in principle can provide unbiased estimates of the mineral value.

Current rent method I deducts depreciation and the gross return for capital per unit of extraction from gross price (see Box 3-3). Since one does not know whether this subtraction is more or less than the subtraction under current rent method II, one cannot say whether the calculated value of mineral-resource value using current rent method I will be too high or too low, even given its upward bias in the calculation of the total asset value due to use of the Hotelling

valuation principle. In the case of the metals category, however, current rent method I gives negative values for the stock of metal reserves in the 1980s, which are clearly biased downward. It appears, then, that with current rent method I, the upward bias in measurement of total asset value due to use of the Hotelling valuation principle is outweighed by an excessive deduction for associated capital.

As noted in the previous section, the NPV method deducts some fraction of the value of associated capital. Doing so would make sense only if the value of the associated capital were thought to be less than its replacement cost. On average, one would expect the value of the associated capital to equal its replacement cost. The deduction for capital cost under the replacement cost method (see Box 3-6) also will generally not reflect the value of associated capital.

BEA includes exploration and finding costs as part of associated capital and then deducts these costs as part of the capital costs when valuing mineral reserves. This practice raises the question of what BEA is actually trying to value. If, for example, a gold deposit before the installation of any development expenditures or physical capital can be sold for \$10 million dollars, some would suggest this is the value of the mineral reserves. BEA subtracts past exploration costs from this figure, and thus would value the mineral component of the property at less than \$10 million. The former approach values the asset as a "gift of nature," while BEA values it as the product of previous human endeavor and charges the stock account with the cost of moving the mineral from the resource to the reserve category.

Early models of mineral value suggested that depletion can be calculated as current net revenue less capital depreciation less a return to capital, and BEA follows this approach with current rent method I. Subsequent research, however, has shown that this approach overestimates depletion (Cairns, 1997; Davis, 1997). As a result, estimates of depletion with current rent method I are too high, perhaps by as much as half. The depletion calculations with each of the other methods, including current rent method II, do not conform to any known depletion formulations, and the level or direction of measurement bias cannot be determined. Nevertheless, the panel's review indicates that the depletion calculations with current rent method I represent an *upper bound* on depletion. Moreover, according to Cairns (1997) and Davis (1997), depletion can be appropriately calculated if one takes depletion as estimated by

current rent method I (that is, current net revenue less capital depreciation less a return to capital) and subtracts from this amount a return to the mineral resource.¹¹

Production Constraints and the Hotelling Assumptions

As noted earlier, current rent methods I and II calculate total asset values based on the Hotelling valuation principle, which assumes that producers face no production constraints and that the net price rises at the rate of interest. In general, producers do face production constraints, and net prices rise at less than the rate of interest. The Hotelling principle is used as a valuation tool because of its extreme simplicity; yet, as discussed above, it has been shown both theoretically and empirically to substantially overvalue mineral reserves. Cairns and Davis (1998a, 1998b) and Davis and Moore (1997, 1998) demonstrate that asset values calculated using the Hotelling principle tend to be up to twice the market values. Thus caution is necessary in using this approach to provide asset or mineral-resource values.

Because of the potential for overvaluation using the Hotelling valuation principle, BEA uses the NPV method to adjust the stock estimates from current rent method II downward. For purposes of the present discussion, BEA's approach is termed NPV variant I. As shown above in Box 3-5, this method takes the current rent method II stock values and adjusts them downward by 12 and 31 percent using the two assumed discount rates.

The replacement cost formula is based on a model that does not require the strict assumptions of the Hotelling valuation principle and implicitly takes into account the capital constraints on oil and gas production (see Cairns and Davis, 1998a). Therefore, given the appropriate value for average costs, the model is likely to yield an accurate estimate of asset values. There has been no empirical verification of Adelman's replacement cost rule for valuing the associated capital, however, so it is not possible to judge the accuracy of the BEA method for deducting the value of associated capital to obtain the value of a mineral resource. BEA might, however, consider an alternative approach (termed here replacement cost variant II) that would subtract the replacement cost of capital from the asset value as in current rent method II, rather than the value of exploration and development expenditures.

11. In mathematical terms, $\text{depletions}_t = [p_t - a_t - r_t^K / q_t - D_t / q_t - r_t^V / q_t] \times q_t$, where the variables are as defined in Box 3-3.

Royalty and Severance Fees

The transaction price approach has the potential to yield reasonable mineral-reserve values since it is based on observed market prices that in principle account for production constraints, market discount rates, actual reserve quality, and other factors that affect the value of mineral reserves. As noted elsewhere, however, the market value of an asset depends on the liabilities attached to the asset. In the case of minerals, production often incurs royalties, severance fees, and taxes payable to third parties as production proceeds. These and other liabilities attached to current and future production reduce the observed market value of the reserve and are deducted from the asset value by the purchaser during a reserve transaction. Thus, the observed transaction value does not represent the value of the reserves, but the value of a bundle of financial and real assets and liabilities, of which the reserves are one aspect (a point illustrated above in Box 3-2).

The treatment of these costs is not clear in BEA accounts. It appears that royalty and severance taxes are included in the unit costs used to calculate net rent in valuation methods other than the transaction method for oil and gas. This treatment is inconsistent with that under BEA's transaction price method, whereby no adjustment is made for the present value of taxes and royalties. In both cases, the pre-tax-and-royalty value of the resource will be underestimated by BEA's methods.

Revaluation

Revaluation effects are an additional element of natural-resource accounting and some other augmented accounts that are not present in the current U.S. NIPA. As discussed earlier, changes in the value of reserves are composed of additions, depletions, and revaluations (see equation 3.5 in Box 3-2).

For a simple gold-reserve case, revaluations enter the equation when reserve values adjust during the accounting period to reflect unexpected price changes. For example, suppose the average price of the existing gold-reserve stock is \$10 per ounce at the start of the year, then jumps to an average of \$20 per ounce on December 31. The revaluation equation becomes: revaluations (\$1 billion) = closing stock value (\$2.019 billion) – opening stock value (\$1 billion) – additions (\$30 million) + depletions (\$11 million). This example shows that revaluations are calculated as a residual—the change in the value of the stock

through price changes that are not taken into account in the depletion and addition calculations. Given the volatile nature of mineral prices, the revaluation component is substantial, often larger than additions or depletions. Yet the revaluation term is not directly calculated; it will include any errors in calculating additions, depletions, and opening and closing stock values.

Mineral-stock revaluations caused by unexpected changes in unit prices for reserves are calculated by BEA as a residual, and therefore are also affected by the capital depreciation schedule chosen. In the BEA data, mineral-stock revaluations are usually greater than either reserve additions or depletions, implying that most mineral wealth creation or loss comes not from additions to or depletions of the mineral-reserve base, but from large mineral price changes. Several resource economists have suggested that these revaluations are important indicators of economic welfare and should be considered equivalent to investment (gross domestic capital formation).¹² For example, a small nation could in principle sell its mineral assets to a foreign producer, and hence an upward revaluation of its assets would create wealth and higher sustainable consumption for the nation. BEA does not include revaluations in the gross domestic capital formation column of its IEESA Production Account and thereby ignores this aspect of sustainable national income.

Short-Run Volatility in Price

Where the value of a mineral asset is a function of the current extracted mineral price, as in current rent methods I and II, the NPV method, and the replacement cost method, short-run volatility in mineral commodity prices makes the value of the stock of mineral assets itself a volatile series. To the extent that price movements are temporary excursions from long-run levels, these changes in stock value will show up as revaluations. Current measures of national saving do not include revaluation effects, but future measures might do so. It should be noted that the revaluation effects in mineral assets pale in comparison with the revaluation effects from security markets.

In addition, the depletion calculations depend in part on current prices and will also be affected by price volatility. For example, consider an economy that is running down its mineral reserves at a constant rate, with no reserve additions. Depletion values will depend on current

mineral prices. If nominal mineral prices increase sharply in a given year, the depletion charge will also rise sharply.

The dependence of additions and depletions on current mineral prices will affect the current value or nominal value of augmented GDP if minerals are included. Sharp changes in mineral prices could also lead to a significant change in the augmented-GDP deflator or chain-weighted price index. The volatility of prices would not lead to volatility in the constant-price or chain-weighted indexes of real output under current concepts applied in the U.S. national accounts, but it would affect those measures of sustainable income that include elements of revaluation. These effects will necessitate considerable care in interpreting movements in GDP and its components if additions and depletions are to be added to the core GDP accounts.

BEA mitigates problems of price volatility by arbitrarily using annual prices averaged over 3 years. In addition, quantity additions and depletions are in most years nearly offsetting; thus, given BEA's approach of valuing additions at the same unit price as depletions, price fluctuations will have little impact on adjusted NDP figures. Price fluctuations do impact the stock revaluations column, but these data are not currently used in current accounting measures.

Scarcity and Long-Run Price Trends

One possible use of a series showing the change in quantity and value of a nation's stock of minerals is for assessing trends in mineral scarcity. In quantity terms, increasing scarcity might be reflected in a declining constant-dollar stock of mineral resources or of some component of mineral resources. On this front, BEA is developing a constant-1987-price series for mineral stocks, shown in Figure 3-4, that is equivalent to a physical quantity series, aggregated across different mineral types on the basis of 1987 mineral prices. This graph shows that the stock of mineral assets as a whole has been roughly constant over the 1958-1991 period. This finding might be interpreted as indicating that additions have offset depletions and that concerns about the United States running out of oil and other minerals are unfounded. Figure 3-5 shows the value of stocks and changes in current prices (from Bureau of Economic Analysis, 1994b).

The constant-price stock has limited utility as an indicator of natural-resource scarcity, however. Depletion of a physical resource indicates nothing about scarcity if that commodity is

^{12.} The issue of inclusion of revaluation in income is considered in Chapter 2.

becoming worthless to society, since its disappearance will have no economic consequences. (In this respect, even chain-price indexes will not produce improved indicators.) Stock measures are particularly questionable indicators for commodities that are heavily involved in international trade, which includes all major mineral commodities. For example, many countries have seen the economic value of their domestic coal stocks decline, primarily because of the availability of low-cost coal on the world market, but this is not taken as an indicator of coal scarcity.

Relative price is usually a better index of economic scarcity, with increasing relative prices

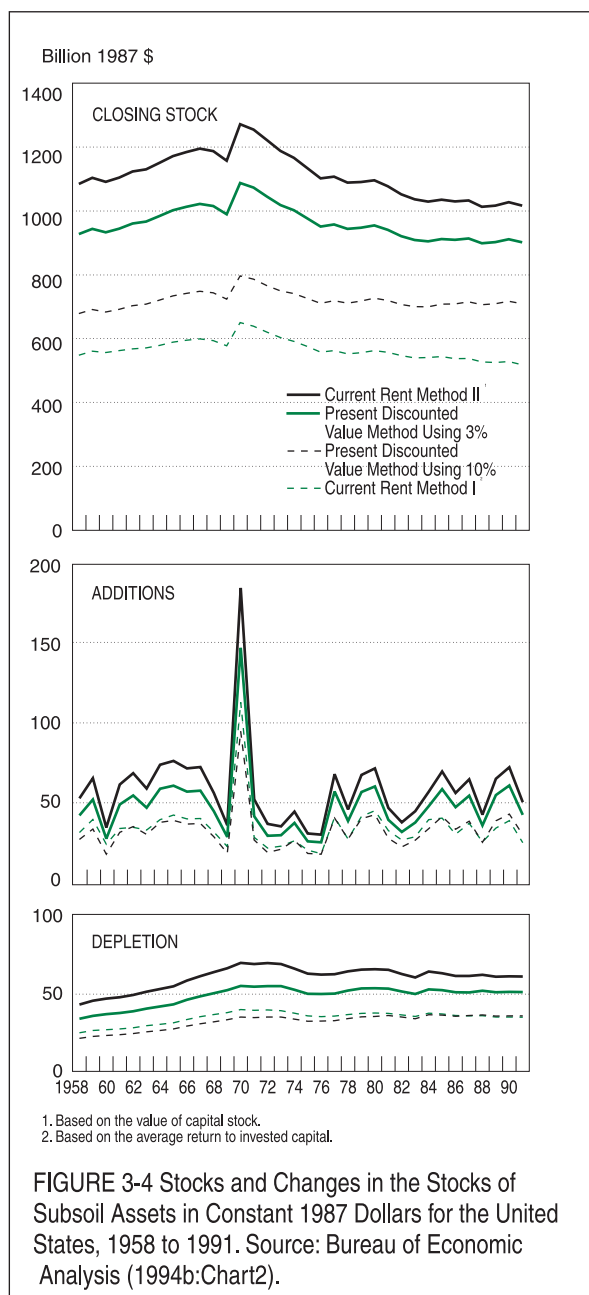
indicating that a unit of the particular asset is becoming more valuable to society, and hence more scarce, relative to other assets.¹³ Thus a mineral reserve's unit price is an indicator of its value to society. Increasing scarcity would be indicated by rising average reserve prices relative to other prices; for example, one might compare the relative prices of reserves and consumption goods and services or the ratio of reserve prices to the prices of other inputs, such as wage rates. These scarcity indices are not currently presented in satellite accounts. BEA does not report unit prices for reserves, and thus it is difficult to determine the implications of its findings for trends in mineral scarcity. If scarcity indicators are desired, deflated per unit prices for each type of mineral reserve should be presented.

Data Availability Issues

Although BEA's valuation methods require limited data, all may suffer from potentially significant measurement error. For example, while the replacement cost method of valuing oil and gas reserves is conceptually appropriate, it requires an estimate of the value of associated capital that cannot be measured directly and must be estimated through current exploration and development expenditures. There is no indication that this estimate, as proposed by BEA, has any empirical validity. The transaction price method is also conceptually correct, but one must make adjustments to the transactions, as listed in Box 3-2, to obtain the reserve value. The necessary data may not be available for each transaction, causing the method to lose its appeal. The current rent methods, once correctly formulated to take production constraints into account, will require average cost data that are not always observable in markets.

Other Issues

Whenever asset valuation requires discounting of future cash flows, as is the case in the valuation of mineral stocks, questions arise as to the appropriate discount rate. Finance theory offers some theoretical guidelines, but practical implementation is difficult. The popularity of the formula based on the Hotelling valuation principle derives in part from the fact that it does not require a discount rate, but this advantage comes at the cost of an implausible assumption about the increase in net mineral rents. In constructing present



13. Measures of resource scarcity are reviewed in Fisher (1981: Ch. 4).

value estimates, it is difficult to justify the extremely low real discount rate of 3 percent per year used by BEA if the purpose of the estimates is to determine the market value of the reserves.

All NPV techniques, which include both current rent methods and the replacement cost method, omit asset value that is created by managerial flexibility (see Davis, 1996). With mineral assets, the ability to alter extraction as prices move up or down can create significant option value, especially for marginal deposits. Of the valuation techniques used by BEA, only the transaction approach includes these option values, since they will be included in the observed asset price.

BEA's results show clearly the potential margin for error among the various techniques, for they yield widely different estimates. In some cases, the net change in the value of reserves (additions minus depletions) even has a different sign under different valuation techniques. All of this suggests that correctly accounting for mineral stocks and flows in a set of satellite accounts will be

just as intensive an accounting exercise as current accounting for the stocks and flows of produced capital in the NIPA.

OTHER APPROACHES AND METHODOLOGIES

Efforts in Other Countries

Mineral accounts are currently constructed by many countries. The current rent and discounted present value valuation approaches used by BEA to calculate resource stock and flow values are similar to those employed in other countries, with current rent method I being used most widely. The shortcomings of this approach were discussed earlier. Other countries assume that the current rent, after a return to capital is deducted, represents the current unit price of all reserves; they then calculate the present value by discounting the projected rent using an arbitrary discount rate. Again, as noted above, this is an unrealistic method of pricing reserve stocks or flows.

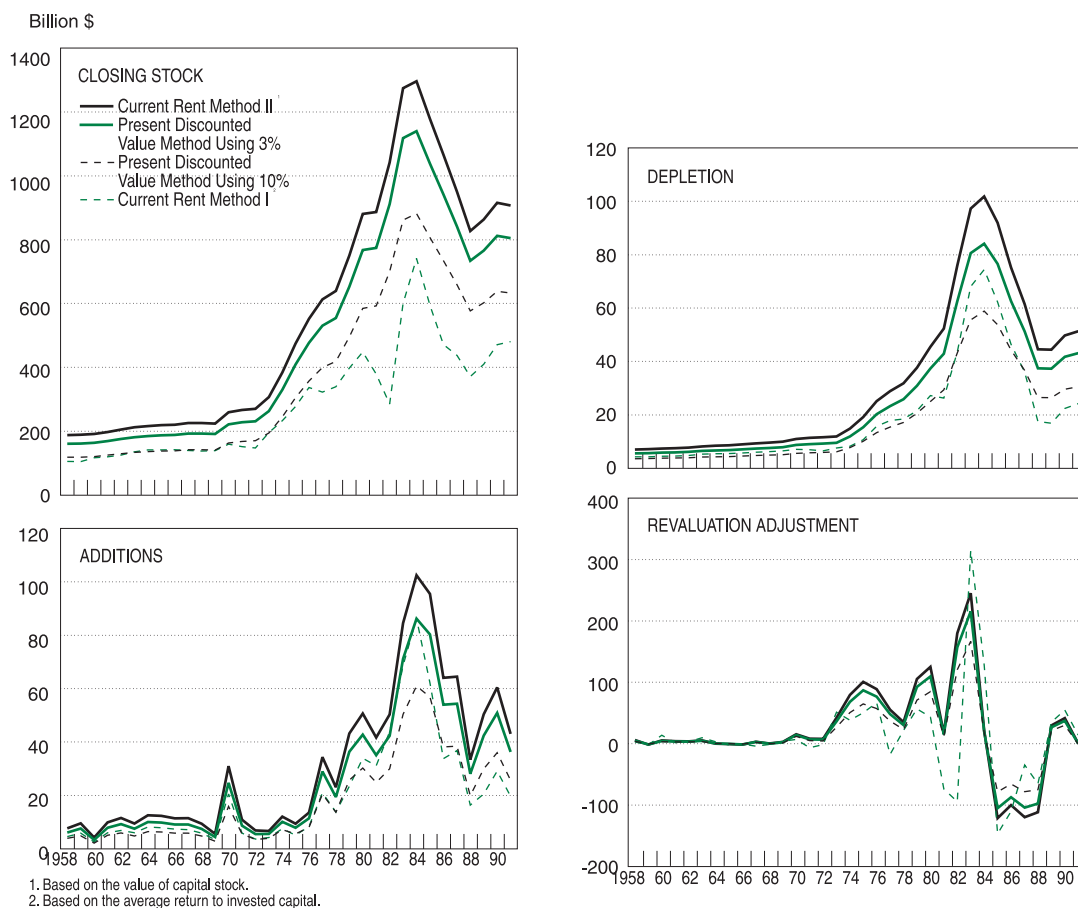


FIGURE 3-5 Stocks and Changes in the Stocks of Subsoil Assets in Current Dollars for the United States, 1958 to 1991. Source: Bureau of Economic Analysis (1994b:Chart 1).

Although BEA estimates only a set of monetary accounts, most other countries compute both physical and monetary accounts for reserves. In Europe the most important minerals are oil and gas under the North Sea. Indeed, the discovery of these resources and the economic-policy problems they created led Norway to pioneer the development of resource accounting in the 1970s. Most other minerals appear to have a market value barely in excess of production costs, and hence the valuations applied to subsoil assets result in a very small value for the stocks and depletion. In Canada and Australia, however, other minerals have a significant economic value.

Coverage

The types of minerals covered in studies for other countries are similar to those covered in the IEESA. Most countries tend toward a slightly broader definition of reserves: instead of the "proven" reserves included by BEA (those that are currently known to be commercially exploitable at today's prices and technology), other countries often include "probable" reserves (defined as those having a better than 50 percent chance of being commercially exploitable in the future). Canada and Norway distinguish between "developed" or "established" and undeveloped reserves. This distinction is useful for assessing options for the future schedule of extraction. The distinction is also necessary when applying current rent method II, under which the value of associated fixed capital is deducted from the value of the reserve, and which therefore applies properly only to those reserves for which all fixed capital needed to extract the reserves is already in place.

The minerals covered by studies for other countries include oil and gas, coal, and a selection of metal ores, depending on what appears important in a given country. Hence Canada includes about 8 basic metals, while Australia values nearly 30 minerals, including precious metals and gold. In Europe, however, most minerals other than North Sea oil and gas appear to have a very small value, and efforts have not focused on them.

Valuation

The valuation methods used by other countries are generally the same as those reviewed earlier. As in the BEA work, total resource values are a small fraction of national wealth. The starting point is physical data on the stock and annual use of the minerals. As noted early in this chapter, the simplest valuation techniques are current rent

methods I and II, which derive a resource rent for the current period as the difference between the extraction costs and the wellhead or surface price of the mineral. Often this margin is relatively small and can be highly volatile when the selling price of the mineral fluctuates while extraction costs undergo little change. In some cases, such as coal extraction in many parts of Europe, the minemouth price of coal is consistently less than extraction costs, and extraction continues only because of subsidies. A negative asset value in this case may actually be realistic.

Most countries assume that the Hotelling hypothesis is inadequate and instead use the present discounted value of the expected future income stream from extracting mineral reserves. The future schedule of extraction is often assumed to be constant, or it may actually be determined by contracts with purchasers of the mineral. In the absence of other knowledge, prices are assumed to rise with expected future inflation. The discount rate used tends to be the historical average interest rate on government bonds (typically around 6 percent), which is taken to represent the opportunity cost of funds. Normal rates of return for industry generally, or the mining industry specifically, have also been tested. Because these returns include a risk premium, they are higher than government interest rates. An interesting and quite different valuation method adopted in The Netherlands is described in the next section.

Practice in Selected Countries

Australia. The Australian Bureau of Statistics publishes values of reserves and changes in reserves for nearly 30 minerals, including oil and gas, uranium, and gold. The valuation method used is essentially BEA's current rent method I. Even in resource-rich Australia, the reported value of subsoil assets is only one-tenth the value of the fixed capital in structures and equipment. The Australian Bureau of Statistics notes that economically exploitable reserves are only a very small proportion of the total resource. It also points out that its valuation techniques can give a misleading impression both of the value of reserves and of year-to-year changes in reserves because mineral prices fluctuate considerably.

Canada. Statistics Canada has estimated the value of reserves of oil, gas, coal, and eight metals using both current rent methods I and II, although its preferred valuation technique is the latter. Current rent method I sometimes produces negative values for mineral reserves.

Because Canada is concerned with regional depletion issues, it produces monetary and physical accounts for each province.

The Netherlands. Statistics Netherlands estimates the value of gas under the North Sea, the country's principal natural resource, by an unusual method. In all North Sea operations, governments (United Kingdom, Norway, The Netherlands) attempt to appropriate most of the resource rent through royalties and taxes. Instead of estimating the resource rent indirectly by the methods employed elsewhere, the Dutch estimate the resource rent directly from known government receipts. Tests by other countries have shown this method performs reasonably well for the North Sea fields, where governments take 80 percent or more of the resource rent.

Norway. The first work on resource valuation was done in Norway in the 1970s, when North Sea oil suddenly appeared as a major influence on the Norwegian economy. The Norwegians were pioneers in natural-resource accounting, beginning with oil, but later extending to other assets, such as forests. Their studies have had a considerable effect on subsequent work in other countries. The 1970s was, however, a period of massive changes in world oil prices that produced huge swings in the apparent value of this resource; as a result, many Norwegians concluded that their estimates had serious shortcomings. A number of Norwegian analysts concluded that physical data on resources were more useful. Norway recently resumed valuing natural resources to complete the balance sheets of national wealth for SNA national accounts.

Sweden. For its national accounts balance sheets, Statistics Sweden has calculated reserves and depletion of subsoil assets, in particular metal ores. The reserves covered are proven reserves, which are valued by BEA's current rent method I. Because prices of metals are volatile, the calculated resource rents occasionally turn negative, a problem reduced but not removed by adopting a moving average of prices. As a result of a fall in world copper prices, a proportion of the country's mineral stock has ceased to be economically exploitable and therefore may disappear from proven reserves.

United Kingdom. Estimates of the depletion of U.K. oil and gas in the North Sea were published in 1996 for several successively broader categories of resources—proven, probable, possible, and undiscovered but inferred from geological evidence. Several valuation techniques were tested, including current rent methods similar to those

of BEA and the present value of the future income stream. Significant differences were observed in the estimates derived with the various techniques.

Other countries. Valuation studies by developing nations including Brazil, China, and Zimbabwe have produced other important findings (see Smil and Yshi, 1998 ; Young and Seroa da Motta, 1995 ; and Crowards, 1996).

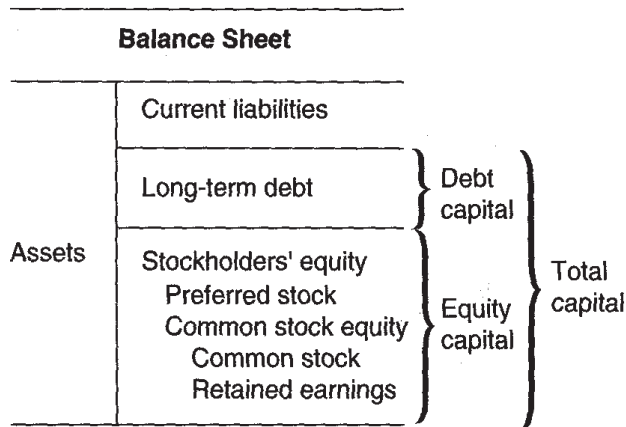
Alternative Methodologies

One quite different methodology has not been employed by BEA—that of relying on financial information for individual firms. At the level of the firm, the value of mineral reserves can be imputed from data on financial balance sheets. Figure 3-6 indicates the calculations required. This method calculates a nation's mineral wealth by aggregating the values of the domestic mineral resources held by all resident mineral firms. This is a laborious process that requires assessing the balance sheets of both listed and unlisted companies. It also provides only private reserve values, since the owners of the reserve implicitly deduct the value of any taxes, royalties, and other payments on the mineral assets when attaching a value to equity capital. Finally, as with any calculation of the value of the reserve stock, it is difficult to apportion changes in total values of the mineral reserves among additions, depletions, and revaluations.

A much simpler approach entails empirically based modifications to current rent method II. Cairns and Davis (1998a, 1998b) have found that multiplying the total asset value as calculated using current rent method II by a fixed fraction can eliminate the upward bias in total reserve value and produce estimates that are closely aligned with the observed market values of mineral assets. The fraction used, which lies between zero and one, varies by commodity. Cairns and Davis' work suggests a fraction of 0.7 for gold reserves. Work by Adelman suggests a fraction of 0.5 for oil and gas reserves. For other mineral reserves, the appropriate fractions have yet to be determined, but are likely in most instances to be around 0.6 according to Cairns and Davis (1998b). To estimate the value of the mineral reserves, the value of associated capital must still be deducted from the total asset value. This can be done in the same manner as in current rent method II. The mathematical formulation of this modified reserve valuation approach is shown in Box 3-9 .

Additions are simply the value of new reserves, which can be calculated with the same formula used for valuing total reserves, except that exploration and development expenditures, rather than existing associated capital, are deducted. The formula for valuing additions is given in [Box 3-9](#).

Depletion calculations have been studied by Cairns (1997) and Davis (1997), who suggest a modification to the BEA depletion calculations (see [Box 3-9](#)). Cairns and Davis take the depletion calculation of current rent method I and deduct an additional term that reflects a return



ASSETS	=	LIABILITIES	+	EQUITY
Value of minerals + Value of capital associated with minerals + Value of other nonmineral assets + Current assets	=	Current liabilities + Long-term liabilities	+	Stock + Retained earnings
Value of minerals	=	Current liabilities + Long-term liabilities + Stock + Retained earnings - Value of capital associated with minerals - Value of other nonmineral assets - Current assets		
	=	Long-term liabilities + Stock + Retained earnings - Value of capital associated with minerals - Value of other nonmineral assets - Working capital		

FIGURE 3-6 Imputing the Market Value of Mineral Resources from Balance Sheet Data,

to the mineral. This modification lowers the depletion calculation of current rent method I.

The discussion thus far has been aimed at estimating the value of the reserve stock and the value of depletions from and additions to that reserve stock. The discussion is guided by the notion that produced capital and natural capital are currently treated asymmetrically in national accounting and that this discrepancy should be corrected. There are yet other approaches that take a "sustainability" perspective. El Serafy (1989) has devised an alternative approach to adjusting NDP to account for mineral depletion. As currently measured, NDP is temporarily augmented during mineral extraction. El Serafy would convert the temporary revenue stream from mineral extraction into the equivalent infinite income stream, likening this latter stream to permanent income from the mineral asset. He thus advocates deducting an amount from the conventionally measured NDP during the extraction period to create an adjusted sustainable NDP.¹⁴ It may be noted that the production of satellite accounts is intended to address just this type of concern, since those who prefer El Serafy's concept of sustainability to other accounting conventions can make their own adjustments to national output using the information contained in satellite accounts.

CONCLUSIONS AND RECOMMENDATIONS ON ACCOUNTING FOR SUBSOIL MINERAL RESOURCES

Appraisal of BEA Efforts

3.1 BEA should be commended for its initial efforts to value mineral subsoil assets in the United States.

At very limited cost, BEA has produced useful and well-documented estimates of the value of mineral reserves. These efforts reflect a serious and professional attempt to value subsoil mineral assets and assess their contribution to the U.S. economy. The methods employed by BEA are widely accepted and used by other countries that are extending their national income accounts.

3.2 The panel recommends that work on developing and improving estimates of subsoil mineral accounts resume immediately.

As a result of the 1994 congressional mandate, BEA was forced to curtail its work on subsoil as-

Box 3-9: Modified Formulas for the Calculation of Reserve Stocks, Additions, and Depletions

$$\begin{aligned} \text{total mineral reserve value}_t &= V_t = \\ & [p_t - a_t - K_t/R_t] \times R_t \\ \text{additions}_t &= [p_t - a_t - Z_t/A_t] \times A_t \\ \text{depletions}_t &= [p_t - a_t - rK_t/q_t - D_t/q_t - \\ & rV_t/q_t] \times q_t \end{aligned}$$

where r is an empirically estimated adjustment coefficient with a value between zero and one, and all other variables are as defined in Boxes 3-3 and 3-6.

sets. Its estimates of subsoil mineral assets are objective, represent state-of-the-art methodology, and will be useful for policy makers and analysts in the private sector.

3.3 Because of the preliminary nature of the BEA estimates, as well as the potential volatility introduced by the inclusion of mineral accounts, the panel recommends that BEA continue to present subsoil mineral accounts in the form of satellite accounts for the near term.

Once the accounting procedures used for the mineral accounts have been sufficiently studied and found to be comparable in quality to those used for the rest of the accounts, it would be best to consider including the mineral accounts in the core GDP accounts. It is appropriate that assessments of changes in subsoil assets be presented on an annual basis, as BEA has done in its initial efforts.

3.4 The panel does not recommend that a single approach to mineral accounting be selected at this time.

No single valuation method has been shown to be free of problems. Thus BEA should continue to employ a variety of valuation methods, modifying them as warranted by new developments in the field.

3.5 The panel has identified a number of shortcomings in current valuation approaches, and it recommends that BEA consider modifying or eliminating some of its procedures in light of these findings.

The panel has identified problems involving appropriate adjustment of asset values for associated capital and other assets and liabilities, as well as potential overestimation of the value of assets, additions, and depletions by use of the Hotelling valuation technique. BEA should consider such findings in refining its techniques. Empirically based modifications to the Hotelling valuation

14. The deduction proposed by El Serafy is $R / (1 + r)^{n+1}$ where R is the current depletion, r is an appropriate discount rate, and n is the number of years of mineral reserves remaining assuming a constant extraction path. See also Hartwick and Hageman (1993) and Bartelmus (1998).

technique along the lines suggested above should be examined.

3.6 The derivation of accurate and parsimonious valuation is an area of intensive current research, and BEA should follow new developments in this area.

The panel has identified a number of promising research efforts that may reduce the uncertainties among various approaches to valuing mineral resources. Most of the shortcomings of BEA's approaches identified in this chapter reflect data limitations and inherent problems that arise in estimating quantities and values that are not reflected in market transactions. Given the uncertainties involved, as well as the small share of total wealth represented by subsoil assets in the United States, a major commitment to data generation for these assets does not appear to be justified at this time. BEA should therefore emphasize valuation methods that rely on readily available data.

3.7 The most important open issues for further study are (1) the value of mineral resources that are not reserves, (2) the impact of ore-reserve heterogeneity on valuation calculations, (3) the distortions resulting from the constraints imposed on mineral production by associated capital and other factors, (4) the volatility in the value of mineral assets introduced by short-run price fluctuations, and (5) the differences between the market and social values of subsoil mineral assets.

One of BEA's most important contributions has been to stimulate discussion and research on resource-valuation methodologies. BEA's actual findings regarding the value of reserves—stocks, depletions, and additions—should be considered preliminary and tentative until there is a better understanding of the magnitude of the distortions introduced by the various techniques. It is recommended that close attention be paid to these five important open issues.

Implications for Measuring Sustainable Economic Growth

3.8 The initial estimates of the subsoil mineral accounts have important implications for understanding sustainable economic growth.

In one sense, the major results of the initial estimates are negative. Perhaps the most important finding is that subsoil assets constitute a relatively small portion of the total U.S. wealth and that mineral wealth has remained roughly constant over time. According to the IEESA results, the value of mineral resources is between 3 and 7

percent of the tangible capital stock of the country. If other assets, particularly human capital, were considered, mineral value would be an even smaller fraction of the country's wealth. This is an important and interesting result that was not well established before BEA developed its subsoil mineral accounts.

3.9 Alternative measures, along with measures of sustainability from a broader set of natural-resource and environmental assets, will be necessary to obtain useful measures of the impact of natural and environmental resources on long-term economic growth.

The mineral accounts as currently constructed are of limited value in determining the threat to sustainable economic growth posed by mineral depletion. The value of subsoil mineral assets in the United States could fall because much cheaper sources of supply are available abroad. Conversely, the value could rise because serious depletion problems are driving mineral prices up. The real prices of individual mineral commodities provide a more direct and appropriate measure of recent trends in resource scarcity than is offered by the total values of specific minerals in the mineral accounts.

3.10 The panel recommends that BEA maintain a significant effort in the area of accounting for domestic mineral assets.

While subsoil assets currently account for only a small share of total wealth in the United States and do not appear to pose a threat to sustainable economic growth at present, this situation could change in the future. A good system of accounts could address the widespread concern that the United States is depleting its mineral wealth and shortchanging future generations. By properly monitoring trends in resource values, volumes, and unit prices, the national accounts could identify the state of important natural resources, not only at the national level, but also at the regional and state levels. Better measures would also allow policy makers to determine whether additions to reserves and capital formation in other areas are offsetting depletion of valuable minerals. Development of reserve prices and unit values would help in assessing trends in resource scarcity. Comprehensive mineral accounts would provide the information needed for sound public policies addressing public concerns related to mineral resources.

3.11 Efforts to develop better mineral accounting procedures domestically and with other countries would have substantial economic benefit for the United States.

Other countries and international organizations are continuing to develop accounts that include subsoil assets and other natural and environmental resources. The United States has historically played a leading role in developing sound accounting techniques, exploring different methodologies, and introducing new approaches. A significant investment in this area would help improve such accounts in the broader world economy. Unfortunately, the United States has lagged behind other countries in developing environmental and natural-resource accounts, particularly since the 1994 congressional mandate suspending those efforts.

3.12 To the extent that the United States depends heavily on imports of fuels and minerals from other countries, it would benefit from better mineral accounts abroad because the reliability and cost of imports can be forecast more accurately when data from other countries are accurate and well designed.

International development of sound natural-resource accounts would be particularly useful for those sectors in which international trade is important. Indeed, as has been learned from cataclysmic events in financial markets such as the Mexican peso crisis of 1994–1995 or the financial crises of East Asian countries in 1997–1998, the United States suffers when foreign accounting standards are poor and is a direct beneficiary of better accounting and reporting abroad. Better international mineral accounts would help the nation understand the extent of resources abroad and the likelihood of major increases in prices of oil and other minerals such as those of the 1970s. Improved accounts both at home and abroad would help government and the private sector better predict and cope with the important transitions in energy and materials use that are likely to occur in the decades ahead.

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State Personal Income, Third Quarter 1999

By Duke Tran

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

IN THE third quarter of 1999, U.S. personal income increased \$97.2 billion, or 1.3 percent (table A).¹ The following are highlights of personal income developments in the third quarter:

- The 1.3-percent growth rate was about the same as the growth rate in the first and second quarters.
- Forty-four States had growth rates greater than the 0.5-percent increase in prices paid by U.S. consumers.

¹ In this article, dollar changes are expressed at seasonally adjusted annual rates, and percent changes are expressed at quarterly rates.

- Nevada, Arizona, and Florida had the fastest growth (chart 1).
- North Dakota, South Dakota, and North Carolina had the slowest growth.

In the third quarter, U.S. personal income was reduced by uninsured losses to residential and business property as a result of Hurricane Floyd, which made landfall in North Carolina in mid-September; these losses, which mainly affected rental income of persons and proprietors' income, amounted to approximately \$5.5 billion (at an annual rate). Because other effects of the hurricane are embedded in the source data and cannot easily be separated, BEA does not

CHART 1

Personal Income: Percent Change, 1999:II-1999:III

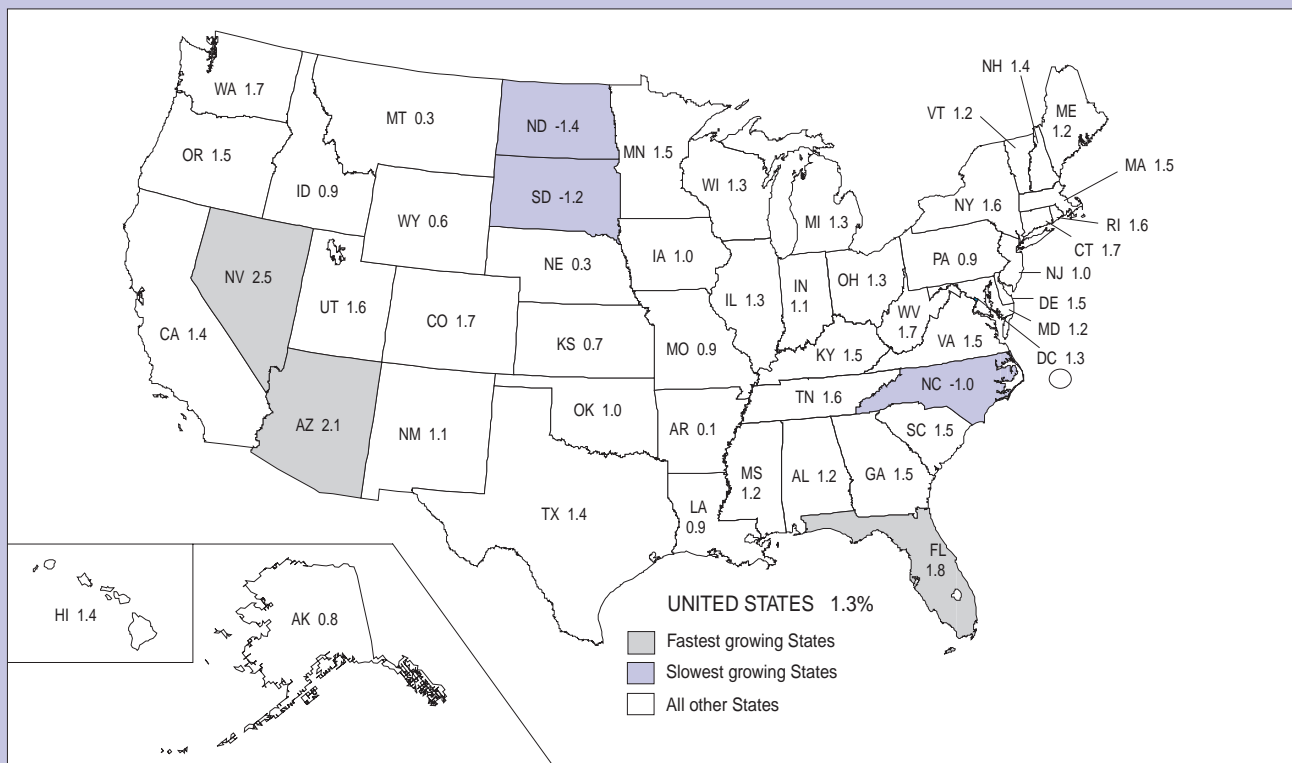


Table A.—Personal Income by Component, by State and Region, 1999:II-1999:III

[Seasonally adjusted]

	Percent change ¹				Percent change in personal income ¹	Contribution to percent change in personal income (percentage points)			Dollar change (millions) ³			
	Personal income	Net earnings ²	Dividends, interest, and rent	Transfer payments		Net earnings ²	Dividends, interest, and rent	Transfer payments	Personal income	Net earnings ²	Dividends, interest, and rent	Transfer payments
United States	1.3	1.5	1.0	0.8	1.3	1.0	0.2	0.1	97,249	75,814	12,333	9,102
New England	1.5	1.7	1.4	.8	1.5	1.2	.2	.1	6,810	5,256	1,058	496
Connecticut	1.7	1.9	1.2	.8	1.7	1.3	.2	.1	2,142	1,722	288	132
Maine	1.2	1.5	1.1	.7	1.2	.9	.2	.1	373	278	53	42
Massachusetts	1.5	1.6	1.5	.7	1.5	1.1	.3	.1	3,169	2,398	542	229
New Hampshire	1.4	1.5	1.3	.6	1.4	1.1	.2	.1	502	394	80	28
Rhode Island	1.6	2.0	1.1	.8	1.6	1.3	.2	.2	443	347	48	46
Vermont	1.2	1.2	1.7	.8	1.2	.8	.3	.1	182	118	47	18
Mideast	1.3	1.6	.7	.7	1.3	1.0	.1	.1	18,302	14,843	1,703	1,755
Delaware	1.5	1.7	1.3	.8	1.5	1.2	.2	.1	350	269	55	26
District of Columbia	1.3	1.6	1.2	.3	1.3	1.0	.2	.1	259	207	38	14
Maryland	1.2	1.2	1.2	.7	1.2	.9	.2	.1	1,864	1,399	305	160
New Jersey	1.0	1.5	-.6	.6	1.0	1.0	-.1	.1	2,959	3,030	-303	232
New York	1.6	2.0	1.2	.8	1.6	1.3	.2	.1	9,724	7,686	1,172	866
Pennsylvania .....	.9	1.0	.8	.7	.9	.7	.1	.1	3,145	2,252	437	456
Great Lakes	1.3	1.4	1.4	.7	1.3	1.0	.2	.1	15,647	11,588	2,794	1,264
Illinois	1.3	1.4	1.4	.8	1.3	1.0	.2	.1	4,924	3,637	881	407
Indiana	1.1	1.1	1.6	.7	1.1	.7	.2	.1	1,597	1,112	345	142
Michigan	1.3	1.5	1.5	.5	1.3	1.0	.2	.1	3,524	2,661	653	210
Ohio	1.3	1.4	1.2	.7	1.3	1.0	.2	.1	3,766	2,842	561	364
Wisconsin	1.3	1.4	1.6	.7	1.3	1.0	.3	.1	1,834	1,337	354	143
Plains .....	.9	.7	1.3	.8	.9	.5	.2	.1	4,202	2,490	1,109	602
Iowa	1.0	1.1	.9	.9	1.0	.7	.2	.1	724	512	116	97
Kansas .....	.7	.4	2.0	.7	.7	.3	.3	.1	513	205	239	69
Minnesota	1.5	1.7	1.1	.8	1.5	1.2	.2	.1	2,079	1,699	235	143
Missouri .....	.9	.7	1.5	.9	.9	.5	.3	.1	1,189	630	359	200
Nebraska .....	.3	-.1	1.4	.7	.3	-.1	.2	.1	116	-33	103	46
North Dakota	-1.4	-2.7	1.1	1.0	-1.4	-1.8	.2	.2	-214	-266	27	25
South Dakota	-1.2	-2.2	1.0	.7	-1.2	-1.5	.2	.1	-206	-257	30	21
Southeast	1.2	1.5	.3	.8	1.2	1.0	0	.1	19,354	16,180	723	2,452
Alabama	1.2	1.1	1.8	.9	1.2	.7	.2	.2	1,131	722	232	177
Arkansas .....	.1	-.4	1.8	.8	.1	-.3	.2	.2	68	-155	134	88
Florida	1.8	2.2	1.4	.8	1.8	1.3	.3	.1	7,131	5,256	1,275	599
Georgia	1.5	1.6	2.0	.9	1.5	1.1	.3	.1	3,098	2,285	565	249
Kentucky	1.5	1.7	1.7	.8	1.5	1.1	.2	.2	1,307	951	216	141
Louisiana .....	.9	.8	1.4	.7	.9	.5	.2	.1	844	520	189	136
Mississippi	1.2	1.3	1.7	.8	1.2	.8	.2	.2	660	453	110	97
North Carolina	-1.0	.4	-10.6	1.1	-1.0	.3	-1.5	.2	-1,996	573	-2,914	344
South Carolina	1.5	1.6	1.8	.9	1.5	1.1	.3	.2	1,301	937	217	146
Tennessee	1.6	1.8	1.8	.8	1.6	1.3	.2	.1	2,200	1,686	324	191
Virginia	1.5	1.8	1.0	.8	1.5	1.3	.2	.1	2,996	2,453	315	228
West Virginia	1.7	2.3	1.2	.6	1.7	1.4	.2	.2	615	499	60	56
Southwest	1.4	1.5	1.7	.9	1.4	1.1	.2	.1	10,730	8,009	1,746	975
Arizona	2.1	2.3	2.3	.9	2.1	1.6	.4	.1	2,384	1,789	425	171
New Mexico	1.1	1.1	1.4	.9	1.1	.7	.2	.2	408	260	80	67
Oklahoma	1.0	1.1	1.4	.7	1.0	.7	.2	.1	755	500	151	105
Texas	1.4	1.4	1.6	.9	1.4	1.1	.2	.1	7,182	5,462	1,089	633
Rocky Mountain	1.4	1.4	1.9	.9	1.4	1.0	.3	.1	3,231	2,270	678	282
Colorado	1.7	1.8	1.9	1.0	1.7	1.3	.3	.1	2,112	1,586	379	147
Idaho .....	.9	.7	1.8	.9	.9	.5	.3	.1	257	138	80	38
Montana .....	.3	-.2	1.5	.9	.3	-.1	.3	.2	60	-25	53	32
Utah	1.6	1.6	2.1	.8	1.6	1.2	.3	.1	737	565	121	51
Wyoming .....	.6	.1	1.9	.8	.6	.1	.4	.1	66	7	46	14
Far West	1.4	1.7	1.2	.7	1.4	1.2	.2	.1	18,972	15,175	2,521	1,275
Alaska .....	.8	.8	1.2	.4	.8	.5	.2	.1	122	85	25	13
California	1.4	1.6	.9	.7	1.4	1.1	.2	.1	12,982	10,571	1,511	899
Hawaii	1.4	1.7	.9	.8	1.4	1.1	.2	.1	462	364	50	47
Nevada	2.5	2.7	2.8	1.1	2.5	1.9	.5	.1	1,279	973	236	70
Oregon	1.5	1.6	1.8	.9	1.5	1.1	.3	.2	1,298	901	267	130
Washington	1.7	2.0	1.6	.5	1.7	1.4	.3	.1	2,829	2,280	435	114

1. Percent changes are expressed at quarterly rates.

2. Net earnings 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 to convert earnings by place of work to a place-of-residence basis.

3. Dollar changes are expressed at annual rates.

NOTE: Estimates may not add to totals because of rounding.

attempt to quantify their impact. Excluding these uninsured losses, U.S. personal income would have increased \$102.8 billion, or 1.4 percent.

By type of income, most of the increase in U.S. personal income was accounted for by net earnings, which increased 1.5 percent, the same as in the second quarter.² Dividends, interest, and rent increased 1.0 percent after increasing 1.3 percent, and transfer payments increased 0.8 percent after increasing 0.6 percent.

U.S. earnings by place of work grew 1.5 percent, the same rate as in the second quarter. Earnings grew in all major industries except farms; earnings in services and in wholesale trade grew the fastest.

Earnings growth accelerated in manufacturing, in transportation and public utilities, in wholesale trade, in services, and in government; in mining, it rebounded after a decline. In contrast, earnings decelerated in construction, in

retail trade, and in finance, insurance, and real estate.

By region, personal income growth decelerated in the Rocky Mountain, Plains, New England, and Southwest regions, mainly reflecting slower growth in net earnings. Personal income growth accelerated in the Mideast, Southeast, Great Lakes, and Far West regions, mainly reflecting stronger growth in net earnings and transfer payments.

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 1997. **Table 2** presents the quarterly estimates of personal income by major source and of earnings by industry, beginning with the first quarter of 1998.

Growth rates by State

In the third quarter, the growth rates in personal income in 44 States and the District of Columbia exceeded the 0.5-percent increase in the prices paid by U.S. consumers (as measured by the price index for personal consumption expenditures).

Fastest growing States.—The three States with the fastest growth in personal income were Nevada (2.5 percent), Arizona (2.1 percent), and Florida (1.8 percent).

Upcoming Revision to State Personal Income

The quarterly estimates of State personal income presented in this article have not yet incorporated the revised levels of personal income from the recently released comprehensive revision of the national income and product accounts (NIPA's). The revisions to personal income mainly reflect the reclassification of government employee retirement plans; as a result of this reclassification, personal income was raised by (1) the amount of employer contributions to these plans, which are added to other labor income, (2) by the amount of dividends and interest received by these plans, which are added to personal dividend income and to personal interest income, and (3) by the amount of personal contributions for social insurance, which are deducted in the calculation of personal income.¹ The reclassification also reduced personal income by the amount of benefits paid by these plans, which are no longer included in government transfer payments to persons. The net effect of the reclassification raised personal income for all years.

Revised State estimates that incorporate the comprehensive revision to the NIPA estimates will be released on May 17, 2000.

For State estimates for the first three quarters of 1999, the quarterly movements in the component NIPA series are used as extrapolators to derive national control totals. The extrapolators incorporate the definitional and statistical improvements in the NIPA's, but the national control totals in the State series have not yet incorporated these improvements. For example, the revised quarterly national estimates of other labor income, which now includes employer contributions to Federal Government and State and local government pension plans, are used to extrapolate the national control total for the State estimates of other labor income, which does not yet include this definitional change to personal income. Of the statistical revisions that were incorporated into the NIPA estimates of personal income, the revision to wage and salary disbursements for 1998 has already been incorporated into the State estimates.²

1. See Eugene P. Seskin, "Improved Estimates of the National Income and Product Accounts for 1959-98: Results of the Comprehensive Revision," *SURVEY OF CURRENT BUSINESS* 79 (December 1999): 26-29.

2. See Duke Tran, "State Personal Income, First Quarter 1999," *SURVEY* 79 (August 1999): 61-62.

These States accounted for 7.6 percent of U.S. personal income, but they accounted for 11.1 percent of the \$97.2 billion increase in U.S. personal income (see [table B](#)). In the second quarter, these three States accounted for the same share of U.S. personal income, but they accounted for 12.1 percent of the growth.


In Nevada, earnings in services, in retail trade, and in construction contributed substantially to the growth in earnings in the third quarter ([tables C and D](#)). The growth in earnings in services was the fastest rate in the Nation, reflecting strong growth in tourism-related industries. In Arizona, earnings in services, in finance, in insurance, and real estate, in manufacturing, and in government contributed substantially to the earnings growth. In Florida, earnings in services contributed the most to the earnings growth. The growth in services was the largest since the first quarter of 1998, reflecting strength in health services, amusement and recreation, engineering and accounting, and business services.

Slowest growing States.—Personal income declined in three States: North Carolina (-1.0 percent), South Dakota (-1.2 percent), and North Dakota (-1.4 percent). These three States accounted for 2.9 percent of U.S. personal income.

In North Carolina, personal income was reduced by the uninsured losses to residential and business property as a result of Hurricane Floyd; the losses, which reduced rental income of persons and net earnings, amounted to approximately \$4.3 billion (at an annual rate).³ Excluding these uninsured losses, personal

income in North Carolina would have increased \$2.3 billion, or 1.2 percent. By industry, declines in earnings in farms and in retail trade reflected losses resulting from damage caused by Hurricane Floyd. A decline in construction earnings also contributed to the slow growth in earnings.

In North Dakota and South Dakota, declines in farm earnings were the major contributors to the declines in earnings, reflecting a reduction in farm subsidy payments from unusually high levels in the second quarter. Since the passage of the 1999 Omnibus Spending Act in the fall of 1998, quarterly payments have fluctuated because of the variable pattern of payments. Excluding these payments, personal income would have increased \$190 million, or 1.3 percent, in North Dakota, and \$50 million, or 0.3 percent, in South Dakota. These fluctuations are expected to continue in the fourth quarter, as an additional \$8.7 billion in farm subsidy payments were authorized by the Agriculture, Rural Development, Food and Drug Administration and Related Agencies Appropriation Act, which was passed in the fall of 1999. In North Dakota, declines in earnings in transportation and public utilities and in government also contributed to the earnings decline. In South Dakota, declines in construction, in finance, in insurance, and real estate, in manufacturing, and in wholesale trade also contributed to the earnings decline.

Tables C, D, 1, and 2 follow. 

3. Four other States were also affected by uninsured losses to residential and business property as a result of the hurricane: New Jersey (\$832 million),

Pennsylvania (\$260 million), Virginia (\$114 million), and South Carolina (\$20 million). Excluding these losses, the growth rates would have been 1.3 percent in New Jersey, 1.0 percent in Pennsylvania, 1.6 percent in Virginia, and 1.5 percent in South Carolina.

Table B.—Personal Income for Selected States and United States

Rank ¹		Personal income: Percent change from previous quarter ¹				Percent change from 1999:II-1999:III				Percent of	
		1998		1999		Personal income	Net earnings	Dividends, interest, and rent	Transfer payments	U.S. personal income, 1999:III	Growth in U.S. personal income, 1999:III
		III	IV	I	II						
	Fastest growing States:										
1	Nevada	2.0	2.8	2.1	1.3	2.5	2.7	2.8	1.1	.7	1.3
2	Arizona	2.0	2.2	-4	3.6	2.1	2.3	2.3	.9	1.5	2.5
3	Florida	1.6	1.3	.4	1.8	1.8	2.2	1.4	.8	5.4	7.3
	United States	1.3	1.5	1.3	1.3	1.3	1.5	1.0	0.8	100	100
	Slowest growing States:										
48	North Carolina	1.3	1.3	1.6	1.0	-1.0	.4	-10.6	1.1	2.5	-2.1
49	South Dakota .....	.4	5.2	-2	3.1	-1.2	-2.2	1.0	.7	.2	-2
50	North Dakota .....	.6	4.4	.4	3.4	-1.4	-2.7	1.1	1.0	.2	-2

1. Rankings are sorted based on the percent change in 1999:III.

NOTE: Percent changes are expressed at quarterly rates.

Table C.—Earnings by Place of Work: Percent Change by Industry Group, 1999:II-1999:III

[Seasonally adjusted at quarterly rates]

	Percent change in earnings by place of work ¹	Private goods-producing industries				Private services-producing industries						Government
		Total ²	Farms	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	
United States	1.5	0.4	-22.2	0.5	1.4	2.0	1.4	2.0	1.3	1.9	2.4	1.2
New England	1.7	1.2	-9.4	-7	1.9	1.9	1.5	1.9	1.6	1.8	2.2	1.3
Connecticut	1.9	1.2	-6.2	-7	1.7	2.1	1.5	1.7	1.2	1.8	2.7	2.0
Maine	1.6	1.2	-9.9	-1.9	2.8	1.8	1.2	1.3	1.1	.5	2.6	1.4
Massachusetts	1.6	1.0	-7.1	0	1.4	1.9	1.5	2.1	1.7	1.7	2.0	1.0
New Hampshire	1.6	1.7	-10.9	-1.7	2.8	1.8	2.2	1.4	2.0	1.8	1.7	0
Rhode Island	2.0	1.8	-16.7	1.2	2.2	2.0	.1	1.5	1.7	2.1	2.5	2.2
Vermont	1.2	.6	-14.6	-6.5	4.1	1.7	.4	3.1	1.6	2.6	1.5	.8
Mideast	1.5	.7	-8.1	0	1.0	1.9	1.1	1.8	1.5	1.9	2.2	.9
Delaware	1.7	1.3	-11.4	.4	1.9	2.1	.7	1.5	2.0	2.6	2.2	1.2
District of Columbia	1.4	-6	.....	-7	-1.1	2.2	-1.0	3.6	2.8	1.7	2.5	4
Maryland	1.1	.1	-12.9	.2	.5	2.0	2.3	1.6	1.3	1.5	2.3	-6
New Jersey	1.4	.4	1.9	0	.4	1.9	1.2	1.7	1.9	1.7	2.3	.3
New York	2.0	1.9	-9.1	1.3	2.2	2.0	1.1	1.9	1.7	1.9	2.3	1.8
Pennsylvania	1.0	-3	-7.3	-1.7	.1	1.6	.7	1.8	1.0	2.0	1.8	1.0
Great Lakes	1.4	.9	-30.4	-3	1.7	1.7	1.0	2.0	.9	1.8	1.9	1.4
Illinois	1.4	1.2	-34.9	-2	2.5	1.4	.8	1.5	1.0	1.5	1.7	1.8
Indiana	1.0	.5	-29.5	-1.1	1.6	1.4	1.0	1.5	.8	1.6	1.6	1.2
Michigan	1.5	.9	-72.6	-1	1.7	2.1	1.2	3.0	1.0	1.8	2.4	.9
Ohio	1.4	.9	-23.3	.8	1.4	1.7	1.2	2.1	.9	2.0	1.9	1.5
Wisconsin	1.4	.8	3.8	-1.7	1.4	1.8	1.2	2.2	.8	2.4	2.1	1.0
Plains .....	.8	-1.0	-23.2	.7	1.5	1.6	.3	2.1	1.3	1.6	2.0	.7
Iowa	1.1	-4	-13.5	1.8	1.6	2.0	1.4	2.7	.9	2.3	2.3	1.5
Kansas .....	.5	-1.7	-19.6	1.2	.1	1.6	.3	2.5	1.6	1.3	1.8	.5
Minnesota	1.7	1.8	-23.1	-1	3.9	2.0	.2	2.9	1.7	1.7	2.4	.3
Missouri .....	.7	-6	-67.0	1.4	.1	1.3	.1	1.0	1.2	1.7	1.7	.4
Nebraska	0	-5.1	-25.3	1.1	-8	1.7	.2	3.0	1.2	2.0	2.0	2.1
North Dakota	-2.4	-10.0	-27.8	-3	2.2	.8	-1.0	.8	.9	1.3	1.2	-5
South Dakota	-2.0	-8.1	-24.1	-3.5	-6	.4	.3	-1.7	1.1	-2.2	1.5	1.9
Southeast	1.5	-.1	-26.9	.3	1.5	2.2	2.0	2.1	1.1	2.1	2.6	1.5
Alabama	1.1	.6	-24.1	.8	2.2	1.5	1.2	1.3	1.2	2.2	1.7	.7
Arkansas	-3	-4.9	-44.4	.9	.3	2.1	1.3	1.9	1.6	2.1	2.6	1.5
Florida	2.2	1.2	-4.7	1.1	1.8	2.7	2.2	2.0	1.9	2.3	3.4	.7
Georgia	1.6	-1.3	-29.7	-8	.6	2.7	2.7	3.2	1.7	2.5	2.9	1.4
Kentucky	1.6	1.7	-1.5	-4	2.4	1.8	1.5	1.4	1.4	2.2	2.1	1.1
Louisiana .....	.8	-1.2	-54.5	-9	1.8	1.8	1.2	1.9	1.1	1.9	2.1	1.1
Mississippi	1.3	.5	-16.6	-1.3	2.8	1.6	1.5	.6	.2	1.8	2.4	1.8
North Carolina .....	.5	-2.3	-46.3	-1.2	.3	1.1	1.9	2.0	-1.7	1.2	1.8	3.8
South Carolina	1.6	.5	-26.3	.8	1.3	2.0	1.3	3.0	1.4	2.0	2.2	2.4
Tennessee	1.8	2.1	-18.7	2.8	2.1	1.9	1.6	1.9	1.8	1.8	2.0	.8
Virginia	1.9	1.1	-19.1	.6	1.8	2.3	2.8	1.7	.6	2.3	2.8	1.2
West Virginia	2.4	3.1	-58.8	.1	5.7	2.1	1.5	1.2	.7	1.9	3.0	2.2
Southwest	1.5	-.1	-38.4	1.0	1.7	2.3	1.6	2.1	1.4	2.5	2.8	1.3
Arizona	2.3	1.3	-7.4	1.7	2.5	2.6	1.4	2.9	1.7	2.9	3.1	2.3
New Mexico	1.1	-5	-12.3	.8	.7	2.0	.9	2.4	1.3	2.0	2.5	.3
Oklahoma	1.1	-2	-49.8	0	2.8	1.6	1.4	1.9	.9	2.3	1.8	1.2
Texas	1.5	-3	-44.4	1.0	1.4	2.3	1.7	2.0	1.4	2.5	2.8	1.2
Rocky Mountain	1.4	-.4	-15.6	1.1	.4	2.1	.5	1.9	1.7	1.8	2.9	1.3
Colorado	1.8	.1	-12.4	1.8	.1	2.5	.7	2.0	2.1	1.4	3.7	1.1
Idaho .....	.7	.9	-6.4	-4	3.3	.6	.3	2.2	.5	1.1	.1	.7
Montana	-1	-5.5	-44.4	-8	4.1	1.8	-5	1.7	1.5	1.7	2.6	.2
Utah	1.6	-1	-9	1.3	-1.3	2.2	.5	1.7	1.8	3.4	2.5	2.1
Wyoming .....	.1	-2.8	-33.3	-1.7	-2.1	.8	.3	-4	.7	-1.7	1.8	2.7
Far West	1.7	.9	-8.5	1.7	1.2	2.1	1.9	2.1	1.5	1.7	2.4	1.0
Alaska .....	.8	-6	-8.3	-3.1	5.8	2.1	4.2	1.9	.5	2.2	1.9	-6
California	1.6	.7	-10.6	2.3	.9	2.1	1.7	2.3	1.5	1.7	2.3	.9
Hawaii	1.7	-2	-4.8	-2.2	4.0	1.4	1.0	1.1	1.2	1.2	1.6	3.4
Nevada	2.7	.7	-1.2	2.4	-1.6	3.6	3.5	3.5	2.9	2.6	3.9	.8
Oregon	1.5	.9	0	-2.4	2.1	1.7	2.4	.6	1.0	1.7	2.2	2.1
Washington	2.0	1.9	-2.3	1.7	2.2	2.2	2.0	1.8	1.6	1.8	2.7	1.0

1. Earnings by place of work is the sum of wage and salary disbursements (payrolls), other labor income, and proprietors' income.

2. Also includes mining and agricultural services, forestry, and fishing.

Table D.—Earnings by Place of Work: Contribution to Percent Change by Industry Group, 1999:II-1999:III

[Seasonally adjusted]

	Percent change in earnings by place of work ¹	Percentage points										
		Private goods-producing industries				Private services-producing industries						Government
		Total ²	Farms	Construction	Manufacturing	Total	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	
United States	1.5	0.1	-0.2	0	0.2	1.2	0.1	0.1	0.1	0.2	0.7	0.2
New England	1.7	.3	0	0	.3	1.3	.1	.1	.1	.2	.7	.1
Connecticut	1.9	.3	0	0	.3	1.4	.1	.1	.1	.3	.8	.2
Maine	1.6	.3	-1	-1	.5	1.0	.1	.1	.1	0	.7	.2
Massachusetts	1.6	.2	0	0	.2	1.3	.1	.1	.2	.2	.7	.1
New Hampshire	1.6	.5	0	-1	.6	1.1	.1	.1	.2	.1	.5	0
Rhode Island	2.0	.4	0	.1	.4	1.2	0	.1	.2	.2	.8	.3
Vermont	1.2	.2	-2	-5	.8	.9	0	.2	.2	.2	.4	.1
Mideast	1.5	.1	0	0	.1	1.3	.1	.1	.1	.3	.7	.1
Delaware	1.7	.4	-1	0	.5	1.2	0	.1	.2	.4	.5	.1
District of Columbia	1.4	0	0	0	0	1.3	0	0	.1	.1	1.1	.2
Maryland	1.1	0	0	0	0	1.2	.1	.1	.1	.1	.8	-1
New Jersey	1.4	.1	0	0	.1	1.3	.1	.2	.1	.2	.7	0
New York	2.0	.3	0	0	.3	1.4	.1	.1	.1	.4	.7	.2
Pennsylvania	1.0	-1	0	-1	0	.9	0	.1	.1	.2	.5	.1
Great Lakes	1.4	.3	-1	0	.4	.9	.1	.1	.1	.1	.5	.2
Illinois	1.4	.3	-2	0	.5	.9	.1	.1	.1	.2	.5	.2
Indiana	1.0	.2	-2	-1	.5	.7	.1	.1	.1	.1	.4	.1
Michigan	1.5	.3	-2	0	.5	1.0	.1	.2	.1	.1	.6	.1
Ohio	1.4	.3	-1	0	.4	.9	.1	.1	.1	.1	.5	.2
Wisconsin	1.4	.3	0	-1	.4	1.0	.1	.1	.1	.2	.5	.1
Plains .....	.8	-3	-6	0	.3	.9	0	.1	.1	.1	.5	.1
Iowa	1.1	-1	-6	.1	.3	1.1	.1	.2	.1	.2	.5	.2
Kansas .....	.5	-5	-6	.1	0	.9	0	.2	.2	.1	.4	.1
Minnesota	1.7	.5	-3	0	.8	1.2	0	.2	.2	.2	.6	0
Missouri .....	.7	-2	-3	.1	0	.8	0	.1	.1	.1	.5	.1
Nebraska	0	-1.4	-1.3	.1	-1	1.0	0	.2	.1	.2	.5	.3
North Dakota	-2.4	-2.8	-3.0	0	.2	.4	-1	.1	.1	.1	.3	-1
South Dakota	-2.0	-2.5	-2.2	-2	-1	.2	0	-1	.1	.1	.4	.3
Southeast	1.5	0	-3	0	.2	1.3	.1	.1	.1	.2	.7	.2
Alabama	1.1	.2	-4	.1	.5	.8	.1	.1	.1	.1	.4	.1
Arkansas	-3	-1.6	-1.8	.1	.1	1.1	.1	.1	.2	.1	.6	.2
Florida	2.2	.2	0	.1	.1	1.9	.1	.1	.2	.2	1.2	.1
Georgia	1.6	.3	-4	-1	.1	1.7	.3	.3	.2	.2	.8	.2
Kentucky	1.6	.5	0	0	.5	.9	.1	.1	.1	.1	.5	.2
Louisiana .....	.8	-3	-5	-1	.2	1.0	.1	.1	.1	.1	.6	.2
Mississippi	1.3	.2	-4	-1	.6	.8	.1	0	.1	.1	.6	.3
North Carolina .....	.5	-7	-7	-1	.1	.6	.1	.1	-2	.1	.4	.6
South Carolina	1.6	.2	-2	.1	.3	1.0	.1	.2	.2	.1	.5	.4
Tennessee	1.8	.6	-1	.2	.4	1.1	.1	.1	.2	.1	.5	.1
Virginia	1.9	.2	-1	0	.2	1.4	.2	.1	.1	.2	.9	.3
West Virginia	2.4	.9	0	0	.9	1.1	.1	.1	.1	.1	.8	.4
Southwest	1.5	0	-4	.1	.2	1.4	.1	.1	.1	.2	.8	.2
Arizona	2.3	.3	-1	.1	.3	1.6	.1	.2	.2	.3	.9	.3
New Mexico	1.1	-1	-2	.1	0	1.1	.1	.1	.2	.1	.7	.1
Oklahoma	1.1	0	-6	0	.4	.9	.1	.1	.1	.1	.5	.2
Texas	1.5	-1	-5	.1	.2	1.4	.2	.1	.1	.2	.8	.2
Rocky Mountain	1.4	-1	-2	.1	0	1.3	0	.1	.2	.1	.8	.2
Colorado	1.8	0	-1	.1	0	1.6	.1	.1	.2	.1	1.1	.1
Idaho .....	.7	.3	-3	0	.5	.3	0	.1	.1	.1	0	.1
Montana	-1	-1.2	-1.5	-1	.3	1.1	0	.1	.2	.1	.7	0
Utah	1.6	0	0	.1	-2	1.3	0	.1	.2	.3	.7	.3
Wyoming .....	.1	-9	-5	-2	-1	.4	0	0	.1	-1	.4	.6
Far West	1.7	.2	-1	.1	.2	1.3	.1	.1	.1	.1	.8	.1
Alaska .....	.8	-1	0	-2	.2	1.1	.4	.1	0	.1	.4	-2
California	1.6	.2	-1	.1	.1	1.3	.1	.1	.1	.2	.8	.1
Hawaii	1.7	0	0	-1	.1	.9	.1	0	.1	.1	.5	.9
Nevada	2.7	.1	0	.3	-1	2.5	.2	.2	.3	.2	1.6	.1
Oregon	1.5	.2	0	-2	.4	1.0	.1	0	.1	.1	.6	.3
Washington	2.0	.5	0	.1	.4	1.3	.1	.1	.2	.1	.8	.2

1. Earnings by place of work is the sum of wage and salary disbursements (payrolls), other labor income, and proprietors' income. Percent changes are expressed at quarterly rates.

NOTE.—Estimates may not add to totals because of rounding.

2. Also includes mining and agricultural services, forestry, and fishing.

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally]

Line	Item	United States									New England					
		1998				1999					1998			1999		
		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)	7,016,041	7,108,060	7,199,440	7,309,162	7,406,673	7,504,566	7,601,815	419,963	426,088	433,011	440,347	443,257	450,901	457,711	
2	Nonfarm personal income	6,976,702	7,067,229	7,159,779	7,255,600	7,360,198	7,456,022	7,564,061	419,308	425,407	432,302	439,633	442,572	450,195	457,072	
3	Farm income (line 17)	39,340	40,830	39,661	53,562	46,475	48,544	37,754	655	680	708	714	684	705	639	
Derivation of Personal Income																
4	Earnings by place of work (lines 12-16 or 17-34)	5,044,626	5,124,942	5,203,985	5,305,736	5,385,643	5,464,766	5,545,558	295,240	300,574	306,835	313,825	315,016	321,746	327,188	
5	Less: Personal contributions for social insurance ²	340,434	344,952	349,001	353,611	361,224	364,994	369,773	19,164	19,444	19,797	20,180	20,312	20,674	20,951	
6	Plus: Adjustment for residence ³	-4,045	-4,117	-4,200	-4,285	-4,353	-4,430	-4,429	5,472	5,665	5,713	5,595	5,998	5,968	6,060	
7	Equals: Net earnings by place of residence	4,700,147	4,776,233	4,850,784	4,947,839	5,020,066	5,095,342	5,171,156	281,548	286,795	292,750	299,239	300,702	307,040	312,296	
8	Plus: Dividends, interest, and rent ⁴	1,176,971	1,186,108	1,195,773	1,203,134	1,208,900	1,224,662	1,236,995	74,891	75,479	76,103	76,602	77,008	78,040	79,098	
9	Plus: Transfer payments	1,138,923	1,145,719	1,152,883	1,158,189	1,177,707	1,184,562	1,193,664	63,524	63,814	64,158	64,505	65,547	65,821	66,317	
10	State unemployment insurance benefits	19,195	19,183	19,139	19,119	19,692	19,497	19,396	1,366	1,315	1,296	1,327	1,464	1,384	1,417	
11	Transfers excluding State unemployment insurance benefits	1,119,728	1,126,536	1,133,744	1,139,070	1,158,015	1,165,065	1,174,268	62,158	62,500	62,862	63,179	64,082	64,437	64,900	
Earnings by Place of Work																
Components of earnings:																
12	Wage and salary disbursements	4,081,731	4,151,065	4,222,301	4,296,929	4,368,594	4,429,754	4,506,529	240,504	245,193	250,695	256,642	257,168	262,693	267,299	
13	Other labor income	402,519	405,438	408,118	410,754	415,375	419,366	423,684	23,546	23,758	24,054	24,358	24,317	24,680	24,944	
14	Proprietors' income ⁵	560,376	568,439	573,566	598,053	601,674	615,646	615,345	31,190	31,622	32,087	32,825	33,531	34,373	34,945	
15	Farm proprietors' income	23,561	24,418	22,615	35,886	28,329	29,768	18,298	298	309	322	314	274	282	201	
16	Nonfarm proprietors' income	536,815	544,021	550,951	562,167	573,345	585,878	597,047	30,892	31,314	31,764	32,511	33,257	34,091	34,744	
Earnings by Industry																
17	Farm earnings	39,340	40,830	39,661	53,562	46,475	48,544	37,754	655	680	708	714	684	705	639	
18	Nonfarm earnings	5,005,287	5,084,111	5,164,324	5,252,174	5,339,168	5,416,222	5,507,804	294,585	299,893	306,126	313,111	314,332	321,040	326,548	
19	Private earnings	4,272,864	4,343,932	4,416,112	4,496,663	4,577,333	4,642,463	4,724,779	260,220	265,035	270,812	277,080	278,177	284,310	289,337	
20	Agricultural services, forestry, fishing, and other ⁶	31,985	32,985	33,852	35,637	36,658	36,699	37,360	1,682	1,735	1,866	1,866	1,936	1,977	2,013	
21	Mining	44,573	44,105	44,406	44,064	42,048	41,319	41,926	249	256	263	254	286	260	262	
22	Construction	293,067	299,944	307,194	315,162	323,217	329,021	330,658	15,076	15,363	15,665	16,229	16,795	17,323	17,204	
23	Manufacturing	895,982	898,345	900,079	904,535	906,209	915,265	928,522	55,268	55,615	56,409	57,014	56,650	56,678	57,738	
24	Durable goods	556,606	557,180	557,021	561,077	561,164	567,663	577,849	37,510	37,782	38,279	38,912	38,245	38,114	38,912	
25	Nondurable goods	339,377	341,166	343,058	343,458	345,046	347,603	350,674	17,758	17,832	18,130	18,103	18,405	18,565	18,765	
26	Transportation and public utilities	346,566	349,614	353,910	361,497	364,249	365,975	371,158	16,446	16,403	16,602	17,115	16,575	16,957	17,203	
27	Wholesale trade	321,321	327,348	332,762	339,683	345,780	350,300	357,408	19,201	19,561	19,774	20,497	20,368	20,852	21,242	
28	Retail trade	456,152	464,756	472,156	479,740	489,339	497,488	503,982	25,903	26,525	27,143	27,813	27,911	28,875	29,328	
29	Finance, insurance, and real estate	439,683	452,999	462,922	477,006	488,213	498,991	508,540	31,215	31,635	32,615	33,972	35,374	35,176	35,792	
30	Services	1,443,535	1,473,836	1,508,832	1,539,341	1,575,621	1,607,405	1,645,223	95,180	97,941	100,584	102,321	102,282	102,210	108,555	
31	Government and government enterprises	732,423	740,180	748,212	755,510	767,835	777,759	783,026	34,365	34,858	35,315	36,030	36,155	36,730	37,211	
32	Federal, civilian	135,501	136,084	136,892	138,114	143,701	143,034	142,458	5,494	5,543	5,609	5,691	5,689	5,843	5,860	
33	Military	48,081	47,517	47,482	47,064	48,120	47,718	47,966	1,207	1,195	1,188	1,179	1,194	1,188	1,207	
34	State and local	548,841	556,578	563,837	570,333	576,014	583,006	592,601	27,664	28,120	28,518	29,160	29,092	29,699	30,143	

See footnotes at end of table.

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally]

Line	Item	District of Columbia						Maryland							
		1998				1999		1998				1999			
		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)	19,191	19,408	19,687	19,817	20,235	20,450	20,709	150,778	153,116	155,299	157,464	159,802	161,725	163,589
2	Nonfarm personal income	19,191	19,408	19,687	19,817	20,235	20,450	20,709	150,432	152,738	154,927	157,061	159,433	161,375	163,284
3	Farm income (line 17)	0	0	0	0	0	0	0	346	378	372	403	369	350	305
Derivation of Personal Income															
4	Earnings by place of work (lines 12-16 or 17-34)	36,297	36,801	37,744	37,674	39,075	39,493	40,045	94,809	96,743	98,314	100,287	101,528	103,204	104,388
5	Less: Personal contributions for social insurance ²	2,338	2,362	2,416	2,400	2,505	2,521	2,546	6,449	6,559	6,646	6,754	6,875	6,962	7,017
6	Plus: Adjustment for residence ³	-21,962	-22,248	-22,885	-22,733	-23,670	-23,917	-24,239	14,779	14,979	15,381	15,429	16,161	16,055	16,324
7	Equals: Net earnings by place of residence	11,997	12,191	12,443	12,541	12,900	13,054	13,261	103,138	105,163	107,049	108,962	110,815	112,296	113,695
8	Plus: Dividends, interest, and rent ⁴	3,140	3,151	3,163	3,181	3,197	3,235	3,273	25,527	25,706	25,897	26,063	26,198	26,511	26,816
9	Plus: Transfer payments	4,053	4,066	4,081	4,094	4,138	4,161	4,175	22,112	22,246	22,352	22,439	22,778	22,918	23,078
10	State unemployment insurance benefits	64	60	58	58	55	62	53	331	334	303	287	274	268	253
11	Transfers excluding State unemployment insurance benefits	3,990	4,006	4,023	4,036	4,082	4,099	4,122	21,782	21,912	22,050	22,152	22,515	22,650	22,826
Earnings by Place of Work															
Components of earnings:															
12	Wage and salary disbursements	31,299	31,765	32,632	32,560	33,814	34,158	34,634	79,058	80,770	82,198	83,903	84,989	86,382	87,418
13	Other labor income	2,659	2,674	2,722	2,686	2,790	2,808	2,825	7,130	7,228	7,277	7,345	7,410	7,509	7,545
14	Proprietors' income ⁵	2,339	2,362	2,391	2,427	2,472	2,527	2,586	8,621	8,745	8,839	9,038	9,129	9,313	9,425
15	Farm proprietors' income	0	0	0	0	0	0	0	230	258	246	273	236	213	163
16	Nonfarm proprietors' income	2,339	2,362	2,391	2,427	2,472	2,527	2,586	8,390	8,487	8,592	8,765	8,894	9,101	9,262
Earnings by Industry															
17	Farm earnings	0	0	0	0	0	0	0	346	378	372	403	369	350	305
18	Nonfarm earnings	36,297	36,801	37,744	37,674	39,075	39,493	40,045	94,463	96,365	97,942	99,884	101,160	102,854	104,083
19	Private earnings	21,959	22,319	23,175	23,015	24,007	24,347	24,840	74,660	76,230	77,177	79,628	79,581	82,002	83,356
20	Agricultural services, forestry, fishing, and other ⁶	296	303	288	284	334	327	331	542	551	578	597	632	630	641
21	Mining	16	17	15	15	16	18	18	92	90	96	99	96	92	93
22	Construction	432	433	434	437	418	412	409	6,520	6,590	6,786	7,057	7,034	7,335	7,352
23	Manufacturing	1,000	1,080	1,117	1,012	1,131	1,132	1,120	8,714	8,751	8,653	8,852	8,842	8,953	8,997
24	Durable goods	125	195	165	176	192	227	198	4,743	4,778	4,651	4,675	4,695	4,725	4,752
25	Non-durable goods	876	885	951	836	939	905	922	3,971	3,974	4,002	4,179	4,147	4,228	4,245
26	Transportation and public utilities	1,348	1,179	1,164	1,217	1,422	1,454	1,440	5,515	5,560	5,610	5,663	5,579	5,683	5,813
27	Wholesale trade	332	339	298	339	436	415	430	5,357	5,440	5,531	5,633	5,710	5,883	5,978
28	Retail trade	907	908	901	936	921	928	954	8,940	9,087	9,139	9,474	9,353	9,413	9,540
29	Finance, insurance, and real estate	2,125	2,307	2,414	2,353	2,343	2,542	2,585	7,464	8,245	8,123	8,483	8,299	8,916	9,052
30	Services	15,504	15,752	16,544	16,421	16,986	17,119	17,553	31,516	31,915	32,660	33,771	34,035	35,096	35,893
31	Government and government enterprises	14,530	14,482	14,569	14,659	15,068	15,145	15,206	19,803	20,134	20,765	20,256	21,579	20,852	20,727
32	Federal, civilian	11,766	11,808	11,880	11,931	12,471	12,388	12,396	8,199	8,251	8,303	8,399	8,760	8,713	8,599
33	Military	744	738	740	728	751	761	759	1,375	1,355	1,360	1,351	1,398	1,370	1,358
34	State and local	1,829	1,937	1,948	2,000	1,846	1,996	2,051	10,228	10,528	11,102	10,506	11,421	10,769	10,770

See footnotes at end of table.

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally]

Line	Item	Wisconsin									Plains								
		1998				1999					1998				1999				
		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)	128,587	130,512	132,318	134,771	134,472	137,098	138,932	460,014	466,078	470,605	482,185	484,446	492,615	496,817				
2	Nonfarm personal income	128,180	130,055	131,880	134,076	133,970	136,648	138,465	453,825	459,760	464,449	470,093	475,118	482,947	489,394				
3	Farm income (line 17)	407	457	437	695	502	450	467	6,190	6,318	6,156	12,092	9,328	9,668	7,423				
Derivation of Personal Income																			
4	Earnings by place of work (lines 12-16 or 17-34)	91,375	93,088	94,686	96,989	96,248	98,593	99,944	337,043	342,607	346,425	357,527	358,737	366,097	368,918				
5	Less: Personal contributions for social insurance ²	5,960	6,050	6,140	6,256	6,230	6,378	6,444	24,116	24,432	24,643	24,926	25,311	25,744	26,010				
6	Plus: Adjustment for residence ³	2,202	2,241	2,243	2,300	2,353	2,384	2,436	-4,125	-4,209	-4,269	-4,302	-4,365	-4,455	-4,518				
7	Equals: Net earnings by place of residence	87,616	89,278	90,789	93,032	92,362	94,599	95,936	308,801	313,966	317,512	328,299	329,062	335,899	338,389				
8	Plus: Dividends, interest, and rent ⁴	21,790	21,972	22,164	22,304	22,418	22,738	23,092	80,080	80,625	81,204	81,658	82,011	83,008	84,117				
9	Plus: Transfer payments	19,181	19,262	19,365	19,434	19,622	19,761	19,904	71,133	71,487	71,888	72,228	73,374	73,709	74,311				
10	State unemployment insurance benefits	466	453	457	454	453	425	443	1,014	978	967	1,001	1,062	993	1,068				
11	Transfers excluding State unemployment insurance benefits	18,715	18,809	18,907	18,980	19,239	19,336	19,462	70,119	70,509	70,922	71,227	72,312	72,715	73,242				
Earnings by Place of Work																			
Components of earnings:																			
12	Wage and salary disbursements	76,201	77,710	79,204	81,057	80,438	82,524	83,724	272,397	277,255	280,854	285,292	288,355	294,318	298,609				
13	Other labor income	8,256	8,340	8,412	8,520	8,397	8,593	8,659	27,992	28,249	28,295	28,415	28,598	29,056	29,270				
14	Proprietors' income ⁵	6,918	7,038	7,070	7,412	7,413	7,476	7,561	36,654	37,103	37,276	38,420	41,784	42,724	41,039				
15	Farm proprietors' income	-162	-135	-177	57	-146	-213	-213	4,510	4,571	4,341	10,209	7,398	7,674	5,360				
16	Nonfarm proprietors' income	7,080	7,174	7,247	7,354	7,560	7,689	7,773	32,144	32,533	32,935	33,611	34,386	35,500	35,679				
Earnings by Industry																			
17	Farm earnings	407	457	437	695	502	450	467	6,190	6,318	6,156	12,092	9,328	9,668	7,423				
18	Nonfarm earnings	90,968	92,631	94,249	96,294	95,746	98,143	99,477	330,853	336,289	340,269	345,435	349,409	356,429	361,495				
19	Private earnings	79,204	80,456	81,923	83,559	83,315	85,733	86,778	283,293	288,428	292,006	296,350	300,032	306,260	310,955				
20	Agricultural services, forestry, fishing, and other ⁶	511	541	545	578	597	608	619	2,105	2,214	2,241	2,356	2,469	2,495	2,540				
21	Mining	139	143	147	150	138	136	139	1,662	1,659	1,676	1,634	1,511	1,494	1,501				
22	Construction	5,954	6,114	6,236	6,445	6,691	6,778	6,862	21,327	21,668	22,177	22,719	23,704	24,081	24,261				
23	Manufacturing	25,824	25,844	26,096	26,635	26,664	26,607	26,978	65,114	65,753	65,830	65,208	65,452	66,439	67,444				
24	Durable goods	16,104	16,180	16,259	16,612	15,965	16,579	16,926	38,999	39,301	39,140	38,860	38,579	39,248	40,015				
25	Nondurable goods	9,720	9,663	9,837	10,023	9,699	10,028	10,052	26,114	26,452	26,690	26,348	26,873	27,192	27,429				
26	Transportation and public utilities	5,321	5,551	5,557	5,640	5,557	5,685	5,752	25,275	25,617	25,389	26,160	26,642	26,557	26,627				
27	Wholesale trade	5,696	5,778	5,996	6,041	6,018	6,151	6,286	24,560	24,978	25,241	25,627	25,815	26,258	26,806				
28	Retail trade	8,230	8,518	8,536	8,694	8,872	8,964	9,034	31,840	32,398	33,140	33,464	34,585	34,796	35,263				
29	Finance, insurance, and real estate	6,217	6,354	6,462	6,988	6,726	7,014	7,179	25,313	26,567	26,820	28,160	27,539	29,359	29,837				
30	Services	21,311	21,613	22,347	22,588	23,050	23,629	24,129	86,097	87,574	89,491	91,022	92,314	94,780	96,676				
31	Government and government enterprises	11,764	12,175	12,326	12,735	12,431	12,570	12,699	47,560	47,861	48,263	49,085	49,378	50,169	50,540				
32	Federal, civilian	1,264	1,278	1,291	1,325	1,386	1,356	1,353	7,639	7,712	7,805	7,877	8,164	8,170	8,156				
33	Military	194	193	191	188	192	190	191	2,453	2,410	2,407	2,374	2,422	2,408	2,410				
34	State and local	10,306	10,705	10,844	11,223	10,854	11,024	11,156	37,468	37,739	38,051	38,834	38,791	39,591	39,973				

See footnotes at end of table.

and Earnings by Industry, 1998:I-1999:III—Continued
adjusted at annual rates]

Table with columns for Iowa, Kansas, and Minnesota. Each state column contains sub-columns for years 1998 and 1999, further divided into four quarters (I-IV) and three months (I'-III'). Rows represent various industry categories, with numerical values for each category across the time periods. A 'Line' column on the right indicates the corresponding line number for each row.

Table with columns for North Dakota, South Dakota, and Southeast. Each region column contains sub-columns for years 1998 and 1999, further divided into four quarters (I-IV) and three months (I'-III'). Rows represent various industry categories, with numerical values for each category across the time periods. A 'Line' column on the right indicates the corresponding line number for each row.

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally]

Line	Item	Alabama						Arkansas							
		1998				1999		1998				1999			
		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)	91,987	92,976	94,041	95,265	95,780	97,014	98,145	50,874	51,403	51,790	52,984	53,182	53,759	53,827
2	Nonfarm personal income	90,858	91,773	92,836	94,005	94,660	95,942	97,332	49,511	49,924	50,445	51,019	51,708	52,249	52,988
3	Farm income (line 17)	1,128	1,202	1,205	1,260	1,120	1,072	814	1,363	1,479	1,345	1,966	1,474	1,510	839
Derivation of Personal Income															
4	Earnings by place of work (lines 12-16 or 17-34)	64,423	65,171	66,015	67,105	67,247	68,193	68,948	35,711	36,105	36,353	37,500	37,566	37,973	37,850
5	Less: Personal contributions for social insurance ²	4,700	4,731	4,780	4,839	4,877	4,934	4,988	2,472	2,482	2,504	2,534	2,584	2,601	2,631
6	Plus: Adjustment for residence ³	721	745	774	787	817	827	849	-318	-308	-308	-313	-328	-327	-330
7	Equals: Net earnings by place of residence	60,443	61,184	62,010	63,053	63,187	64,066	64,808	32,920	33,315	33,542	34,654	34,654	35,045	34,890
8	Plus: Dividends, interest, and rent ⁴	12,615	12,729	12,849	12,926	12,986	13,183	13,415	7,247	7,315	7,387	7,432	7,466	7,582	7,716
9	Plus: Transfer payments	18,928	19,061	19,182	19,285	19,607	19,745	19,922	10,707	10,772	10,862	10,889	11,062	11,133	11,221
10	State unemployment insurance benefits	211	221	209	215	191	201	210	190	190	210	196	178	181	181
11	Transfers excluding State unemployment insurance benefits	18,717	18,841	18,973	19,070	19,416	19,544	19,712	10,517	10,582	10,651	10,702	10,884	10,952	11,040
Earnings by Place of Work															
Components of earnings:															
12	Wage and salary disbursements	52,308	52,896	53,673	54,577	54,735	55,576	56,419	27,846	28,090	28,454	28,925	29,348	29,658	30,121
13	Other labor income	5,395	5,406	5,433	5,469	5,446	5,507	5,563	2,945	2,948	2,962	2,976	2,990	3,014	3,038
14	Proprietors' income ⁵	6,721	6,868	6,910	7,059	7,067	7,110	6,965	4,920	5,068	4,937	5,599	5,227	5,301	4,692
15	Farm proprietors' income	990	1,058	1,055	1,105	962	910	648	1,131	1,238	1,094	1,706	1,210	1,241	563
16	Nonfarm proprietors' income	5,731	5,810	5,855	5,954	6,105	6,200	6,317	3,789	3,830	3,843	3,893	4,017	4,061	4,129
Earnings by Industry															
17	Farm earnings	1,128	1,202	1,205	1,260	1,120	1,072	814	1,363	1,479	1,345	1,966	1,474	1,510	839
18	Nonfarm earnings	63,295	63,968	64,811	65,845	66,127	67,121	68,134	34,348	34,626	35,008	35,535	36,092	36,463	37,012
19	Private earnings	52,044	52,527	53,133	53,765	54,095	54,997	55,923	29,150	29,278	29,599	29,915	30,585	30,844	31,308
20	Agricultural services, forestry, fishing, and other ⁶	370	379	386	406	425	416	427	280	282	278	285	313	316	323
21	Mining	645	639	643	631	625	588	609	187	181	184	177	174	170	172
22	Construction	4,095	4,207	4,216	4,250	4,466	4,410	4,446	2,140	2,178	2,152	2,139	2,237	2,295	2,315
23	Manufacturing	13,769	13,827	13,957	13,922	13,724	13,889	14,197	8,056	8,093	8,192	8,183	8,095	8,285	8,310
24	Durable goods	7,823	7,758	7,829	7,869	7,798	7,921	8,200	4,499	4,533	4,562	4,575	4,497	4,569	4,612
25	Nondurable goods	5,945	6,070	6,128	6,053	5,926	5,968	5,997	3,557	3,560	3,630	3,608	3,588	3,716	3,698
26	Transportation and public utilities	4,218	4,171	4,226	4,358	4,188	4,249	4,301	2,985	2,973	3,018	3,038	3,098	2,991	3,031
27	Wholesale trade	3,733	3,793	3,853	3,896	3,965	4,010	4,061	1,874	1,889	1,908	1,947	1,925	1,991	2,028
28	Retail trade	6,209	6,284	6,392	6,432	6,635	6,677	6,754	4,170	4,138	4,064	4,205	4,663	4,476	4,548
29	Finance, insurance, and real estate	3,774	3,877	3,921	4,138	4,063	4,300	4,395	1,801	1,805	1,828	1,899	1,851	1,979	2,020
30	Services	15,231	15,350	15,638	15,733	16,003	16,458	16,734	7,658	7,739	7,975	8,042	8,137	8,340	8,560
31	Government and government enterprises	11,250	11,441	11,677	12,080	12,033	12,124	12,211	5,198	5,348	5,410	5,620	5,497	5,619	5,704
32	Federal, civilian	2,566	2,581	2,599	2,615	2,673	2,648	2,601	679	686	906	964	948	955	963
33	Military	847	835	835	829	836	820	797	298	295	289	288	290	287	292
34	State and local	7,837	8,026	8,243	8,635	8,523	8,656	8,812	4,021	4,166	4,214	4,368	4,259	4,377	4,449

See footnotes at end of table.

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally]

Line	Item	Virginia						West Virginia							
		1998				1999		1998				1999			
		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)	182,445	184,931	187,900	191,467	196,815	195,755	198,751	34,676	34,911	35,290	35,469	35,562	35,955	36,570
2	Nonfarm personal income	182,099	184,585	187,552	191,072	196,433	195,325	198,403	34,670	34,903	35,282	35,458	35,549	35,939	36,564
3	Farm income (line 17)	346	346	347	395	382	430	348	7	8	9	11	13	17	7
Derivation of Personal Income															
4	Earnings by place of work (lines 12-16 or 17-34)	128,127	130,302	132,834	136,542	141,542	139,358	141,941	21,867	22,015	22,331	22,394	22,281	22,638	23,180
5	Less: Personal contributions for social insurance ²	8,576	8,693	8,834	9,054	9,454	9,245	9,392	1,622	1,626	1,646	1,643	1,641	1,662	1,698
6	Plus: Adjustment for residence ³	5,569	5,607	5,783	5,536	5,660	6,025	6,043	23	272	293	300	344	404	379
7	Equals: Net earnings by place of residence	125,120	127,216	129,737	133,023	137,748	136,139	138,592	20,517	20,682	20,985	21,095	21,044	21,355	21,854
8	Plus: Dividends, interest, and rent ⁴	31,057	31,280	31,517	31,704	31,854	32,236	32,551	5,012	5,042	5,073	5,100	5,119	5,171	5,231
9	Plus: Transfer payments	26,268	26,435	26,600	26,739	27,213	27,380	27,608	9,147	9,188	9,232	9,275	9,400	9,429	9,485
10	State unemployment insurance benefits	186	163	149	155	155	146	144	139	135	132	140	141	123	119
11	Transfers excluding State unemployment insurance benefits	26,101	26,271	26,452	26,585	27,058	27,234	27,464	9,008	9,053	9,100	9,134	9,259	9,305	9,366
Earnings by Place of Work															
Components of earnings:															
12	Wage and salary disbursements	108,899	110,889	113,182	116,514	121,058	118,809	121,196	17,862	17,998	18,290	18,344	18,228	18,531	19,010
13	Other labor income	9,964	10,047	10,177	10,347	10,629	10,433	10,571	1,857	1,857	1,871	1,851	1,823	1,843	1,883
14	Proprietors' income ⁵	9,264	9,365	9,475	9,681	9,854	10,117	10,174	2,187	2,160	2,170	2,199	2,230	2,264	2,287
15	Farm proprietors' income	167	160	154	195	179	223	138	-19	-19	-19	-18	-16	-13	-24
16	Nonfarm proprietors' income	9,097	9,205	9,321	9,486	9,675	9,893	10,036	2,166	2,179	2,189	2,217	2,246	2,277	2,311
Earnings by Industry															
17	Farm earnings	346	346	347	395	382	430	348	7	8	9	11	13	17	7
18	Nonfarm earnings	127,781	129,956	132,486	136,147	141,159	138,928	141,592	21,860	22,007	22,322	22,383	22,268	22,622	23,174
19	Private earnings	100,453	102,528	104,712	108,347	112,751	110,422	112,732	17,759	17,863	18,117	18,180	17,905	18,272	18,729
20	Agricultural services, forestry, fishing, and other ⁶	882	716	730	736	772	796	812	88	82	85	89	88	91	93
21	Mining	643	644	667	665	651	605	614	1,451	1,425	1,489	1,416	1,342	1,240	1,242
22	Construction	7,813	7,893	8,111	8,269	8,516	8,725	8,780	1,403	1,384	1,355	1,345	1,337	1,341	1,342
23	Manufacturing	16,738	16,664	16,696	16,705	16,353	16,387	16,680	3,349	3,439	3,462	3,464	3,289	3,463	3,661
24	Durable goods	8,705	8,646	8,691	8,737	8,429	8,320	8,615	1,821	1,876	1,929	1,922	1,775	1,869	1,996
25	Non-durable goods	8,033	8,018	8,005	7,968	7,924	8,067	8,064	1,528	1,562	1,533	1,541	1,514	1,594	1,665
26	Transportation and public utilities	8,861	9,068	9,411	9,754	9,636	9,580	9,851	1,762	1,704	1,732	1,748	1,693	1,673	1,698
27	Wholesale trade	6,894	6,978	7,103	7,337	7,588	7,744	7,874	1,085	1,085	1,098	1,084	1,122	1,124	1,138
28	Retail trade	11,059	11,326	11,496	11,562	12,137	12,101	12,172	2,173	2,199	2,223	2,232	2,246	2,295	2,310
29	Finance, insurance, and real estate	9,323	9,424	9,855	10,190	10,580	10,570	10,811	874	942	941	960	948	1,016	1,035
30	Services	38,440	39,815	40,642	43,040	46,518	43,914	45,138	5,574	5,603	5,733	5,842	5,839	6,030	6,210
31	Government and government enterprises	27,329	27,428	27,774	27,800	28,408	28,506	28,860	4,101	4,144	4,205	4,205	4,363	4,350	4,445
32	Federal, civilian	8,581	8,609	8,637	8,674	9,041	8,982	8,959	952	955	968	984	1,026	1,015	1,012
33	Military	5,430	5,370	5,331	5,274	5,455	5,454	5,559	99	97	97	96	98	97	99
34	State and local	13,308	13,449	13,806	13,852	13,912	14,070	14,342	3,050	3,092	3,140	3,123	3,238	3,237	3,334

See footnotes at end of table.

Table 2.—Personal Income by Major Source

[Millions of dollars, seasonally]

Line	Item	Montana						Utah							
		1998				1999		1998				1999			
		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)	17,547	17,786	17,728	18,246	18,476	18,964	19,024	43,288	44,070	44,561	45,269	45,727	46,729	47,466
2	Nonfarm personal income	17,490	17,788	17,731	17,916	18,253	18,547	18,793	43,063	43,840	44,329	45,029	45,490	46,497	47,235
3	Farm income (line 17)	56	-2	-3	330	224	417	232	225	230	233	240	237	232	230
Derivation of Personal Income															
4	Earnings by place of work (lines 12-16 or 17-34)	11,499	11,721	11,604	12,096	12,278	12,724	12,710	34,068	34,788	35,189	35,857	36,212	37,120	37,711
5	Less: Personal contributions for social insurance ²	958	982	968	979	1,005	1,022	1,033	2,249	2,288	2,306	2,343	2,373	2,425	2,453
6	Plus: Adjustment for residence ³	-28	-30	-28	-28	-29	-30	-31	3	2	7	9	7	9	
7	Equals: Net earnings by place of residence	10,512	10,709	10,609	11,088	11,244	11,672	11,647	31,822	32,502	32,887	33,521	33,848	34,702	35,267
8	Plus: Dividends, interest, and rent ⁴	3,423	3,447	3,471	3,490	3,503	3,545	3,588	5,896	5,659	5,724	5,763	5,794	5,897	6,018
9	Plus: Transfer payments	3,611	3,630	3,648	3,668	3,729	3,748	3,780	5,970	5,910	5,920	5,985	6,085	6,130	6,181
10	State unemployment insurance benefits	64	62	58	62	64	61	65	83	86	87	94	92	99	101
11	Transfers excluding State unemployment insurance benefits	3,547	3,568	3,590	3,607	3,665	3,687	3,715	5,787	5,824	5,863	5,891	5,993	6,031	6,080
Earnings by Place of Work															
Components of earnings:															
12	Wage and salary disbursements	8,849	9,108	9,018	9,162	9,365	9,558	9,697	27,865	28,485	28,826	29,424	29,645	30,409	30,886
13	Other labor income	912	935	910	913	931	947	954	2,764	2,800	2,804	2,820	2,832	2,891	2,912
14	Proprietors' income ⁵	1,738	1,678	1,676	2,021	1,982	2,220	2,059	3,439	3,504	3,559	3,613	3,734	3,819	3,912
15	Farm proprietors' income	-102	-166	-174	152	39	224	28	120	121	119	122	115	103	95
16	Nonfarm proprietors' income	1,840	1,844	1,850	1,869	1,943	1,996	2,031	3,319	3,383	3,439	3,491	3,619	3,716	3,817
Earnings by Industry															
17	Farm earnings	56	-2	-3	330	224	417	232	225	230	233	240	237	232	230
18	Nonfarm earnings	11,442	11,722	11,607	11,766	12,055	12,307	12,479	33,843	34,558	34,957	35,618	35,974	36,888	37,480
19	Private earnings	9,200	9,445	9,306	9,469	9,677	9,902	10,068	28,386	28,931	29,421	29,836	30,251	30,970	31,439
20	Agricultural services, forestry, fishing, and other ⁶	107	109	109	115	119	122	125	135	141	150	148	150	159	163
21	Mining	289	281	303	274	277	270	270	463	453	445	432	405	424	436
22	Construction	1,025	987	958	916	1,026	1,078	1,069	2,747	2,835	2,919	2,842	3,044	3,060	3,099
23	Manufacturing	902	1,108	887	921	919	925	963	4,993	5,009	5,003	4,974	4,965	5,099	5,034
24	Durable goods	580	781	568	593	596	582	589	3,541	3,544	3,515	3,454	3,491	3,618	3,545
25	Nondurable goods	322	327	319	328	323	344	374	1,452	1,465	1,488	1,520	1,474	1,482	1,490
26	Transportation and public utilities	947	942	927	938	953	976	971	2,556	2,554	2,624	2,575	2,660	2,642	2,655
27	Wholesale trade	622	625	633	627	651	654	665	1,993	2,027	2,078	2,092	2,168	2,153	2,189
28	Retail trade	1,456	1,478	1,487	1,529	1,560	1,560	1,583	3,651	3,718	3,757	3,900	3,837	3,983	4,054
29	Finance, insurance, and real estate	863	679	692	737	706	752	765	2,526	2,694	2,794	2,855	2,764	2,896	2,994
30	Services	3,189	3,236	3,309	3,412	3,467	3,564	3,656	9,321	9,500	9,652	10,019	10,258	10,555	10,815
31	Government and government enterprises	2,243	2,278	2,301	2,297	2,378	2,405	2,411	5,567	5,627	5,536	5,782	5,723	5,918	6,041
32	Federal, civilian	543	550	553	556	590	582	575	1,332	1,352	1,340	1,354	1,402	1,419	1,441
33	Military	153	151	153	154	157	155	156	253	251	252	249	254	254	256
34	State and local	1,547	1,577	1,595	1,587	1,631	1,668	1,680	3,873	4,025	3,944	4,180	4,066	4,245	4,344

^r Preliminary.^p Revised.

1. The estimates of earnings for 1998-99 are based on the 1987 Standard Industrial Classification.

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

3. 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.

4. Rental income of persons includes the capital consumption adjustment.

5. Proprietors' income includes the inventory valuation adjustment and the capital consumption adjustment.

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

and Earnings by Industry, 1998:I-1999:III—Continued

adjusted at annual rates]

Wyoming				Far West								Alaska						Line																																																																					
1998				1999				1998				1999				1998						1999																																																																	
I	II	III	IV	I'	II'	III'	IV'	I	II	III	IV	I'	II'	III'	IV'	I	II		III	IV	I'	II'	III'	IV'	I	II	III	IV	I'	II'	III'	IV'																																																							
11,023	11,004	11,278	11,372	11,587	11,666	11,732	12,102,289	1,225,749	1,244,320	1,266,721	1,291,380	1,308,673	1,327,645	15,805	15,749	15,762	15,978	16,154	16,114	16,236	1	11,053	11,114	11,277	11,350	11,518	11,554	11,658	12,007,723	1,215,685	1,234,447	1,256,137	1,281,186	1,298,135	1,318,005	15,793	15,738	15,750	15,966	16,141	16,101	16,225	2	-29	-110	1	22	69	111	74	9,566	10,064	9,873	10,584	10,194	10,538	9,640	11	12	12	12	13	12	11	3																						
7,456	7,403	7,657	7,723	7,906	7,928	7,934	880,713	893,914	910,714	931,865	954,411	968,303	984,452	12,498	12,374	12,370	12,576	12,693	12,570	12,666	4	525	524	533	534	545	541	542	59,553	60,216	61,204	62,371	64,315	64,961	65,860	893	881	877	887	898	885	888	5	19	-17	-19	-17	-17	-13	-12	-2,051	-2,084	-2,128	-2,206	-2,282	-2,302	-2,376	-903	-795	-797	-810	-812	-901	-909	6																						
6,912	6,862	7,104	7,172	7,343	7,374	7,381	819,109	831,614	847,382	867,288	887,914	901,040	916,215	10,801	10,699	10,697	10,880	10,984	10,883	10,968	7	2,333	2,352	2,307	2,387	2,399	2,435	2,481	209,312	211,138	213,057	214,617	218,519	221,040	1,950	1,964	1,980	1,994	2,005	2,030	2,055	8	1,778	1,790	1,801	1,812	1,844	1,856	1,870	181,866	182,997	183,881	184,815	187,822	189,114	190,389	3,054	3,086	3,085	3,104	3,166	3,201	3,214	9	27	27	30	31	31	4,246	4,330	4,408	4,424	4,534	4,397	104	118	96	101	112	128	115	10				
1,751	1,762	1,774	1,782	1,813	1,824	1,839	177,622	178,667	179,773	180,591	183,498	184,580	185,992	2,950	2,968	2,968	3,003	3,054	3,073	3,098	11	5,917	5,934	6,066	6,101	6,204	6,175	6,212	696,702	707,749	722,520	739,671	758,904	769,395	783,310	10,059	9,965	9,959	10,123	10,191	10,088	10,165	12	555	552	558	554	558	555	554	66,177	66,598	67,263	68,031	69,594	70,321	71,097	1,012	990	981	988	991	970	974	13	984	917	1,033	1,068	1,143	1,199	1,168	117,834	119,567	120,931	124,164	125,913	128,587	130,045	1,427	1,420	1,430	1,465	1,511	1,511	1,526	14
-111	-195	-87	-69	-25	12	-30	4,170	4,451	4,043	4,540	4,540	3,950	4,024	2,837	8	8	8	8	10	9	8	15	1,095	1,112	1,120	1,137	1,169	1,186	1,198	113,664	115,116	116,887	119,624	121,963	124,563	127,208	1,419	1,412	1,422	1,458	1,501	1,502	1,519	16																																											
-29	-110	1	22	69	111	74	9,566	10,064	9,873	10,584	10,194	10,538	9,640	11	12	12	12	13	12	11	17	7,485	7,513	7,656	7,701	7,837	7,817	7,860	871,147	883,560	900,841	921,281	944,217	957,765	974,812	12,486	12,363	12,359	12,565	12,680	12,557	12,655	18	5,814	5,830	5,937	5,995	6,072	6,059	6,054	740,280	751,798	768,039	786,606	806,045	818,259	833,865	8,830	8,730	8,817	8,992	8,987	8,850	8,970	19																						
57	61	61	65	71	70	71	8,797	8,793	9,362	10,065	10,059	10,011	10,178	207	210	217	230	239	235	240	20	1,201	1,191	1,223	1,175	1,137	1,120	1,109	4,156	4,029	4,053	4,165	3,987	3,706	3,742	943	931	937	954	859	803	783	21	417	419	425	441	424	431	422	136,272	137,444	136,950	137,685	141,186	143,766	145,460	607	576	559	571	529	539	570	23																						
169	170	173	172	171	174	168	97,650	98,613	97,983	97,845	100,558	103,238	104,810	175	164	167	174	182	173	176	24	248	248	252	269	254	257	253	38,622	38,831	39,840	40,629	40,528	40,850	431	411	391	396	417	366	394	25	685	672	669	672	658	673	675	57,246	58,025	58,553	60,684	61,858	63,019	1,330	1,316	1,345	1,358	1,345	1,322	1,377	26																								
271	275	276	266	278	276	275	53,757	54,525	55,164	56,948	57,298	58,172	59,419	371	380	386	395	362	365	372	27	767	776	787	825	830	815	821	81,031	82,199	84,278	85,742	87,123	88,708	90,071	1,204	1,212	1,203	1,220	1,236	1,264	1,270	28																																												
334	351	363	377	353	362	356	69,763	71,935	74,637	77,817	78,416	79,453	80,843	487	504	505	533	535	549	561	29	1,439	1,425	1,485	1,520	1,592	1,568	1,596	277,616	283,093	290,582	298,102	308,239	312,920	320,483	2,661	2,687	2,771	2,805	2,784	2,828	2,882	30																																												
1,672	1,683	1,719	1,706	1,765	1,758	1,806	130,867	132,052	132,802	134,675	138,172	139,506	140,947	3,656	3,633	3,541	3,573	3,693	3,707	3,684	31	299	304	308	307	317	323	323	20,201	20,166	20,246	20,323	21,285	21,129	20,947	856	861	862	853	896	904	893	32																																												
135	133	134	133	136	138	138	10,273	10,168	10,110	10,063	10,196	10,193	10,162	833	834	840	834	840	833	835	33	1,238	1,245	1,276	1,266	1,312	1,302	1,346	100,394	101,718	102,447	104,289	106,687	108,184	109,838	2,167	2,137	2,039	2,086	2,157	2,170	2,156	34																																												

NOTE.—The personal income level shown for the United States 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 of differences in coverage, in the methodologies used to prepare the estimates, and in the timing of the availability of source data. In particular, it differs from the NIPA estimate 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.

Industrial Composition of State Earnings in 1958–98

By G. Andrew Bernat, Jr. and Eric S. Repice

A QUESTION OF long-standing interest in economics is “Are differences in the industrial composition of economies getting smaller—that is, converging—over time?” This question is important for regional economies as well as for national economies, though the differences in industrial composition among regions tend to be smaller than those among nations. For example, because of the close relationship between per capita income and industrial composition, convergence in industrial composition among regions or States is likely to be reflected in convergence in per capita incomes.¹ This article examines these issues by analyzing the industrial composition of State earnings in 1998, the most recent year for which data are available from BEA’s regional accounts, and by analyzing trends in State industrial composition from 1958 to 1998. The key findings of this analysis follow:

- The industrial composition of earnings across States varied substantially in 1998, but less than in 1958. The States with the most variation in 1998 had small populations, relatively little manufacturing, and in some cases, relatively large government and large resource-based industries.
- The convergence in State industrial compositions in 1958–98 is primarily attributable to substantial growth in services and to declines in farming and manufacturing.
- In the States that converged the most, the manufacturing share of State earnings tended to rise toward its U.S. average and the farm and government shares tended to fall toward their U.S. averages.

1. See Sukkoo Kim, “Economic Integration and Convergence: U.S. Regions, 1840–1987,” *Journal of Economic History* 58 (1998): 659–683 and Daniel H. Garnick and Howard L. Friedenberg, “Accounting for Regional Differences in Per Capita Personal Income Growth, 1929–79,” *SURVEY OF CURRENT BUSINESS* 62 (September 1982): 24–34.

However, even if State industrial compositions continue to become more similar, further shifts in the share of earnings towards services and away from manufacturing might contribute to a widening of the income distribution in some States. See Constance Mitchell Ford and Patrick Barta, “Income Gap Broadens Amid Boom” *The Wall Street Journal*, January 18, 2000, A2; and Gene Koretz, “Why the Wage Gap Widened,” *Business Week*, November 22, 1999, 18.

These findings are consistent with the widely accepted view that convergence in industrial composition results from economic growth and integration. Economic theory suggests that the industrial composition of a particular economy is a function of capital stocks, labor supplies, the pattern of demand for final goods and services, transport costs, and the mobility of capital and labor. Most of these factors do not differ substantially among States and are therefore unlikely sources of differences in industrial composition: Transportation barriers between States are rare, transport costs are relatively low, capital and labor are relatively mobile, and final demand patterns are similar.

Nevertheless, differences in the industrial composition of States persist. In some cases, the differences reflect constraints on factor mobility, such as in natural-resource-intensive industries. In addition, the effects of economic geography may explain some of this persistence and have important implications. For instance, some observers speculate that the ongoing unification of Europe might lead to greater regional specialization that results in rich regions becoming richer, and poor regions, poorer.² Speculation that further economic integration might reinforce regional differences has rekindled interest among economists and policy makers about trends in State industrial composition. Because the U.S. economy is already highly integrated, analyses of these trends may shed light on what may happen to economies around the world as barriers to trade and to factor mobility are reduced and as national economies become more integrated with each other.³

The Heckscher-Ohlin theory of international trade is often used to explain the pattern of industrial production and the reasons for the convergence of industrial compositions over

2. See “Birds of a Feather,” *The Economist*, May 29, 1999, 78, and Paul Krugman, *Geography and Trade* (Cambridge, MA: The MIT University Press 1991): 83.

3. Kim, “Economic Integration and Convergence,” 661.

time.⁴ According to this theory, nations tend to specialize in industries or in groups of industries that intensively use the more abundant factors of production; for example, a nation with relatively more capital than labor will specialize in the production of capital intensive goods and services. Conversely, economies will not tend to specialize if the proportions of the various factors of production are similar.

In contrast to the view that convergence in industrial composition inevitably results from eco-

nomie growth and integration, certain conditions may lead economies to specialize in particular industries, and this specialization results in a divergence in industrial compositions over time.⁵ Positive geographic externalities, especially in the presence of increasing returns to scale, can lead to the clustering of economic activity.⁶ This effect

5. For a recent overview of the relationship between geographic externalities and growth, see Ron Martin and Peter Sunley, "Slow Convergence? The New Endogenous Growth Theory and Regional Development," *Economic Geography* 74 (1998): 201-227.

6. A positive geographic externality exists if the location of an establishment in an area raises the productivity of nearby establishments in some way. For example, firms that locate near their input suppliers create geographic externalities that can lead to clustering because transportation costs are reduced. Moreover, if input suppliers can obtain increasing returns to scale, productivity is further enhanced because the scale of production for input suppliers rises. Similarly, firms that require a labor force with specialized skills can create geographic externalities by locating close to similar firms and establishments because a large pool of skilled workers will be attracted to the

Table 1.—Industry Shares of Earnings, 1998

[Percentage points]

	Farms	Agricultural services, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government
United States	0.8	0.7	0.9	5.9	17.4	6.8	6.4	9.1	8.9	28.8	14.4
Alabama	1.8	.6	1.0	6.4	21.1	6.5	3.7	9.6	5.9	23.6	17.7
Alaska .....	.1	1.7	7.6	7.5	4.6	10.7	5.7	9.7	4.1	21.9	28.9
Arizona .....	.9	1.0	.9	7.5	13.9	5.8	6.5	10.8	9.1	29.2	14.5
Arkansas	4.2	.8	.5	5.9	22.3	8.2	5.2	11.4	5.0	21.6	14.8
California	1.2	1.1	.3	5.4	15.7	6.2	6.2	8.9	8.7	32.3	14.0
Colorado	1.0	.7	1.8	7.9	11.5	9.6	6.0	9.4	8.4	29.7	14.0
Connecticut .....	.2	.5	.1	4.7	20.2	5.3	6.5	7.8	13.8	30.3	10.6
Delaware .....	.8	.4	0	6.8	25.7	4.4	3.8	8.2	14.2	23.7	11.8
District of Columbia	0	.8	0	1.2	2.8	3.3	.9	2.5	6.2	43.2	39.1
Florida .....	.9	1.0	.2	6.1	8.6	6.6	6.7	11.4	9.6	34.0	14.8
Georgia	1.5	.6	.3	5.9	15.8	9.6	8.9	9.2	7.6	26.3	14.3
Hawaii .....	.8	.7	.1	6.2	3.6	8.3	3.7	12.0	8.2	31.1	25.3
Idaho	3.5	1.4	1.0	8.5	17.5	6.9	5.6	10.9	5.2	23.4	16.1
Illinois .....	.4	.5	.3	5.5	19.1	7.3	7.2	8.0	10.3	29.4	11.9
Indiana .....	.7	.5	.4	6.8	31.2	6.0	5.7	9.2	6.0	21.8	11.7
Iowa	4.3	.8	.2	6.4	21.4	6.2	6.9	9.4	7.7	22.3	14.5
Kansas	2.7	.7	1.0	6.2	18.8	7.7	7.4	9.9	6.1	23.9	15.7
Kentucky	2.4	.7	2.3	6.0	21.6	7.7	5.5	10.2	5.1	22.7	15.7
Louisiana .....	.6	.5	5.3	8.1	13.6	7.8	5.7	9.4	5.4	26.9	16.7
Maine .....	.5	1.1	0	6.8	17.9	6.0	5.3	12.0	6.8	27.7	16.0
Maryland .....	.4	.6	.1	6.9	9.0	5.7	5.6	9.4	8.3	33.3	20.8
Massachusetts .....	.1	.5	.1	4.9	16.8	5.4	6.8	8.4	10.5	35.5	11.0
Michigan .....	.2	.5	.2	5.6	31.3	5.0	6.5	8.4	5.6	24.3	12.3
Minnesota .....	.8	.5	.5	6.1	20.8	6.4	7.9	9.2	8.8	26.7	12.2
Mississippi	2.4	.7	.9	6.6	21.5	6.5	4.9	10.2	4.6	23.0	18.7
Missouri .....	.3	.5	.3	6.6	19.0	8.4	6.9	9.5	7.8	27.2	13.5
Montana .....	.8	.9	2.4	8.3	8.1	8.0	5.3	12.7	5.9	28.0	19.4
Nebraska	5.5	1.1	.2	6.2	14.0	9.0	6.6	9.0	7.4	25.5	15.5
Nevada .....	.3	.7	2.2	11.8	4.7	5.7	4.4	9.8	7.4	40.3	12.7
New Hampshire .....	.2	.6	.1	6.3	22.5	6.0	7.1	11.7	7.2	27.7	10.7
New Jersey .....	.1	.4	.1	4.4	15.2	8.5	9.0	7.8	9.6	31.1	13.7
New Mexico	1.5	.7	3.3	7.1	7.8	6.0	4.2	11.4	5.2	28.3	24.5
New York .....	.1	.3	.1	3.7	11.9	5.9	5.8	6.7	20.1	31.8	13.6
North Carolina	1.9	.6	.2	6.9	23.1	6.1	6.1	9.6	6.8	22.9	15.7
North Dakota	6.0	.8	2.0	7.0	8.2	8.4	8.2	10.0	5.7	25.5	18.2
Ohio .....	.5	.5	.4	5.7	26.2	5.7	6.8	9.4	6.8	25.3	12.7
Oklahoma .....	.7	.5	4.7	5.1	16.2	8.3	5.2	10.0	5.4	25.6	18.2
Oregon	1.0	.9	.1	7.4	19.2	6.3	7.4	10.9	6.9	25.8	14.1
Pennsylvania .....	.4	.5	.7	5.7	20.4	6.9	5.8	9.2	8.0	30.4	12.1
Rhode Island .....	.2	.7	.1	5.0	18.3	5.2	5.0	9.3	8.2	32.2	15.8
South Carolina .....	.6	.7	.1	7.3	23.6	5.4	5.2	11.1	5.7	22.4	17.8
South Dakota	7.4	1.2	.8	6.4	14.2	6.4	6.1	10.6	6.9	24.8	15.0
Tennessee .....	.2	.5	.3	6.4	21.0	7.7	6.6	10.7	6.6	27.5	12.5
Texas .....	.7	.6	4.3	6.4	16.2	9.1	6.9	8.9	7.2	26.4	13.3
Utah .....	.7	.4	1.3	8.1	14.3	7.4	5.9	10.7	7.8	27.5	16.0
Vermont	1.7	.7	.3	7.3	20.2	5.8	4.9	10.4	5.6	28.4	14.7
Virginia .....	.3	.5	.5	6.1	12.7	7.0	5.4	8.6	7.3	30.7	20.9
Washington	1.1	1.0	.2	6.4	16.4	7.0	6.1	9.3	6.4	30.3	15.7
West Virginia	0	.4	6.5	6.2	15.5	7.8	4.9	10.0	4.2	25.7	18.8
Wisconsin .....	.5	.6	.2	6.5	27.8	5.9	6.3	9.0	6.9	23.4	13.0
Wyoming	-.4	.8	15.8	8.6	5.6	8.9	3.6	10.4	4.7	19.4	22.4

is self-reinforcing because the competitive advantage gained by local establishments increases as the number of establishments in the area increases. Therefore, once a cluster is established, additional economic growth will result in further clustering and specialization and thus in divergence in industrial composition.⁷

The next section of this article describes the industrial composition of State earnings in 1998 and presents an index that measures the degree of similarity between the industrial composition of each State and that of the United States as a whole. The following section discusses the trends in industrial composition of State earnings in 1958–98, and the last section analyzes these

trends by decomposing the similarity index into two components.

Industrial composition of State earnings in 1998

In this article, State industrial composition is measured by industry shares of earnings.⁸ For the United States, the industries with the largest share of earnings were services (28.8 percent), manufacturing (17.4 percent), and government (14.4 percent) (table 1). These industries also accounted for the largest shares of earnings in almost all the States. Services accounted for the largest share or the second largest share in every State. Government was among the top three industries in all States except Connecticut, Delaware, and New Hampshire. Manufacturing was among the top three in 40 States (and the highest in 8 of these States), but it had only the seventh largest share in Alaska, Nevada, and Wyoming.

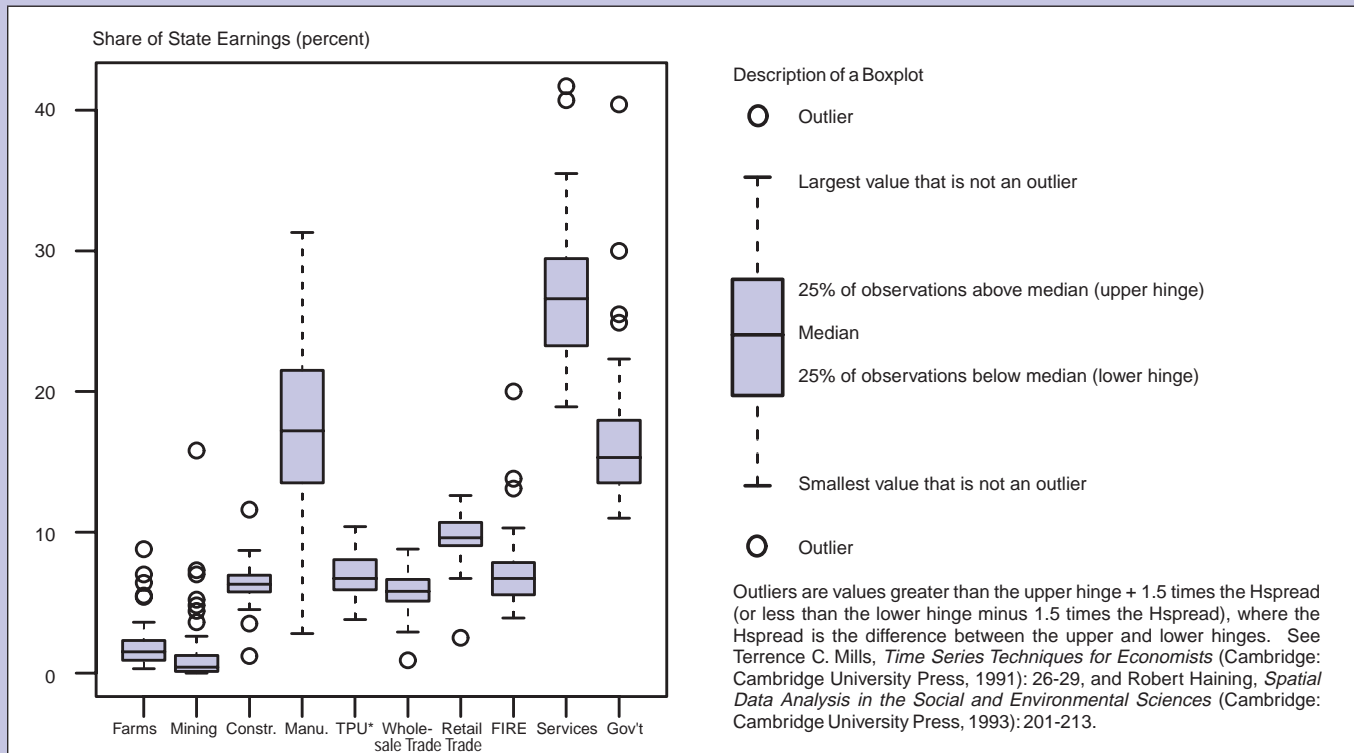
area, so labor costs for all local establishments will be lower. Finally, having more establishments in the area will enhance information flows between establishments. See Paul Krugman, "The Role of Geography in Development," *International Regional Science Review* 22 (1999): 142–161; Anthony J. Venables, "Equilibrium Location of Vertically Linked Industries," *International Economic Review* 37 (1996): 341–360; and Paul A. David and Joshua L. Rosenbloom, "Marshallian Factor Market Externalities and the Dynamics of Industrial Localization," *Journal of Urban Economics* 28 (November 1990): 349–70.

7. However, growth may be constrained by negative geographic externalities, such as congestion costs.

8. A more comprehensive measure of State economic activity, such as gross state product, would be preferable, but estimates of earnings are available for a much longer time period.

CHART 1

Distribution of Industry Shares of State Earnings, 1998



Note—Farms includes agricultural services, forestry, and fishing.

*Transportation and public utilities

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

The variation in industry shares among States can be seen in box plots of the earnings shares (see chart 1 and the accompanying box). Manufacturing exhibited the greatest range in shares of earnings, from 31.3 percent (in Indiana and Michigan) to 3.7 percent (in Hawaii). In addition, the range of the shares of the 50-percent of States around the median (indicated by the size of the box) was relatively large—from 13.8 percent to 21.6 percent, a difference of 7.8 percentage points, or 45 percent of the median share. For services, the range of shares was smaller—from 40.7 percent (in Nevada) to 18.9 percent (in Wyoming). Shares of half of the States ranged from 23.2 percent to 29.3 percent, a range equal to 23 percent of the median share. For government, the range was slightly larger than that for services but smaller than that for manufacturing. The highest share was 30 percent (in Alaska), and the lowest share was 11 percent (in Connecticut). Shares of half of the States ranged from 13.3 percent to 17.9 percent, or 30 percent of the median share.

In order to quantify the differences in industry compositions, similarity indexes were calculated using the following formula:

$$S_{I_s} = [1 - (\sum_{i=1}^n |S_{i,s} - S_{i,n}|)] \times 100,$$

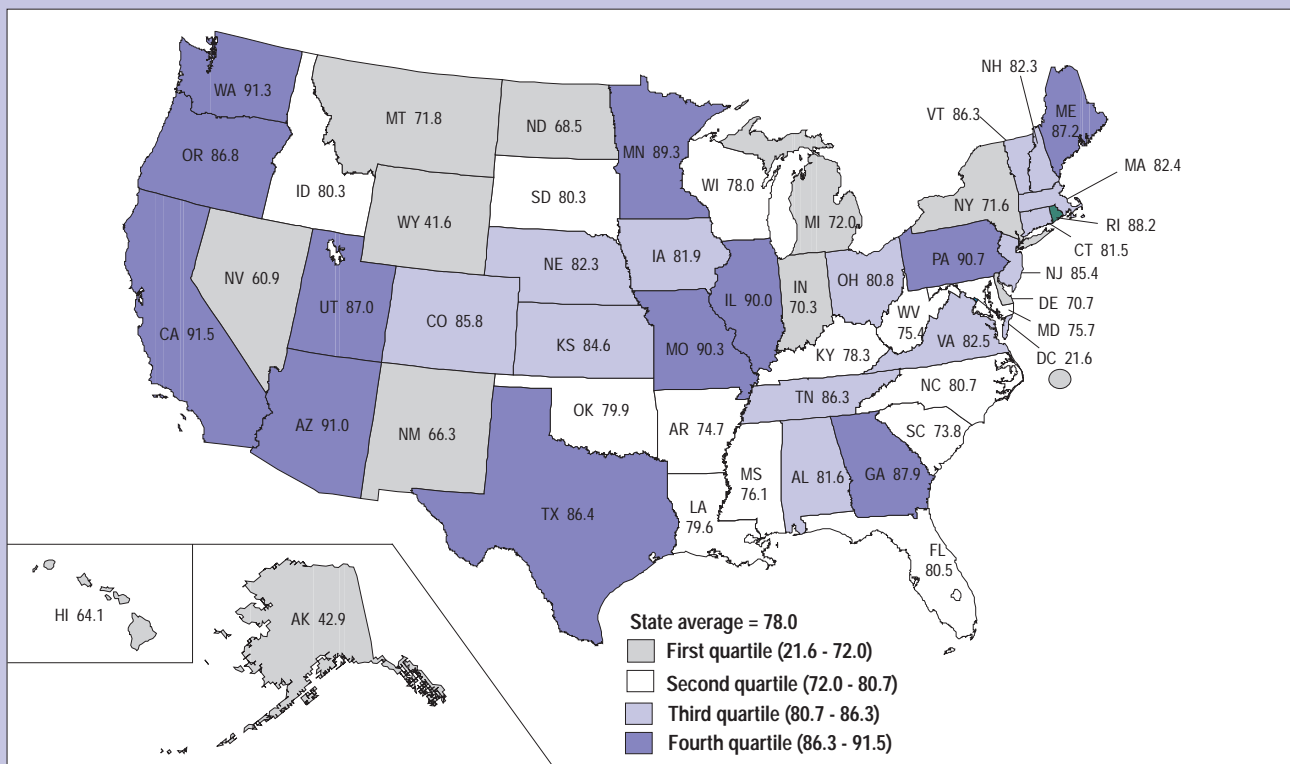
where S_{I_s} is the similarity index for State s ; $S_{i,s}$ is industry i 's share of earnings in State s ; $S_{i,n}$ is industry i 's share of total U.S. earnings; and n is the number of industries.⁹ The larger the value of the index, the more similar is the State's industrial composition to that of the United States; an index value of 100 would indicate that the State's industrial composition is identical to that of the United States.

The State similarity indexes for 1998, which are presented in chart 2, were calculated using

9. This index is based on an index used in Sukkoo Kim, "Expansion of Markets and the Geographic Distribution of Economic Activities: The Trends in U.S. Manufacturing Structure, 1860-1987," *The Quarterly Journal of Economics* 110 (November 1995): 881-908, and in Paul Krugman, *Geography and Trade* (Cambridge, MA: MIT Press, 1991).

CHART 2

Similarity Index, by State, 1998



annual State personal income data on earnings by place of work for the 11 Standard Industrial Classification (sic) one-digit industries. The indexes range from 41.6 in Wyoming to 91.5 in California. The States with industrial compositions that were most similar to that of the United States are California, Washington, Arizona, Pennsylvania, and Missouri. The States with industrial compositions that were least similar to that of the United States are five western States—Wyoming, Alaska, Nevada, Hawaii, and New Mexico.

Sorting the shares of earnings by the similarity index for 1998 reveals that the six States with the lowest similarity indexes all have relatively small populations and below-average shares of

manufacturing earnings (table 2). In all of these States except Nevada, government accounted for a larger share of earnings than in the United States. Other industries that accounted for a much larger share of State earnings than of U.S. earnings were mining in New Mexico, Wyoming, and Alaska and construction and services in Nevada.

Trends in State industrial composition

To examine trends in State industrial composition, similarity indexes were also calculated beginning with 1958 using annual State personal income data on earnings by place of work for the

Table 2.—Difference between State and U.S. Industry Shares of Earnings, 1998

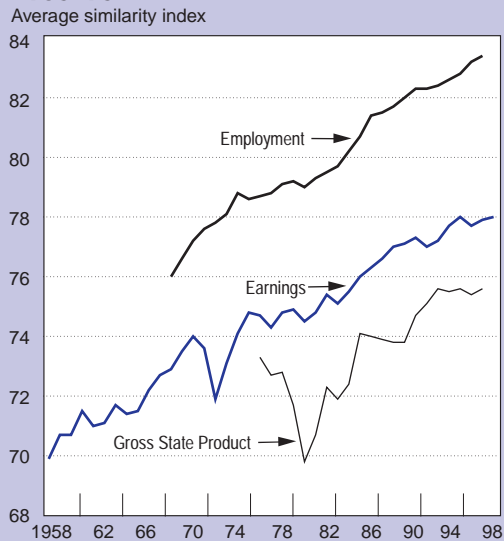
[Percentage points]

	1998 similarity index	Farms	Agri- cultural services, forestry, and fishing	Mining	Con- struction	Manu- facturing	Trans- portation and public utilities	Whole- sale trade	Retail trade	Finance, insur- ance, and real estate	Services	Government	Population
California	91.5	0.4	0.4	-0.6	-0.5	-1.7	-0.6	-0.2	-0.2	-0.2	3.5	-0.4	32,682,794
Washington	91.3	.3	.3	-7	.5	-1.0	.2	-3	.2	-2.5	1.5	1.3	5,687,832
Arizona	91.0	.1	.3	0	1.6	-3.5	-1.0	.1	1.7	.2	.4	.1	4,667,277
Pennsylvania	90.7	-4	-2	-2	-2	3.0	.1	-6	.1	-9	1.6	-2.3	12,002,329
Missouri	90.3	-5	-2	-6	-7	1.6	1.6	.5	.4	-1.1	-1.6	-9	5,437,562
Illinois	90.0	-4	-2	-6	-4	1.7	.5	.8	-1.1	1.4	.6	-2.5	12,069,774
Minnesota	89.3	0	-2	-4	2	3.4	-4	1.5	.1	-1	-2.1	-2.2	4,726,411
Rhode Island	88.2	-6	0	-8	-9	.9	-1.6	-1.4	.2	-7	3.4	1.4	987,704
Georgia	87.9	.7	-1	-6	0	-1.6	2.8	2.5	.1	-1.3	-2.5	-1	7,636,522
Maine	87.2	-3	.4	-9	.9	.5	-8	-1.1	2.9	-2.1	-1.1	1.6	1,247,554
Utah	87.0	-1	-3	4	2.2	-3.1	.6	-5	1.6	-1.1	-1.3	1.6	2,100,562
Oregon	86.8	.2	.2	-8	1.5	1.8	-5	1.0	1.8	-2.0	-3.0	-3	3,282,055
Texas	86.4	-1	-1	3.4	.5	-1.2	2.3	.5	-2	-1.7	-2.4	-1.1	19,712,389
Tennessee	86.3	-6	-2	-6	5	3.6	.9	.2	1.6	-2.3	-1.3	-1.9	5,432,679
Vermont	86.3	.9	0	-6	1.4	2.8	-1.0	-1.5	1.3	-3.3	-4	.3	590,579
Colorado	85.8	.2	0	.9	2.0	-5.9	2.8	-4	.3	.5	.9	-4	3,968,967
New Jersey	85.4	-7	-3	-8	-1.5	-2.2	1.7	2.6	-1.3	.7	2.3	-7	8,095,542
Kansas	84.6	1.9	0	.1	.3	1.4	.9	1.0	.8	-2.8	-4.9	1.3	2,638,667
Virginia	82.5	-5	-2	-4	2	-4.7	.2	-1.0	-5	-1.6	1.9	6.5	6,789,225
Massachusetts	82.4	-7	-2	-8	-1.0	-6	-1.4	.4	-7	1.6	6.7	-3.4	6,144,407
Nebraska	82.3	4.7	.4	-7	.3	-3.4	2.2	.2	-1	1.5	-3.3	1.1	1,660,772
New Hampshire	82.3	-6	-1	-8	.4	5.1	-8	.7	2.6	-1.7	-1.1	-3.7	1,185,823
Iowa	81.9	3.5	.1	-7	.5	4.0	-6	.5	.3	-1.2	-6.5	.1	2,861,025
Alabama	81.6	1.0	-1	.1	.5	3.7	.3	-6	.5	-3.0	-5.2	3.3	4,351,037
Connecticut	81.5	-6	-2	-8	-1.2	2.8	-1.5	.1	-1.3	4.9	1.5	-3.8	3,272,563
Ohio	80.8	-3	-2	-5	-2	8.8	-1.1	.4	.3	-2.1	-3.5	-1.7	11,237,752
North Carolina	80.7	1.1	-1	-7	1.0	5.7	-7	-3	.5	-2.1	-5.9	1.3	7,545,828
Florida	80.5	.1	.3	-7	.2	-8.8	-2	.3	2.3	.7	5.2	.4	14,908,230
Idaho	80.3	2.7	.7	.1	2.6	.1	.1	-8	1.8	-3.7	-5.4	1.7	1,230,923
South Dakota	80.3	6.6	.5	-1	.5	-3.2	.4	-3	1.5	-2.0	-4.0	.6	730,789
Oklahoma	79.9	-1	-2	3.8	-8	-1.2	1.5	-1.2	.9	-3.5	-3.2	3.8	3,339,478
Louisiana	79.6	-2	-2	4.4	2.2	-3.8	1.0	-7	.3	-3.5	-1.9	2.3	4,362,758
Kentucky	78.3	1.6	0	1.4	.1	4.2	.9	-9	1.1	-3.8	-6.1	1.3	3,934,310
Wisconsin	78.0	-3	-1	-7	.6	10.4	-9	-1	-1	-2.0	-5.4	-1.4	5,222,124
Mississippi	76.1	1.6	0	0	.7	4.1	-3	-1.5	1.1	-4.3	-5.8	4.3	2,751,335
Maryland	75.7	-4	-1	-8	1.0	-8.4	-1.1	-8	.3	-6	4.5	6.4	5,130,072
West Virginia	75.4	-8	-3	5.6	.3	-1.9	1.0	-1.5	.9	-4.7	-3.1	4.4	1,811,688
Arkansas	74.7	3.4	.1	-4	0	4.9	1.4	-1.2	2.3	-3.9	-7.2	.4	2,538,202
South Carolina	73.8	-2	0	-8	1.4	6.2	-1.4	-1.2	2.0	-3.2	-6.4	3.4	3,839,578
Michigan	72.0	-6	-2	-7	-3	13.9	-1.8	.1	-7	-3.3	-4.5	-2.1	9,820,231
Montana	71.8	0	.2	1.5	2.4	-9.3	1.2	-1.1	3.6	-3.0	-8	5.0	879,533
New York	71.6	-7	-4	-8	-2.2	-5.5	-9	-6	-2.4	11.2	3.0	-8	18,159,175
Delaware	70.7	0	-3	-9	.9	8.3	-2.4	-2.6	-9	5.3	-5.1	-2.6	744,066
Indiana	70.3	-1	-2	-5	.9	13.8	-8	-7	.1	-2.9	-7.0	-2.7	5,907,617
North Dakota	68.5	5.2	.1	1.1	1.1	-9.2	1.6	1.8	.9	-3.2	-3.3	3.8	637,808
New Mexico	66.3	.7	0	2.4	1.2	-9.6	-8	-2.2	2.3	-3.7	-5	10.1	1,733,535
Hawaii	64.1	0	0	-8	.3	-13.8	1.5	-2.7	2.9	.7	2.3	10.9	1,190,472
Nevada	60.9	-5	0	1.3	5.9	-12.7	-1.1	-2.0	.7	-1.5	11.5	-1.7	1,743,772
Alaska	42.9	-7	1.0	6.7	1.6	-12.8	3.9	-3.3	.6	-4.8	-6.9	14.5	615,205
Wyoming	41.6	-1.2	.1	14.9	2.7	-11.8	2.1	-2.8	1.3	-4.2	-9.4	8.0	480,045
District of Columbia	21.6	-8	.1	-9	-4.7	-14.6	-3.5	-5.5	-6.6	-2.7	14.4	24.7	521,426

NOTE.—Industry shares are sorted based on the 1998 similarity index.

CHART 3

Average Similarity Index for States, 1958-98



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

11 SIC one-digit industries.¹⁰ The average similarity index for State earnings rose steadily from 69.9 in 1958 to 78.0 in 1998 (chart 3). The upward trend was interrupted in the early 1970's, when farm earnings increased substantially in several States. In 1971-73, the farm share of U.S. earnings increased 1.4 percentage points, but its share of State earnings increased 23 percentage points in North Dakota, 15 percentage points in South Dakota, and 11 percentage points in Iowa.

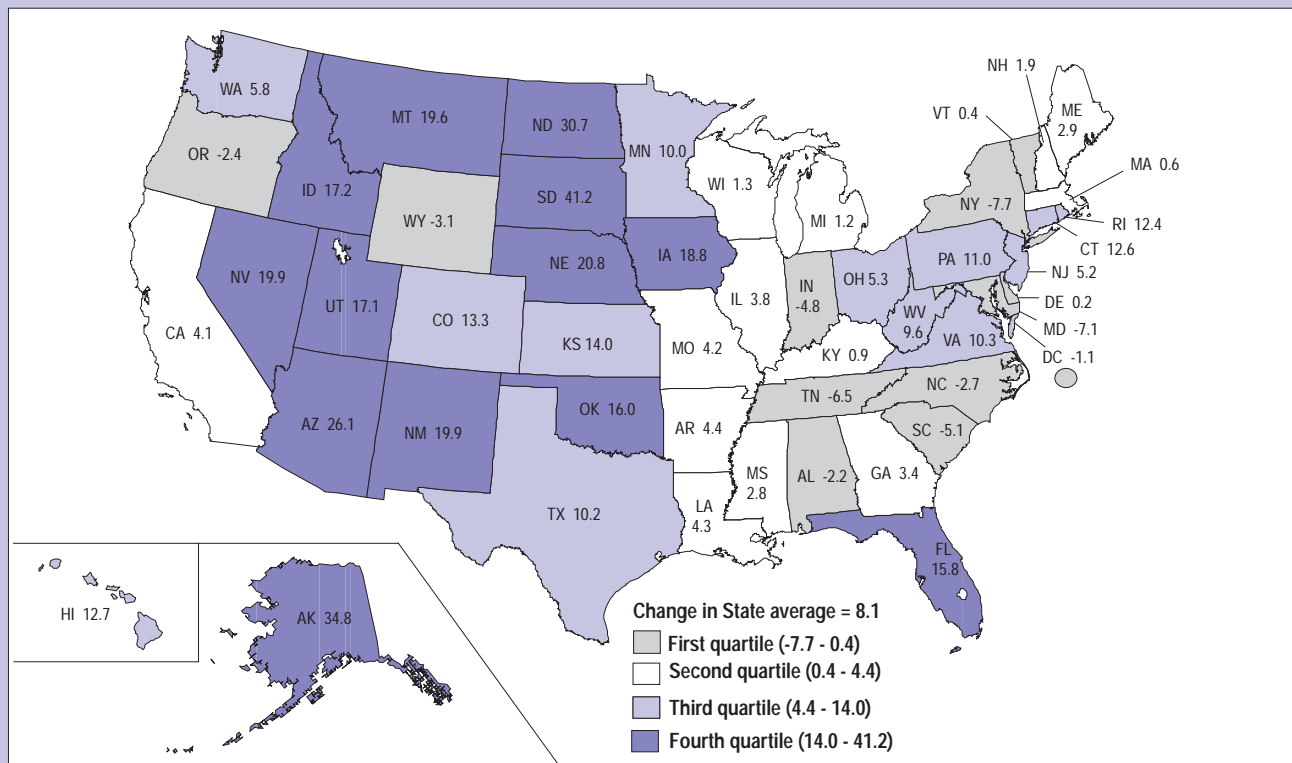
The index that is based on employment is higher than the earnings-based index because of the variation in industry earnings per job among States, but it exhibits the same trend. Unlike the earnings index, the employment index does not fall in the early 1970's, because farm employment did not increase substantially.

10. The year 1958 was chosen as the beginning year for this analysis for consistency with the length of time series frequently studied in the literature on the convergence in per capita incomes. The results are not very sensitive to this particular choice.

The average annual similarity index was also calculated from data for SIC two-digit industries. This index was lower, but the trend was the same. Data for 1958-97 are from Bureau of Economic Analysis (BEA), *State Personal Income, 1929-97* [CD-ROM] (Washington, DC: BEA, 1998).

CHART 4

Change in State Similarity Indexes, 1958-98



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

The similarity index that is based on gross state product is lower than the earnings index because of variation in capital-type income among States. The trends in both indexes are similar, but there is much more variation in the gross state product index because, over the business cycle, capital-type income varies much more than earnings.

These results are consistent with earlier studies. For example, Kim uses the Heckscher-Ohlin theory as a framework for his analysis of shifts in employment among U.S. regions in 1840–1987.¹¹ He concludes that the degree of regional specialization was high in the 1800's and the early

1900's because high transportation and communication costs were significant barriers to capital and labor mobility. As transportation and communication costs declined and as factor mobility increased, regional economies gradually became more similar.

Although the industrial composition of most States converged in 1958–98, some States diverged: The similarity indexes for 41 States increased and those for 9 States decreased (chart 4). The 12 States with the largest increases were all west of the Mississippi River; South Dakota, Alaska, North Dakota, Arizona, and Nebraska had the largest increases. Of the nine States with decreases in their similarity indexes, seven were east of the Mississippi River; New York, Maryland,

11. Sukkoo Kim, "Regions, Resources, and Economic Geography: Sources of U.S. Regional Comparative Advantage, 1840–1987," *Journal of Regional Science and Urban Economics* 29 (1999): 1–32; see also Sukkoo Kim, "Expansion of Markets," 881–908.

Table 3.—Change in Industry Shares of Earnings, 1958–98

[Percentage points]

	Change in the similarity index	Farms	Agricultural services, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government
United States .....	.....	-4.5	0.3	-0.7	-0.3	-11.3	-1.0	0.1	-2.8	4.0	15.7	0.6
South Dakota	41.2	-24.4	.6	-.5	.5	7.7	.5	.4	-2.5	3.7	15.2	-1.4
Alaska	34.8	-.2	-1.4	5.7	-6.8	-1.9	4.5	.8	2.5	1.9	14.6	-19.9
North Dakota	30.7	-26.7	.3	.3	.2	4.4	0	1.5	-3.8	2.4	16.1	5.2
Arizona	26.1	-6.4	.5	-4.1	-2.6	1.0	-1.5	1.4	-3.5	4.3	15.7	-4.7
Nebraska	20.8	-16.3	.6	-.4	.3	.7	-.7	.5	-3.6	2.5	14.6	1.7
Nevada	19.9	-3.7	.5	-.8	3.8	-.6	-2.3	1.5	-4.1	3.7	7.7	-5.7
New Mexico	19.9	-6.7	.4	-5.3	-1.2	1.7	-1.8	.3	-.2	1.8	12.0	-.9
Montana	19.6	-20.4	.6	-2.3	1.7	-2.0	-2.0	.7	-.5	2.7	16.7	4.6
Iowa	18.8	-18.3	.1	-.2	.8	1.1	-1.1	.8	-3.3	3.4	11.9	4.9
Idaho	17.2	-13.9	1.1	-1.3	.1	2.9	-1.6	.9	-2.8	1.8	11.5	1.4
Utah	17.1	-3.5	.3	-5.2	.4	-1.9	-2.2	-.7	-1.4	3.5	15.0	-4.0
Oklahoma	16.0	-9.1	.1	-5.0	-1.0	2.5	.3	-.6	-2.0	1.4	14.0	-.7
Florida	15.8	-4.9	.2	-.4	-3.7	-3.5	-1.1	-.4	-3.6	3.4	16.1	-2.2
Kansas	14.0	-12.1	.4	-2.3	0	-.6	-1.2	2.7	-2.7	2.2	13.5	.2
Colorado	13.3	-5.5	.3	-1.3	-.7	-3.5	.6	-.8	-3.8	3.0	16.0	-4.2
Hawaii	12.7	-5.6	.4	0	-.7	-6.4	1.1	-1.6	1.4	3.7	18.8	-11.0
Connecticut	12.6	-1.3	.1	0	-2.4	-21.9	.2	2.0	-3.6	7.6	17.5	1.7
Rhode Island	12.4	-.5	.3	0	-.4	-16.8	-.5	-.8	-2.0	3.6	20.8	-3.7
Pennsylvania	11.0	-1.7	.3	-1.4	0	-17.2	-1.5	-.4	-2.4	3.8	18.3	2.3
Virginia	10.3	-5.1	0	-.9	-.1	-6.8	-1.0	1.2	-2.8	3.3	18.6	-6.3
Texas	10.2	-6.9	.3	-2.8	-.2	-2.0	.8	0	-3.8	2.6	14.3	-2.3
Minnesota	10.0	-10.7	.1	-1.4	-.5	-1.4	-2.6	.2	-3.1	3.5	14.9	1.0
West Virginia	9.6	-2.8	.2	-9.7	1.2	-11.7	-2.4	.6	-.7	1.4	15.6	8.4
Washington	5.8	-3.6	.1	0	-.6	-.9	-.3	-.7	-3.4	1.4	18.7	-2.7
Ohio	5.3	-2.1	.2	-.3	-.6	-14.7	-1.7	1.4	-1.9	2.9	14.1	2.9
New Jersey	5.2	-1.3	.1	-.1	-1.6	-23.4	.8	3.3	-3.7	4.9	18.1	2.9
Arkansas	4.4	-11.5	.3	-1.4	.1	4.4	-.2	.3	-2.3	1.2	9.5	-.6
Louisiana	4.3	-4.2	-.1	-2.1	0	-.4	-2.2	-.6	-3.0	1.1	13.9	1.3
Missouri	4.2	-7.6	.2	-.3	.8	-7.6	-1.5	-.9	-3.0	2.8	14.5	2.5
California	4.1	-3.2	.5	-.4	-1.4	-9.2	-.9	0	-3.8	3.7	17.2	-2.5
Illinois	3.8	-3.8	.3	-.7	-1.0	-13.9	-1.2	-.3	-3.4	5.0	16.4	2.4
Georgia	3.4	-5.9	-.1	-.1	.4	-7.9	2.0	1.0	-2.7	3.0	13.6	-3.3
Maine	2.9	-7.2	-.4	-.1	1.1	-11.4	-1.2	-.3	.8	3.4	17.0	-1.6
Mississippi	2.8	-11.9	0	-.8	.9	1.0	.1	.2	-2.7	1.4	9.7	2.1
New Hampshire	1.9	-2.6	.2	0	-.5	-14.4	.2	3.1	-1.2	2.8	14.6	-2.1
Wisconsin	1.3	-7.0	.3	-.1	.4	-.9	-.7	.8	-3.8	3.1	13.4	3.2
Michigan	1.2	-2.4	.3	-.4	.2	-12.0	-1.0	1.4	-2.9	1.8	13.0	1.8
Kentucky .....	.9	-8.2	.4	-2.9	0	-.6	-.7	.9	-2.5	1.3	11.3	.8
Massachusetts .....	.6	-.7	0	0	-.8	-18.2	-.7	.2	-3.3	4.7	20.8	-2.1
Vermont .....	.4	-9.4	.2	-.8	.4	-6.3	-1.5	.8	-2.1	1.5	15.7	1.3
Delaware .....	.2	-3.4	-.1	0	-.2	-16.9	-2.0	.9	-2.0	10.7	12.6	.2
District of Columbia	-1.1	0	.4	0	-2.9	-1.8	-3.7	-4.0	-6.5	1.8	25.5	-8.8
Alabama	-2.2	-6.2	.1	-.7	.9	-5.0	-.3	.3	-1.6	2.2	11.6	-1.2
Oregon	-2.4	-5.6	.2	-0.2	.7	-6.2	-2.8	.9	-2.8	2.3	12.9	.5
North Carolina	-2.7	-9.7	.1	0	1.8	-6.6	.5	.1	-1.8	3.2	11.3	.9
Wyoming	-3.1	-13.9	.6	5.7	-.7	-1.9	-2.7	-.1	-1.9	1.9	7.9	5.1
Indiana	-4.8	-5.4	.3	-.4	.7	-9.2	-1.2	.9	-2.3	2.0	12.2	2.3
South Carolina	-5.1	-7.0	.2	-.1	1.4	-7.2	.4	1.0	-.9	2.4	11.7	-2.0
Tennessee	-6.5	-7.3	.2	-.4	.9	-7.3	.7	-.7	-1.5	2.4	14.2	-1.2
Maryland	-7.1	-2.1	.1	-.2	.1	-18.3	-2.1	.9	-2.6	4.1	21.0	-.8
New York	-7.7	-1.1	.1	-.1	-1.5	-17.8	-2.8	-2.6	-4.0	12.3	15.2	2.3

Note.—Industry shares are sorted based on the change in the similarity index.

Tennessee, South Carolina, and Indiana had the largest decreases.

A State's industrial composition will converge in 1958–98 if the earnings share of an industry with a below-U.S.-average earnings share in 1958 increases relative to the U.S. average, or if the earnings share of an industry with an above-U.S.-average share in 1958 decreases relative to the U.S. average share. The strong convergence exhibited by the States with the largest increases in the index was primarily the result of increases in low manufacturing shares of earnings (in South Dakota, North Dakota, Arizona, and Nebraska), decreases in high farm shares (in South Dakota, North Dakota, and Nebraska), and decreases in high government shares (in Alaska and Arizona) (table 3).

Conversely, a State's industrial composition will diverge in 1958–98 if the earnings share of an industry with a below-U.S.-average earnings share in 1958 decreases relative to the U.S. average share, or if the earnings share of an industry with an above-U.S.-average share in 1958 increases relative to the U.S. average share. The largest decreases in the State indexes were primarily the result of changes in the shares of manufacturing (in Indiana, South Carolina, Tennessee, Maryland, and New York), of services (in Indiana, Maryland, South Carolina, and Tennessee), and of finance, insurance, and real estate (in Indiana, South Carolina, Tennessee, and New York).

National and State growth components of trends

The convergence in State industrial compositions in 1958–98 that was indicated by the rise in the similarity index can be decomposed into two components. First, the U.S. industrial composition of earnings has shifted from goods-producing industries to services-producing industries as a result of economy-wide changes in production technology, trade relationships, and consumption patterns. The share of U.S. earnings accounted for by services increased substantially in 1958–98, while the shares accounted for by farms and manufacturing declined (chart 5). Because services-producing industries tend to be more evenly distributed across the Nation than goods-producing industries, this shift contributed to the increase in overall similarity.

Second, the geographic distribution of U.S. industry earnings across States has become more evenly distributed. All else being equal, if a State has above-average growth in an industry for which the share of State earnings is below the U.S. average and if the industry growth rate ex-

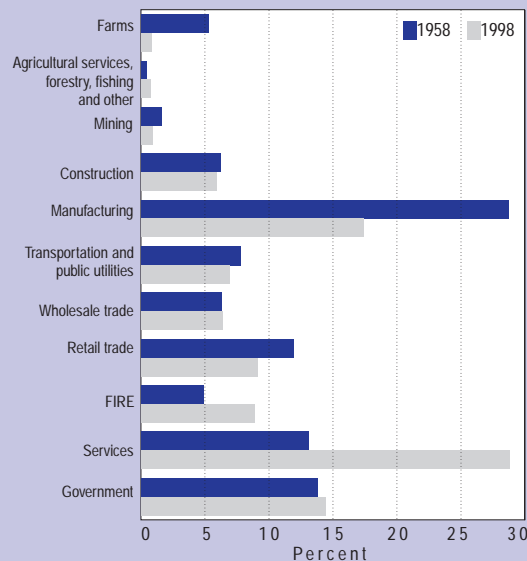
ceeds the growth rate of total State earnings, the similarity index for that State will increase. Similarly, if a State has below-average growth in an industry for which the share of State earnings is above the U.S. average and if the growth rate of total State earnings exceeds the industry growth rate, the similarity index for the State will increase. Thus, changes in the similarity index for a State depend on the initial industry shares of earnings, on the industry growth rates, and on the growth rate of total State earnings.

In order to determine the importance of these two factors, the change in the similarity index for each State was decomposed into a national growth component and a State growth component (table 4). The national growth component shows the contribution of economy-wide changes in the industrial composition of earnings to changes in the similarity index from 1958 to 1998.¹² If these had been the only changes in the economy, the similarity indexes for all States except Maine and South Carolina would have increased, and the average similarity index would have increased 7.4 points to 77.3 in 1998.


12. The national growth component is defined as the difference between the similarity index that is calculated on the assumption that State industries grow at the national rate of growth for the industry and the similarity index for 1958. It is equivalent to the index calculated on the sum of the national share and industrial-mix components in a shift and share analysis. For more information, see "Projections of Employment Growth in Georgia: A Shift and Share Analysis," in *On the Use of Input-Output Models for Regional Planning*, ed. William A. Schaffer (Leiden: Martinus Nijhoff, 1976).

CHART 5

Industry Shares of U.S. Earnings, 1958 and 1998



The State growth component shows the contribution of differences in State industry growth rates to changes in the similarity indexes from 1958 to 1998.¹³ The average State growth component was 0.7 points, indicating that shifts in industry earnings among States also contributed to the overall convergence in industrial composition but that the effect was small. The State growth component was positive for 28 States and

negative for 22 States. In some States, the effect of State industry growth was relatively large. For the States with the largest increases in their similarity indexes in 1958–98, both the national growth rates and the differences in State industrial growth rates contributed substantially to convergence. For the States with the largest decreases in their similarity indexes, the national growth rates had little effect, but the differences in State industrial growth rates contributed substantially to divergence. 

13. The State growth component is analogous to the region-share component in a shift and share analysis. It was calculated by subtracting the national growth component from the actual change in the similarity index.

Table 4.—Similarity Index and Components of Change, 1958–98

	Similarity index		Change in the similarity index	Components of change in the similarity index			Similarity index		Change in the similarity index	Components of change in the similarity index	
	1958	1998		National growth	State growth		1958	1998		National growth	State growth
State average	69.9	78.0	8.1	7.4	0.7						
South Dakota	39.1	80.3	41.2	26.1	15.1	New Jersey	80.2	85.4	5.2	7.7	-2.5
Alaska	8.1	42.9	34.8	4.8	30.0	Arkansas	70.3	74.7	4.4	12.6	-8.2
North Dakota	37.8	68.5	30.7	23.8	6.9	Louisiana	75.3	79.6	4.3	7.2	-2.9
Arizona	64.9	91.0	26.1	10.8	15.3	Missouri	86.1	90.3	4.2	3.6	.6
Nebraska	61.5	82.3	20.8	16.3	4.5	California	87.4	91.5	4.1	2.1	2.0
Nevada	41.0	60.9	19.9	6.5	13.4	Illinois	86.2	90.0	3.8	2.5	1.3
New Mexico	46.4	66.3	19.9	11.9	8.0	Georgia	84.5	87.9	3.4	3.0	.4
Montana	52.2	71.8	19.6	18.5	1.1	Maine	84.3	87.2	2.9	-1.0	3.9
Iowa	63.1	81.9	18.8	20.2	-1.4	Mississippi	73.3	76.1	2.8	7.8	-5.0
Idaho	63.1	80.3	17.2	14.1	3.1	New Hampshire	80.4	82.3	1.9	5.7	-3.8
Utah	69.9	87.0	17.1	7.0	10.1	Wisconsin	76.7	78.0	1.3	2.8	-1.5
Oklahoma	63.9	79.9	16.0	10.9	5.1	Michigan	70.8	72.0	1.2	8.1	-6.9
Florida	64.7	80.5	15.8	10.6	5.2	Kentucky	77.4	78.3	.9	6.9	-6.0
Kansas	70.6	84.6	14.0	8.9	5.1	Massachusetts	81.8	82.4	.6	6.2	-5.6
Colorado	72.5	85.8	13.3	10.0	3.3	Vermont	85.9	86.3	.4	6.3	-5.9
Hawaii	51.4	64.1	12.7	6.1	6.6	Delaware	70.5	70.7	.2	6.1	-5.9
Connecticut	68.9	81.5	12.6	7.9	4.7	District of Columbia	22.7	21.6	-1.1	18.4	-19.5
Rhode Island	75.8	88.2	12.4	4.9	7.5	Alabama	83.8	81.6	-2.2	2.8	-5.0
Pennsylvania	79.7	90.7	11.0	5.4	5.6	Oregon	89.2	86.8	-2.4	2.9	-5.3
Virginia	72.2	82.5	10.3	.7	9.6	North Carolina	83.4	80.7	-2.7	4.5	-7.2
Texas	76.2	86.4	10.2	7.2	3.0	Wyoming	44.7	41.6	-3.1	15.0	-18.1
Minnesota	79.3	89.3	10.0	6.5	3.5	Indiana	75.1	70.3	-4.8	2.0	-6.8
West Virginia	65.8	75.4	9.6	8.5	1.1	South Carolina	78.9	73.8	-5.1	-1.2	-3.9
Washington	85.5	91.3	5.8	.3	5.5	Tennessee	92.8	86.3	-6.5	1.4	-7.9
Ohio	75.5	80.8	5.3	6.0	-7	Maryland	82.8	75.7	-7.1	.9	-8.0
						New York	79.3	71.6	-7.7	1.4	-9.1

NOTE.—Similarity indexes and components are sorted based on the change in the index.

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 28, 2000 and include the "advance" estimates for the fourth quarter of 1999.

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

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

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

S. Summary Tables

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

[Percent]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Gross domestic product	4.3	4.0	3.8	5.9	3.7	1.9	5.7	5.8
Personal consumption expenditures	4.9	5.3	3.9	4.6	6.5	5.1	4.9	5.3
Durable goods	11.3	11.4	4.1	20.4	12.4	9.1	7.7	11.8
Nondurable goods	4.0	5.3	2.4	5.0	8.9	3.3	3.6	6.1
Services	4.0	4.0	4.7	1.5	4.2	5.2	5.0	3.5
Gross private domestic investment	11.7	5.7	10.4	11.5	3.6	-2.1	13.6	8.5
Fixed investment	11.8	8.0	2.0	13.8	9.1	6.6	6.8	1.5
Nonresidential	12.7	8.3	0	15.3	7.8	7.0	10.9	2.5
Structures	4.1	-2.7	-6.6	5.8	-5.8	-5.3	-3.8	-5.3
Equipment and software	15.8	12.0	2.4	18.6	12.5	11.2	15.7	4.9
Residential	9.2	7.2	8.0	9.8	12.9	5.5	-3.8	-1.2
Change in private inventories								
Net exports of goods and services								
Exports	2.2	3.5	-1.7	16.1	-5.5	4.0	11.5	6.9
Goods	2.1	3.8	1.6	19.4	-9.3	4.3	16.9	7.6
Services	2.5	2.9	-8.8	8.6	4.1	3.2	0	5.1
Imports	11.6	11.8	5.2	10.8	12.5	14.4	14.9	10.6
Goods	11.7	12.7	4.9	12.8	12.6	15.5	17.3	9.9
Services	10.8	7.6	6.4	1.6	11.9	8.9	3.6	14.3
Government consumption expenditures and gross investment	1.7	3.7	1.3	2.9	5.1	1.3	4.5	8.4
Federal	-9	2.9	-2.3	3.9	-5	2.1	4.1	16.0
National defense	-1.9	1.9	7.0	-2.9	-4.0	-2.6	11.2	18.9
Nondefense	1.0	4.7	-17.4	17.8	6.1	10.9	-7.1	11.0
State and local	3.2	4.1	3.3	2.3	8.2	.9	4.8	4.4
Addenda:								
Final sales of domestic product	4.3	4.4	2.4	6.2	4.6	3.4	4.5	4.6
Gross domestic purchases	5.4	5.1	4.6	5.5	5.8	3.2	6.3	6.3
Final sales to domestic purchasers	5.4	5.4	3.2	5.8	6.7	4.7	5.2	5.2
Gross national product	4.1		2.6	6.3	3.8	1.9	5.6	
Disposable personal income	4.1	4.0	4.5	4.8	4.1	3.2	2.9	4.6

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

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

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Percent change at annual rate:								
Gross domestic product	4.3	4.0	3.8	5.9	3.7	1.9	5.7	5.8
Percentage points at annual rates:								
Personal consumption expenditures	3.24	3.52	2.64	3.13	4.27	3.36	3.33	3.59
Durable goods .....	.86	.89	.33	1.51	.96	.71	.62	.93
Nondurable goods .....	.79	1.04	.49	.98	1.68	.64	.73	1.22
Services	1.59	1.59	1.83	.64	1.63	2.01	1.97	1.43
Gross private domestic investment	1.93	.99	1.74	1.94	.67	-3.36	2.25	1.46
Fixed investment	1.86	1.32	.34	2.20	1.48	1.10	1.16	.28
Nonresidential	1.49	1.02	.01	1.79	.94	.86	1.33	.33
Structures .....	.13	-0.08	-0.21	.18	-0.18	-0.16	-0.11	-0.15
Equipment and software	1.37	1.10	.22	1.61	1.12	1.02	1.44	.48
Residential .....	.37	.31	.33	.41	.53	.24	-0.17	-0.05
Change in private inventories .....	.07	-0.33	1.40	-0.26	-0.80	-1.46	1.09	1.18
Net exports of goods and services	-1.18	-1.11	-0.82	.33	-2.13	-1.35	-0.72	-0.70
Exports .....	.25	.38	-0.18	1.65	-0.61	.42	1.19	.74
Goods .....	.17	.29	.12	1.38	-0.74	.32	1.19	.57
Services .....	.08	.09	-0.30	.27	.13	.10	0	.17
Imports	-1.43	-1.49	-0.65	-1.32	-1.52	-1.77	-1.91	-1.44
Goods	-1.21	-1.33	-0.51	-1.29	-1.28	-1.59	-1.83	-1.13
Services	-0.22	-0.16	-0.13	-0.03	-0.24	-0.19	-0.08	-0.30
Government consumption expenditures and gross investment .....	.31	.64	.23	.51	.87	.23	.81	1.45
Federal	-0.06	.18	-0.14	.24	-0.03	.13	.26	.94
National defense	-0.08	.08	.27	-0.12	-0.16	-0.10	.42	.70
Nondefense .....	.02	.10	-0.42	.36	.13	.23	-0.16	.24
State and local .....	.37	.47	.37	.28	.90	.10	.55	.52

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

1. National Product and Income

Table 1.1.—Gross Domestic Product

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Gross domestic product	8,759.9	9,248.4	8,797.9	8,947.6	9,072.7	9,146.2	9,297.8	9,477.1
Personal consumption expenditures	5,848.6	6,254.9	5,889.6	5,973.7	6,090.8	6,200.8	6,303.7	6,424.6
Durable goods	698.2	758.1	696.9	722.8	739.0	751.6	761.8	780.1
Nondurable goods	1,708.9	1,841.1	1,716.6	1,742.9	1,787.8	1,824.8	1,853.9	1,897.7
Services	3,441.5	3,655.7	3,476.1	3,508.0	3,564.0	3,624.3	3,688.0	3,746.7
Gross private domestic investment	1,531.2	1,621.6	1,535.3	1,580.3	1,594.3	1,585.4	1,635.0	1,671.8
Fixed investment	1,460.0	1,577.4	1,461.7	1,508.9	1,543.3	1,567.8	1,594.2	1,604.1
Nonresidential	1,091.3	1,166.5	1,087.2	1,121.4	1,139.9	1,155.4	1,181.6	1,189.1
Structures	272.8	272.6	271.7	278.0	274.7	272.5	272.1	271.1
Equipment and software	818.5	893.9	815.4	843.4	865.2	882.9	909.5	918.1
Residential	368.7	410.9	374.5	387.5	403.4	412.4	412.7	415.0
Change in private inventories	71.2	44.3	73.7	71.4	51.0	17.6	40.8	67.6
Net exports of goods and services	-149.6	-256.8	-165.7	-161.2	-201.6	-245.8	-278.2	-301.8
Exports	966.3	996.3	949.1	981.8	966.9	978.2	1,008.5	1,031.5
Goods	681.3	697.5	667.2	693.3	674.3	680.5	708.8	726.5
Services	285.1	298.8	281.9	288.6	292.6	297.7	299.7	305.0
Imports	1,115.9	1,253.1	1,114.8	1,143.1	1,168.5	1,224.0	1,286.6	1,333.3
Goods	930.4	1,048.9	927.2	952.6	974.3	1,022.3	1,079.3	1,119.9
Services	185.5	204.2	187.7	190.4	194.2	201.7	207.4	213.4
Government consumption expenditures and gross investment	1,529.7	1,628.7	1,538.7	1,554.8	1,589.1	1,605.9	1,637.2	1,682.6
Federal	538.7	570.8	539.7	546.7	557.4	561.6	569.8	594.6
National defense	348.6	364.7	354.7	352.9	355.8	354.3	365.4	383.4
Nondefense	190.1	206.1	185.0	193.8	201.6	207.3	204.4	211.2
State and local	991.0	1,057.9	999.0	1,008.1	1,031.8	1,044.3	1,067.4	1,088.0

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

Table 1.2.—Real Gross Domestic Product

[Billions of chained (1996) dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Gross domestic product	8,516.3	8,861.0	8,536.0	8,659.2	8,737.9	8,778.6	8,900.6	9,026.9
Personal consumption expenditures	5,698.6	5,998.7	5,730.7	5,795.8	5,888.4	5,961.8	6,033.3	6,111.2
Durable goods	731.5	815.1	731.2	766.0	788.8	806.1	821.2	844.5
Nondurable goods	1,685.3	1,774.6	1,692.0	1,712.6	1,749.5	1,763.7	1,779.3	1,805.9
Services	3,284.5	3,416.8	3,309.6	3,322.0	3,356.5	3,399.2	3,440.6	3,470.6
Gross private domestic investment	1,547.4	1,636.2	1,551.1	1,593.9	1,608.2	1,599.8	1,651.6	1,685.4
Fixed investment	1,471.8	1,589.4	1,474.0	1,522.5	1,555.9	1,581.0	1,607.3	1,613.5
Nonresidential	1,122.5	1,215.4	1,120.3	1,160.8	1,182.7	1,202.9	1,234.3	1,241.9
Structures	254.1	247.3	252.1	255.7	251.9	248.5	246.1	242.8
Equipment and software	870.6	975.5	870.6	908.5	935.7	960.9	996.6	1,008.7
Residential	350.2	375.4	354.2	362.6	373.7	378.8	375.1	374.0
Change in private inventories	74.3	41.9	76.1	70.7	50.1	14.0	38.0	65.4
Net exports of goods and services	-215.1	-324.5	-237.9	-232.3	-284.5	-319.0	-338.2	-356.1
Exports	1,007.1	1,042.5	993.0	1,030.8	1,016.4	1,026.4	1,054.8	1,072.4
Goods	722.8	750.3	712.0	744.2	726.4	734.1	763.3	777.4
Services	284.4	292.6	281.1	287.0	289.9	292.2	292.2	295.9
Imports	1,222.2	1,367.0	1,231.0	1,263.1	1,300.9	1,345.4	1,393.0	1,428.6
Goods	1,031.6	1,162.7	1,037.9	1,069.7	1,102.0	1,142.5	1,188.9	1,217.4
Services	190.7	205.2	193.1	193.8	199.4	203.7	205.5	212.4
Government consumption expenditures and gross investment	1,480.3	1,534.6	1,485.3	1,495.9	1,514.6	1,519.5	1,536.5	1,567.7
Federal	526.1	541.3	527.0	532.0	531.4	534.2	539.7	560.1
National defense	341.7	348.1	347.5	344.9	341.4	339.2	348.3	363.7
Nondefense	184.4	193.1	179.6	187.1	189.9	194.9	191.3	196.4
State and local	953.9	993.0	958.1	963.6	982.9	985.1	996.6	1,007.5
Residual	.9	5.2	2.9	-2.2	2.6	8.1	6.4	3.9

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

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

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

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

(Billions of dollars)

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Gross domestic product	8,759.9	9,248.4	8,797.9	8,947.6	9,072.7	9,146.2	9,297.8	9,477.1
Final sales of domestic product	8,688.7	9,204.2	8,724.2	8,876.2	9,021.6	9,128.6	9,257.0	9,409.5
Change in private inventories	71.2	44.3	73.7	71.4	51.0	17.6	40.8	67.6
Goods	3,310.3	3,478.8	3,305.6	3,389.8	3,416.6	3,424.2	3,494.0	3,580.4
Final sales	3,239.1	3,434.6	3,231.9	3,318.4	3,365.6	3,406.6	3,453.2	3,512.8
Change in private inventories	71.2	44.3	73.7	71.4	51.0	17.6	40.8	67.6
Durable goods	1,567.8	1,643.5	1,559.7	1,610.0	1,608.3	1,607.9	1,654.0	1,703.9
Final sales	1,528.9	1,618.2	1,519.9	1,571.4	1,584.3	1,601.7	1,631.1	1,655.7
Change in private inventories	38.9	25.4	39.8	38.6	24.1	6.3	23.0	48.2
Nondurable goods	1,742.5	1,835.3	1,745.9	1,779.8	1,808.3	1,816.3	1,840.0	1,876.6
Final sales	1,710.2	1,816.4	1,712.1	1,747.0	1,781.3	1,804.9	1,822.2	1,857.1
Change in private inventories	32.2	18.9	33.9	32.8	27.0	11.4	17.8	19.4
Services	4,664.5	4,930.3	4,700.4	4,747.9	4,820.7	4,885.5	4,963.7	5,051.6
Structures	785.1	839.3	791.9	809.9	835.3	836.5	840.1	845.1
Addenda:								
Motor vehicle output	313.3	342.9	306.1	345.3	325.0	330.9	355.0	360.5
Gross domestic product less motor vehicle output	8,446.7	8,905.6	8,491.7	8,602.2	8,747.6	8,815.3	8,942.8	9,116.6

NOTE.—Percent changes from preceding period for gross domestic product and for final sales of domestic product are shown in table 8.1.

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

(Billions of chained (1996) dollars)

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Gross domestic product	8,516.3	8,861.0	8,536.0	8,659.2	8,737.9	8,778.6	8,900.6	9,026.9
Final sales of domestic product	8,441.3	8,813.7	8,459.6	8,588.3	8,685.2	8,757.9	8,855.8	8,955.9
Change in private inventories	74.3	41.9	76.1	70.7	50.1	14.0	38.0	65.4
Residual	.7	5.4	.3	2.6	2.6	6.7	6.8	5.6
Goods	3,330.5	3,505.8	3,323.9	3,417.4	3,442.1	3,446.1	3,525.3	3,609.6
Final sales	3,255.1	3,459.1	3,246.9	3,346.2	3,390.0	3,427.5	3,481.3	3,537.8
Change in private inventories	74.3	41.9	76.1	70.7	50.1	14.0	38.0	65.4
Durable goods	1,625.0	1,741.1	1,619.1	1,686.7	1,693.5	1,699.5	1,758.1	1,813.1
Final sales	1,585.1	1,714.7	1,578.1	1,646.9	1,668.7	1,693.5	1,734.2	1,762.5
Change in private inventories	39.7	26.3	40.7	39.6	25.1	6.5	23.8	49.8
Nondurable goods	1,708.1	1,769.7	1,707.1	1,734.6	1,752.0	1,750.4	1,772.9	1,803.5
Final sales	1,672.6	1,749.5	1,671.2	1,703.1	1,725.2	1,738.5	1,752.9	1,781.3
Change in private inventories	34.6	15.6	35.3	31.0	25.0	7.5	14.2	15.8
Services	4,449.4	4,597.1	4,471.4	4,494.6	4,529.5	4,571.0	4,620.4	4,667.6
Structures	738.9	763.7	742.5	751.7	770.2	764.7	760.9	759.0
Residual	-4.0	-5.9	-3.2	-7.7	-5.8	-3.1	-5.8	-9.1
Addenda:								
Motor vehicle output	315.7	345.4	305.7	348.6	329.0	335.7	355.8	361.1
Gross domestic product less motor vehicle output	8,200.9	8,516.6	8,230.2	8,311.9	8,409.3	8,443.6	8,546.2	8,667.3

NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The residual line following change in private inventories is the difference between gross domestic product and the sum of final sales of domestic product and of change in private 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 gross domestic product and for final sales of domestic product are shown in table 8.1 Chain-type quantity indexes for the series in this table are shown in table 7.17.

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

(Billions of dollars)

Gross domestic product	8,759.9	9,248.4	8,797.9	8,947.6	9,072.7	9,146.2	9,297.8	9,477.1
Less: Exports of goods and services	966.3	996.3	949.1	981.8	966.9	978.2	1,008.5	1,031.5
Plus: Imports of goods and services	1,115.9	1,253.1	1,114.8	1,143.1	1,168.5	1,224.0	1,286.6	1,333.3
Equals: Gross domestic purchases	8,909.5	9,505.3	8,963.6	9,108.8	9,274.2	9,392.0	9,575.9	9,778.9
Less: Change in private inventories	71.2	44.3	73.7	71.4	51.0	17.6	40.8	67.6
Equals: Final sales to domestic purchasers	8,838.3	9,461.0	8,889.9	9,037.4	9,223.2	9,374.4	9,535.1	9,711.3

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 (1996) dollars)

Gross domestic product	8,516.3	8,861.0	8,536.0	8,659.2	8,737.9	8,778.6	8,900.6	9,026.9
Less: Exports of goods and services	1,007.1	1,042.5	993.0	1,030.8	1,016.4	1,026.4	1,054.8	1,072.4
Plus: Imports of goods and services	1,222.2	1,367.0	1,231.0	1,263.1	1,300.9	1,345.4	1,393.0	1,428.6
Equals: Gross domestic purchases	8,723.2	9,165.5	8,764.2	8,881.5	9,007.4	9,078.2	9,216.9	9,359.4
Less: Change in private inventories	74.3	41.9	76.1	70.7	50.1	14.0	38.0	65.4
Equals: Final sales to domestic purchasers	8,648.1	9,118.3	8,687.6	8,810.6	8,954.8	9,057.8	9,172.2	9,288.3

NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. Percent changes from preceding period for selected series in this table are shown in table 8.1. Chain-type quantity indexes for selected series in this table are shown in table 7.2.

Table 1.7.—Gross Domestic Product by Sector

(Billions of dollars)

Gross domestic product	8,759.9	9,248.4	8,797.9	8,947.6	9,072.7	9,146.2	9,297.8	9,477.1
Business ¹	7,402.0	7,821.5	7,432.1	7,568.0	7,669.1	7,729.4	7,862.6	8,025.1
Nonfarm ²	7,321.9	7,739.2	7,351.6	7,475.5	7,580.5	7,645.3	7,784.0	7,947.1
Nonfarm less housing	6,621.4	6,994.2	6,645.4	6,757.5	6,850.3	6,906.2	7,034.3	7,185.9
Housing	700.4	745.0	706.2	718.0	730.2	739.1	749.7	761.2
Farm	80.2	82.3	80.6	92.5	88.6	84.1	78.6	78.0
Households and institutions ³	385.6	408.2	388.4	393.4	399.7	404.9	411.0	417.1
Private households	14.0	15.9	14.3	15.2	15.6	15.8	16.0	16.2
Nonprofit institutions	371.6	392.3	374.1	378.2	384.1	389.0	395.0	400.9
General government ³	972.3	1,018.7	977.4	986.2	1,003.9	1,012.0	1,024.2	1,034.9
Federal	296.9	308.2	297.5	298.8	307.8	307.2	308.3	309.5
State and local	675.4	710.5	679.9	687.3	696.1	704.7	715.9	725.4

1. Equals gross domestic product less gross product of households and institutions and of general government.
2. Equals gross domestic business product less gross farm product.
3. 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 (1996) dollars)

Gross domestic product	8,516.3	8,861.0	8,536.0	8,659.2	8,737.9	8,778.6	8,900.6	9,026.9
Business ¹	7,223.2	7,547.5	7,241.0	7,359.5	7,432.8	7,469.1	7,584.1	7,703.9
Nonfarm ²	7,121.8	7,446.1	7,139.7	7,257.1	7,331.3	7,366.3	7,485.2	7,601.6
Nonfarm less housing	6,462.2	6,766.4	6,477.6	6,592.7	6,659.3	6,690.1	6,802.2	6,913.8
Housing	660.2	680.9	662.6	665.4	672.9	677.2	684.2	689.3
Farm	100.5	99.4	100.4	101.3	100.2	101.6	95.8	99.9
Households and institutions ³	369.0	376.3	369.6	371.3	373.2	374.8	377.2	380.2
Private households	13.3	14.6	13.5	14.2	14.6	14.6	14.7	14.7
Nonprofit institutions	355.7	361.7	356.1	357.0	358.6	360.2	362.5	365.5
General government ³	924.8	939.0	926.1	929.6	933.3	936.2	941.3	945.4
Federal	285.8	284.8	286.1	286.1	285.5	284.5	284.5	284.7
State and local	638.9	654.1	639.9	643.4	647.7	651.5	656.7	660.6
Residual	-3.0	-9.0	-2.0	-9.0	-9.0	-1.0	0.0	-1.6

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

NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The residual line is the difference between the first line and the sum of the most detailed lines. Chain-type quantity indexes for the series in this table are shown in table 7.14.

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

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Gross domestic product	8,759.9	9,248.4	8,797.9	8,947.6	9,072.7	9,146.2	9,297.8	9,477.1
Plus: Income receipts from the rest of the world	285.3	.....	276.4	280.8	283.8	296.1	307.7	.....
Less: Income payments to the rest of the world	295.2	.....	302.0	297.9	298.2	310.4	323.2	.....
Equals: Gross national product	8,750.0	.....	8,772.2	8,930.5	9,058.2	9,131.9	9,282.3	.....
Less: Consumption of fixed capital	1,066.9	1,141.2	1,075.2	1,094.0	1,108.8	1,126.3	1,160.9	1,168.8
Private	880.8	945.3	888.3	904.8	916.7	931.8	963.7	968.8
Capital consumption allowances	906.2	975.6	914.2	932.2	947.1	964.7	989.9	1,000.7
Less: Capital consumption adjustment	25.4	30.3	25.9	27.4	30.3	32.9	26.2	31.8
Government	186.2	195.9	186.9	189.1	192.0	194.5	197.2	200.0
General government	158.6	166.7	159.2	160.9	163.4	165.5	167.7	170.1
Government enterprises	27.6	29.2	27.7	28.2	28.6	29.0	29.5	29.9
Equals: Net national product	7,683.1	.....	7,697.1	7,836.5	7,949.5	8,005.6	8,121.4	.....
Less: Indirect business tax and nontax liability	677.0	715.6	676.6	697.8	696.6	706.7	718.3	740.6
Business transfer payments	38.1	39.4	38.2	38.6	38.8	39.3	39.5	40.0
Statistical discrepancy	-47.6	.....	-87.9	-62.4	-99.4	-135.5	-141.2	.....
Plus: Subsidies less current surplus of government enterprises	20.8	26.4	16.9	31.4	21.0	27.9	17.3	39.4
Equals: National income	7,036.4	.....	7,087.1	7,193.8	7,334.5	7,423.1	7,521.1	.....
Less: Corporate profits with inventory valuation and capital consumption adjustments	846.1	.....	843.8	834.3	882.0	875.5	879.2	.....
Net interest	435.7	.....	444.0	440.8	446.3	456.4	476.3	.....
Contributions for social insurance	621.9	658.1	626.1	633.8	647.2	653.8	662.3	669.0
Wage accruals less disbursements	3.5	0	3.5	3.5	0	0	0	0
Plus: Personal interest income	897.8	930.6	909.3	906.4	907.4	920.5	938.8	955.6
Personal dividend income	348.3	364.3	348.0	351.9	356.1	361.2	367.0	373.1
Government transfer payments to persons	954.8	988.6	957.7	962.0	978.5	984.1	991.6	1,000.3
Business transfer payments to persons	28.8	29.6	28.8	29.0	29.3	29.5	29.7	29.9
Equals: Personal income	7,358.9	7,791.2	7,413.6	7,530.8	7,630.2	7,732.6	7,831.4	7,970.6
Addenda:								
Gross domestic income	8,807.5	.....	8,885.8	9,009.9	9,172.0	9,281.7	9,439.0	.....
Gross national income	8,797.6	.....	8,860.2	8,992.8	9,157.6	9,267.4	9,423.5	.....
Net domestic product	7,693.0	8,107.2	7,722.7	7,853.6	7,963.9	8,019.9	8,136.9	8,308.3

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

[Billions of chained (1996) dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Gross domestic product	8,516.3	8,861.0	8,536.0	8,659.2	8,737.9	8,778.6	8,900.6	9,026.9
Plus: Income receipts from the rest of the world	279.2	.....	270.3	274.0	276.0	286.6	296.5	.....
Less: Income payments to the rest of the world	289.6	.....	295.8	291.3	290.7	301.1	311.8	.....
Equals: Gross national product	8,506.0	.....	8,510.6	8,641.9	8,723.3	8,764.3	8,885.5	.....
Less: Consumption of fixed capital	1,074.2	1,157.0	1,082.4	1,100.6	1,117.8	1,140.5	1,179.1	1,190.8
Private	899.8	978.6	908.4	925.8	941.6	962.8	1,000.2	1,010.0
Government	185.4	192.4	186.1	187.8	189.6	191.4	193.3	195.3
General government	158.4	164.4	159.0	160.5	161.9	163.5	165.1	166.8
Government enterprises	26.9	28.0	27.1	27.3	27.6	27.9	28.2	28.5
Equals: Net national product	7,432.5	.....	7,429.2	7,542.3	7,606.8	7,626.1	7,710.0	.....
Addenda:								
Gross domestic income ¹	8,562.4	.....	8,621.3	8,719.5	8,833.5	8,908.7	9,035.8	.....
Gross national income ²	8,552.1	.....	8,595.9	8,702.3	8,819.0	8,894.3	9,020.6	.....
Net domestic product	7,442.7	7,706.6	7,454.4	7,559.5	7,621.3	7,640.3	7,725.1	7,839.5

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 (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive.

The chain-type quantity index for gross national product is shown in table 7.3.

Table 1.11.—Command-Basis Real Gross National Product

[Billions of chained (1996) dollars]

Gross national product	8,506.0	.....	8,510.6	8,641.9	8,723.3	8,764.3	8,885.5	.....
Less: Exports of goods and services and income receipts from the rest of the world	1,286.1	.....	1,262.9	1,304.0	1,292.0	1,313.1	1,351.5	.....
Plus: Command-basis exports of goods and services and income receipts from the rest of the world ¹	1,340.0	.....	1,320.3	1,360.7	1,355.0	1,365.2	1,391.6	.....
Equals: Command-basis gross national product	8,559.9	.....	8,568.0	8,698.7	8,786.3	8,816.3	8,925.6	.....
Addendum:								
Terms of trade ²	104.2	.....	104.5	104.3	104.9	104.0	103.0	.....

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

2. Ratio of the implicit price deflator for exports of goods and services and income receipts to the corresponding implicit price deflator for imports divided by 100.

NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. Percent changes from preceding period for gross national product are shown in table 8.1.

Chain-type quantity indexes for the series in this table are shown in table 7.3.

Table 1.14.—National Income by Type of Income

(Billions of dollars)

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
National income	7,036.4		7,087.1	7,193.8	7,334.5	7,423.1	7,522.1	
Compensation of employees ...	5,011.2	5,332.0	5,053.6	5,134.7	5,217.7	5,287.1	5,373.6	5,449.7
Wage and salary accruals	4,189.5	4,472.7	4,227.9	4,300.8	4,371.5	4,432.6	4,509.4	4,577.2
Government	692.8	726.4	696.7	702.8	715.8	721.3	730.3	738.2
Other	3,496.7	3,746.3	3,531.2	3,598.0	3,655.7	3,711.3	3,779.1	3,839.0
Supplements to wages and salaries	821.7	859.4	825.7	833.9	846.2	854.5	864.2	872.5
Employer contributions for social insurance	306.0	323.5	308.1	311.8	318.3	321.5	325.7	328.7
Other labor income	515.7	535.8	517.7	522.1	528.0	533.0	538.5	543.8
Proprietors' income with inventory valuation and capital consumption adjustments	606.1	658.0	606.4	637.1	639.9	655.3	654.0	682.7
Farm	25.1	31.3	22.9	41.1	32.5	34.1	21.0	37.5
Proprietors' income with inventory valuation adjustment	32.7	38.6	30.5	48.6	39.6	41.2	28.8	44.6
Capital consumption adjustment	-7.6	-7.3	-7.6	-7.5	-7.2	-7.1	-7.9	-7.0
Nonfarm	581.0	626.7	583.6	596.0	607.5	621.2	633.0	645.2
Proprietors' income	532.2	578.9	534.6	547.4	558.9	573.8	586.2	596.9
Inventory valuation adjustment	1.2	-9	1.3	1.1	.8	-1.0	-1.9	-1.4
Capital consumption adjustment	47.6	48.6	47.7	47.5	47.7	48.3	48.8	49.7
Rental income of persons with capital consumption adjustment	137.4	146.1	139.3	147.0	148.6	148.8	139.0	148.2
Rental income of persons	188.6	202.2	190.7	199.6	202.5	203.5	198.9	204.0
Capital consumption adjustment	-51.1	-56.1	-51.4	-52.6	-53.9	-54.7	-59.9	-55.8
Corporate profits with inventory valuation and capital consumption adjustments	846.1		843.8	834.3	882.0	875.5	879.2	
Corporate profits with inventory valuation adjustment	802.8		799.9	787.4	831.4	822.2	827.1	
Profits before tax	781.9		780.1	766.7	818.1	835.8	853.8	
Profits tax liability	240.2		244.3	235.6	248.0	254.4	259.4	
Profits after tax	541.7		535.8	531.0	570.1	581.4	594.3	
Dividends	348.6	364.7	348.4	352.2	356.4	361.5	367.3	373.5
Undistributed profits	193.1		187.4	178.8	213.7	219.9	227.0	
Inventory valuation adjustment	20.9		19.8	20.8	13.3	-13.6	-26.7	
Capital consumption adjustment	43.3	52.0	43.9	46.9	50.6	53.2	52.1	52.1
Net interest	435.7		444.0	440.8	446.3	456.4	476.3	
Addenda:								
Corporate profits after tax with inventory valuation and capital consumption adjustments	605.8		599.5	598.7	634.0	621.0	619.8	
Net cash flow with inventory valuation and capital consumption adjustments	876.5		876.1	883.6	923.4	916.7	929.0	
Undistributed profits with inventory valuation and capital consumption adjustments	257.2		251.1	246.5	277.6	259.5	252.4	
Consumption of fixed capital	619.2	666.3	625.0	637.1	645.8	657.2	676.5	685.6
Less: Inventory valuation adjustment	20.9		19.8	20.8	13.3	-13.6	-26.7	
Equals: Net cash flow	855.5		856.3	862.8	910.1	930.3	955.6	

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

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
			Billions of dollars					
Gross product of corporate business	5,445.3		5,495.9	5,571.7	5,673.5	5,740.1	5,835.7	
Consumption of fixed capital	619.2	666.3	625.0	637.1	645.8	657.2	676.5	685.6
Net product	4,826.0		4,870.9	4,934.6	5,027.7	5,083.0	5,159.1	
Indirect business tax and nontax liability plus business transfer payments less subsidies	564.0	598.7	563.3	584.9	583.4	591.4	600.7	619.4
Domestic income	4,262.0		4,307.5	4,349.7	4,444.4	4,491.6	4,558.4	
Compensation of employees	3,385.3	3,614.4	3,416.8	3,481.2	3,532.0	3,582.7	3,644.4	3,698.7
Wage and salary accruals	2,871.5	3,076.3	2,900.8	2,958.4	3,002.1	3,047.6	3,103.3	3,152.4
Supplements to wages and salaries	513.9	538.1	516.0	522.8	529.9	535.0	541.1	546.3
Corporate profits with inventory valuation and capital consumption adjustments	746.0		757.2	736.0	777.7	772.1	771.1	
Profits before tax	681.9		693.5	668.3	713.8	732.5	745.6	
Profits tax liability	240.2		244.3	235.6	248.0	254.4	259.4	
Profits after tax	441.6		449.2	432.7	465.8	478.0	486.2	
Dividends	314.6		310.8	328.1	308.4	342.2	337.9	
Undistributed profits	127.0		138.4	104.6	157.4	135.9	148.3	
Inventory valuation adjustment	20.9		19.8	20.8	13.3	-13.6	-26.7	
Capital consumption adjustment	43.3	52.0	43.9	46.9	50.6	53.2	52.1	52.1
Net interest	130.6		133.6	132.5	134.6	136.8	143.0	
Gross product of financial corporate business	610.7		613.5	623.3	645.0	645.2	659.1	
Gross product of nonfinancial corporate business	4,834.6		4,882.4	4,948.4	5,028.6	5,094.9	5,176.6	
Consumption of fixed capital	522.2	559.5	526.7	537.2	543.8	552.3	568.5	573.6
Net product	4,312.4		4,355.7	4,411.1	4,484.8	4,542.7	4,608.1	
Indirect business tax and nontax liability plus business transfer payments less subsidies	523.5	556.8	523.0	544.5	542.4	549.8	558.5	576.6
Domestic income	3,788.9		3,832.6	3,866.7	3,942.4	3,992.9	4,049.5	
Compensation of employees	3,090.4	3,299.0	3,118.6	3,174.6	3,223.8	3,270.0	3,326.3	3,375.9
Wage and salary accruals	2,618.7	2,805.6	2,645.1	2,695.5	2,737.9	2,779.4	2,830.1	2,874.9
Supplements to wages and salaries	471.7	493.5	473.5	479.0	486.0	490.7	496.2	501.0
Corporate profits with inventory valuation and capital consumption adjustments	575.0		588.5	568.0	592.5	594.7	589.2	
Profits before tax	490.6		503.9	479.8	508.6	534.2	541.8	
Profits tax liability	152.5		157.1	148.8	157.9	166.9	169.3	
Profits after tax	338.1		346.9	331.0	350.6	367.3	372.5	
Dividends	245.4		242.9	256.9	241.5	267.9	264.6	
Undistributed profits	92.7		104.0	74.0	109.1	99.4	108.0	
Inventory valuation adjustment	20.9		19.8	20.8	13.3	-13.6	-26.7	
Capital consumption adjustment	63.5	73.8	64.8	67.4	70.6	74.1	74.1	76.2
Net interest	123.5		125.5	124.1	126.1	128.1	134.0	
			Billions of chained (1996) dollars					
Gross product of nonfinancial corporate business ¹	4,803.4		4,844.8	4,911.2	4,981.7	5,035.0	5,116.7	
Consumption of fixed capital ²	537.7	587.3	543.2	554.3	564.0	576.9	599.7	608.5
Net product ³	4,265.7		4,301.7	4,356.9	4,417.7	4,458.1	4,517.0	

1. Chained-dollar gross product of nonfinancial corporate business equals the current-dollar product deflated by the implicit price deflator for goods and structures in gross domestic product. Effective with the estimates scheduled for release on March 30, 2000, the current-dollar product will be deflated by a chain-type price index calculated using gross product price indexes for each nonfinancial industry.

2. Chained-dollar consumption of fixed capital of nonfinancial corporate business is calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100.

3. Chained-dollar net 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]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Personal income	7,358.9	7,791.2	7,413.6	7,530.8	7,630.2	7,732.6	7,831.4	7,970.6
Wage and salary disbursements	4,186.0	4,472.7	4,224.4	4,297.3	4,371.5	4,432.6	4,509.4	4,577.2
Private industries	3,493.2	3,746.3	3,527.7	3,594.5	3,655.7	3,711.3	3,779.1	3,839.0
Goods-producing industries	1,038.7	1,082.6	1,045.6	1,056.6	1,062.9	1,075.1	1,090.2	1,102.2
Manufacturing	757.5	779.9	762.3	765.6	767.0	774.8	786.4	791.4
Distributive industries	944.6	1,005.5	953.5	969.9	986.3	997.6	1,013.4	1,024.8
Service industries	1,509.9	1,658.1	1,528.6	1,568.0	1,606.6	1,638.5	1,675.5	1,711.9
Government	692.8	726.4	696.7	702.8	715.8	721.3	730.3	738.2
Other labor income	515.7	535.8	517.7	522.1	528.0	533.0	538.5	543.8
Proprietors' income with inventory valuation and capital consumption adjustments	606.1	658.0	606.4	637.1	639.9	655.3	654.0	682.7
Farm	25.1	31.3	22.9	41.1	32.5	34.1	21.0	37.5
Nonfarm	581.0	626.7	583.6	596.0	607.5	621.2	633.0	645.2
Rental income of persons with capital consumption adjustment	137.4	146.1	139.3	147.0	148.6	148.8	139.0	148.2
Personal dividend income	348.3	364.3	348.0	351.9	356.1	361.2	367.0	373.1
Personal interest income	897.8	930.6	909.3	906.4	907.4	920.5	938.8	955.6
Transfer payments to persons	983.6	1,018.2	986.5	991.0	1,007.8	1,013.6	1,021.3	1,030.2
Old-age, survivors, disability, and health insurance benefits	578.1	596.6	579.6	581.1	588.9	593.0	599.0	605.4
Government unemployment insurance benefits	19.8	20.2	20.6	19.9	20.5	20.3	20.2	19.6
Veterans benefits	23.3	24.3	23.3	23.6	24.3	24.1	24.3	24.5
Other transfer payments	362.3	377.2	362.9	366.4	374.1	376.2	377.8	380.6
Family assistance ¹	17.1	15.9	17.1	17.3	16.9	16.3	15.4	15.1
Other	345.2	361.3	345.8	349.1	357.2	359.9	362.4	365.5
Less: Personal contributions for social insurance	315.9	334.5	318.0	322.0	328.9	332.3	336.7	340.2
Less: Personal tax and nontax payments	1,072.6	1,152.0	1,088.3	1,113.0	1,124.8	1,139.4	1,160.4	1,183.2
Equals: Disposable personal income	6,286.2	6,639.2	6,325.3	6,417.8	6,505.4	6,593.2	6,671.0	6,787.4
Less: Personal outlays	6,056.6	6,480.9	6,100.5	6,190.3	6,310.3	6,425.2	6,531.5	6,656.6
Personal consumption expenditures	5,848.6	6,254.9	5,889.6	5,973.7	6,090.8	6,200.8	6,303.7	6,424.6
Interest paid by persons	185.7	201.6	187.9	193.2	196.1	199.9	203.3	206.9
Personal transfer payments to the rest of the world (net)	22.3	24.4	22.9	23.3	23.5	24.6	24.5	25.1
Equals: Personal saving	229.7	158.3	224.8	227.5	195.1	168.0	139.5	130.8
Addenda:								
Disposable personal income: Total, billions of chained (1996) dollars ²	6,125.1	6,367.4	6,154.6	6,226.6	6,289.3	6,339.1	6,384.8	6,456.3
Per capita: Current dollars	23,231	24,305	23,345	23,628	23,904	24,171	24,389	24,753
Chained (1996) dollars	22,636	23,310	22,715	22,924	23,110	23,239	23,343	23,546
Population (mid-period, millions)	270.6	273.2	270.9	271.6	272.1	272.8	273.5	274.2
Personal saving as a percentage of disposable personal income	3.7	2.4	3.6	3.5	3.0	2.5	2.1	1.9

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 disposable personal income are shown in table 8.1.

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

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Personal consumption expenditures	5,848.6	6,254.9	5,889.6	5,973.7	6,090.8	6,200.8	6,303.7	6,424.6
Durable goods	698.2	758.1	696.9	722.8	739.0	751.6	761.8	780.1
Motor vehicles and parts	289.2	315.9	285.6	304.4	306.8	313.8	318.1	324.7
Furniture and household equipment	268.7	290.2	270.6	275.3	283.8	287.3	292.0	297.9
Other	140.3	152.1	140.8	143.1	148.3	150.5	151.8	157.6
Nondurable goods	1,708.9	1,841.1	1,716.6	1,742.9	1,787.8	1,824.8	1,853.9	1,897.7
Food	853.4	903.0	857.6	875.6	885.4	893.4	903.9	929.4
Clothing and shoes	286.3	306.2	286.6	289.2	301.8	306.7	308.1	308.4
Gasoline, fuel oil, and other energy goods	126.2	138.1	125.2	120.9	120.1	136.3	144.6	151.1
Gasoline and oil	112.9	123.3	111.8	108.3	106.5	121.7	129.3	135.7
Fuel oil and coal	13.2	14.8	13.4	12.6	13.7	14.6	15.4	15.4
Other	442.9	493.8	447.3	457.2	480.5	488.4	497.3	508.8
Services	3,441.5	3,655.7	3,476.1	3,508.0	3,564.0	3,624.3	3,688.0	3,746.7
Housing	855.9	902.8	861.8	874.3	885.6	897.3	907.6	920.6
Household operation	346.9	362.6	356.0	347.3	356.2	360.3	366.8	367.0
Electricity and gas	128.1	130.4	134.6	122.9	128.3	129.4	133.8	130.2
Other household operation	218.8	232.1	221.5	224.5	227.9	230.9	233.0	236.8
Transportation	245.2	254.9	246.2	247.7	250.3	254.0	256.5	258.9
Medical care	894.3	941.3	899.0	910.5	922.5	933.0	948.1	961.6
Recreation	221.0	246.1	223.0	226.1	233.1	241.0	252.1	258.2
Other	878.2	948.1	890.1	902.1	916.4	938.8	956.8	980.4
Addenda:								
Energy goods and services ¹	254.3	268.5	259.7	243.8	248.4	265.7	278.5	281.4
Personal consumption expenditures less food and energy	4,740.8	5,083.4	4,772.3	4,854.3	4,956.9	5,041.6	5,121.3	5,213.8

1. Consists of gasoline, fuel oil, and other energy goods and of electricity and gas.

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

[Billions of chained (1996) dollars]

	1998	1999	2000	2001	2002	2003	2004	2005
Personal consumption expenditures	5,698.6	5,998.7	5,730.7	5,795.8	5,888.4	5,961.8	6,033.3	6,111.2
Durable goods	731.5	815.1	731.2	766.0	788.8	806.1	821.2	844.5
Motor vehicles and parts	291.9	318.0	286.7	307.4	310.4	317.2	319.6	324.9
Furniture and household equipment	297.4	341.6	301.7	312.6	326.7	335.5	346.0	358.2
Other	142.7	157.3	143.7	146.5	152.9	154.7	157.6	163.9
Nondurable goods	1,685.3	1,774.6	1,692.0	1,712.6	1,749.5	1,763.7	1,779.3	1,805.9
Food	820.6	850.8	823.0	835.4	839.5	844.6	850.0	869.2
Clothing and shoes	292.2	317.8	292.2	295.6	314.7	316.8	321.6	317.9
Gasoline, fuel oil, and other energy goods	142.1	144.0	143.1	141.9	142.9	143.9	144.5	144.7
Gasoline and oil	127.7	128.1	128.5	127.7	127.1	127.5	128.2	129.5
Fuel oil and coal	14.5	15.9	14.7	14.2	15.8	16.4	16.3	15.1
Other	430.6	462.0	433.9	439.4	452.6	458.6	463.5	473.4
Services	3,284.5	3,416.8	3,309.6	3,320.3	3,356.5	3,399.2	3,440.6	3,470.6
Housing	805.6	826.1	808.0	812.0	818.4	823.1	828.5	834.5
Household operation	344.3	359.9	353.7	345.4	354.0	358.8	364.4	362.6
Electricity and gas	129.6	132.5	136.6	125.7	131.1	132.2	135.4	131.1
Other household operation	214.7	227.3	217.2	219.6	222.8	226.4	228.9	231.3
Transportation	234.2	240.9	234.6	236.1	237.7	239.9	242.4	243.7
Medical care	854.4	876.7	856.4	862.2	865.6	872.0	880.9	888.5
Recreation	208.8	227.9	210.3	212.8	218.4	225.0	232.4	235.7
Other	837.3	885.5	847.1	853.6	862.7	880.8	892.6	905.8
Residual	-3.6	-9.7	-3.9	-5.0	-8.0	-8.9	-10.6	-11.5
Addenda:								
Energy goods and services ¹	271.8	276.6	280.2	267.3	274.1	276.2	280.0	275.9
Personal consumption expenditures less food and energy	4,605.9	4,870.1	4,628.0	4,691.7	4,773.8	4,839.9	4,902.3	4,964.5

1. Consists of gasoline, fuel oil, and other energy goods and of electricity and gas.

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

Chain-type quantity indexes for the series in this table are shown in table 7.4.

Contributions to the percent change in real personal consumption expenditures are shown in table 8.3.

3. Government Current Receipts and Expenditures

Table 3.1.—Government Current Receipts and Expenditures

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Current receipts	2,611.8		2,635.3	2,680.2	2,716.6	2,754.4	2,800.5	
Personal tax and nontax receipts	1,072.6	1,152.0	1,088.3	1,113.0	1,124.8	1,139.4	1,160.4	1,183.2
Corporate profits tax accruals	240.2		244.3	235.6	248.0	254.4	259.4	
Indirect business tax and nontax accruals	677.0	715.6	676.6	697.8	696.6	706.7	718.3	740.6
Contributions for social insurance	621.9	658.1	626.1	633.8	647.2	653.8	662.3	669.0
Current expenditures	2,523.1	2,619.7	2,525.9	2,566.3	2,570.3	2,598.7	2,617.8	2,692.0
Consumption expenditures	1,261.0	1,332.3	1,265.2	1,282.1	1,299.4	1,313.7	1,341.5	1,374.5
Transfer payments (net)	965.2	999.1	966.7	980.7	985.3	993.3	1,000.1	1,017.9
To persons	954.8	988.6	957.7	962.0	978.5	984.1	991.6	1,000.3
To the rest of the world (net)	10.4	10.5	9.1	18.7	6.8	9.2	8.5	17.6
Net interest paid	276.4	262.2	277.4	272.5	265.0	264.1	259.2	260.5
Interest paid	368.4	356.8	368.8	365.6	358.1	358.6	354.3	356.3
To persons and business	277.3		277.7	274.8	267.4	266.0	257.7	
To the rest of the world	91.1		91.1	90.8	90.7	92.6	96.6	
Less: Interest received by government	92.0	94.6	91.4	93.2	93.1	94.5	95.1	95.8
Less: Dividends received by government .....	.3	.3	.3	.3	.3	.3	.3	.3
Subsidies less current surplus of government enterprises	20.8	26.4	16.9	31.4	21.0	27.9	17.3	39.4
Subsidies	35.6	43.6	32.3	46.4	38.0	44.9	34.6	56.9
Less: Current surplus of government enterprises	14.8	17.2	15.4	15.0	16.9	17.0	17.3	17.6
Less: Wage accruals less disbursements	0	0	0	0	0	0	0	0
Current surplus or deficit (-), national income and product accounts	88.7		109.5	113.9	146.3	155.7	182.7	
Social insurance funds	57.3	77.5	59.6	67.0	72.7	76.4	79.7	81.3
Other	31.4		49.9	46.9	73.6	79.3	103.0	
Addenda:								
Net lending or net borrowing (-)	34.4		49.4	58.2	75.6	86.9	108.9	
Current surplus or deficit (-), national income and product accounts	88.7		109.5	113.9	146.3	155.7	182.7	
Plus: Consumption of fixed capital	186.2	195.9	186.9	189.1	192.0	194.5	197.2	200.0
Plus: Capital transfers received (net)	32.6	37.0	31.6	34.8	35.1	37.9	34.5	40.7
Less: Gross investment	268.7	296.4	273.5	272.6	289.8	292.2	295.7	308.1
Less: Net purchases of nonproduced assets	4.3	9.1	5.1	7.0	8.0	8.9	9.9	9.4

Table 3.2.—Federal Government Current Receipts and Expenditures

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Current receipts	1,750.7		1,770.3	1,793.3	1,826.5	1,853.1	1,883.1	
Personal tax and nontax receipts	835.7	900.1	847.3	868.1	877.9	892.1	908.0	922.3
Income taxes	827.6	891.2	839.1	859.8	869.4	883.4	899.0	913.0
Nontaxes	8.1	8.9	8.2	8.3	8.5	8.8	9.0	9.3
Corporate profits tax accruals	206.5		209.9	202.6	212.6	218.1	222.4	
Federal Reserve banks	26.6		26.7	26.7	23.5	23.7	24.6	
Other	179.9		183.2	175.9	189.1	194.4	197.9	
Indirect business tax and nontax accruals	97.3	100.9	97.7	99.6	99.5	100.0	101.5	102.7
Excise taxes	62.9	66.9	63.1	65.7	66.3	66.9	66.9	67.5
Customs duties	19.6	19.9	19.9	19.6	19.0	18.8	20.5	21.1
Nontaxes	14.8	14.2	14.7	14.3	14.1	14.2	14.2	14.2
Contributions for social insurance	611.2	647.0	615.4	623.1	636.5	642.9	651.2	657.5
Current expenditures	1,703.8	1,754.9	1,710.7	1,733.5	1,728.9	1,735.0	1,749.3	1,806.3
Consumption expenditures	453.5	475.0	451.4	460.0	467.0	465.2	475.0	492.7
Transfer payments (net)	730.4	754.6	731.0	742.1	743.4	749.7	754.8	770.4
To persons	720.0	744.1	721.9	723.5	736.6	740.5	746.4	752.8
To the rest of the world (net)	10.4	10.5	9.1	18.7	6.8	9.2	8.5	17.6
Grants-in-aid to State and local governments	209.3	224.2	220.2	214.2	219.9	215.7	230.6	230.7
Net interest paid	278.4	263.0	279.6	274.3	266.0	264.8	259.9	261.2
Interest paid	297.7	285.5	298.1	294.8	287.1	287.4	282.9	284.5
To persons and business	206.6		207.0	204.0	196.4	194.8	186.3	
To the rest of the world	91.1		91.1	90.8	90.7	92.6	96.6	
Less: Interest received by government	19.3	22.5	18.5	20.5	21.1	22.6	23.0	23.4
Subsidies less current surplus of government enterprises	32.1	38.1	28.5	42.9	32.6	39.5	29.0	51.3
Subsidies	35.1	43.1	31.8	45.9	37.5	44.4	34.1	56.4
Less: Current surplus of government enterprises	3.0	5.0	3.3	3.0	4.8	4.9	5.1	5.1
Less: Wage accruals less disbursements	0	0	0	0	0	0	0	0
Current surplus or deficit (-), national income and product accounts	46.9		59.6	59.7	97.6	118.1	133.8	
Social insurance funds	56.4	76.7	58.6	66.3	72.2	75.6	78.9	80.3
Other	-9.4		1.0	-6.6	25.4	42.5	54.9	
Addenda:								
Net lending or net borrowing (-)	51.1		58.3	60.8	96.2	108.3	120.4	
Current surplus or deficit (-), national income and product accounts	46.9		59.6	59.7	97.6	118.1	133.8	
Plus: Consumption of fixed capital	87.4	90.8	87.5	88.1	89.6	90.2	91.2	92.1
Plus: Capital transfers received (net)	-3.6	-4.9	-5.5	-3.4	-2.7	-4.8	-9.7	-2.5
Less: Gross investment	85.2	95.9	88.3	86.7	90.4	96.4	94.9	101.8
Less: Net purchases of nonproduced assets	-5.6	-8	-5.0	-3.1	-2.1	-1.1	0	-2

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

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Current receipts	1,070.4		1,085.3	1,101.1	1,110.0	1,117.0	1,148.0	
Personal tax and nontax receipts	236.9	251.9	241.0	244.9	246.9	247.3	252.4	260.9
Income taxes	184.7	196.8	188.4	191.6	192.9	192.5	197.0	204.8
Nontaxes	33.2	35.3	33.5	34.0	34.5	35.1	35.6	36.2
Other	19.0	19.7	19.1	19.3	19.5	19.7	19.8	19.9
Corporate profits tax accruals	33.8		34.4	33.1	35.4	36.4	37.0	
Indirect business tax and nontax accruals	579.6	614.6	579.0	598.2	597.1	606.8	616.8	637.8
Sales taxes	284.3	306.9	284.8	291.1	298.5	303.7	309.5	316.1
Property taxes	225.5	234.5	226.4	226.3	229.5	232.8	236.1	239.5
Other	69.8	73.2	67.7	80.8	69.1	70.3	71.2	82.3
Contributions for social insurance	10.7	11.1	10.7	10.7	10.7	10.9	11.2	11.5
Federal grants-in-aid	209.3	224.2	220.2	214.2	219.9	215.7	230.6	230.7
Current expenditures	1,028.7	1,089.0	1,035.4	1,046.9	1,061.2	1,079.4	1,099.1	1,116.4
Consumption expenditures	807.5	857.3	813.8	822.2	832.4	848.4	866.5	881.8
Transfer payments to persons	234.8	244.6	235.7	238.5	241.9	243.6	245.3	247.5
Net interest paid	-2.0	-7	-2.2	-1.8	-1.0	-7	-6	-6
Interest paid	70.7	71.3	70.7	70.8	71.0	71.2	71.5	71.8
Less: Interest received by government	72.7	72.1	72.9	72.7	72.0	71.9	72.1	72.4
Less: Dividends received by government	.3	.3	.3	.3	.3	.3	.3	.3
Subsidies less current surplus of government enterprises	-11.3	-11.7	-11.6	-11.6	-11.6	-11.6	-11.7	-11.9
Subsidies	.5	.5	.5	.5	.5	.5	.5	.5
Less: Current surplus of government enterprises	11.7	12.2	12.0	12.1	12.1	12.1	12.2	12.4
Less: Wage accruals less disbursements	0	0	0	0	0	0	0	0
Current surplus or deficit (-), national income and product accounts	41.7		49.9	54.2	48.7	37.6	48.9	
Social insurance funds	.9	.8	.9	.7	.6	.8	.8	1.0
Other	40.8		48.9	53.4	48.2	36.8	48.1	
Addenda:								
Net lending or net borrowing (-)	-16.8		-8.9	-2.6	-20.6	-21.4	-11.6	
Current surplus or deficit (-), national income and product accounts	41.7		49.9	54.2	48.7	37.6	48.9	
Plus: Consumption of fixed capital	98.8	105.1	99.4	101.1	102.4	104.3	106.0	107.8
Plus: Capital transfers received (net)	36.2	42.0	37.1	38.2	37.8	42.6	44.2	43.2
Less: Gross investment	183.5	200.6	185.2	185.9	199.4	195.8	200.8	206.3
Less: Net purchases of nonproduced assets	9.9	9.9	10.1	10.2	10.1	10.0	9.8	9.6

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

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Government consumption expenditures and gross investment¹	1,529.7	1,628.7	1,538.7	1,554.8	1,589.1	1,605.9	1,637.2	1,682.6
Federal	538.7	570.8	539.7	546.7	557.4	561.6	569.8	594.6
National defense	348.6	364.7	354.7	352.9	355.8	354.3	365.4	383.4
Consumption expenditures	299.9	310.9	302.5	303.4	304.6	300.8	312.1	326.1
Durable goods ²	21.0	21.7	21.8	21.4	20.4	21.1	22.4	22.9
Nondurable goods	7.0	8.0	7.6	6.9	6.4	7.4	9.8	8.3
Services	271.9	281.2	273.1	275.1	277.8	272.3	279.9	294.8
Compensation of general government employees, except own-account investment ³	131.0	133.1	131.1	129.9	133.2	132.9	133.3	132.8
Consumption of general government fixed capital ⁴	61.6	62.5	61.5	61.5	62.2	62.3	62.7	62.8
Other services	79.3	85.7	80.4	83.6	82.4	77.1	83.9	99.2
Gross investment	48.7	53.9	52.2	49.5	51.2	53.5	53.4	57.3
Structures	5.4	5.3	5.9	5.1	5.4	5.3	5.2	5.3
Equipment and software	43.3	48.6	46.3	44.4	45.8	48.2	48.2	52.0
Nondefense	190.1	206.1	185.0	193.8	201.6	207.3	204.4	211.2
Consumption expenditures	153.6	164.1	149.0	156.5	162.4	164.4	162.9	166.7
Durable goods ²	-2	1.3	-4.8	1.2	1.3	1.4	1.1	1.3
Nondurable goods	8.4	9.9	8.4	8.6	9.5	9.6	10.1	10.3
Commodity Credit Corporation inventory change ...	.1	1.1	.3	.4	1.1	.8	1.1	1.2
Other nondurables	8.2	8.8	8.1	8.2	8.4	8.8	8.9	9.1
Services	145.5	153.0	145.3	146.8	151.7	153.4	151.7	155.0
Compensation of general government employees, except own-account investment ³	81.9	87.9	82.1	84.2	88.3	87.6	87.3	88.5
Consumption of general government fixed capital ⁴	20.9	23.0	21.1	21.5	22.3	22.7	23.2	23.9
Other services	42.7	42.0	42.2	41.0	41.1	43.2	41.2	42.6
Gross investment	36.5	42.0	36.1	37.2	39.2	42.9	41.5	44.5
Structures	11.3	11.3	11.7	11.6	11.7	10.8	11.4	11.2
Equipment and software	25.2	30.7	24.4	25.7	27.4	32.1	30.1	33.3
State and local	991.0	1,057.9	999.0	1,008.1	1,031.8	1,044.3	1,067.4	1,088.0
Consumption expenditures	807.5	857.3	813.8	822.2	832.4	848.4	866.5	881.8
Durable goods ²	15.2	16.2	15.3	15.5	15.8	16.0	16.3	16.7
Nondurable goods	86.3	95.2	86.8	86.7	87.7	93.1	98.5	101.7
Services	706.1	745.8	711.6	719.9	728.8	739.3	751.7	763.4
Compensation of general government employees, except own-account investment ³	592.6	621.8	596.4	602.6	609.8	616.9	626.4	634.2
Consumption of general government fixed capital ⁴	76.0	81.2	76.6	77.8	78.9	80.5	81.9	83.4
Other services	37.5	42.8	38.6	39.5	40.2	41.9	43.4	45.8
Gross investment	183.5	200.6	185.2	185.9	199.4	195.8	200.8	206.3
Structures	135.2	148.2	136.5	136.1	148.9	144.4	147.8	151.7
Equipment and software	48.3	52.4	48.8	49.8	50.5	51.5	53.0	54.5
Addenda:								
Compensation of general government employees ³	813.8	852.1	818.2	825.3	840.5	846.5	856.4	864.9
Federal	214.4	222.7	214.9	215.7	223.3	222.2	222.4	222.8
State and local	599.4	629.4	603.3	609.5	617.2	624.2	634.0	642.0

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 own-account investment and related expenditures for goods and services are classified as investment in structures and in software. 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 Gross Investment by Type

[Billions of chained (1996) dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Government consumption expenditures and gross investment¹	1,480.3	1,534.6	1,485.3	1,495.9	1,514.6	1,519.5	1,536.5	1,567.7
Federal	526.1	541.3	527.0	532.0	531.4	534.2	539.7	560.1
National defense	341.7	348.1	347.5	344.9	341.4	339.2	348.3	363.7
Consumption expenditures	291.4	293.5	293.6	293.6	289.5	284.9	294.0	305.7
Durable goods ²	21.2	21.9	22.0	21.6	20.6	21.3	22.7	23.2
Nondurable goods	8.1	8.7	8.9	8.1	7.7	8.5	10.4	8.3
Services	262.3	263.2	263.0	263.9	261.2	255.4	261.5	274.5
Compensation of general government employees, except own-account investment ³	124.3	121.0	124.3	122.6	121.5	121.0	121.2	120.3
Consumption of general government fixed capital ⁴	62.2	62.2	62.1	62.1	62.1	62.1	62.2	62.3
Other services	75.9	80.1	76.6	79.3	77.8	72.4	78.2	91.9
Gross investment	50.3	54.9	54.0	51.4	52.1	54.6	54.5	58.3
Structures	5.1	4.8	5.5	4.8	5.0	4.9	4.7	4.8
Equipment and software	45.3	50.2	48.6	46.8	47.2	49.9	50.0	53.8
Nondefense	184.4	193.1	179.6	187.1	189.9	194.9	191.3	196.4
Consumption expenditures	147.3	151.3	142.9	149.1	150.8	152.1	149.8	152.4
Durable goods ²	-1	1.5	-4.5	1.3	1.5	1.7	1.4	1.6
Nondurable goods	8.4	11.0	8.5	8.8	10.4	10.6	11.4	11.4
Commodity Credit Corporation inventory change ...	.1	2.4	.3	.5	2.0	2.0	2.7	2.7
Other nondurables	8.3	8.6	8.1	8.3	8.4	8.6	8.6	8.7
Services	139.1	140.2	138.8	139.4	139.8	141.1	138.8	141.0
Compensation of general government employees, except own-account investment ³	76.8	77.2	76.7	78.1	78.2	77.2	76.4	77.1
Consumption of general government fixed capital ⁴	21.3	23.2	21.5	22.0	22.5	22.9	23.4	24.0
Other services	41.1	40.0	40.7	39.4	39.3	41.2	39.2	40.3
Gross investment	37.2	42.3	36.9	38.1	39.4	43.2	41.9	44.5
Structures	10.6	10.3	11.0	10.8	10.9	9.9	10.4	10.1
Equipment and software	26.7	32.2	25.9	27.5	28.6	33.7	31.8	34.9
State and local	953.9	993.0	958.1	963.6	982.9	985.1	996.6	1,007.5
Consumption expenditures	775.1	801.1	777.8	783.7	790.4	797.3	804.9	811.7
Durable goods ²	15.3	16.4	15.4	15.7	16.0	16.2	16.5	16.8
Nondurable goods	91.4	97.3	92.1	93.5	95.0	96.5	98.1	99.6
Services	668.8	688.1	670.6	675.0	680.0	685.2	691.1	696.0
Compensation of general government employees, except own-account investment ³	557.6	568.5	558.1	560.6	563.5	566.6	570.5	573.2
Consumption of general government fixed capital ⁴	75.0	79.0	75.4	76.4	77.4	78.4	79.5	80.6
Other services	36.3	41.0	37.2	38.2	39.3	40.5	41.5	42.8
Gross investment	178.8	192.0	180.3	179.9	192.7	187.8	191.7	195.9
Structures	127.5	135.2	128.3	126.6	137.8	132.1	134.1	136.9
Equipment and software	51.8	57.6	52.5	54.0	55.2	56.6	58.6	60.1
Residual	-1.5	-4.7	-1.4	-2.3	-2.9	-4.7	-5.6	-6.3
Addenda:								
Compensation of general government employees ³	766.6	775.1	767.2	769.4	771.6	773.1	776.6	779.1
Federal	202.6	199.8	202.6	202.3	201.2	199.8	199.2	198.9
State and local	564.0	575.4	564.6	567.1	570.4	573.3	577.4	580.3

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

See footnotes to table 3.7.

Chain-type quantity indexes for the series in this table are shown in table 7.11.

Contributions to percent change in real government consumption expenditures and gross investment are shown in table 8.6.

Table 3.10.—National Defense Consumption Expenditures and Gross Investment

(Billions of dollars)

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
National defense consumption expenditures and gross investment¹	348.6	364.7	354.7	352.9	355.8	354.3	365.4	383.4
Consumption expenditures	299.9	310.9	302.5	303.4	304.6	300.8	312.1	326.1
Durable goods²	21.0	21.7	21.8	21.4	20.4	21.1	22.4	22.9
Aircraft	10.1	10.3	9.8	11.0	9.6	9.7	10.4	11.3
Missiles	2.3	2.2	3.0	2.1	2.2	2.1	2.3	2.3
Ships .....	.6	.7	.6	.6	.6	.8	.7	.6
Vehicles .....	.9	.8	.9	.9	.7	.8	.8	.8
Electronics	2.5	2.8	2.5	2.4	2.5	2.8	3.0	3.0
Other durable goods	4.6	4.9	4.9	4.4	4.7	4.9	5.0	4.9
Nondurable goods	7.0	8.0	7.6	6.9	6.4	7.4	9.8	8.3
Petroleum products	2.1	2.5	2.1	1.7	1.5	2.3	3.6	2.5
Ammunition	1.9	1.8	2.5	2.0	1.8	1.8	2.3	1.5
Other nondurable goods	3.1	3.7	3.0	3.2	3.1	3.4	3.9	4.3
Services	271.9	281.2	273.1	275.1	277.8	272.3	279.9	294.8
Compensation of general government employees, except own-account investment ³	131.0	133.1	131.1	129.9	133.2	132.9	133.3	132.8
Military	83.7	84.5	83.7	83.1	84.7	84.2	84.6	84.5
Civilian	47.2	48.5	47.4	46.8	48.5	48.7	48.7	48.2
Consumption of general government fixed capital ⁴	61.6	62.5	61.5	61.5	62.2	62.3	62.7	62.8
Other services	79.3	85.7	80.4	83.6	82.4	77.1	83.9	99.2
Research and development	21.2	18.9	22.4	22.8	18.8	15.3	18.0	23.3
Installation support	23.9	27.0	25.1	23.4	24.6	24.2	27.1	31.9
Weapons support	8.5	8.8	8.6	9.3	8.5	8.4	8.8	9.7
Personnel support	18.9	23.8	18.7	20.3	22.0	20.9	23.8	28.5
Transportation of material	4.9	5.5	4.9	5.3	5.6	6.0	5.4	4.9
Travel of persons	3.5	3.6	3.5	3.5	3.6	3.6	3.6	3.6
Other	-1.7	-1.9	-2.7	-1.0	-7	-1.4	-2.7	-2.7
Gross investment	48.7	53.9	52.2	49.5	51.2	53.5	53.4	57.3
Structures	5.4	5.3	5.9	5.1	5.4	5.3	5.2	5.3
Equipment and software	43.3	48.6	46.3	44.4	45.8	48.2	48.2	52.0
Aircraft	5.6	7.6	6.0	7.0	6.1	7.6	7.8	9.0
Missiles	3.3	2.8	4.4	2.9	2.8	2.7	2.7	3.1
Ships	6.4	6.7	6.5	6.9	6.8	6.6	6.5	7.1
Vehicles	1.5	1.6	1.5	1.4	1.4	1.8	1.6	1.7
Electronics and software	12.7	15.1	12.9	13.0	13.7	15.2	15.6	16.0
Other equipment	13.8	14.7	15.0	13.2	15.1	14.4	14.0	15.2
Addendum:								
Compensation of general government employees ³	131.5	133.6	131.6	130.5	133.8	133.5	133.9	133.3

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 own-account investment and related expenditures for goods and services are classified as investment in structures and in software. 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 Gross Investment

(Billions of chained (1996) dollars)

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
National defense consumption expenditures and gross investment¹	341.7	348.1	347.5	344.9	341.4	339.2	348.3	363.7
Consumption expenditures	291.4	293.5	293.6	293.6	289.5	284.9	294.0	305.7
Durable goods²	21.2	21.9	22.0	21.6	20.6	21.3	22.7	23.2
Aircraft	10.2	10.5	10.0	11.2	9.8	9.9	10.7	11.5
Missiles	2.4	2.2	3.1	2.2	2.2	2.1	2.3	2.3
Ships .....	.6	.7	.6	.6	.7	.8	.8	.6
Vehicles .....	.7	.6	.7	.7	.6	.7	.7	.6
Electronics	2.6	3.1	2.7	2.6	2.7	3.1	3.3	3.3
Other durable goods	4.6	4.9	5.0	4.4	4.7	4.9	5.1	4.9
Nondurable goods	8.1	8.7	8.9	8.1	7.7	8.5	10.4	8.3
Petroleum products	3.0	3.1	3.3	2.7	2.6	3.2	4.2	2.5
Ammunition	1.9	1.9	2.6	2.1	1.8	1.8	2.4	1.6
Other nondurable goods	3.1	3.6	3.0	3.1	3.1	3.4	3.8	4.2
Services	262.3	263.2	263.0	263.9	261.2	255.4	261.5	274.5
Compensation of general government employees, except own-account investment ³	124.3	121.0	124.3	122.6	121.5	121.0	121.2	120.3
Military	80.1	78.5	80.2	79.4	78.6	78.2	78.8	78.5
Civilian	44.2	42.5	44.2	43.3	42.8	42.8	42.5	41.9
Consumption of general government fixed capital ⁴	62.2	62.2	62.1	62.1	62.1	62.1	62.2	62.3
Other services	75.9	80.1	76.6	79.3	77.8	72.4	78.2	91.9
Research and development	20.3	17.9	21.5	21.8	17.9	14.5	17.0	21.9
Installation support	23.2	25.7	24.2	22.4	23.6	23.1	25.8	30.2
Weapons support	8.1	8.2	8.1	8.8	7.9	7.8	8.0	8.9
Personnel support	17.5	21.2	17.2	18.5	19.8	18.8	21.1	24.9
Transportation of material	4.9	5.4	4.8	5.4	5.7	6.0	5.2	4.8
Travel of persons	3.4	3.4	3.3	3.4	3.4	3.4	3.4	3.4
Other	-1.5	-1.7	-2.5	-1.0	-6	-1.2	-2.4	-2.4
Gross investment	50.3	54.9	54.0	51.4	52.1	54.6	54.5	58.3
Structures	5.1	4.8	5.5	4.8	5.0	4.9	4.7	4.8
Equipment and software	45.3	50.2	48.6	46.8	47.2	49.9	50.0	53.8
Aircraft	6.2	7.9	6.7	8.1	6.3	7.8	8.1	9.3
Missiles	3.5	3.0	4.7	3.0	2.9	2.9	2.9	3.3
Ships	6.4	6.7	6.5	6.9	6.8	6.6	6.5	7.0
Vehicles	1.5	1.6	1.5	1.4	1.4	1.8	1.6	1.8
Electronics and software	13.8	16.4	14.1	14.3	14.7	16.4	17.0	17.3
Other equipment	13.8	14.6	15.0	13.1	15.0	14.3	14.0	15.1
Residual	-1	-8	-6	-4	-1	-9	-1.4	-8
Addendum:								
Compensation of general government employees ³	124.8	121.5	124.8	123.1	122.0	121.5	121.7	120.8

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

Chain-type indexes for the series in this table are shown in table 7.12. See footnotes to table 3.10.

4. Foreign Transactions

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

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Receipts from the rest of the world	1,251.6		1,225.5	1,262.7	1,250.7	1,274.3	1,316.2	
Exports of goods and services ...	966.3	996.3	949.1	981.8	966.9	978.2	1,008.5	1,031.5
Goods ¹	681.3	697.5	667.2	693.3	674.3	680.5	708.8	726.5
Durable	487.2	501.8	479.4	498.3	486.7	489.8	512.2	518.6
Nondurable	194.0	195.7	187.8	195.0	187.6	190.7	196.6	207.9
Services ¹	285.1	298.8	281.9	288.6	292.6	297.7	299.7	305.0
Income receipts	285.3		276.4	280.8	283.8	296.1	307.7	
Payments to the rest of the world	1,251.6		1,225.5	1,262.7	1,250.7	1,274.3	1,316.2	
Imports of goods and services ...	1,115.9	1,253.1	1,114.8	1,143.1	1,168.5	1,224.0	1,286.6	1,333.3
Goods ¹	930.4	1,048.9	927.2	952.6	974.3	1,022.3	1,079.3	1,119.9
Durable	636.1	715.5	632.0	659.5	676.6	701.7	732.5	751.1
Nondurable	294.3	333.5	295.2	293.2	297.7	320.6	346.7	368.8
Services ¹	185.5	204.2	187.7	190.4	194.2	201.7	207.4	213.4
Income payments	295.2		302.0	297.9	298.2	310.4	323.2	
Transfer payments (net)	42.0	44.7	41.3	51.6	39.7	43.6	42.7	52.8
From persons (net)	22.3	24.4	22.9	23.3	23.5	24.6	24.5	25.1
From government (net)	10.4	10.5	9.1	18.7	6.8	9.2	8.5	17.6
From business	9.3	9.8	9.3	9.6	9.5	9.8	9.8	10.1
Net foreign investment	-201.5		-232.6	-229.9	-255.7	-303.7	-336.3	

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

[Billions of chained (1996) dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Exports of goods and services	1,007.1	1,042.5	993.0	1,030.8	1,016.4	1,026.4	1,054.8	1,072.4
Goods ¹	722.8	750.3	712.0	744.2	726.4	734.1	763.3	777.4
Durable	513.5	535.5	507.5	529.3	518.2	522.8	548.2	552.9
Nondurable	209.3	214.7	204.4	214.9	208.1	211.2	214.9	224.4
Services ¹	284.4	292.6	281.1	287.0	289.9	292.2	292.2	295.9
Income receipts	279.2		270.3	274.0	276.0	286.6	296.5	
Imports of goods and services	1,222.2	1,367.0	1,231.0	1,263.1	1,300.9	1,345.4	1,393.0	1,428.6
Goods ¹	1,031.6	1,162.7	1,037.9	1,069.7	1,102.0	1,142.5	1,188.9	1,217.4
Durable	700.2	803.4	700.7	733.7	753.6	787.4	825.3	847.2
Nondurable	331.6	359.5	337.5	336.0	348.5	355.0	363.8	370.6
Services ¹	190.7	205.2	193.1	193.8	199.4	203.7	205.5	212.4
Income payments	289.6		295.8	291.3	290.7	301.1	311.8	

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 (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. Chain-type quantity indexes for the series in this table are shown in table 7.9.

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

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Exports of goods and services	966.3	996.3	949.1	981.8	966.9	978.2	1,008.5	1,031.5
Exports of goods ¹	681.3	697.5	667.2	693.3	674.3	680.5	708.8	726.5
Foods, feeds, and beverages	46.4	45.6	42.8	47.5	43.2	45.3	47.1	46.7
Industrial supplies and materials	142.8	141.9	138.8	139.7	133.6	137.0	142.6	154.6
Durable goods	53.7	53.6	51.9	52.6	51.7	52.5	53.8	56.6
Nondurable goods	89.1	88.3	86.9	87.1	81.9	84.5	88.8	98.1
Capital goods, except automotive	300.1	310.2	299.0	309.2	301.7	299.5	319.3	320.2
Civilian aircraft, engines, and parts	53.5	53.3	56.2	63.6	56.6	48.7	53.9	54.1
Computers, peripherals, and parts	45.2	46.5	44.8	45.6	44.1	46.5	48.2	47.1
Other	201.3	210.4	198.0	200.0	200.9	204.3	217.2	219.0
Automotive vehicles, engines, and parts	73.2	74.7	68.2	74.7	71.4	75.0	76.0	76.3
Consumer goods, except automotive	79.3	80.6	80.3	79.2	79.6	79.1	80.6	83.0
Durable goods	40.5	41.0	41.2	40.3	39.5	40.5	41.5	42.7
Nondurable goods	38.7	39.5	39.1	38.9	40.1	38.7	39.0	40.3
Other	39.5	44.5	37.9	43.0	44.8	44.5	43.2	45.6
Exports of services ¹	285.1	298.8	281.9	288.6	292.6	297.7	299.7	305.0
Transfers under U.S. military agency sales contracts	16.3	16.0	15.1	15.1	16.5	16.0	16.5	15.0
Travel	71.3	73.6	68.6	71.8	72.6	73.5	73.0	75.3
Passenger fares	20.0	21.1	20.2	19.4	20.0	21.0	21.3	22.2
Other transportation	25.5	27.2	25.4	26.3	26.0	26.9	27.6	28.4
Royalties and license fees	36.8	37.5	36.1	39.6	37.3	37.6	37.4	37.6
Other private services	92.1	98.9	93.1	93.0	96.4	98.6	99.3	101.4
Other	23.1	24.4	23.4	23.5	23.8	24.2	24.5	25.0
Imports of goods and services	1,115.9	1,253.1	1,114.8	1,143.1	1,168.5	1,224.0	1,286.6	1,333.3
Imports of goods ¹	930.4	1,048.9	927.2	952.6	974.3	1,022.3	1,079.3	1,119.9
Foods, feeds, and beverages	41.2	43.5	41.3	41.6	41.7	43.8	44.2	44.4
Industrial supplies and materials, except petroleum and products	142.6	148.2	144.3	140.3	140.0	143.8	151.6	157.3
Durable goods	75.8	78.7	77.2	75.1	75.0	77.8	80.1	82.2
Nondurable goods	66.8	69.4	67.1	65.2	65.0	66.1	71.5	75.1
Petroleum and products	50.9	67.9	49.8	45.8	42.4	63.7	78.3	87.1
Capital goods, except automotive	269.6	296.7	268.2	274.2	279.1	291.7	302.2	313.9
Civilian aircraft, engines, and parts	21.8	23.3	22.5	24.2	22.2	22.6	24.9	23.5
Computers, peripherals, and parts	72.5	81.8	71.6	74.7	77.6	82.0	82.5	84.9
Other	175.3	191.7	174.1	175.3	179.3	187.1	194.7	205.5
Automotive vehicles, engines, and parts	149.1	179.8	144.3	161.2	171.6	175.1	186.2	186.3
Consumer goods, except automotive	216.7	239.7	219.0	221.1	229.2	232.8	243.0	253.5
Durable goods	111.5	123.6	112.2	114.7	115.8	121.5	127.2	130.0
Nondurable goods	105.2	116.1	106.8	106.4	113.5	111.4	115.8	123.5
Other	60.4	73.2	60.3	68.5	70.3	71.4	73.7	77.3
Imports of services ¹	185.5	204.2	187.7	190.4	194.2	201.7	207.4	213.4
Direct defense expenditures	12.8	14.9	13.1	13.6	14.0	14.4	15.4	15.6
Travel	56.1	60.9	56.3	56.5	59.4	60.0	60.9	63.2
Passenger fares	19.8	21.5	20.3	20.5	20.5	21.3	21.8	22.3
Other transportation	30.5	34.3	30.8	31.4	30.9	33.2	36.1	37.2
Royalties and license fees	11.3	12.5	10.9	11.7	12.7	13.0	11.9	12.6
Other private services	47.7	52.3	48.7	49.1	49.3	52.2	53.3	54.5
Other	7.4	7.7	7.6	7.6	7.4	7.7	7.9	7.9
Addenda:								
Exports of agricultural goods ²	53.1	49.9	49.2	54.3	47.3	49.0	51.8	51.4
Exports of nonagricultural goods	628.2	647.6	618.0	638.9	627.0	631.4	657.0	675.1
Imports of nonpetroleum goods	879.5	981.1	877.3	906.8	931.9	958.7	1,001.0	1,032.8

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 (1996) dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Exports of goods and services	1,007.1	1,042.5	993.0	1,030.8	1,016.4	1,026.4	1,054.8	1,072.4
Exports of goods ¹	722.8	750.3	712.0	744.2	726.4	734.1	763.3	777.4
Foods, feeds, and beverages	55.1	56.8	51.4	57.8	52.9	56.1	59.1	59.1
Industrial supplies and materials	151.5	153.0	149.0	152.3	147.1	150.1	152.7	162.2
Durable goods	56.5	58.0	55.0	56.3	55.9	57.0	58.2	60.8
Nondurable goods	95.1	95.0	94.0	96.0	91.1	93.1	94.4	101.3
Capital goods, except automotive	324.5	340.5	325.1	337.2	329.6	328.4	352.1	352.0
Civilian aircraft, engines, and parts	51.1	49.8	53.7	60.4	53.2	45.6	50.3	50.1
Computers, peripherals, and parts	59.9	67.8	61.0	63.1	62.6	67.1	71.4	69.9
Other	212.7	224.0	209.5	212.3	213.4	217.5	231.9	233.2
Automotive vehicles, engines, and parts	72.5	73.5	67.6	73.9	70.5	74.0	74.8	74.8
Consumer goods, except automotive	78.7	80.2	79.8	78.8	79.3	78.9	80.3	82.4
Durable goods	40.2	41.0	41.0	40.2	39.5	40.5	41.4	42.5
Nondurable goods	38.4	39.2	38.8	38.6	39.8	38.4	38.8	39.9
Other	40.9	46.6	39.4	44.9	46.9	46.8	47.5	47.5
Exports of services ¹	284.4	292.6	281.1	287.0	289.9	292.2	292.2	295.9
Transfers under U.S. military agency sales contracts	17.1	16.0	16.0	16.1	16.5	16.1	16.5	15.0
Travel	69.4	70.8	66.6	69.5	70.7	70.6	70.1	71.9
Passenger fares	20.9	20.5	21.5	19.6	19.7	20.7	20.6	21.0
Other transportation	26.4	27.8	26.1	27.4	27.7	27.7	27.7	28.2
Royalties and license fees	36.0	36.2	35.3	38.6	36.3	36.3	36.0	36.1
Other private services	91.4	97.1	92.3	92.1	95.0	96.7	97.2	99.5
Other	23.2	24.0	23.4	23.7	23.9	24.1	24.0	24.1
Residual	.3	-1.6	.4	.3	.8	-1.9	-2.9	-2.5
Imports of goods and services ¹	1,222.2	1,367.0	1,231.0	1,263.1	1,300.9	1,345.4	1,393.0	1,428.6
Imports of goods ¹	1,031.6	1,162.7	1,037.9	1,069.7	1,102.0	1,142.5	1,188.9	1,217.4
Foods, feeds, and beverages	42.2	46.1	42.6	42.8	43.7	46.0	47.2	47.2
Industrial supplies and materials, except petroleum and products	150.2	156.8	153.3	151.1	151.1	154.5	159.0	162.4
Durable goods	78.2	81.0	80.2	79.6	78.7	80.7	81.2	83.4
Nondurable goods	71.9	75.7	73.0	71.4	72.3	73.7	77.8	79.0
Petroleum and products	81.4	81.9	84.9	79.2	80.6	85.3	82.7	79.0
Capital goods, except automotive	328.3	378.7	330.3	339.6	347.5	370.5	390.0	406.6
Civilian aircraft, engines, and parts	20.7	21.7	21.3	22.8	20.7	21.0	23.2	21.7
Computers, peripherals, and parts	101.3	131.8	101.7	110.5	117.7	130.8	136.9	141.9
Other	206.7	229.1	207.3	207.3	211.7	223.0	234.0	247.6
Automotive vehicles, engines, and parts	148.6	178.0	144.3	160.7	170.4	173.4	184.1	184.1
Consumer goods, except automotive	222.3	247.6	225.5	227.3	235.7	240.8	251.6	262.4
Durable goods	117.1	131.4	118.6	121.0	122.3	129.1	135.5	138.5
Nondurable goods	105.3	116.4	107.0	106.4	113.4	111.9	116.3	123.9
Other	60.4	73.8	60.1	68.1	70.7	72.2	74.3	77.8
Imports of services ¹	190.7	205.2	193.1	193.8	199.4	203.7	205.5	212.4
Direct defense expenditures	14.4	16.4	14.6	14.5	15.4	16.2	17.0	17.1
Travel	58.7	63.4	59.4	58.2	62.5	63.1	62.7	65.3
Passenger fares	18.5	19.5	18.9	19.0	19.0	19.3	19.4	20.3
Other transportation	31.7	32.0	31.8	32.3	32.0	31.5	32.1	32.5
Royalties and license fees	11.0	12.1	10.6	11.4	12.3	12.5	11.4	12.1
Other private services	49.1	54.4	50.3	51.0	50.9	53.6	55.4	57.8
Other	7.3	7.6	7.6	7.5	7.4	7.6	7.7	7.7
Residual	-2.3	-5.3	-3.2	-6	-8	-5.5	-5.9	-8.3
Addenda:								
Exports of agricultural goods ²	62.6	63.5	58.7	66.3	58.8	62.7	66.6	66.0
Exports of nonagricultural goods	659.9	686.3	652.7	677.9	666.7	671.1	696.6	711.0
Imports of nonpetroleum goods	949.4	1,077.8	953.3	987.7	1,018.2	1,054.4	1,102.9	1,135.6

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

Chain-type quantity indexes for the series in this table are shown in table 7.10.

Contributions to the percent change in real exports and in real imports of goods and services are shown in table 8.5.

See footnotes to table 4.3.

5. Saving and Investment

Table 5.1.—Gross Saving and Investment

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Gross saving	1,646.0		1,664.1	1,685.4	1,727.8	1,709.5	1,735.6	
Gross private saving	1,371.2		1,367.7	1,382.3	1,389.4	1,359.3	1,355.7	
Personal saving	229.7	158.3	224.8	227.5	195.1	168.0	139.5	130.8
Undistributed corporate profits with inventory valuation and capital consumption adjustments	257.2		251.1	246.5	277.6	259.5	252.4	
Undistributed profits	193.1		187.4	178.8	213.7	219.9	227.0	
Inventory valuation adjustment	20.9		19.8	20.8	13.3	-13.6	-26.7	
Capital consumption adjustment	43.3	52.0	43.9	46.9	50.6	53.2	52.1	52.1
Corporate consumption of fixed capital	619.2	666.3	625.0	637.1	645.8	657.2	676.5	685.6
Noncorporate consumption of fixed capital	261.5	279.0	263.3	267.7	271.0	274.6	287.2	283.2
Wage accruals less disbursements	3.5	0	3.5	3.5	0	0	0	0
Gross government saving	274.8		296.4	303.0	338.3	350.2	379.9	
Federal	134.3		147.1	147.8	187.2	208.3	225.1	
Consumption of fixed capital	87.4	90.8	87.5	88.1	89.6	90.2	91.2	92.1
Current surplus or deficit (-), national income and product accounts	46.9		59.6	59.7	97.6	118.1	133.8	
State and local	140.5		149.3	155.2	151.1	141.9	154.8	
Consumption of fixed capital	98.8	105.1	99.4	101.1	102.4	104.3	106.0	107.8
Current surplus or deficit (-), national income and product accounts	41.7		49.9	54.2	48.7	37.6	48.9	
Gross investment	1,598.4		1,576.2	1,623.0	1,628.4	1,574.0	1,594.4	
Gross private domestic investment	1,531.2	1,621.6	1,535.3	1,580.3	1,594.3	1,585.4	1,635.0	1,671.8
Gross government investment	268.7	296.4	273.5	272.6	289.8	292.2	295.7	308.1
Net foreign investment	-201.5		-232.6	-229.9	-255.7	-303.7	-336.3	
Statistical discrepancy	-47.6		-87.9	-62.4	-99.4	-135.5	-141.2	
Addendum:								
Gross saving as a percentage of gross national product	18.8		19.0	18.9	19.1	18.7	18.7	

Table 5.4.—Private Fixed Investment by Type

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Private fixed investment	1,460.0	1,577.4	1,461.7	1,508.9	1,543.3	1,567.8	1,594.2	1,604.1
Nonresidential	1,091.3	1,166.5	1,087.2	1,121.4	1,139.9	1,155.4	1,181.6	1,189.1
Structures	272.8	272.6	271.7	278.0	274.7	272.5	272.1	271.1
Nonresidential buildings, including farm	197.0	199.8	197.5	203.3	204.0	199.8	197.5	198.0
Utilities	39.2	39.2	39.2	40.1	39.2	39.1	39.9	38.8
Mining exploration, shafts, and wells	30.0	26.9	28.8	28.0	25.2	26.0	28.0	28.5
Other structures	6.5	6.7	6.3	6.6	6.4	7.6	6.8	5.8
Equipment and software	818.5	893.9	815.4	843.4	865.2	882.9	909.5	918.1
Information processing equipment and software	356.9	407.2	361.0	369.7	382.3	401.7	416.8	428.2
Computers and peripheral equipment ¹	88.5	98.3	89.1	90.5	92.3	96.4	100.8	103.7
Software ²	123.4	143.3	126.2	131.2	135.5	140.7	145.8	151.4
Other	144.9	165.6	145.8	148.0	154.5	164.6	170.2	173.1
Industrial equipment	150.2	151.4	150.9	151.4	147.9	149.3	153.0	155.5
Transportation equipment	176.0	198.2	164.9	187.0	193.1	193.6	204.9	201.3
Other	135.5	137.0	138.6	135.3	142.0	138.3	134.7	133.1
Residential	368.7	410.9	374.5	387.5	403.4	412.4	412.7	415.0
Structures	360.4	401.9	366.1	379.1	394.6	403.6	403.6	405.8
Single family	189.5	213.5	194.0	202.2	211.8	213.7	211.7	216.7
Multifamily	24.5	27.7	24.1	24.8	27.7	27.5	27.8	27.9
Other structures	146.5	160.7	148.0	152.1	155.1	162.4	164.1	161.3
Equipment	8.3	8.9	8.4	8.5	8.7	8.9	9.0	9.1

1. Includes new computers and peripheral equipment only.

2. Excludes software "embedded," or bundled, in computers and other equipment.

Table 5.5.—Real Private Fixed Investment by Type

[Billions of chained (1996) dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Private fixed investment	1,471.8	1,589.4	1,474.0	1,522.5	1,555.9	1,581.0	1,607.3	1,613.5
Nonresidential	1,122.5	1,215.4	1,120.3	1,160.8	1,182.7	1,202.9	1,234.3	1,241.9
Structures	254.1	247.3	252.1	255.7	251.9	248.5	246.1	242.8
Nonresidential buildings, including farm	184.6	180.2	184.2	187.4	186.6	181.2	177.2	175.9
Utilities	38.0	38.0	37.9	38.7	38.1	38.0	38.5	37.2
Mining exploration, shafts, and wells	25.4	23.2	24.2	23.6	21.6	22.6	24.3	24.5
Other structures	6.2	6.2	5.9	6.2	6.0	7.1	6.3	5.4
Equipment and software	870.6	975.5	870.6	908.5	935.7	960.9	996.6	1,008.7
Information processing equipment and software	418.5	510.3	427.4	448.5	470.4	501.0	526.0	543.6
Computers and peripheral equipment ¹	154.2	222.0	160.4	178.3	193.4	212.9	233.5	248.1
Software ²	129.2	149.2	131.9	137.8	141.6	147.0	152.0	156.1
Other	147.1	169.8	148.3	150.9	157.8	168.4	174.7	178.5
Industrial equipment	148.1	148.4	148.7	148.9	145.0	146.6	150.0	151.9
Transportation equipment	175.3	196.7	164.2	185.8	190.8	191.6	204.0	200.6
Other	132.3	132.3	135.1	131.0	137.0	133.3	130.1	128.8
Residential	350.2	375.4	354.2	362.6	373.7	378.8	375.1	374.0
Structures	341.8	366.3	345.8	354.0	364.8	369.7	365.9	364.7
Single family	180.3	194.4	184.0	189.3	195.8	195.8	191.7	194.3
Multifamily	21.8	23.0	21.2	21.1	23.3	22.9	22.9	22.7
Other structures	139.8	149.0	140.7	143.7	145.7	151.1	151.5	147.8
Equipment	8.4	9.1	8.4	8.5	8.9	9.1	9.2	9.3
Residual	-18.9	-52.1	-21.1	-28.7	-35.7	-46.6	-58.6	-67.6

1. Includes new computers and peripheral equipment only.

2. Excludes software "embedded," or bundled, in computers and other equipment.

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

Chain-type quantity indexes for the series in this table are shown in table 7.6.

Contributions to the percent change in real private fixed investment are shown in table 8.4.

Table 5.10.—Change in Private Inventories by Industry Group

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Change in private inventories	71.2	44.3	73.7	71.4	51.0	17.6	40.8	67.6
Farm .....	.3	3.3	-1.1	15.2	10.1	4.8	.7	-2.5
Nonfarm	70.9	41.0	74.7	56.2	40.9	12.8	40.1	70.1
Change in book value ¹	45.7	56.1	49.7	33.7	22.8	32.1	73.7	96.0
Inventory valuation adjustment ²	25.2	-15.1	25.0	22.5	18.2	-19.3	-33.6	-25.9
Manufacturing	24.1	.9	21.2	11.5	0	-7.8	1.6	9.7
Durable goods	16.4	.7	12.8	6.5	1.7	-6.2	1.6	5.5
Nondurable goods	7.8	.2	8.4	5.1	-1.7	-1.6	0	4.2
Wholesale trade	22.4	15.0	32.3	16.3	8.8	10.7	24.2	16.5
Durable goods	16.0	13.2	18.2	15.2	11.3	10.5	10.6	20.2
Nondurable goods	6.4	1.9	14.1	1.1	-2.6	.2	13.6	-3.8
Merchant wholesalers	19.6	13.6	29.1	13.9	7.5	8.3	22.0	16.8
Durable goods	14.0	11.6	16.1	13.6	9.8	7.0	9.6	19.8
Nondurable goods	5.7	2.1	13.0	.2	-2.3	1.3	12.4	-3.1
Nonmerchant wholesalers	2.8	1.4	3.2	2.4	1.3	2.4	2.2	-.3
Durable goods	2.1	1.6	2.1	1.6	1.5	3.5	1.0	.4
Nondurable goods .....	.7	-.2	1.1	.9	-.2	-1.1	1.2	-.7
Retail trade	11.1	19.2	10.9	15.6	17.5	5.9	14.3	39.3
Durable goods	5.3	11.6	7.7	16.0	9.4	4.0	11.7	21.2
Motor vehicle dealers ³	1.3	6.2	4.2	7.6	3.1	0	9.2	12.3
Other ³	4.0	5.4	3.4	8.4	6.3	4.0	2.6	8.9
Nondurable goods	5.8	7.7	3.3	-.4	8.1	1.9	2.6	18.1
Other	13.2	5.8	10.3	12.8	14.7	4.0	0	4.7
Durable goods	1.3	0	1.1	1.0	1.7	-2.0	-1.0	1.2
Nondurable goods	12.0	5.9	9.2	11.8	13.0	6.0	1.0	3.4

1. This series is derived from the Census Bureau series "current cost inventories."

2. The inventory valuation adjustment (IVA) shown in this table differs from the IVA that adjusts business incomes. The IVA in this table reflects the mix of methods (such as first-in, first-out and last-in, first-out) underlying inventories derived primarily from Census Bureau statistics (see footnote 1). This mix differs from that underlying business income derived primarily from Internal Revenue Service statistics.

3. Inventories of auto and home supply stores are included in "other durable goods."

Table 5.11.—Real Change in Private Inventories by Industry Group

[Billions of chained (1996) dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Change in private inventories	74.3	41.9	76.1	70.7	50.1	14.0	38.0	65.4
Farm .....	.9	-.7	-2.1	12.8	7.4	.9	-3.8	-7.2
Nonfarm	73.2	42.2	77.5	58.2	43.1	13.1	41.2	71.4
Manufacturing	25.1	.9	22.2	12.0	0	-8.3	1.7	10.2
Durable goods	16.9	.7	13.4	6.8	1.8	-6.6	1.8	5.9
Nondurable goods	8.1	.2	8.8	5.3	-1.8	-1.7	0	4.3
Wholesale trade	23.4	15.7	33.8	17.2	9.5	11.1	25.1	16.9
Durable goods	16.3	13.7	18.6	15.5	11.8	11.0	11.1	21.0
Nondurable goods	7.1	2.0	15.3	1.4	-2.4	.1	14.0	-3.8
Merchant wholesalers	20.4	14.2	30.4	14.6	8.2	8.6	22.8	17.3
Durable goods	14.2	12.0	16.5	13.9	10.2	7.3	10.0	20.6
Nondurable goods	6.2	2.2	14.0	.5	-2.1	1.3	12.8	-3.1
Nonmerchant wholesalers	3.0	1.5	3.4	2.6	1.4	2.5	2.3	-.4
Durable goods	2.1	1.7	2.1	1.6	1.6	3.7	1.1	.4
Nondurable goods .....	.9	-.2	1.3	1.0	-.3	-1.2	1.2	-.7
Retail trade	11.1	19.0	11.0	15.5	17.5	5.9	14.1	38.6
Durable goods	5.3	11.6	7.7	16.0	9.5	4.0	11.8	21.3
Motor vehicle dealers ¹	1.3	6.2	4.3	7.6	3.1	0	9.3	12.4
Other ¹	4.0	5.4	3.4	8.4	6.3	4.0	2.5	8.9
Nondurable goods	5.8	7.4	3.3	-.3	8.0	1.9	2.5	17.4
Other	13.9	6.1	10.8	13.6	15.7	4.1	.1	4.7
Durable goods	1.2	0	1.1	1.0	1.7	-2.0	-1.0	1.2
Nondurable goods	12.6	6.2	9.7	12.6	14.0	6.3	1.1	3.5
Residual .....	.1	.8	.3	-.5	.2	.1	.5	1.8

1. Inventories of auto and home supply stores are included in "other durable goods."

NOTE.—Chained (1996) dollar series for real change in private 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.

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

[Billions of dollars]

	Seasonally adjusted quarterly totals					
	1998		1999			
	III	IV	I	II	III	IV
Private inventories ¹	1,326.6	1,334.5	1,345.7	1,360.1	1,386.1	1,408.0
Farm	92.3	92.4	99.3	98.9	96.7	95.2
Nonfarm	1,234.3	1,242.1	1,246.4	1,261.3	1,289.4	1,312.8
Durable goods	689.1	694.0	692.8	697.8	707.9	721.3
Nondurable goods	545.2	548.1	553.5	563.5	581.4	591.5
Manufacturing	453.9	450.5	448.2	451.1	458.3	463.8
Durable goods	282.8	280.3	279.2	279.4	282.5	283.9
Nondurable goods	171.0	170.2	169.0	171.6	175.8	179.9
Wholesale trade	338.1	341.8	340.9	345.1	355.6	361.9
Durable goods	216.0	218.9	217.9	220.9	224.1	230.1
Nondurable goods	122.1	122.9	123.1	124.3	131.6	131.8
Merchant wholesalers	293.0	296.6	295.4	298.2	307.0	312.7
Durable goods	188.2	190.8	189.9	192.0	194.9	200.7
Nondurable goods	104.9	105.8	105.4	106.2	112.1	112.0
Nonmerchant wholesalers	45.0	45.3	45.5	46.9	48.6	49.1
Durable goods	27.9	28.1	27.9	28.8	29.2	29.4
Nondurable goods	17.2	17.1	17.6	18.1	19.5	19.8
Retail trade	339.4	344.0	347.3	351.1	358.1	368.9
Durable goods	182.3	186.6	187.1	189.2	193.5	199.0
Motor vehicle dealers ²	93.6	95.8	95.3	95.8	99.6	102.8
Other ²	88.6	90.9	91.8	93.4	93.8	96.2
Nondurable goods	157.1	157.4	160.2	161.9	164.7	169.8
Other	103.0	105.7	109.9	113.9	117.3	118.3
Durable goods	7.9	8.1	8.6	8.3	7.9	8.2
Nondurable goods	95.1	97.6	101.3	105.7	109.4	110.0
Final sales of domestic business ³	613.2	624.7	634.8	642.6	651.8	663.1
Final sales of goods and structures of domestic business ³	335.3	344.0	350.1	353.6	357.8	363.2
Ratio of private inventories to final sales of domestic business						
Private inventories to final sales	2.16	2.14	2.12	2.12	2.13	2.12
Nonfarm inventories to final sales	2.01	1.99	1.96	1.96	1.98	1.98
Nonfarm inventories to final sales of goods and structures	3.68	3.61	3.56	3.57	3.60	3.61

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 the private inventories component of GDP. The former is the difference between two inventory stocks, each valued at its 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, the change in private inventories is stated at annual rates.

2. Inventories of auto and home supply stores are included in "other durable goods."

3. 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 it includes a small amount of final sales by farm and by government enterprises.

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

[Billions of chained (1996) dollars]

	Seasonally adjusted quarterly totals					
	1998		1999			
	III	IV	I	II	III	IV
Private inventories ¹	1,377.6	1,395.3	1,407.8	1,411.3	1,420.8	1,437.7
Farm	104.4	107.6	109.4	109.7	108.7	106.9
Nonfarm	1,272.9	1,287.4	1,298.2	1,301.4	1,311.7	1,329.6
Durable goods	706.3	716.2	722.5	724.1	730.0	742.5
Nondurable goods	566.6	571.2	575.7	577.3	581.7	587.2
Manufacturing	474.2	477.2	477.2	475.1	475.5	478.1
Durable goods	294.6	296.2	296.7	295.1	295.5	297.0
Nondurable goods	179.6	180.9	180.5	180.0	180.0	181.1
Wholesale trade	351.2	355.4	357.8	360.6	366.9	371.1
Durable goods	220.7	224.6	227.6	230.3	233.1	238.3
Nondurable goods	130.4	130.8	130.2	130.2	133.7	132.7
Merchant wholesalers	304.0	307.6	309.7	311.8	317.5	321.9
Durable goods	192.2	195.7	198.3	200.1	202.6	207.8
Nondurable goods	111.8	111.9	111.3	111.7	114.9	114.1
Nonmerchant wholesalers	47.2	47.8	48.1	48.8	49.4	49.3
Durable goods	28.5	28.9	29.3	30.2	30.5	30.6
Nondurable goods	18.7	18.9	18.8	18.6	18.9	18.7
Retail trade	339.0	342.9	347.2	348.7	352.2	361.9
Durable goods	183.3	187.3	189.7	190.7	193.6	198.9
Motor vehicle dealers ²	95.1	97.0	97.8	97.8	100.1	103.2
Other ²	88.2	90.3	91.9	92.9	93.5	95.7
Nondurable goods	155.6	155.5	157.5	158.0	158.6	163.0
Other	108.9	112.3	116.2	117.2	117.2	118.4
Durable goods	7.8	8.1	8.5	8.0	7.7	8.0
Nondurable goods	101.0	104.2	107.7	109.3	109.5	110.4
Residual .....	.1	.1	.1	-.1	.3	.6
Final sales of domestic business ³	597.0	607.4	615.0	620.7	628.3	636.1
Final sales of goods and structures of domestic business ³	332.5	341.4	346.7	349.3	353.3	357.7
Ratio of private inventories to final sales of domestic business						
Private inventories to final sales	2.31	2.30	2.29	2.27	2.26	2.26
Nonfarm inventories to final sales	2.13	2.12	2.11	2.10	2.09	2.09
Nonfarm inventories to final sales of goods and structures	3.83	3.77	3.74	3.73	3.71	3.72

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

2. Inventories of auto and home supply stores are included in "other durable goods."

3. 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 it includes a small amount of final sales by farm and by government enterprises.

NOTE.—Chained (1996) dollar inventory series are calculated to ensure that the chained (1996) dollar change in inventories for 1996 equals the current-dollar change in inventories for 1996 and that the average of the 1995 and 1996 end-of-year chain-weighted and fixed-weighted inventories are equal. Chained (1996) dollar final sales are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The residual line is the difference between the first line and the sum of the most detailed lines for inventories.

6. Income and Employment by Industry

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

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
National income without capital consumption adjustment	7,004.4	7,054.5	7,159.6	7,297.4	7,383.3	7,488.9		
Domestic industries	7,014.3	7,080.1	7,176.7	7,311.9	7,397.6	7,504.4		
Private industries	6,104.4	6,165.5	6,253.4	6,373.9	6,453.1	6,549.4		
Agriculture, forestry, and fishing	102.5	100.4	121.7	113.8	116.8	105.2		
Mining	54.7	53.5	51.7	49.9	49.2	51.4		
Construction	342.0	345.4	355.2	364.1	371.0	375.2		
Manufacturing	1,155.9	1,165.4	1,157.7	1,171.4	1,178.8	1,191.0		
Durable goods	689.0	694.1	703.2	699.0	706.5	711.7		
Nondurable goods	466.9	471.3	454.5	472.4	472.3	479.3		
Transportation and public utilities	526.2	532.7	534.6	545.1	543.9	561.6		
Transportation	222.3	224.5	227.5	228.8	229.0	234.5		
Communications	166.9	169.0	167.6	174.7	176.0	181.0		
Electric, gas, and sanitary services	137.0	139.2	139.4	141.7	138.9	146.1		
Wholesale trade	410.2	416.7	414.2	423.5	429.5	432.5		
Retail trade	580.8	584.9	591.5	609.8	618.6	618.8		
Finance, insurance, and real estate	1,274.3	1,288.1	1,311.0	1,348.3	1,361.5	1,392.0		
Services	1,657.8	1,678.3	1,715.8	1,748.0	1,783.8	1,821.8		
Government	909.9	914.6	923.3	938.0	944.5	955.0		
Rest of the world	-9.9	-25.6	-17.1	-14.4	-14.3	-15.5		

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

Table 6.16C.—Corporate Profits by Industry Group

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Corporate profits with inventory valuation and capital consumption adjustments	846.1	843.8	834.3	882.0	875.5	879.2		
Domestic industries	746.0	757.2	736.0	777.7	772.1	771.1		
Financial	171.0	168.7	168.0	185.2	177.4	181.8		
Nonfinancial	575.0	588.5	568.0	592.5	594.7	589.2		
Rest of the world	100.0	86.6	98.3	104.3	103.3	108.1		
Receipts from the rest of the world	148.4	137.1	146.8	157.0	164.1	169.5		
Less: Payments to the rest of the world	48.4	50.5	48.5	52.7	60.8	61.4		
Corporate profits with inventory valuation adjustment	802.8	799.9	787.4	831.4	822.2	827.1		
Domestic industries	702.8	713.2	689.1	727.1	718.9	719.0		
Financial	191.3	189.5	188.6	205.3	198.3	203.9		
Federal Reserve banks	24.6	24.7	24.7	24.3	24.5	25.5		
Other	166.7	164.8	163.9	180.9	173.7	178.4		
Nonfinancial	511.5	523.7	500.6	521.9	520.6	515.1		
Manufacturing	168.4	171.9	161.7	171.0	167.8	163.1		
Durable goods	95.1	97.2	106.3	100.5	100.7	94.4		
Primary metal industries	5.4	5.0	5.0	1.7	1.2	4.4		
Fabricated metal products	17.3	19.9	17.0	19.4	19.0	19.4		
Industrial machinery and equipment	14.6	15.7	19.4	16.6	18.6	17.1		
Electronic and other electric equipment	18.2	16.9	21.4	20.5	19.6	20.8		
Motor vehicles and equipment	7.5	6.6	9.8	10.7	10.4	9.5		
Other	32.2	33.1	33.7	31.6	32.0	27.2		
Nondurable goods	73.3	74.7	55.5	70.5	67.0	68.7		
Food and kindred products	17.0	21.3	7.1	17.2	18.6	18.7		
Chemicals and allied products	20.6	19.0	20.0	25.1	20.8	17.4		
Petroleum and coal products	8.3	6.8	4.1	-9	-3	3.6		
Other	27.3	27.5	24.2	29.0	28.0	29.0		
Transportation and public utilities	109.0	113.0	106.9	111.9	107.9	117.3		
Transportation	19.4	20.1	19.7	18.3	17.2	17.7		
Communications	49.3	51.2	46.8	52.2	52.5	56.4		
Electric, gas, and sanitary services	40.2	41.7	40.5	41.5	38.2	43.2		
Wholesale trade	47.2	49.7	41.2	43.4	44.3	39.1		
Retail trade	69.8	69.3	69.0	75.7	75.4	67.7		
Other	117.1	119.9	121.7	119.8	125.2	127.9		
Rest of the world	100.0	86.6	98.3	104.3	103.3	108.1		

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

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

[Index numbers, 1996=100]

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Gross domestic product:								
Current dollars	112.12	118.37	112.60	114.52	116.12	117.06	119.00	121.30
Chain-type quantity index	109.00	113.41	109.25	110.83	111.84	112.36	113.92	115.54
Chain-type price index	102.86	104.32	103.06	103.28	103.79	104.13	104.41	104.94
Implicit price deflator	102.86	104.37	103.07	103.33	103.83	104.19	104.46	104.99
Final sales of domestic product:								
Current dollars	111.63	118.26	112.09	114.04	115.91	117.29	118.94	120.90
Chain-type quantity index	108.46	113.24	108.69	110.34	111.59	112.52	113.78	115.07
Chain-type price index	102.93	104.43	103.13	103.36	103.88	104.24	104.54	105.07
Implicit price deflator	102.93	104.43	103.13	103.35	103.87	104.23	104.53	105.06
Gross domestic purchases:								
Current dollars	112.75	120.29	113.43	115.27	117.36	118.85	121.18	123.75
Chain-type quantity index	110.39	115.99	110.91	112.39	113.99	114.88	116.64	118.44
Chain-type price index	102.14	103.65	102.26	102.51	102.92	103.40	103.85	104.44
Implicit price deflator	102.14	103.71	102.28	102.56	102.96	103.46	103.90	104.48
Final sales to domestic purchasers:								
Current dollars	112.27	120.18	112.93	114.80	117.16	119.08	121.13	123.36
Chain-type quantity index	109.86	115.83	110.36	111.92	113.75	115.06	116.52	117.99
Chain-type price index	102.20	103.76	102.33	102.58	103.00	103.50	103.96	104.56
Implicit price deflator	102.20	103.76	102.33	102.57	103.00	103.50	103.96	104.55
Addenda:								
Final sales of computers ¹:								
Current dollars	117.75	125.21	119.86	119.78	117.92	123.76	130.61	128.55
Chain-type quantity index	223.72	322.25	239.90	262.98	281.68	308.67	343.43	355.22
Chain-type price index	52.63	38.36	49.13	44.74	41.13	39.39	37.36	35.55
Implicit price deflator	52.63	38.85	49.96	45.55	41.86	40.10	38.03	36.19
Gross domestic product less final sales of computers:								
Current dollars	112.06	118.30	112.53	114.47	116.10	116.99	118.88	121.22
Chain-type quantity index	108.17	112.15	108.33	109.80	110.73	111.15	112.58	114.15
Chain-type price index	103.60	105.43	103.86	104.20	104.81	105.21	105.55	106.15
Implicit price deflator	103.60	105.48	103.88	104.25	104.85	105.26	105.60	106.20
Gross domestic purchases less final sales of computers:								
Current dollars	112.61	120.06	113.28	115.11	117.20	118.62	120.92	123.50
Chain-type quantity index	109.35	114.34	109.79	111.11	112.56	113.29	114.90	116.61
Chain-type price index	102.98	104.94	103.18	103.56	104.08	104.65	105.19	105.86
Implicit price deflator	102.98	105.00	103.19	103.60	104.12	104.71	105.24	105.91
Chain-type price indexes for gross domestic purchases:								
Food	103.71	105.72	103.88	104.55	105.11	105.37	105.92	106.49
Energy goods and services	92.35	95.77	91.46	89.82	89.11	94.67	98.32	100.98
Gross domestic purchases less food and energy	102.40	103.78	102.56	102.84	103.28	103.58	103.88	104.39

1. For some components of final sales of computers, includes computer parts.

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, 1996=100]

Gross national product:							
Current dollars	111.73	118.37	112.02	114.04	115.67	116.61	118.53
Chain-type quantity index	108.62	113.41	108.68	110.35	111.39	111.91	113.46
Chain-type price index	102.87	104.32	103.06	103.29	103.79	104.14	104.41
Implicit price deflator	102.87	104.37	103.07	103.34	103.84	104.19	104.47
Less: Exports of goods and services and income receipts from the rest of the world:							
Chain-type quantity index	114.86	120.18	112.79	116.46	115.39	117.27	120.70
Plus: Command-basis exports of goods and services and income receipts from the rest of the world:							
Chain-type quantity index	119.68	125.99	117.92	121.53	121.01	121.93	124.29
Equals: Command-basis gross national product:							
Chain-type quantity index	109.31	115.83	109.41	111.08	112.20	112.58	113.98

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, 1996=100]

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Chain-type quantity indexes								
Personal consumption expenditures	108.80	114.53	109.42	110.66	112.43	113.83	115.19	116.68
Durable goods	118.66	132.23	118.62	124.26	127.95	130.76	133.21	136.98
Motor vehicles and parts	113.87	124.07	111.87	119.94	121.09	123.77	124.68	126.74
Furniture and household equipment	125.55	144.21	127.38	131.96	137.90	141.65	146.06	151.22
Other	115.78	127.55	116.54	118.84	123.99	125.44	127.87	132.91
Nondurable goods	107.07	112.74	107.49	108.80	111.15	112.05	113.04	114.73
Food	104.40	108.26	104.71	106.29	106.82	107.46	108.15	110.60
Clothing and shoes	113.00	122.89	113.01	114.33	121.72	122.52	124.38	122.95
Gasoline, fuel oil, and other energy goods	101.70	103.06	102.44	101.57	102.28	102.98	103.43	103.54
Gasoline and oil	102.83	103.14	103.48	102.87	102.34	102.67	103.25	104.32
Fuel oil and coal	92.82	102.16	94.28	91.44	101.69	105.38	104.76	96.83
Other	110.47	118.53	111.31	112.72	116.12	117.65	118.90	121.46
Services	107.80	112.14	108.62	109.03	110.16	111.56	112.92	113.90
Housing	104.28	106.94	104.59	105.10	105.93	106.54	107.25	108.02
Household operation	108.53	113.45	111.48	108.88	111.57	113.09	114.85	114.28
Electricity and gas	100.69	102.88	106.12	97.61	101.84	102.72	105.17	101.81
Other household operation	113.87	120.58	115.19	116.46	118.16	120.10	121.39	122.67
Transportation	109.34	112.49	109.54	110.23	111.01	112.00	113.16	113.79
Medical care	104.91	107.65	105.15	105.86	106.28	107.06	108.16	109.09
Recreation	109.27	119.27	110.05	111.36	114.29	117.77	121.63	123.38
Other	113.54	120.07	114.87	115.75	116.98	119.44	121.04	122.83
Addenda:								
Energy goods and services ¹	101.23	103.01	104.35	99.57	102.09	102.88	104.30	102.77
Personal consumption expenditures less food and energy	110.11	116.43	110.64	112.16	114.12	115.70	117.20	118.68
Chain-type price indexes								
Personal consumption expenditures	102.63	104.27	102.78	103.08	103.44	104.01	104.49	105.13
Durable goods	95.45	93.00	95.29	94.34	93.67	93.22	92.75	92.37
Motor vehicles and parts	99.10	99.32	99.60	99.03	98.86	98.93	99.54	99.95
Furniture and household equipment	90.35	84.96	89.61	88.01	86.84	85.56	84.33	83.11
Other	98.27	96.69	97.97	97.66	97.02	97.31	96.29	96.15
Nondurable goods	101.40	103.74	101.46	101.78	102.19	103.47	104.20	105.09
Food	104.01	106.13	104.21	104.83	105.47	105.79	106.35	106.93
Clothing and shoes	98.00	96.37	98.07	97.83	95.89	96.82	95.79	97.00
Gasoline, fuel oil, and other energy goods	88.80	95.83	87.44	85.19	84.06	94.71	100.08	104.47
Gasoline and oil	88.46	96.21	87.03	84.82	83.79	95.44	100.84	104.77
Fuel oil and coal	91.65	93.01	90.99	88.34	86.26	89.13	94.22	102.44
Other	102.85	106.87	103.11	104.07	106.17	106.52	107.31	107.50
Services	104.78	106.99	105.04	105.60	106.19	106.63	107.19	107.96
Housing	106.24	109.28	106.66	107.68	108.22	109.02	109.56	110.32
Household operation	100.74	100.73	100.66	100.55	100.61	100.42	100.67	101.23
Electricity and gas	98.83	98.47	98.49	97.78	97.85	97.87	98.82	99.34
Other household operation	101.90	102.13	101.99	102.24	102.30	101.99	101.82	102.41
Transportation	104.71	105.80	104.94	104.91	105.27	105.88	105.84	106.23
Medical care	104.67	107.36	104.98	105.61	106.58	107.00	107.64	108.23
Recreation	105.87	107.97	106.06	106.28	106.74	107.12	108.49	109.51
Other	104.88	107.07	105.08	105.69	106.23	106.58	107.20	108.25
Addenda:								
Energy goods and services ¹	93.57	97.05	92.71	91.19	90.63	96.19	99.43	101.96
Personal consumption expenditures less food and energy	102.93	104.38	103.13	103.47	103.84	104.17	104.47	105.03

1. Consists of gasoline, fuel oil, and other energy goods and of electricity and gas.

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

[Index numbers, 1996=100]

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Chain-type quantity indexes								
Private fixed investment	121.37	131.06	121.55	125.55	128.30	130.37	132.54	133.05
Nonresidential	124.80	135.13	124.56	129.06	131.49	133.74	137.23	138.08
Structures	112.93	109.92	112.05	113.64	111.96	110.44	109.37	107.91
Nonresidential buildings, including farm	114.18	111.49	113.94	115.95	115.42	112.07	109.64	108.84
Utilities	105.31	105.30	105.09	107.38	105.81	105.42	106.80	103.17
Mining exploration, shafts, and wells	120.22	110.16	114.94	111.86	102.30	106.95	115.42	115.96
Other structures	100.28	100.37	95.89	100.09	96.84	115.18	102.12	87.33
Equipment and software	129.09	144.63	129.09	134.70	138.74	142.47	147.77	149.56
Information processing equipment and software Computers and peripheral equipment ¹	145.69	177.62	148.79	156.14	163.75	174.39	183.12	189.23
Software ²	217.67	313.28	226.43	251.60	272.99	300.52	329.49	350.14
Other	135.81	156.83	138.65	144.82	148.87	154.54	159.80	164.09
Industrial equipment	121.33	140.06	122.28	124.40	130.09	138.89	144.05	147.21
Transportation equipment	108.56	108.75	108.99	109.09	106.30	107.42	109.95	111.33
Other	126.19	141.64	118.22	133.75	137.34	137.90	146.87	144.43
Residential	118.33	118.29	120.78	117.17	122.50	119.19	116.34	115.14
Structures	111.84	119.84	113.07	115.74	119.30	120.91	119.75	119.39
Single family	113.32	122.16	115.64	118.98	123.05	123.02	120.48	122.10
Multifamily	107.06	112.96	104.36	103.85	114.69	112.78	112.55	111.82
Other structures	110.80	118.11	111.50	113.93	115.49	119.77	120.05	117.13
Equipment	109.41	119.19	109.96	111.47	115.80	118.66	120.45	121.86
Chain-type price indexes								
Private fixed investment	99.20	99.24	99.16	99.11	99.19	99.17	99.19	99.42
Nonresidential	97.22	95.97	97.03	96.60	96.38	96.04	95.72	95.74
Structures	107.37	110.24	107.79	108.73	109.07	109.67	110.58	111.65
Nonresidential buildings, including farm	106.72	110.90	107.23	108.50	109.35	110.29	111.43	112.54
Utilities	103.31	103.37	103.49	103.52	102.85	102.89	103.53	104.21
Mining exploration, shafts, and wells	118.51	115.83	118.70	118.75	116.65	115.19	114.93	116.54
Other structures	105.26	106.97	105.54	105.81	106.01	106.89	107.32	107.66
Equipment and software	94.01	91.64	93.64	92.81	92.44	91.86	91.24	91.00
Information processing equipment and software Computers and peripheral equipment ¹	85.26	79.77	84.35	82.31	81.17	80.08	79.15	78.67
Software ²	57.38	44.04	54.92	50.22	47.23	44.82	42.73	41.38
Other	95.54	96.04	95.63	95.20	95.64	95.66	95.92	96.94
Industrial equipment	98.50	97.51	98.31	98.10	97.94	97.71	97.43	96.96
Transportation equipment	101.37	102.04	101.48	101.73	101.94	101.87	102.00	102.36
Other	100.38	100.75	100.41	100.65	101.20	101.05	100.43	100.33
Residential	102.42	103.60	102.64	103.25	103.66	103.80	103.55	103.41
Structures	105.30	109.48	105.76	106.93	107.97	108.93	110.04	110.99
Single family	105.45	109.76	105.91	107.12	108.20	109.20	110.34	111.31
Multifamily	105.06	109.83	105.45	106.79	108.19	109.15	110.44	111.53
Other structures	112.40	120.73	113.61	117.59	118.92	119.98	121.40	122.59
Equipment	104.80	107.87	105.21	105.82	106.44	107.48	108.39	109.16
Equipment	99.54	98.10	99.75	99.28	98.60	97.87	97.96	97.96

1. Includes new computers and peripheral equipment only.

2. Excludes software "embedded," or bundled, in computers and other equipment.

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

[Index numbers, 1996=100]

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Chain-type quantity indexes								
Exports of goods and services	115.21	119.26	113.60	117.92	116.27	117.41	120.66	122.68
Goods ¹	116.89	121.33	115.14	120.35	117.46	118.71	123.43	125.72
Durable	121.78	127.00	120.35	125.52	122.89	123.99	130.01	131.12
Nondurable	106.40	109.13	103.92	109.25	105.78	107.39	109.25	114.09
Services ¹	111.19	114.39	109.93	112.22	113.35	114.24	114.26	115.70
Income receipts	113.69	110.06	111.58	112.41	116.72	120.75	120.75	120.75
Imports of goods and services	126.89	141.93	127.81	131.14	135.07	139.69	144.63	148.33
Goods ¹	127.62	143.84	128.40	132.33	136.33	141.34	147.08	150.60
Durable	131.30	150.64	131.40	137.58	141.30	147.66	154.76	158.86
Nondurable	120.56	130.70	122.71	122.15	126.71	129.07	132.27	134.75
Services ¹	123.21	132.59	124.75	125.24	128.81	131.58	132.74	137.24
Income payments	127.28	130.05	128.07	127.79	132.36	137.07	137.07	137.07
Chain-type price indexes								
Exports of goods and services	95.95	95.55	95.57	95.25	95.13	95.30	95.61	96.18
Goods ¹	94.25	92.95	93.70	93.15	92.83	92.69	92.85	93.44
Durable	94.88	93.70	94.46	94.14	93.91	93.68	93.42	93.78
Nondurable	92.71	91.13	91.85	90.72	90.16	90.26	91.47	92.64
Services ¹	100.24	102.11	100.27	100.55	100.94	101.88	102.56	103.07
Income receipts	102.20	102.26	102.49	102.80	103.31	103.77	103.77	103.77
Imports of goods and services	91.31	91.61	90.55	90.48	89.81	90.96	92.35	93.31
Goods ¹	90.19	90.14	89.30	89.03	88.38	89.46	90.75	91.96
Durable	90.85	89.05	90.17	89.86	89.76	89.09	88.73	88.63
Nondurable	88.74	92.62	87.43	87.24	85.40	90.29	95.29	99.50
Services ¹	97.29	99.47	97.21	98.26	97.43	99.03	100.95	100.47
Income payments	101.95	102.08	102.25	102.58	103.09	103.64	103.64	103.64

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 Type of Product

[Index numbers, 1996=100]

	1998		1999		Seasonally adjusted				1998	1999		Seasonally adjusted					
	1998	1999	1998		1999					1998	1999	1998		1999			
			III	IV	I	II	III	IV				III	IV	I	II	III	IV
	Chain-type quantity indexes								Chain-type price indexes								
Exports of goods and services	115.21	119.26	113.60	117.92	116.27	117.41	120.66	122.68	Exports of goods and services	95.95	95.55	95.57	95.25	95.13	95.30	95.61	96.18
Exports of goods ¹	116.89	121.33	115.14	120.35	117.46	118.71	123.43	125.72	Exports of goods ¹	94.25	92.95	93.70	93.15	92.83	92.69	92.85	93.44
Foods, feeds, and beverages	99.28	102.29	92.48	104.05	95.32	100.96	106.40	106.48	Foods, feeds, and beverages	84.15	80.31	83.37	82.24	81.65	80.77	79.75	79.07
Industrial supplies and materials	107.43	108.48	105.65	108.00	104.28	106.44	108.23	114.98	Industrial supplies and materials	94.22	92.71	93.18	91.71	90.83	91.24	93.44	95.35
Durable goods	110.83	113.76	107.96	110.58	109.69	111.86	114.26	119.23	Durable goods	95.02	92.53	94.44	93.34	92.48	92.12	92.38	93.13
Nondurable goods	105.50	105.43	104.34	106.52	101.16	103.31	104.76	112.48	Nondurable goods	93.75	92.87	92.43	90.75	89.85	90.75	94.13	96.76
Capital goods, except automotive	128.12	134.47	128.37	133.15	130.16	129.67	139.03	139.00	Capital goods, except automotive	92.50	91.08	91.97	91.69	91.50	91.20	90.67	90.95
Civilian aircraft, engines, and parts	165.96	161.76	174.48	196.09	172.66	148.09	163.46	162.86	Civilian aircraft, engines, and parts	104.79	107.08	104.66	105.40	106.49	106.87	107.05	107.93
Computers, peripherals, and parts	136.93	154.97	139.59	144.32	143.22	153.55	163.27	159.84	Computers, peripherals, and parts	75.58	68.57	73.31	72.08	70.39	69.12	67.48	67.30
Other	119.03	125.32	117.22	118.78	119.41	121.66	129.76	130.45	Other	94.64	93.93	94.51	94.23	94.14	93.98	93.65	93.94
Automotive vehicles, engines, and parts	111.45	113.09	103.92	113.67	108.47	113.83	115.03	115.05	Automotive vehicles, engines, and parts	100.96	101.57	101.00	101.11	101.31	101.39	101.57	102.02
Consumer goods, except automotive	112.30	114.50	113.98	112.43	113.21	112.57	114.58	117.65	Consumer goods, except automotive	100.76	100.43	100.61	100.53	100.34	100.39	100.39	100.65
Durable goods	112.66	114.74	114.83	112.41	110.56	113.26	116.04	119.10	Durable goods	100.69	100.11	100.51	100.39	99.95	100.03	100.21	100.26
Nondurable goods	111.92	114.26	113.09	112.46	115.96	111.86	113.08	116.14	Nondurable goods	100.83	100.75	100.72	100.69	100.73	100.60	100.57	101.05
Other	122.15	139.30	117.57	134.10	140.12	139.91	135.42	141.75	Other	96.68	95.48	96.32	95.63	95.55	95.02	95.22	96.11
Exports of services ¹	111.19	114.39	109.93	112.22	113.35	114.24	114.26	115.70	Exports of services ¹	100.24	102.11	100.27	100.55	100.94	101.88	102.56	103.07
Transfers under U.S. military agency sales contracts	117.26	109.86	109.26	110.28	113.27	109.96	113.35	102.88	Transfers under U.S. military agency sales contracts	95.37	100.00	94.94	93.74	100.12	99.70	100.03	100.13
Travel	99.46	101.55	95.52	99.62	101.32	101.21	100.54	103.11	Travel	102.71	103.92	102.96	103.26	102.66	104.11	104.15	104.74
Passenger fares	102.61	100.51	105.40	96.03	96.73	101.54	100.83	102.95	Passenger fares	95.46	102.88	93.93	98.82	101.18	101.12	103.62	105.58
Other transportation	101.08	106.68	100.22	104.98	106.14	106.11	106.32	108.16	Other transportation	96.83	97.87	97.02	96.07	93.96	97.08	99.63	100.81
Royalties and license fees	110.75	111.39	108.62	118.76	111.73	111.88	110.82	111.12	Royalties and license fees	102.35	103.66	102.41	102.63	102.95	103.46	103.92	104.33
Other private services	126.16	134.10	127.51	127.16	131.26	133.49	134.26	137.37	Other private services	100.84	101.87	100.85	100.96	101.41	102.00	102.09	101.96
Other	115.97	119.66	116.48	118.06	118.99	120.03	119.53	120.10	Other	99.16	101.62	100.20	99.49	99.82	100.60	102.36	103.69
Imports of goods and services	126.89	141.93	127.81	131.14	135.07	139.69	144.63	148.33	Imports of goods and services	91.31	91.61	90.55	90.48	89.81	90.96	92.35	93.31
Imports of goods ¹	127.62	143.84	128.40	132.33	136.33	141.34	147.08	150.60	Imports of goods ¹	90.19	90.14	89.30	89.03	88.38	89.46	90.75	91.96
Foods, feeds, and beverages	118.18	128.99	119.42	119.84	122.46	128.95	132.26	132.30	Foods, feeds, and beverages	97.73	94.47	96.73	97.12	95.37	95.05	93.59	93.89
Industrial supplies and materials, except petroleum and products	119.98	125.23	122.48	120.69	120.73	123.45	127.01	129.73	Industrial supplies and materials, except petroleum and products	94.96	94.47	94.09	92.83	92.62	93.07	95.33	96.86
Durable goods	123.87	128.33	127.01	126.06	124.75	127.82	128.66	132.08	Durable goods	97.00	97.16	96.26	94.37	95.19	96.35	98.56	98.55
Nondurable goods	115.85	121.98	117.66	114.99	116.46	118.80	125.34	127.31	Nondurable goods	92.88	91.66	91.87	91.31	89.96	89.63	91.95	95.09
Petroleum and products	111.97	112.57	116.69	108.87	110.75	117.22	113.66	108.65	Petroleum and products	62.50	83.06	58.70	57.85	52.60	74.68	94.71	110.25
Capital goods, except automotive	143.96	166.02	144.82	148.92	152.37	162.45	171.02	178.26	Capital goods, except automotive	82.10	78.42	81.17	80.71	80.29	78.73	77.47	77.20
Civilian aircraft, engines, and parts	163.09	170.96	168.42	179.71	163.05	166.00	183.16	171.63	Civilian aircraft, engines, and parts	105.56	107.53	105.30	106.40	107.27	107.37	107.50	108.00
Computers, peripherals, and parts	164.66	214.26	165.34	179.65	191.36	212.57	222.47	230.65	Computers, peripherals, and parts	71.55	62.09	70.25	67.47	65.78	62.63	60.20	59.74
Other	134.30	148.87	134.72	134.69	137.60	144.91	152.05	160.91	Other	84.81	83.71	83.98	84.55	84.69	83.91	83.22	83.00
Automotive vehicles, engines, and parts	115.21	138.04	111.93	124.62	132.17	134.47	142.79	142.75	Automotive vehicles, engines, and parts	100.34	101.02	99.98	100.34	100.71	100.97	101.14	101.24
Consumer goods, except automotive	129.16	143.90	131.06	132.07	136.97	139.94	146.22	152.45	Consumer goods, except automotive	97.47	96.78	97.09	97.26	97.24	96.68	96.57	96.62
Durable goods	129.55	145.39	131.19	133.96	135.34	142.91	149.96	153.32	Durable goods	95.23	94.08	94.61	94.74	94.65	94.03	93.84	93.79
Nondurable goods	128.79	142.37	130.95	130.13	138.71	136.86	142.34	151.57	Nondurable goods	99.92	99.74	99.81	100.03	100.08	99.58	99.57	99.73
Other	132.40	161.69	131.76	149.25	155.04	158.20	162.99	170.51	Other	99.93	99.26	100.41	100.67	99.42	98.99	99.19	99.46
Imports of services ¹	123.21	132.59	124.75	125.24	128.81	131.58	132.74	137.51	Imports of services ¹	97.29	99.47	97.21	98.26	97.43	99.03	100.95	100.47
Direct defense expenditures	130.92	148.90	132.50	131.12	139.93	146.68	154.12	154.86	Direct defense expenditures	88.93	90.55	89.69	94.25	90.83	89.04	90.81	91.54
Travel	122.14	131.95	123.56	121.19	129.99	131.42	130.56	135.85	Travel	95.60	96.00	94.80	97.08	95.09	94.99	97.09	96.83
Passenger fares	116.70	123.29	119.48	120.37	119.81	122.05	122.83	128.46	Passenger fares	107.24	110.05	107.62	107.67	107.93	110.15	112.33	109.79
Other transportation	115.73	116.83	116.09	117.80	116.61	115.04	117.08	118.61	Other transportation	96.04	107.26	96.83	97.28	96.73	105.21	112.60	114.49
Royalties and license fees	140.80	154.34	135.62	145.36	157.46	159.94	145.68	154.30	Royalties and license fees	102.33	103.65	102.39	102.62	102.93	103.45	103.90	104.32
Other private services	129.29	143.27	132.34	134.19	134.16	141.03	145.81	152.07	Other private services	97.09	96.23	96.79	96.33	96.82	97.45	96.31	94.33
Other	109.95	113.52	113.24	111.88	110.33	113.36	114.87	115.53	Other	100.40	102.06	100.72	101.75	100.81	101.67	102.80	102.96
Addenda:									Addenda:								
Exports of agricultural goods	101.87	103.30	95.45	107.80	95.70	101.92	108.29	107.28	Exports of agricultural goods	84.79	78.56	83.82	81.98	80.42	78.24	77.72	77.86
Exports of nonagricultural goods	118.50	123.24	117.20	121.73	119.71	120.50	125.08	127.67	Exports of nonagricultural goods	95.19	94.35	94.68	94.24	94.04	94.09	94.31	94.95
Imports of nonpetroleum goods	129.07	146.51	129.60	134.28	138.42	143.34	149.93	154.38	Imports of nonpetroleum goods	92.63	91.02	92.01	91.79	91.50	90.90	90.74	90.92

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, 1996=100]

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Chain-type quantity indexes								
Government consumption expenditures and gross investment¹	104.10	107.92	104.46	105.20	106.52	106.86	108.06	110.25
Federal	98.97	101.84	99.14	100.08	99.97	100.49	101.52	105.36
National defense	95.71	97.52	97.33	96.61	95.64	95.01	97.56	101.87
Consumption expenditures	96.37	97.08	97.11	97.08	95.74	94.23	97.25	101.10
Durable goods ²	100.91	104.67	104.97	103.03	98.12	101.75	103.23	110.57
Nondurable goods	105.22	113.78	116.43	105.74	100.24	110.36	138.75	108.77
Services	95.81	96.13	96.06	96.42	95.43	93.30	95.53	100.28
Compensation of general government employees, except own-account investment ³	93.39	90.92	93.43	92.14	91.26	90.90	91.09	90.43
Consumption of general government fixed capital ⁴	98.66	98.65	98.56	98.53	98.49	98.55	98.71	98.87
Other services	97.75	103.14	98.63	102.14	100.23	93.28	100.69	118.38
Gross investment	92.11	100.42	98.93	94.12	95.33	99.91	99.70	106.75
Structures	76.17	72.00	82.14	71.10	74.25	72.51	69.89	71.37
Equipment and software	94.46	104.72	101.39	97.58	98.47	104.04	104.22	112.14
Nondefense	105.63	110.62	102.85	107.16	108.77	111.62	109.59	112.49
Consumption expenditures	103.11	105.85	99.98	104.37	105.49	106.43	104.86	106.64
Durable goods ²								
Nondurable goods								
Commodity Credit Corporation inventory change	127.04	132.26	125.28	127.94	129.38	133.04	132.58	134.05
Other nondurables	102.50	103.29	102.28	102.68	103.03	103.96	102.25	103.92
Services								
Compensation of general government employees, except own-account investment ³	100.54	101.12	100.45	102.20	102.34	101.12	100.03	101.01
Consumption of general government fixed capital ⁴	118.15	128.90	119.42	122.07	124.79	127.46	130.29	133.08
Other services	99.51	96.74	98.42	95.33	95.13	99.61	94.84	97.39
Gross investment	117.50	133.40	116.39	120.29	124.27	136.51	132.22	140.60
Structures	94.86	92.77	98.35	96.51	97.52	89.07	93.48	91.00
Equipment and software	130.18	157.03	126.26	133.70	139.46	164.30	154.65	169.72
State and local	107.14	111.53	107.61	108.23	110.39	110.64	111.93	113.15
Consumption expenditures	106.69	110.26	107.06	107.87	108.79	109.74	110.79	111.72
Durable goods ²	116.86	125.34	117.89	119.84	122.01	124.20	126.43	128.71
Nondurable goods	114.37	121.83	115.32	117.07	118.95	120.85	122.78	124.74
Services	105.56	108.60	105.85	106.54	107.32	108.15	109.08	109.86
Compensation of general government employees, except own-account investment ³	102.82	104.82	102.92	103.38	103.92	104.48	105.21	105.70
Consumption of general government fixed capital ⁴	109.89	115.73	110.56	111.97	113.43	114.93	116.48	118.08
Other services	157.71	178.03	161.61	165.82	170.62	175.92	180.03	185.54
Gross investment	109.14	117.21	110.06	109.80	117.60	114.64	117.02	119.59
Structures	104.06	110.39	104.71	103.34	112.51	107.81	109.47	111.75
Equipment and software	125.33	139.36	127.09	130.68	133.60	136.82	141.72	145.30
Addenda:								
Compensation of general government employees ³	100.94	102.06	101.03	101.31	101.61	101.80	102.26	102.59
Federal	96.00	94.69	96.03	95.85	95.36	94.70	94.43	94.27
State and local	102.84	104.91	102.95	103.41	104.01	104.54	105.29	105.81

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Chain-type price indexes								
Government consumption expenditures and gross investment¹	103.34	106.13	103.60	103.94	104.93	105.69	106.56	107.34
Federal	102.38	105.45	102.41	102.76	104.89	105.13	105.60	106.17
National defense	102.03	104.76	102.07	102.32	104.21	104.47	104.93	105.44
Consumption expenditures	102.91	105.89	103.01	103.37	105.20	105.58	106.13	106.67
Durable goods ²	99.18	98.73	98.90	99.22	98.93	98.67	98.51	98.81
Nondurable goods	86.89	91.00	85.49	85.18	82.52	87.76	93.93	99.78
Services	103.66	106.86	103.84	104.23	106.36	106.64	107.05	107.41
Compensation of general government employees, except own-account investment ³	105.37	109.96	105.45	105.95	109.71	109.86	109.98	110.31
Consumption of general government fixed capital ⁴	99.17	100.55	99.06	99.15	100.29	100.30	100.76	100.85
Other services	104.45	106.96	105.04	105.48	105.87	106.55	107.40	108.02
Gross investment	96.83	98.17	96.55	96.20	98.38	98.02	97.94	98.32
Structures	105.89	109.70	106.33	107.46	108.05	109.26	110.36	111.12
Equipment and software	95.68	96.75	95.31	94.80	97.15	96.64	96.44	96.78
Nondefense	103.07	106.74	103.05	103.59	106.18	106.37	106.85	107.55
Consumption expenditures	104.24	108.49	104.26	104.97	107.76	108.10	108.72	109.38
Durable goods ²								
Nondurable goods								
Commodity Credit Corporation inventory change	99.36	102.48	99.55	99.06	100.04	101.49	103.65	104.74
Other nondurables	104.58	109.12	104.71	105.32	108.46	108.76	109.33	109.92
Services								
Compensation of general government employees, except own-account investment ³	106.62	113.85	107.01	107.88	112.96	113.41	114.28	114.74
Consumption of general government fixed capital ⁴	98.20	99.17	98.10	98.02	99.11	98.92	98.99	99.67
Other services	103.89	105.10	103.62	104.11	104.56	104.84	105.11	105.89
Gross investment	97.97	99.41	97.81	97.68	99.47	99.13	99.10	99.93
Structures	106.48	109.18	106.74	107.54	107.99	108.69	109.53	110.50
Equipment and software	94.30	95.30	93.98	93.47	95.77	95.09	94.78	95.56
State and local	103.89	106.53	104.27	104.62	104.98	106.02	107.11	108.00
Consumption expenditures	104.18	107.01	104.63	104.91	105.32	106.42	107.66	108.64
Durable goods ²	99.18	98.86	99.18	99.06	98.94	98.78	98.62	99.09
Nondurable goods	94.44	97.78	94.23	92.72	92.31	96.39	100.43	102.00
Services	105.57	108.39	106.12	106.66	107.19	107.91	108.78	109.69
Compensation of general government employees, except own-account investment ³	106.28	109.39	106.87	107.49	108.21	108.89	109.80	110.65
Consumption of general government fixed capital ⁴	101.39	102.78	101.49	101.86	101.98	102.64	102.99	103.51
Other services	103.11	104.40	103.80	103.45	102.16	103.48	104.71	107.25
Gross investment	102.64	104.45	102.74	103.36	103.49	104.28	104.75	105.27
Structures	106.09	109.60	106.41	107.54	108.02	109.33	110.21	110.85
Equipment and software	93.19	90.91	92.77	92.14	91.44	90.97	90.49	90.75
Addenda:								
Compensation of general government employees ³	106.16	109.93	106.65	107.27	108.93	109.50	110.29	111.01
Federal	105.84	111.46	106.04	106.68	110.97	111.23	111.64	112.02
State and local	106.28	109.39	106.87	107.49	108.21	108.89	109.80	110.65

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 own-account investment and related expenditures

for goods and services are classified as investment in structures and in software. 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 7.14.—Chain-Type Quantity and Price Indexes for Gross Domestic Product by Sector

[Index numbers, 1996=100]

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Chain-type quantity indexes								
Gross domestic product	109.00	113.41	109.25	110.83	111.84	112.36	113.92	115.54
Business ¹	110.18	115.12	110.45	112.26	113.38	113.93	115.68	117.51
Nonfarm ²	110.18	115.20	110.46	112.27	113.42	113.96	115.80	117.60
Nonfarm less housing	111.02	116.24	111.28	113.26	114.40	114.93	116.86	118.78
Housing	102.71	105.92	103.08	103.52	104.67	105.34	106.43	107.23
Farm	109.03	107.78	108.92	109.88	108.64	110.22	103.87	108.38
Households and institutions ...	105.87	107.97	106.04	106.51	107.07	107.52	108.22	109.08
Private households	110.60	121.93	112.54	118.59	121.19	121.56	122.36	122.62
Nonprofit institutions	105.70	107.47	105.81	106.08	106.56	107.02	107.71	108.59
General government ³	101.78	103.34	101.92	102.30	102.71	103.03	103.59	104.05
Federal	97.89	97.53	97.97	97.98	97.77	97.44	97.43	97.50
State and local	103.61	106.08	103.77	104.33	105.03	105.66	106.49	107.13
Chain-type price indexes								
Gross domestic product	102.86	104.32	103.06	103.28	103.79	104.13	104.41	104.94
Business ¹	102.48	103.57	102.62	102.77	103.12	103.42	103.61	104.11
Nonfarm ²	102.81	103.93	102.97	103.01	103.41	103.79	103.99	104.55
Nonfarm less housing	102.47	103.36	102.59	102.50	102.87	103.23	103.41	103.94
Housing	106.09	109.43	106.58	107.92	108.53	109.16	109.59	110.44
Farm	79.75	78.01	78.74	86.63	83.92	77.93	76.99	73.22
Households and institutions ...	104.49	108.45	105.08	105.98	107.10	108.03	108.97	109.71
Private households	105.45	108.55	105.89	106.64	107.31	108.25	108.80	109.83
Nonprofit institutions	104.46	108.45	105.05	105.95	107.10	108.02	108.98	109.71
General government ³	105.14	108.49	105.54	106.09	107.57	108.10	108.81	109.47
Federal	103.87	108.22	103.98	104.45	107.81	107.98	108.37	108.72
State and local	105.72	108.62	106.25	106.84	107.49	108.17	109.02	109.82

1. Equals gross domestic product less gross product of households and institutions and of general government.
 2. Equals gross domestic business product less gross farm product.
 3. Equals compensation of general government employees plus general government consumption of fixed capital.

Table 7.16.—Implicit Price Deflators for Private Inventories by Industry Group

[Index numbers, 1996=100]

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Private inventories ¹	96.30	95.64	95.59	96.37	97.56	97.97	97.97	
Farm	88.38	85.84	90.74	90.14	88.98	89.04		
Nonfarm	96.97	96.48	96.01	96.91	98.29	98.74		
Durable goods	97.56	96.90	95.89	96.37	96.97	97.15		
Nondurable goods	96.23	95.96	96.15	97.60	99.95	100.74		
Manufacturing	95.71	94.42	93.92	94.94	96.37	97.02		
Durable goods	96.02	94.62	94.10	94.71	95.60	95.61		
Nondurable goods	95.21	94.08	93.64	95.33	97.63	99.32		
Wholesale	96.28	96.17	95.27	95.70	96.94	97.50		
Durable goods	97.87	97.48	95.74	95.89	96.13	96.54		
Nondurable goods	93.59	93.97	94.53	95.44	98.42	99.27		
Merchant wholesalers	96.39	96.40	95.38	95.62	96.69	97.16		
Durable goods	97.88	97.48	95.79	95.95	96.20	96.62		
Nondurable goods	93.84	94.55	94.70	95.08	97.62	98.18		
Nonmerchant wholesalers	95.50	94.67	94.59	96.24	98.49	99.71		
Durable goods	97.82	97.45	95.38	95.49	95.67	96.02		
Nondurable goods	92.03	90.50	93.48	97.57	103.20	105.84		
Retail trade	100.12	100.35	100.03	100.69	101.68	101.92		
Durable goods	99.43	99.63	98.66	99.24	99.92	100.05		
Motor vehicle dealers	98.48	98.73	97.48	98.02	99.54	99.63		
Other	100.47	100.61	99.94	100.57	100.35	100.53		
Nondurable goods	100.95	101.22	101.68	102.45	103.81	104.19		
Other	94.61	94.14	94.60	97.21	100.06	99.89		
Durable goods	101.69	100.62	101.40	103.45	102.41	102.60		
Nondurable goods	94.07	93.66	94.09	96.74	99.87	99.67		

1. 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 7.15.—Price, Costs, and Profit Per Unit of Real Gross Product of Nonfinancial Corporate Business

[Dollars]

Price per unit of real gross product of nonfinancial corporate business ¹	1.007	1.008	1.008	1.009	1.012	1.012
Compensation of employees (unit labor cost) .....	.643	.644	.646	.647	.649	.650
Unit nonlabor cost .....	.244	.243	.245	.243	.244	.246
Consumption of fixed capital .....	.109	.109	.109	.109	.110	.111
Indirect business tax and nontax liability plus business transfer payments less subsidies .....	.109	.108	.111	.109	.109	.109
Net interest .....	.026	.026	.025	.025	.025	.026
Corporate profits with inventory valuation and capital consumption adjustments (unit profits from current production) .....	.120	.121	.116	.119	.118	.115
Profits tax liability .....	.032	.032	.030	.032	.033	.033
Profits after tax with inventory valuation and capital consumption adjustments ...	.088	.089	.085	.087	.085	.082

1. The implicit price deflator for gross product of nonfinancial corporate business divided by 100.

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

[Index numbers, 1996=100]

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Gross domestic product	109.00	113.41	109.25	110.83	111.84	112.36	113.92	115.54
Final sales of domestic product	108.46	113.24	108.69	110.34	111.59	112.52	113.78	115.07
Change in private inventories								
Goods	112.85	118.79	112.62	115.79	116.63	116.77	119.45	122.31
Final sales	111.43	118.41	111.15	114.54	116.04	117.33	119.17	121.11
Change in private inventories								
Durable goods	120.28	128.88	119.85	124.85	125.36	125.80	130.13	134.21
Final sales	119.01	128.74	118.49	123.65	125.29	127.15	130.21	132.33
Change in private inventories								
Nondurable goods	106.73	110.58	106.68	108.39	109.48	109.38	110.78	112.69
Final sales	105.24	110.07	105.15	107.15	108.55	109.38	110.29	112.08
Change in private inventories								
Services	106.17	109.69	106.69	107.25	108.08	109.07	110.25	111.37
Structures	110.14	113.83	110.67	112.03	114.79	113.99	113.42	113.13
Addenda:								
Motor vehicle output	114.56	125.32	110.92	126.49	119.36	121.80	129.10	131.03
Gross domestic product less motor vehicle output	108.80	112.99	109.19	110.27	111.57	112.02	113.38	114.99

Table 7.18B.—Chain-Type Quantity Indexes for Motor Vehicle Output

[Index numbers, 1996=100]

	1998	1999	Seasonally adjusted					
			1998		1999			
			III	IV	I	II	III	IV
Motor vehicle output	114.56	125.32	110.92	126.49	119.36	121.80	129.10	131.03
Auto output	104.87	102.92	104.55	116.65	99.19	101.00	102.88	108.66
Truck output ¹	122.70	143.88	116.25	134.74	136.08	139.04	150.78	149.61
Final sales of domestic product	112.55	119.99	108.03	118.63	115.28	119.13	122.37	123.19
Personal consumption expenditures	114.53	124.70	112.08	121.22	121.64	124.66	125.41	127.11
New motor vehicles	115.33	126.21	110.45	120.75	121.16	125.72	126.72	131.23
Autos	111.43	124.84	106.64	116.09	117.93	124.82	123.82	132.79
Light trucks	119.94	127.87	114.95	126.27	125.00	126.82	130.16	129.49
Net purchases of used autos	112.04	120.05	116.85	122.46	122.93	121.26	121.26	114.73
Private fixed investment	115.07	132.85	109.39	124.22	126.04	129.17	140.75	135.45
New motor vehicles	114.37	129.80	108.79	121.64	123.88	127.75	137.06	130.51
Autos	102.10	106.32	94.31	105.49	102.09	107.97	111.31	103.91
Trucks	126.11	152.22	122.66	137.11	144.69	146.67	161.64	155.86
Light trucks	126.47	155.22	119.31	136.20	145.83	148.90	168.43	157.72
Other	125.29	146.56	128.60	138.57	142.43	142.44	149.17	152.21
Net purchases of used autos	111.81	118.59	106.58	112.09	115.90	122.60	123.47	112.38
Gross government investment	109.63	118.16	98.49	118.22	107.78	99.74	120.88	144.24
Autos	95.01	105.73	92.83	103.89	95.31	92.29	108.30	127.03
New trucks	117.67	124.91	101.40	126.04	114.58	103.70	127.71	153.66
Net exports								
Exports	100.44	97.30	89.29	99.04	92.12	100.78	93.62	102.67
Autos	94.32	95.68	85.02	99.75	90.26	102.60	89.63	100.23
Trucks	111.90	100.41	97.31	97.92	95.69	97.65	101.02	107.29
Imports	116.94	143.34	112.78	127.05	138.59	139.34	147.87	147.55
Autos	118.90	143.14	114.01	129.71	139.67	136.13	148.38	148.40
Trucks	107.48	144.26	106.86	114.27	133.39	154.67	145.45	143.52
Change in private inventories								
Autos								
New								
Domestic								
Foreign								
Used								
New trucks								
Domestic								
Foreign								
Addenda:								
Final sales of motor vehicles to domestic purchasers	114.56	127.47	110.65	122.21	122.79	125.48	130.86	130.73
Private fixed investment in new autos and new light trucks	112.00	126.15	104.46	117.95	119.83	124.57	134.48	125.74
Domestic output of new autos ²	98.16	100.98	99.05	106.06	98.93	99.28	103.95	101.77
Sales of imported new autos ³	129.63	148.46	121.33	139.71	136.53	146.46	148.58	162.27

1. Except for exports and imports, consists of new trucks only.

2. Consists of final sales and change in private inventories of new autos assembled in the United States.

3. Consists of personal consumption expenditures, private fixed investment, and gross government investment.

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

	Seasonally adjusted at annual rates							
	1998	1999	1998		1999			
			III	IV	I	II	III	IV
Percent change at annual rate:								
Gross domestic product	4.3	4.0	3.8	5.9	3.7	1.9	5.7	5.8
Percentage points at annual rates:								
Personal consumption expenditures	3.24	3.52	2.64	3.13	4.27	3.36	3.33	3.59
Durable goods .....	.86	.89	.33	1.51	.96	.71	.62	.93
Motor vehicles and parts .....	.33	.29	-.23	.94	.13	.30	.10	.23
Furniture and household equipment .....	.39	.44	.47	.44	.55	.34	.39	.44
Other .....	.13	.16	.08	.13	.28	.08	.13	.26
Nondurable goods .....	.79	1.04	.49	.98	1.68	.64	.73	1.22
Food .....	.26	.36	.23	.60	.20	.24	.26	.89
Clothing and shoes .....	.25	.28	-.04	.16	.82	.09	.21	-.15
Gasoline, fuel oil, and other energy goods .....	.01	.02	.03	-.05	.04	.04	.03	.01
Other .....	.27	.37	.27	.27	.62	.28	.23	.47
Services	1.59	1.59	1.83	.64	1.63	2.01	1.97	1.43
Housing .....	.24	.25	.20	.21	.31	.23	.27	.30
Household operation .....	.21	.18	.42	-.37	.38	.21	.25	-.07
Electricity and gas .....	.03	.03	.20	-.49	.24	.05	.14	-.18
Other household operation .....	.18	.15	.21	.11	.15	.16	.11	.11
Transportation .....	.10	.08	.01	.07	.08	.10	.12	.07
Medical care .....	.29	.27	.19	.29	.16	.30	.43	.36
Recreation .....	.12	.23	.18	.12	.27	.31	.35	.16
Other .....	.63	.58	.83	.32	.43	.85	.56	.62
Gross private domestic investment	1.93	.99	1.74	1.94	.67	-.36	2.25	1.46
Fixed investment	1.86	1.32	.34	2.20	1.48	1.10	1.16	.28
Nonresidential	1.49	1.02	.01	1.79	.94	.86	1.33	.33
Structures .....	.13	-.08	-.21	.18	-.18	-.16	-.11	-.15
Equipment and software	1.37	1.10	.22	1.61	1.12	1.02	1.44	.48
Information processing equipment and software .....	.85	.85	.71	.80	.80	1.09	.88	.60
Computers and peripheral equipment .....	.45	.38	.36	.43	.33	.40	.40	.27
Software ¹ .....	.23	.22	.25	.26	.16	.23	.21	.17
Other .....	.17	.25	.09	.12	.30	.46	.27	.16
Industrial equipment .....	.08	0	.04	.01	-.17	.07	.16	.08
Transportation equipment .....	.31	.24	-.59	.99	.22	.03	.55	-.14
Other .....	.12	0	.06	-.19	.27	-.17	-.14	-.06
Residential .....	.37	.31	.33	.41	.53	.24	-.17	-.05
Change in private inventories	.07	-.33	1.40	-.26	-.80	-1.46	1.09	1.18
Farm	-.02	-.02	.30	.58	-.16	-.24	-.18	-.13
Nonfarm .....	.09	-.31	1.10	-.84	-.64	-1.22	1.27	1.31
Net exports of goods and services	-1.18	-1.11	-.82	.33	-2.13	-1.35	-.72	-.70
Exports	.25	.38	-.18	1.65	-.61	.42	1.19	.74
Goods .....	.17	.29	.12	1.38	-.74	.32	1.19	.57
Services .....	.08	.09	-.30	.27	.13	.10	0	.17
Imports	-1.43	-1.49	-.65	-1.32	-1.52	-1.77	-1.91	-1.44
Goods	-1.21	-1.33	-.51	-1.29	-1.28	-1.59	-1.83	-1.13
Services	-.22	-.16	-.13	-.03	-.24	-.19	-.08	-.30
Government consumption expenditures and gross investment	.31	.64	.23	.51	.87	.23	.81	1.45
Federal	-.06	.18	-.14	.24	-.03	.13	.26	.94
National defense	-.08	.08	.27	-.12	-.16	-.10	.42	.70
Consumption expenditures	-.10	.03	.01	0	-.19	-.21	.42	.54
Gross investment .....	.02	.05	.26	-.12	.03	.11	0	.16
Nondefense .....	.02	.10	-.42	.36	.13	.23	-.16	.24
Consumption expenditures	-.03	.05	-.33	.30	.08	.06	-.10	.12
Gross investment .....	.05	.06	-.09	.06	.06	.17	-.06	.11
State and local	.37	.47	.37	.28	.90	.10	.55	.52
Consumption expenditures .....	.31	.31	.24	.29	.31	.32	.37	.32
Gross investment .....	.06	.16	.13	-.02	.59	-.22	.18	.19
Addenda:								
Goods	2.26	1.97	2.12	4.26	1.14	.18	3.47	3.63
Services	1.55	1.78	1.41	1.18	1.65	1.96	2.37	2.25
Structures .....	.49	.30	.25	.46	.89	-.26	-.17	-.08
Motor vehicle output .....	.26	.33	.21	1.94	-.87	.29	.87	.23
Final sales of computers ² .....	.47	.40	.62	.40	.29	.38	.47	.15

Table 8.3.—Contributions to Percent Change in Real Personal Consumption Expenditures by Major Type of Product

	Seasonally adjusted at annual rates							
	1998	1999	1998		1999			
			III	IV	I	II	III	IV
Percent change at annual rate:								
Personal consumption expenditures	4.9	5.3	3.9	4.6	6.5	5.1	4.9	5.3
Percentage points at annual rates:								
Durable goods	1.29	1.34	.49	2.24	1.45	1.07	.92	1.37
Motor vehicles and parts .....	.50	.44	-.34	1.40	.20	.45	.15	.34
Furniture and household equipment .....	.59	.66	.70	.66	.83	.51	.58	.65
Other .....	.20	.24	.12	.19	.42	.12	.19	.38
Nondurable goods	1.19	1.55	.72	1.44	2.56	.98	1.07	1.79
Food .....	.40	.54	.35	.89	.32	.36	.38	1.31
Clothing and shoes .....	.38	.42	-.06	.23	1.24	.14	.30	-.22
Gasoline, fuel oil, and other energy goods .....	.01	.03	.04	-.07	.06	.06	.04	.01
Gasoline and oil .....	.03	.01	.04	-.04	-.03	.03	.05	.09
Fuel oil and coal	-.01	.02	0	-.03	.09	.03	-.01	-.08
Other .....	.41	.56	.40	.39	.94	.42	.34	.68
Services	2.39	2.38	2.73	.93	2.54	3.03	2.90	2.10
Housing .....	.36	.38	.29	.30	.49	.35	.39	.43
Household operation .....	.31	.27	.63	-.56	.58	.32	.37	-.11
Electricity and gas .....	.04	.05	.31	-.73	.36	.07	.20	-.27
Other household operation .....	.28	.22	.32	.17	.22	.25	.16	.16
Transportation .....	.15	.12	.02	.11	.12	.15	.17	.09
Medical care .....	.44	.40	.28	.42	.27	.46	.63	.53
Recreation .....	.18	.35	.27	.18	.40	.47	.51	.24
Other .....	.95	.87	1.24	.47	.67	1.28	.82	.91
Addenda:								
Energy goods and services ¹ .....	.05	.08	.34	-.80	.42	.13	.24	-.26
Personal consumption expenditures less food and energy	4.42	4.65	3.25	4.53	5.81	4.58	4.26	4.20

1. Consists of gasoline, fuel oil, and other energy goods, and of electricity and gas.

NOTE.—The quantity indexes on which the estimates in this table are based are shown in table 7.4. The estimates in this table differ from those in table 8.2 because this table shows contributions to real personal consumption expenditures, whereas table 8.2 shows contributions to real gross domestic product.

1. Excludes software "embedded," or bundled, in computers and other equipment.

2. For some components of final sales of computers, includes computer parts.

NOTE.—The quantity indexes on which the estimates in this table are based are shown in tables 7.1, 7.2, 7.4, 7.6, 7.9, 7.11, and 7.17.

Table 8.4.—Contributions to Percent Change in Real Private Fixed Investment by Type

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Percent change at annual rate:								
Private fixed investment	11.8	8.0	2.0	13.8	9.1	6.6	6.8	1.5
Percentage points at annual rates:								
Nonresidential	9.50	6.10	.04	11.20	5.81	5.18	7.81	1.84
Structures .....	.81	-.51	-1.27	1.20	-1.04	-.94	-.65	-.92
Nonresidential buildings, including								
farm .....	.74	-.34	-.21	1.06	-.21	-1.52	-1.09	-.36
Utilities .....	.18	0	.05	.25	-.15	-.03	.14	-.34
Mining exploration, shafts, and								
wells	-.09	-.18	-.92	-.20	-.62	.30	.53	.03
Other structures	-.02	0	-.19	.08	-.06	.31	-.22	-.25
Equipment and software	8.69	6.62	1.31	10.00	6.85	6.11	8.46	2.76
Information processing equipment								
and software	5.42	5.14	4.22	4.99	4.82	6.44	5.14	3.48
Computers and peripheral								
equipment ¹	2.87	2.31	2.15	2.63	2.00	2.36	2.33	1.56
Software ²	1.46	1.31	1.51	1.60	1.00	1.36	1.24	.99
Other	1.09	1.52	.56	.76	1.82	2.72	1.58	.93
Industrial equipment .....	.53	.01	.22	.05	-1.00	.42	.92	.48
Transportation equipment	1.96	1.48	-3.51	6.03	1.37	.22	3.23	-.85
Other .....	.78	-.01	.37	-1.07	1.66	-.98	-.83	-.35
Residential	2.34	1.88	1.97	2.62	3.25	1.44	-.98	-.30
Structures	2.30	1.83	1.96	2.59	3.16	1.39	-1.01	-.33
Single family	1.63	1.05	1.79	1.65	1.89	-.01	-1.11	.72
Multifamily	-.01	.10	-.12	-.02	.70	-.12	-.01	-.05
Other structures .....	.69	.68	.29	.96	.58	1.52	.11	-1.00
Equipment .....	.04	.05	.01	.04	.09	.06	.04	.03

1. Includes new computers and peripheral equipment only.

2. Excludes software "embedded," or bundled, in computers and other equipment.

NOTE.—The quantity indexes on which the estimates in this table are based are shown in table 7.6. The estimates in this table differ from those in table 8.2 because this table shows contributions to real private fixed investment, whereas table 8.2 shows contributions to real gross domestic product.

Table 8.5.—Contributions to Percent Change in Real Exports and in Real Imports of Goods and Services by Type of Product

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Percent change at annual rate:								
Exports of goods and services	2.2	3.5	-1.7	16.1	-5.5	4.0	11.5	6.9
Percentage points at annual rates:								
Exports of goods¹	1.47	2.65	1.07	13.34	-6.70	3.02	11.51	5.30
Foods, feeds, and beverages	-.05	.14	-.97	2.29	-1.61	1.06	1.02	.03
Industrial supplies and materials	-.17	.14	-.56	1.42	-1.94	1.15	1.04	3.59
Capital goods, except automotive	1.31	1.52	4.32	4.97	-2.78	-.45	9.00	-.01
Automotive vehicles, engines, and								
parts	-.10	.12	-1.85	2.77	-1.39	1.46	.37	.01
Consumer goods, except automotive								
Other .....	.20	.16	.56	-.39	.23	-.18	.63	.87
Other .....	.28	.57	-.44	2.28	.79	-.02	-.56	.81
Exports of services ¹ .....	.72	.86	-2.73	2.75	1.23	.98	.02	1.57
Percent change at annual rate:								
Imports of goods and services	11.6	11.8	5.2	10.8	12.5	14.4	14.9	10.6
Percentage points at annual rates:								
Imports of goods¹	9.81	10.57	4.12	10.52	10.53	12.85	14.22	8.37
Foods, feeds, and beverages .....	.28	.33	.25	.07	.34	.78	.39	.01
Industrial supplies and materials,								
except petroleum and products	1.38	.55	.73	-.70	.08	1.16	1.45	1.07
Petroleum and products .....	.41	.01	.12	-1.17	.28	1.05	-.66	-1.13
Capital goods, except automotive	3.51	3.60	1.19	2.80	2.36	6.39	5.13	4.06
Automotive vehicles, engines, and								
parts .....	.88	2.67	-1.15	5.94	3.52	1.12	3.63	-.01
Consumer goods, except automotive								
Other	2.48	2.21	1.03	.69	2.99	1.82	3.53	3.29
Other .....	.86	1.20	.95	2.90	.96	.53	.75	1.08
Imports of services ¹	1.78	1.28	1.05	.33	1.99	1.55	.70	2.25

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.

NOTE.—The quantity indexes on which the estimates in this table are based are shown in table 7.10. The estimates in this table differ from those in table 8.2 because this table shows contributions to real exports and to real imports, whereas table 8.2 shows contributions to real gross domestic product. Because imports are subtracted in the calculation of gross domestic product, the contributions of components of real imports have opposite signs in this table and in table 8.2.

Table 8.6.—Contributions to Percent Change in Real Government Consumption Expenditures and Gross Investment by Type

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Percent change at annual rate:								
Government consumption								
expenditures and gross								
investment ¹	1.7	3.7	1.3	2.9	5.1	1.3	4.5	8.4
Percentage points at annual rates:								
Federal	-.33	1.02	-.82	1.35	-.16	.74	1.45	5.35
National defense	-.45	.43	1.55	-.67	-.92	-.59	2.38	4.00
Consumption expenditures	-.55	.14	.05	-.01	-1.08	-1.21	2.40	3.62
Durable goods ² .....	.02	.05	.31	-.10	-.26	.19	.33	.12
Nondurable goods .....	.02	.04	.29	-.18	-.09	.17	.44	-.49
Services	-.60	.06	-.56	.27	-.73	-1.56	1.63	3.44
Compensation of general								
government employees,								
except own-account								
investment ³	-.28	-.23	-.02	-.47	-.32	-.13	.07	-.21
Consumption of general								
government fixed capital ⁴	-.03	0	-.02	-.01	-.01	.01	.03	.03
Other services	-.29	.28	-.51	.74	-.40	-1.44	1.53	3.62
Gross investment .....	.10	.28	1.50	-.66	.16	.62	-.03	.93
Structures	-.03	-.02	.20	-.20	.06	.03	-.05	.03
Equipment and software .....	.13	.30	1.30	-.46	.11	.65	.02	.90
Nondefense .....	.12	.59	-2.37	2.02	.75	1.33	-.93	1.35
Consumption expenditures	-.15	.27	-1.88	1.71	.44	.36	-.60	.70
Durable goods ²	-.09	.10	-1.55	1.49	.04	.04	-.06	.05
Nondurable goods .....	.02	.10	.02	.07	.27	-.02	.08	.03
Services	-.08	.07	-.35	.15	.13	.34	-.62	.63
Compensation of general								
government employees,								
except own-account								
investment ³ .....	.06	.03	.03	.38	.03	-.26	-.23	.22
Consumption of general								
government fixed capital ⁴ .....	.12	.12	.12	.12	.12	.12	.13	.12
Other services	-.26	-.08	-.51	-.34	-.02	-.49	-.51	.28
Gross investment .....	.27	.32	-.49	.32	.32	.97	-.33	.65
Structures .....	.08	-.02	.18	-.06	.03	-.26	.13	-.07
Equipment and software .....	.19	.34	-.67	.37	.29	1.22	-.47	.72
State and local	2.06	2.65	2.08	1.52	5.17	.57	3.09	3.01
Consumption expenditures	1.75	1.77	1.37	1.63	1.78	1.84	2.07	1.90
Durable goods ² .....	.08	.07	.07	.07	.07	.07	.07	.07
Nondurable goods .....	.41	.37	.36	.34	.36	.36	.38	.40
Services	1.26	1.33	.94	1.22	1.36	1.41	1.62	1.43
Compensation of general								
government employees,								
except own-account								
investment ³ .....	.50	.76	.33	.71	.80	.83	1.10	.81
Consumption of general								
government fixed capital ⁴ .....	.24	.26	.25	.26	.26	.26	.27	.29
Other services .....	.52	.31	.36	.26	.29	.31	.25	.33
Gross investment .....	.31	.88	.72	-.11	3.38	-1.26	1.02	1.11
Structures	-.07	.54	.37	-.46	3.10	-1.57	.56	.77
Equipment and software .....	.38	.34	.35	.36	.28	.30	.46	.33

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 own-account investment and related expenditures for goods and services are classified as investment in structures and in software.

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.

NOTE.—The quantity indexes on which the estimates in this table are based are shown in table 7.11. The estimates in this table differ from those in table 8.2 because this table shows contributions to real government consumption expenditures and gross investment, whereas table 8.2 shows contributions to real gross domestic product.

Table 8.7.—Selected Per Capita Product and Income Series in Current and Chained Dollars

[Dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Current dollars:								
Gross domestic product	32,373	33,857	32,471	32,941	33,338	33,530	33,993	34,563
Gross national product	32,336		32,376	32,878	33,285	33,477	33,937	
Personal income	27,195	28,522	27,362	27,725	28,037	28,348	28,632	29,068
Disposable personal income	23,231	24,305	23,345	23,628	23,904	24,171	24,389	24,753
Personal consumption expenditures	21,614	22,898	21,737	21,993	22,381	22,732	23,047	23,430
Durable goods	2,580	2,775	2,572	2,661	2,715	2,755	2,785	2,845
Nondurable goods	6,315	6,740	6,336	6,417	6,569	6,690	6,778	6,921
Services	12,718	13,383	12,830	12,915	13,096	13,287	13,483	13,664
Chained (1996) dollars:								
Gross domestic product	31,472	32,439	31,504	31,879	32,107	32,182	32,541	32,921
Gross national product	31,434		31,411	31,816	32,054	32,130	32,486	
Disposable personal income	22,636	23,310	22,715	22,924	23,110	23,239	23,343	23,546
Personal consumption expenditures	21,060	21,960	21,151	21,338	21,637	21,856	22,058	22,287
Durable goods	2,703	2,984	2,699	2,820	2,898	2,955	3,002	3,080
Nondurable goods	6,228	6,496	6,245	6,305	6,429	6,466	6,505	6,586
Services	12,138	12,508	12,215	12,230	12,334	12,462	12,579	12,657
Population (mid-period, thousands)	270,595	273,161	270,946	271,623	272,145	272,778	273,518	274,201

Table 8.8B.—Motor Vehicle Output

[Billions of dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Motor vehicle output	313.3	342.9	306.1	345.3	325.0	330.9	355.0	360.5
Auto output	130.5	127.1	133.0	143.5	121.2	122.7	128.7	135.7
Truck output ¹	182.8	215.8	173.2	201.9	203.8	208.2	226.3	224.8
Final sales of domestic product	312.3	332.6	301.5	329.0	319.3	329.3	339.2	342.6
Personal consumption expenditures	228.9	249.6	225.4	241.8	242.0	248.1	251.9	256.5
New motor vehicles	173.3	189.3	166.2	181.5	181.8	188.3	190.1	197.2
Autos	90.6	100.7	86.8	94.3	95.4	100.6	99.7	107.1
Light trucks	82.7	88.6	79.3	87.2	86.3	87.6	90.4	90.2
Net purchases of used autos	55.5	60.3	59.2	60.3	60.2	59.8	61.8	59.3
Private fixed investment	139.2	161.0	132.3	150.7	153.8	157.1	169.8	163.0
New motor vehicles	175.4	199.6	166.9	187.6	190.8	196.4	210.6	200.6
Autos	76.7	79.3	71.0	79.2	76.3	80.5	82.8	77.4
Trucks	98.7	120.3	96.0	108.5	114.5	115.9	127.7	123.2
Light trucks	64.1	78.8	60.3	69.7	74.4	75.7	85.4	79.8
Other	34.7	41.5	35.7	38.8	40.1	40.2	42.3	43.3
Net purchases of used autos	-36.3	-38.6	-34.6	-36.9	-37.0	-39.3	-40.7	-37.5
Gross government investment	11.9	12.9	10.7	12.9	11.7	10.9	13.2	15.8
Autos	3.8	4.2	3.7	4.1	3.8	3.7	4.3	5.1
New trucks	8.1	8.7	7.0	8.8	8.0	7.2	8.9	10.7
Net exports	-67.7	-90.9	-66.9	-76.5	-88.3	-86.8	-95.7	-92.7
Exports	26.7	26.1	23.8	26.3	24.6	27.0	25.1	27.8
Autos	16.2	16.6	14.7	17.2	15.6	17.7	15.5	17.5
Trucks	10.5	9.6	9.1	9.2	9.0	9.3	9.6	10.3
Imports	94.3	117.0	90.7	102.8	112.9	113.8	120.8	120.5
Autos	79.4	96.6	75.8	86.8	94.1	92.0	100.2	100.1
Trucks	15.0	20.4	14.9	16.0	18.8	21.8	20.7	20.4
Change in private inventories	1.0	10.2	4.6	16.3	5.7	1.6	15.8	17.9
Autos	3.3	1.2	8.0	12.1	.9	-8.4	5.4	7.0
New	2.6	1.1	11.0	11.9	.2	-6.1	4.1	6.2
Domestic	1.0	-.2	11.7	9.5	.2	-7.7	3.5	3.4
Foreign	1.6	1.2	-.7	2.4	0	1.6	.6	2.8
Used .....	.7	-.1	-3.0	-.1	7	-2.3	1.3	.8
New trucks	-2.3	9.0	-3.4	4.2	4.8	10.0	10.4	11.0
Domestic	-2.1	8.5	-1.7	4.2	3.6	10.4	11.3	8.7
Foreign	-.1	.5	-1.7	0	1.2	-.4	-1.0	2.2
Addenda:								
Final sales of motor vehicles to domestic purchasers	379.9	423.5	368.4	405.5	407.6	416.1	434.9	435.4
Private fixed investment in new autos and new light trucks	140.8	158.1	131.3	148.8	150.7	156.2	168.3	157.2
Domestic output of new autos ²	114.2	117.1	116.3	122.8	114.0	114.0	121.7	118.8
Sales of imported new autos ³	71.2	80.9	66.8	76.7	74.7	79.8	80.9	88.4

Table 8.9B.—Real Motor Vehicle Output

[Billions of chained (1996) dollars]

	1998	1999	Seasonally adjusted at annual rates					
			1998		1999			
			III	IV	I	II	III	IV
Motor vehicle output	315.7	345.4	305.7	348.6	329.0	335.7	355.8	361.1
Auto output	132.3	129.8	131.9	147.2	125.1	127.4	129.8	137.0
Truck output ¹	183.4	215.0	173.8	201.4	203.4	207.8	225.4	223.6
Final sales of domestic product	314.8	335.6	302.1	331.8	322.4	333.1	342.2	344.5
Personal consumption expenditures	230.9	251.4	225.9	244.3	245.2	251.3	252.8	256.2
New motor vehicles	173.2	189.5	165.8	181.3	181.9	188.8	190.3	197.0
Autos	91.2	102.2	87.3	95.0	96.6	102.2	101.4	108.7
Light trucks	81.9	87.3	78.5	86.2	85.3	86.6	88.9	88.4
Net purchases of used autos	57.6	61.7	60.1	63.0	63.2	62.4	62.4	59.0
Private fixed investment	139.0	160.5	132.1	150.1	152.3	156.0	170.0	163.6
New motor vehicles	177.5	201.4	168.8	188.7	192.2	198.2	212.7	202.5
Autos	77.3	80.4	71.4	79.8	77.2	81.7	84.2	78.6
Trucks	100.3	121.0	97.5	109.0	115.0	116.6	128.5	123.9
Light trucks	66.1	81.2	62.4	71.2	76.3	77.9	88.1	82.5
Other	34.1	39.9	35.0	37.7	38.8	38.8	40.6	41.4
Net purchases of used autos	-38.4	-40.8	-36.6	-38.5	-39.8	-42.1	-42.4	-38.6
Gross government investment	11.9	12.8	10.7	12.8	11.7	10.8	13.1	15.6
Autos	3.6	4.1	3.6	4.0	3.7	3.5	4.1	4.9
New trucks	8.2	8.7	7.1	8.8	8.0	7.3	8.9	10.8
Net exports	-66.9	-88.7	-66.5	-75.3	-86.3	-84.7	-93.3	-90.7
Exports	26.1	25.3	23.2	25.7	23.9	26.2	24.3	26.7
Autos	16.0	16.2	14.8	16.9	15.3	17.4	15.2	17.0
Trucks	10.1	9.0	8.8	8.8	8.6	8.8	9.1	9.7
Imports	93.0	114.0	89.7	101.1	110.2	110.8	117.6	117.4
Autos	78.3	94.3	75.1	85.4	92.0	89.7	97.7	97.7
Trucks	14.7	19.7	14.6	15.6	18.2	21.2	19.9	19.6
Change in private inventories	1.0	9.6	3.6	16.6	6.4	2.5	13.3	16.2
Autos	3.4	.7	7.2	12.9	1.7	-7.9	3.3	5.7
New	2.6	.6	10.2	12.6	1.0	-5.4	1.9	4.9
Domestic	1.1	-.7	11.0	10.4	1.0	-7.0	1.3	2.0
Foreign	1.5	1.2	-.7	2.2	-.1	1.5	.7	2.8
Used .....	.8	-.1	-3.2	-.1	.8	-2.5	1.3	.8
New trucks	-2.2	8.2	-3.2	3.9	4.5	9.2	9.4	9.9
Domestic	-2.0	7.7	-1.6	3.9	3.3	9.6	10.2	7.9
Foreign	-.1	.5	-1.7	0	1.1	-.4	-.9	2.0
Residual	-3	.7	-.4	.1	-.1	.9	.3	.5
Addenda:								
Final sales of motor vehicles to domestic purchasers	381.7	424.7	368.7	407.2	409.2	418.1	436.0	435.6
Private fixed investment in new autos and new light trucks	143.3	161.4	133.7	150.9	153.3	159.4	172.1	160.9
Domestic output of new autos ²	114.6	117.8	115.6	123.8	115.4	115.9	121.3	118.8
Sales of imported new autos ³	71.7	82.1	67.1	77.3	75.5	81.0	82.2	89.8

1. Except for exports and imports, consists of new trucks only.
 2. Consists of final sales and change in private inventories of new autos assembled in the United States.
 3. Consists of personal consumption expenditures, private fixed investment, and gross government investment.

1. Except for exports and imports, consists of new trucks only.
 2. Consists of final sales and change in private inventories of new autos assembled in the United States.
 3. Consists of personal consumption expenditures, private fixed investment, and gross government investment.
 NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive. The residual line is the difference between the first line and the sum of the most detailed lines, excluding the lines in the addenda.
 Chain-type quantity indexes for the series in this table are shown in table 7.18B.

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 January 31, 2000 and include "preliminary" estimates for December 1999 and "revised" estimates for October and November 1999.

Table B.1.—Personal Income

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

	1998	1999 ^p	1998		1999											
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^r	Nov. ^r	Dec. ^p
Personal income	7,358.9	7,791.2	7,556.5	7,554.5	7,599.0	7,636.4	7,655.3	7,692.7	7,721.8	7,783.3	7,806.0	7,840.0	7,848.1	7,941.3	7,972.5	7,997.9
Wage and salary disbursements	4,186.0	4,472.7	4,301.1	4,318.8	4,350.7	4,377.9	4,385.8	4,410.4	4,432.1	4,455.4	4,491.4	4,508.2	4,528.5	4,556.7	4,570.5	4,604.4
Private industries	3,493.2	3,746.3	3,598.4	3,614.0	3,637.6	3,661.7	3,667.7	3,690.7	3,711.3	3,731.9	3,764.2	3,777.6	3,795.6	3,821.2	3,832.8	3,862.9
Goods-producing industries	1,038.7	1,082.6	1,056.4	1,059.7	1,060.4	1,063.8	1,064.4	1,070.2	1,074.8	1,080.4	1,089.8	1,087.3	1,093.6	1,101.4	1,101.0	1,104.2
Manufacturing	757.5	779.9	765.5	765.2	766.3	767.2	767.5	770.5	774.9	779.0	786.0	785.2	788.0	793.7	789.8	790.6
Distributive industries	944.6	1,005.5	970.9	975.0	981.3	989.7	987.8	993.4	996.4	1,003.1	1,009.8	1,013.1	1,017.3	1,018.8	1,021.0	1,034.7
Service industries	1,509.9	1,658.1	1,571.1	1,579.3	1,596.0	1,608.2	1,615.5	1,627.1	1,640.0	1,648.4	1,664.6	1,677.2	1,684.6	1,700.9	1,710.8	1,724.0
Government	692.8	726.4	702.8	704.8	713.1	716.1	718.1	719.8	720.8	723.5	727.2	730.7	732.9	735.5	737.7	741.5
Other labor income	515.7	535.8	522.1	523.6	526.1	528.1	529.8	531.3	533.0	534.8	536.7	538.6	540.3	542.0	543.8	545.7
Proprietors' income with IVA and CCAAdj	606.1	658.0	655.3	634.0	637.3	641.6	640.9	648.4	646.6	670.8	653.7	657.8	650.6	683.9	691.8	672.4
Farm	25.1	31.3	60.0	33.7	33.6	33.7	30.1	30.1	27.3	45.0	23.5	21.4	18.0	45.1	46.2	21.3
Nonfarm	581.0	626.7	595.3	600.3	603.7	608.0	610.8	618.4	619.4	625.8	630.2	636.4	632.5	638.8	645.6	651.1
Rental income of persons with CCAAdj	137.4	146.1	150.9	146.7	147.6	148.8	149.3	148.6	147.3	150.5	144.9	143.6	128.5	148.5	150.1	145.9
Personal dividend income	348.3	364.3	351.9	353.2	354.6	356.0	357.6	359.3	361.2	363.0	364.9	367.0	369.0	371.1	373.1	375.2
Personal interest income	897.8	930.6	906.3	906.2	905.8	906.8	909.6	914.3	921.0	926.2	932.4	938.8	945.3	950.8	955.8	960.3
Transfer payments to persons	983.6	1,018.2	991.1	995.1	1,004.7	1,006.6	1,012.0	1,011.3	1,013.0	1,016.4	1,017.8	1,022.6	1,023.6	1,027.8	1,027.2	1,035.5
Old-age, survivors, disability, and health insurance benefits	578.1	596.6	580.0	583.7	587.4	588.6	590.5	592.0	592.5	594.5	596.8	599.4	600.8	604.2	602.6	609.4
Government unemployment insurance benefits	19.8	20.2	20.9	20.6	20.4	20.4	20.7	20.4	20.1	20.4	20.2	20.4	20.1	19.8	19.7	19.5
Other	385.7	401.5	390.2	390.7	396.9	397.5	400.8	398.9	400.3	401.5	400.8	402.8	402.8	403.8	405.0	406.6
Less: Personal contributions for social insurance	315.9	334.5	322.2	323.1	327.7	329.3	329.6	331.1	332.3	333.7	335.7	336.6	337.8	339.3	339.8	341.6

^p Preliminary.

^r Revised.

CCAAdj 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]

	1998	1999 ^p	1998		1999											
			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	7,358.9	7,791.2	7,556.5	7,554.5	7,599.0	7,636.4	7,655.3	7,692.7	7,721.8	7,783.3	7,806.0	7,840.0	7,848.1	7,941.3	7,972.5	7,997.9
Less: Personal tax and nontax payments	1,072.6	1,152.0	1,113.7	1,122.8	1,124.0	1,128.3	1,122.2	1,129.3	1,139.4	1,149.5	1,159.5	1,151.0	1,170.7	1,175.7	1,181.2	1,192.6
Equals: Disposable personal income	6,286.2	6,639.2	6,442.8	6,431.7	6,475.0	6,508.1	6,533.1	6,563.5	6,582.4	6,633.8	6,646.5	6,689.0	6,677.4	6,765.6	6,791.3	6,805.3
Less: Personal outlays	6,056.6	6,480.9	6,179.5	6,228.3	6,256.6	6,309.0	6,365.4	6,390.6	6,425.6	6,459.6	6,485.7	6,537.7	6,571.0	6,610.2	6,653.9	6,705.7
Personal consumption expenditures	5,848.6	6,254.9	5,962.8	6,010.5	6,038.0	6,089.3	6,145.0	6,168.4	6,202.1	6,231.8	6,259.1	6,309.9	6,342.2	6,379.8	6,421.3	6,472.6
Durable goods	698.2	758.1	718.4	734.8	721.4	741.9	753.8	745.0	752.0	757.8	753.1	765.7	766.6	767.0	783.7	789.7
Nondurable goods	1,708.8	1,841.1	1,742.9	1,754.6	1,771.2	1,790.6	1,801.6	1,818.3	1,826.3	1,829.8	1,836.4	1,854.9	1,870.4	1,883.5	1,892.4	1,917.4
Services	3,441.5	3,655.7	3,501.4	3,521.1	3,545.4	3,566.8	3,589.6	3,605.1	3,623.8	3,644.1	3,669.5	3,689.2	3,705.1	3,729.3	3,745.2	3,765.5
Interest paid by persons	185.7	201.6	193.4	194.4	195.2	196.2	196.9	197.6	198.9	203.3	202.1	203.3	204.4	205.3	207.6	208.0
Personal transfer payments to the rest of the world (net)	22.3	24.4	23.3	23.3	23.5	23.5	23.5	24.6	24.6	24.6	24.5	24.5	24.5	25.1	25.1	
Equals: Personal saving	229.7	158.3	263.3	203.4	218.4	199.1	167.8	172.9	156.8	174.2	160.8	151.4	106.4	155.4	137.3	99.6
Addenda:																
Disposable personal income:																
Billions of chained (1996) dollars ¹	6,125.1	6,367.4	6,252.9	6,234.3	6,261.2	6,291.1	6,315.5	6,308.3	6,328.2	6,380.9	6,377.8	6,403.5	6,373.3	6,443.6	6,461.3	6,464.0
Per capita:																
Current dollars	23,231	24,305	23,719	23,663	23,808	23,915	23,989	24,082	24,131	24,299	24,323	24,455	24,390	24,692	24,767	24,802
Chained (1996) dollars	22,636	23,310	23,020	22,937	23,022	23,117	23,190	23,245	23,200	23,372	23,340	23,411	23,280	23,516	23,563	23,558
Population (thousands)	270,595	273,160	271,633	271,803	271,965	272,136	272,335	272,551	272,711	273,011	273,260	273,520	273,773	274,005	274,209	274,388
Personal consumption expenditures:																
Billions of chained (1996) dollars	5,698.6	5,998.7	5,787.0	5,826.1	5,838.6	5,886.3	5,940.3	5,928.6	5,962.6	5,994.2	6,006.0	6,040.5	6,053.3	6,076.1	6,109.3	6,148.0
Durable goods	731.5	815.1	762.5	779.2	766.7	791.1	808.6	796.6	806.4	815.3	810.8	826.0	826.9	828.8	847.9	856.7
Nondurable goods	1,685.3	1,774.6	1,714.7	1,721.6	1,732.3	1,752.8	1,763.6	1,755.4	1,765.1	1,770.5	1,771.9	1,782.6	1,783.3	1,793.1	1,804.0	1,820.4
Services	3,284.5	3,416.8	3,314.6	3,331.2	3,344.2	3,349.3	3,376.2	3,383.2	3,398.3	3,416.2	3,430.3	3,440.3	3,451.3	3,462.4	3,467.7	3,481.8
Implicit price deflator, 1996=100	102.63	104.27	103.04	103.17	103.42	103.45	103.45	104.05	104.02	103.96	104.21	104.46	104.77	105.00	105.11	105.28
Personal saving as percentage of disposable personal income ²	3.7	2.4	4.1	3.2	3.4	3.1	2.6	2.6	2.4	2.6	2.4	2.3	1.6	2.3	2.0	1.5
Percent change from preceding period, monthly changes at monthly rates																
Personal income, current dollars	5.9	5.9	1.0	0	0.6	0.5	0.2	0.5	0.4	0.8	0.3	0.4	0.1	1.2	0.4	0.3
Disposable personal income:																
Current dollars	5.1	5.6	1.0	-.2	.7	.5	.4	.5	.3	.8	.2	.6	-.2	1.3	.4	-.2
Chained (1996) dollars	4.1	4.0	1.0	-.3	.4	.5	.4	-.1	-.3	.8	0	.4	-.5	1.1	.3	0
Personal consumption expenditures:																
Current dollars	5.9	6.9	-.2	.8	.5	.9	.9	.9	.5	.5	.4	.8	.5	.6	.7	.8
Chained (1996) dollars	4.9	5.3	-.2	.7	-.2	.8	.9	-.4	.6	.5	.2	.6	.2	.4	.5	.6

^p Preliminary.

^r Revised.

1. Disposable personal income in chained (1996) 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 December 1999 SURVEY OF CURRENT BUSINESS; they are consistent with the 1999 comprehensive revision.

“Table B.3.—Gross Domestic Product by Industry, Current-Dollar and Real Estimates” is not published in this issue. The table will be published when the estimates of gross domestic product by industry are revised to incorporate the results of the most recent comprehensive revision of the NIPAs. An article presenting the revised estimates of gross domestic product by industry is scheduled to be published in the May 2000 SURVEY.

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

	Billions of dollars			Billions of chained (1996) dollars			Billions of dollars			Billions of chained (1996) dollars		
	1996	1997	1998	1996	1997	1998	1996	1997	1998	1996	1997	1998
Personal consumption expenditures	5,237.5	5,524.4	5,848.6	5,237.5	5,433.7	5,698.6						
Food and tobacco	834.1	866.3	907.4	834.1	846.2	866.2						
Food purchased for off-premise consumption (n.d.)	476.7	489.5	509.4	476.7	480.5	494.0						
Purchased meals and beverages ¹ (n.d.)	300.5	318.5	334.7	300.5	309.8	317.6						
Food furnished to employees (including military) (n.d.)	8.2	8.5	8.8	8.2	8.3	8.4						
Food produced and consumed on farms (n.d.)	5	5	5	5	5	5						
Tobacco products (n.d.)	48.2	49.3	54.0	48.2	47.1	45.8						
Addenda: Food excluding alcoholic beverages (n.d.)	689.1	715.2	745.2	689.1	699.7	716.5						
Alcoholic beverages purchased for off-premise consumption (n.d.)	56.1	58.3	61.3	56.1	57.4	60.0						
Other alcoholic beverages (n.d.)	40.7	43.5	46.9	40.7	42.0	44.1						
Clothing, accessories, and jewelry	333.3	348.2	367.9	333.3	348.8	375.8						
Shoes (n.d.)	38.8	40.0	41.6	38.8	40.1	42.0						
Clothing and accessories except shoes ²	219.5	230.9	244.4	219.5	230.7	249.8						
Women's and children's (n.d.)	140.8	147.7	155.6	140.8	148.0	160.6						
Men's and boys' (n.d.)	78.6	83.2	88.8	78.6	82.7	89.2						
Standard clothing issued to military personnel (n.d.)	3	3	3	3	3	3						
Cleaning, storage, and repair of clothing and shoes (s.)	12.7	13.5	13.4	12.7	13.2	12.9						
Jewelry and watches (d.)	40.3	41.2	44.0	40.3	42.8	47.7						
Other ³ (s.)	21.7	22.3	24.0	21.7	21.8	23.2						
Personal care	71.6	76.1	80.5	71.6	75.1	78.2						
Toilet articles and preparations (n.d.)	48.0	50.6	53.8	48.0	50.5	52.9						
Barbershops, beauty parlors, and health clubs (s.)	23.5	25.5	26.8	23.5	24.6	25.4						
Housing	772.5	809.8	855.9	772.6	786.5	805.6						
Owner-occupied nonfarm dwellings space rent ⁴ (s.)	555.4	585.5	622.6	555.4	569.0	586.6						
Tenant-occupied nonfarm dwellings rent ⁵ (s.)	180.6	186.0	193.6	180.6	180.9	182.6						
Rental value of farm dwellings (s.)	6.2	6.4	6.6	6.2	6.0	5.9						
Other ⁶ (s.)	30.2	31.9	33.1	30.2	30.6	30.5						
Household operation	589.2	617.5	646.5	589.2	611.2	643.7						
Furniture, including mattresses and bedspreads (d.)	50.9	54.1	57.0	50.9	54.2	57.2						
Kitchen and other household appliances ⁷ (d.)	30.0	30.9	32.3	30.0	31.0	32.9						
China, glassware, tableware and utensils (d.)	25.4	27.1	29.2	25.4	27.3	28.9						
Other durable house furnishings ⁸ (d.)	50.5	53.4	57.6	50.5	51.5	57.1						
Semidurable house furnishings ⁹ (n.d.)	31.0	32.6	34.6	31.0	33.3	36.2						
Cleaning and polishing preparations, and miscellaneous household supplies and paper products (n.d.)	49.8	51.5	54.3	49.8	51.0	52.9						
Stationery and writing supplies (n.d.)	18.8	20.0	21.3	18.8	19.1	19.9						
Household utilities	185.0	188.6	186.8	185.0	184.6	187.1						
Electricity (s.)	93.3	93.8	95.9	93.3	93.3	93.3						
Gas (s.)	35.5	36.6	32.2	35.5	34.2	30.7						
Water and other sanitary services (s.)	40.7	43.0	45.4	40.7	42.0	42.9						
Fuel oil and coal (n.d.)	15.6	15.2	13.2	15.6	15.1	14.5						
Telephone and telegraph (s.)	97.1	103.9	113.1	97.1	103.7	114.6						
Domestic service (s.)	13.6	13.8	16.0	13.6	13.5	15.2						
Other ¹⁰ (s.)	37.1	41.6	44.2	37.1	40.4	42.1						
Medical care	932.3	977.6	1,032.3	932.3	956.6	987.4						
Drug preparations and sundries ¹¹ (n.d.)	100.3	108.1	116.8	100.3	106.5	112.6						
Ophthalmic products and orthopedic appliances (d.)	17.6	19.4	21.2	17.6	19.1	20.5						
Physicians (s.)	199.1	206.9	219.6	199.1	204.1	212.2						
Dentists (s.)	48.4	52.0	54.8	48.4	49.7	50.2						
Other professional services ¹² (s.)	119.7	125.1	131.8	119.7	120.4	123.8						
Hospitals and nursing homes ¹³	390.8	408.5	428.4	390.8	400.8	410.4						
Hospitals	327.6	341.9	357.1	327.6	336.5	344.3						
Nonprofit (s.)	213.5	221.3	230.6	213.5	216.9	219.8						
Proprietary (s.)	38.7	41.6	43.3	38.7	41.3	42.7						
Government (s.)	75.4	79.0	83.2	75.4	78.3	81.9						
Nursing homes (s.)	63.2	66.7	71.3	63.2	64.3	66.2						
Health insurance	56.6	57.6	59.8	56.6	56.0	57.9						
Medical care and hospitalization ¹⁴ (s.)	45.3	46.9	49.7	45.3	45.0	46.3						
Income loss ¹⁵ (s.)	1.0	1.2	1.4	1.0	1.0	1.1						
Workers' compensation ¹⁶ (s.)	10.3	9.6	8.7	10.3	10.0	10.5						
Personal business	435.1	488.3	528.6	435.1	477.5	505.5						

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, chiropractists, 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 nonprofit 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 commercial life insurance carriers, (2) administrative expenses of private noninsured pension plans and publicly administered government employee retirement plans, and (3) premiums, less benefits and dividends, of fraternal benefit societies. For commercial life insurance carriers, excludes expenses for accident and health insurance and includes profits of stock companies and services furnished without payment by banks, credit agencies, and investment companies. For pension and retirement plans, excludes services furnished without payment by banks, credit agencies, and investment companies.
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.
29. Beginning with 1981, includes U.S. students' expenditures abroad; these expenditures were \$0.3 billion in 1981.
30. Beginning with 1981, includes 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.

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

Table B.5.—Private Fixed Investment in Structures by Type

	Billions of dollars			Billions of chained (1996) dollars		
	1996	1997	1998	1996	1997	1998
Private fixed investment in structures	530.6	575.4	633.2	530.6	556.8	595.8
Nonresidential	225.0	254.1	272.8	225.0	244.0	254.1
New	224.6	252.9	272.6	224.6	242.8	253.9
Nonresidential buildings, excluding farm	158.0	177.1	193.1	158.0	171.6	180.9
Industrial	32.7	31.4	32.3	32.7	30.4	30.2
Commercial	78.7	89.7	100.0	78.7	86.9	93.8
Office buildings ¹	32.4	39.9	48.3	32.4	38.7	45.3
Other ²	46.3	49.8	51.7	46.3	48.2	48.5
Religious	4.4	5.6	6.5	4.4	5.4	6.1
Educational	7.7	9.8	10.8	7.7	9.5	10.2
Hospital and institutional	13.1	15.1	15.2	13.1	14.6	14.3
Other ³	21.4	25.5	28.2	21.4	24.7	26.4
Utilities	36.0	36.5	39.2	36.0	35.7	38.0
Railroads	4.4	4.9	5.3	4.4	4.8	5.1
Telecommunications	11.7	12.6	14.3	11.7	12.4	14.1
Electric light and power	11.3	11.3	11.7	11.3	11.1	11.2
Gas	7.6	6.6	6.6	7.6	6.5	6.3
Petroleum pipelines	1.0	1.0	1.3	1.0	.9	1.2
Farm	3.7	3.8	3.9	3.7	3.7	3.6
Mining exploration, shafts, and wells	21.1	30.0	30.0	21.1	26.4	25.4
Petroleum and natural gas	19.4	28.3	28.0	19.4	24.7	23.5
Other	1.7	1.7	2.0	1.7	1.6	1.9
Other ⁴	5.8	5.5	6.4	5.8	5.3	6.0
Brokers' commissions on sale of structures	1.8	2.0	2.2	1.8	2.0	2.1
Net purchases of used structures	-1.4	-8	-2.0	-1.4	-8	-1.9
Residential	305.6	321.3	360.4	305.6	312.7	341.8
New	269.8	282.1	314.4	269.8	273.8	297.5
New housing units	192.2	200.8	229.1	192.2	194.9	216.7
Permanent site	179.4	187.3	213.9	179.4	181.7	202.0
Single-family structures	159.1	164.4	189.5	159.1	159.8	180.3
Multifamily structures	20.3	22.9	24.5	20.3	21.9	21.8
Manufactured homes	12.8	13.5	15.2	12.8	13.3	14.7
Improvements	77.0	80.5	84.4	77.0	78.1	79.9
Other ⁵ .....	.6	.8	.9	.6	.8	.9
Brokers' commissions on sale of structures	37.5	41.7	49.0	37.5	41.4	47.3
Net purchases of used structures	-1.7	-2.5	-3.0	-1.7	-2.4	-2.9
Residual				0	.2	-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 and of fraternity and sorority houses.

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

Table B.6.—Private Fixed Investment in Equipment and Software by Type

	Billions of dollars			Billions of chained (1996) dollars		
	1996	1997	1998	1996	1997	1998
Private fixed investment in equipment and software	682.1	739.9	826.8	682.1	759.7	879.0
Nonresidential equipment and software	674.4	732.1	818.5	674.4	751.9	870.6
Information processing equipment and software	287.3	315.4	356.9	287.3	339.4	418.5
Computers and peripheral equipment ¹	70.9	76.7	88.5	70.9	99.0	154.2
Software ²	95.1	106.6	123.4	95.1	109.4	129.2
Communication equipment	65.6	73.0	83.6	65.6	73.8	85.9
Instruments	33.3	35.0	36.3	33.3	34.8	36.1
Photocopy and related equipment	14.7	15.8	15.2	14.7	15.7	15.4
Office and accounting equipment	7.8	8.3	9.8	7.8	8.4	9.8
Industrial equipment	136.4	142.3	150.2	136.4	141.3	148.1
Fabricated metal products	13.4	13.2	14.0	13.4	13.1	13.9
Engines and turbines	4.3	3.5	4.3	4.3	3.5	4.2
Metalworking machinery	31.7	35.0	36.4	31.7	34.9	36.0
Special industry machinery, n.e.c.	34.6	35.2	35.7	34.6	34.9	35.0
General industrial, including materials handling, equipment	31.6	33.5	36.8	31.6	33.1	36.1
Electrical transmission, distribution, and industrial apparatus	20.9	21.9	23.0	20.9	21.9	23.0
Transportation equipment	138.9	150.9	176.0	138.9	149.6	175.3
Trucks, buses, and truck trailers	77.9	87.0	97.0	77.9	87.4	98.5
Autos	41.3	41.7	40.5	41.3	40.2	39.0
Aircraft	12.2	14.4	28.0	12.2	14.2	27.5
Ships and boats	2.2	2.2	3.0	2.2	2.2	2.9
Railroad equipment	5.4	5.6	7.5	5.4	5.7	7.6
Other equipment	116.5	128.0	140.5	116.4	126.7	137.9
Furniture and fixtures	27.6	31.2	33.7	27.6	30.7	33.0
Tractors	10.6	11.4	12.1	10.6	11.4	12.0
Agricultural machinery, except tractors	11.4	12.2	12.9	11.4	12.1	12.6
Construction machinery, except tractors	17.3	19.6	22.4	17.3	19.2	21.6
Mining and oilfield machinery	2.8	3.1	4.6	2.8	3.0	4.5
Service industry machinery	14.2	14.4	15.7	14.2	14.2	15.3
Electrical equipment, n.e.c.	10.6	11.6	12.8	10.6	11.8	13.1
Other	21.9	24.5	26.2	21.9	24.3	25.8
Less: Sale of equipment scrap, excluding autos	4.6	4.5	4.9	4.6	4.4	5.7
Residential equipment	7.7	7.9	8.3	7.7	7.9	8.4
Residual				-3	-2.7	-15.9
Addenda:						
Private fixed investment in equipment and software	682.1	739.9	826.8			
Less: Dealers' margin on used equipment	7.0	7.4	8.3			
Net purchases of used equipment from government .....	.8	.9	.9			
Plus: Net sales of used equipment	38.4	38.9	40.7			
Net exports of used equipment .....	.4	.4	.7			
Sale of equipment scrap	4.7	4.6	5.0			
Equals: Private fixed investment in new equipment and software	717.7	775.7	864.2			

1. Includes new computers and peripheral equipment only.

2. Excludes software "embedded," or bundled, in computers and other equipment.

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

Table B.7.—Compensation and Wage and Salary Accruals by Industry [Millions of dollars]

Table with 15 columns: Industry, Compensation (1996, 1997, 1998), Wage and salary accruals (1996, 1997, 1998). Rows include Total, Domestic industries, Private industries, Agriculture, Mining, Construction, Manufacturing, and various sub-industries.

1. Reflects the reclassification of air couriers from trucking and warehousing to transportation by air.
2. Consists of museums, botanical and zoological gardens; engineering and management services; and services, not elsewhere classified.
3. Includes Coast Guard.
4. Includes estimates of foreign professional workers and undocumented Mexican migratory workers employed temporarily in the United States.

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 B.17 of the December 1999 SURVEY OF CURRENT BUSINESS.

Table B.8.—Employment by Industry

[Thousands]

	Full-time and part-time employees			Persons engaged in production ¹				Full-time and part-time employees			Persons engaged in production ¹		
	1996	1997	1998	1996	1997	1998		1996	1997	1998	1996	1997	1998
Total	127,009	130,085	133,378	123,824	126,757	129,549							
Domestic industries	127,494	130,617	133,917	124,240	127,213	130,011							
Private industries	105,559	108,583	111,702	105,912	108,798	111,461							
Agriculture, forestry, and fishing	2,048	2,137	2,193	3,338	3,321	3,338							
Farms	832	876	880	1,827	1,814	1,705							
Agricultural services, forestry, and fishing	1,216	1,261	1,313	1,511	1,507	1,633							
Mining	582	601	593	586	603	601							
Metal mining	54	54	49	56	54	49							
Coal mining	99	97	93	97	95	93							
Oil and gas extraction	321	340	340	326	345	349							
Nonmetallic minerals, except fuels	108	110	111	107	109	110							
Construction	5,671	5,964	6,297	6,950	7,254	7,603							
Manufacturing	18,579	18,770	18,935	18,576	18,774	18,944							
Durable goods	10,838	11,061	11,277	10,911	11,134	11,355							
Lumber and wood products	801	819	840	856	862	896							
Furniture and fixtures	506	513	535	521	530	544							
Stone, clay, and glass products	546	555	566	561	563	569							
Primary metal industries	708	710	714	706	706	710							
Fabricated metal products	1,453	1,485	1,517	1,447	1,481	1,514							
Industrial machinery and equipment	2,117	2,175	2,217	2,096	2,173	2,216							
Electronic and other electric equipment	1,660	1,693	1,709	1,655	1,682	1,699							
Motor vehicles and equipment	968	984	999	961	977	997							
Other transportation equipment	821	858	899	820	855	902							
Instruments and related products	854	865	872	849	860	864							
Miscellaneous manufacturing industries	404	404	409	439	445	444							
Nondurable goods	7,741	7,709	7,658	7,665	7,640	7,589							
Food and kindred products	1,697	1,694	1,694	1,664	1,676	1,672							
Textile mill products	41	41	40	40	40	39							
Apparel and other textile products	874	829	770	880	830	775							
Paper and allied products	683	685	679	678	677	672							
Printing and publishing	1,564	1,579	1,594	1,535	1,562	1,576							
Chemicals and allied products	1,033	1,036	1,042	1,025	1,023	1,028							
Petroleum and coal products	139	137	137	138	135	136							
Rubber and miscellaneous plastics products	981	998	1,016	971	988	1,004							
Leather and leather products	99	92	87	102	89	85							
Transportation and public utilities	6,293	6,467	6,671	6,318	6,473	6,648							
Transportation	4,063	4,176	4,336	4,181	4,284	4,433							
Railroad transportation	223	220	216	211	208	205							
Local and interurban passenger transit	440	457	473	445	481	486							
Trucking and warehousing ²	1,659	1,708	1,777	1,853	1,879	1,954							
Water transportation	177	183	185	174	179	185							
Transportation by air ²	1,119	1,141	1,200	1,050	1,068	1,124							
Public utilities	2,230	2,291	2,335	2,137	2,189	2,215							
Electric, gas, and sanitary services	1,568	1,578	1,578	1,568	1,568	1,568							
Telephone and telegraph	662	713	757	569	621	647							
Radio and television	412	418	432	386	386	402							
Electric, gas, and sanitary services	882	870	858	878	865	850							
Pipelines, except natural gas	14	14	14	14	14	14							
Transportation services	431	453	471	434	455	465							
Communications	1,348	1,421	1,477	1,259	1,324	1,365							
Telephone and telegraph	936	1,003	1,045	873	938	963							
Radio and television	412	418	432	386	386	402							
Electric, gas, and sanitary services	882	870	858	878	865	850							
Wholesale trade	6,560	6,746	6,923	6,587	6,735	6,919							
Retail trade	22,256	22,636	23,006	19,851	20,258	20,419							
Finance, insurance, and real estate	7,053	7,256	7,539	7,310	7,424	7,636							
Depository institutions	2,017	2,031	2,046	1,923	1,925	1,933							
Nondepository institutions	514	575	664	507	564	645							
Security and commodity brokers	881	830	681	646	679	732							
Insurance carriers	1,505	1,527	1,576	1,449	1,463	1,503							
Insurance agents, brokers, and service	746	767	787	871	875	880							
Real estate	1,442	1,481	1,535	1,676	1,684	1,706							
Holding and other investment offices	248	245	250	238	234	237							
Services	36,517	38,006	39,545	36,396	37,956	39,353							
Hotels and other lodging places	1,794	1,833	1,876	1,620	1,665	1,703							
Personal services	1,318	1,326	1,340	1,798	1,789	1,804							
Business services	7,485	8,148	8,793	7,651	8,261	9,000							
Auto repair, services, and parking	1,205	1,248	1,275	1,481	1,511	1,522							
Miscellaneous repair services	389	389	395	569	582	591							
Motion pictures	539	569	592	583	610	644							
Amusement and recreation services	1,590	1,664	1,729	1,400	1,485	1,496							
Health services	9,813	10,038	10,197	9,167	9,402	9,503							
Legal services	1,064	1,084	1,113	1,145	1,200	1,231							
Educational services	2,113	2,179	2,262	1,962	2,003	2,092							
Social services and membership organizations	4,759	4,949	5,154	4,618	4,816	4,991							
Social services	2,515	2,620	2,750	2,752	2,879	2,992							
Membership organizations	2,244	2,329	2,404	1,866	1,937	1,999							
Other services ³	3,202	3,346	3,539	3,574	3,798	3,894							
Private households	1,246	1,233	1,280	828	834	882							
Government	21,935	22,034	22,215	18,328	18,415	18,550							
Federal	5,387	5,268	5,196	4,378	4,272	4,218							
General government	4,397	4,276	4,200	3,575	3,477	3,416							
Civilian	1,951	1,900	1,878	1,913	1,870	1,845							
Military ⁴	2,446	2,376	2,322	1,662	1,607	1,571							
Government enterprises	990	992	996	803	795	802							
State and local	16,548	16,766	17,019	13,950	14,143	14,332							
General government	15,704	15,933	16,181	13,079	13,282	13,466							
Education	8,522	8,716	8,896	6,887	7,054	7,184							
Other	7,182	7,217	7,285	6,192	6,228	6,282							
Government enterprises	844	833	838	871	861	866							
Rest of the world ⁵	-485	-532	-539	-416	-456	-462							

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

2. Reflects the reclassification of air couriers from trucking and warehousing to transportation by air.

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

4. Includes Coast Guard.

5. 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

	Wage and salary accruals per full-time equivalent			Full-time equivalent employees ¹				Wage and salary accruals per full-time equivalent			Full-time equivalent employees ¹		
	Dollars			Thousands				Dollars			Thousands		
	1996	1997	1998	1996	1997	1998		1996	1997	1998	1996	1997	1998
Total	32,040	33,428	35,112	113,300	116,213	119,317							
Domestic industries	31,963	33,339	35,021	113,716	116,669	119,779							
Private industries	31,384	32,825	34,594	95,388	98,254	101,229							
Agriculture, forestry, and fishing	19,324	20,333	20,730	1,789	1,839	1,972							
Farms	19,893	20,037	21,516	713	751	754							
Agricultural services, forestry, and fishing	18,946	20,537	20,244	1,076	1,088	1,218							
Mining	48,680	50,428	52,465	571	589	581							
Metal mining	48,500	49,481	51,469	54	54	49							
Coal mining	48,742	49,621	50,857	97	95	91							
Oil and gas extraction	52,365	54,372	56,571	315	333	333							
Nonmetallic minerals, except fuels	37,657	39,346	41,611	105	107	108							
Construction	31,631	32,924	34,524	5,444	5,752	6,074							
Manufacturing	37,158	38,965	40,928	18,168	18,350	18,513							
Durable goods	39,038	40,804	42,715	10,664	10,880	11,100							
Lumber and wood products	26,148	27,448	28,272	782	792	817							
Furniture and fixtures	26,068	27,641	28,979	497	501	523							
Stone, clay, and glass products	34,880	35,708	37,088	532	544	558							
Primary metal industries	40,771	42,033	43,080	703	705	709							
Fabricated metal products	33,968	35,155	36,292	1,426	1,461	1,493							
Industrial machinery and equipment	41,668	44,133	46,454	2,074	2,141	2,181							
Electronic and other electric equipment	40,307	42,838	45,840	1,645	1,673	1,689							
Motor vehicles and equipment	48,773	49,669	51,908	959	975	990							
Other transportation equipment	45,520	47,215	48,776	815	850	891							
Instruments and related products	46,859	48,635	51,663	842	851	858							
Miscellaneous manufacturing industries	28,776	30,594	32,072	389	387	391							
Nondurable goods	34,486	36,286	38,254	7,504	7,470	7,413							
Food and kindred products	30,567	31,891	33,506	1,654	1,651	1,648							
Tobacco products	54,975	59,450	57,590	40	40	39							
Textile mill products	25,019	26,376	27,312	624	612	593							
Apparel and other textile products	19,832	20,861	22,180	846	803	745							
Paper and allied products	40,718	42,177	43,349	677	674	671							
Printing and publishing	35,897	37,427	39,481	1,444	1,465	1,478							
Chemicals and allied products	53,303	56,772	60,096	1,021	1,019	1,023							
Petroleum and coal products	56,188	60,037	64,215	138	135	135							
Rubber and miscellaneous plastics products	30,898	32,253	33,691	965	982	997							
Leather and leather products	23,589	25,281	26,345	95	89	84							
Transportation and public utilities	39,355	40,897	42,717	5,884	6,037	6,219							
Transportation	33,197	34,439	35,621	3,783	3,886	4,034							
Railroad transportation	54,706	56,505	56,322	211	208	205							
Local and interurban passenger transit	20,811	21,189	21,981	402	418	432							
Trucking and warehousing ²	30,351	31,753	32,934	1,551	1,596	1,660							
Water transportation	38,934	40,421	42,341	166	171	173							
Transportation by air ²	37,238	38,705	40,095	1,043	1,063	1,118							
Pipelines, except natural gas	58,286	59,929	60,500	14	14	14							
Transportation services	31,523	32,805	34,688	396	416	432							
Communications	50,496	52,620	56,177	1,229	1,293	1,341							
Telephone and telegraph	54,581	56,223	59,544	854	913	949							
Radio and television	41,195	43,963	48,026	375	380	392							
Electric, gas, and sanitary services	50,367	52,484	55,246	872	858	844							
Wholesale trade	39,283	41,166	43,549	6,280	6,458	6,627							
Retail trade	18,774	19,496	20,508	18,383	18,759	19,065							
Finance, insurance, and real estate	45,268	48,176	52,210	6,637	6,796	7,027							
Depository institutions	36,201	38,255	40,976	1,920	1,924	1,929							
Nondepository institutions	43,226	46,535	52,437	492	548	630							
Security and commodity brokers	114,948	118,606	127,467	557	601	646							
Insurance carriers	43,732	46,002	48,878	1,449	1,463	1,503							
Insurance agents, brokers, and service	39,852	41,974	43,547	707	724	739							
Real estate	29,810	31,936	34,882	1,274	1,302	1,343							
Holding and other investment offices	68,357	75,855	84,262	238	234	237							
Services	29,791	31,118	32,746	32,232	33,674	35,151							
Hotels and other lodging places	20,705	21,537	22,696	1,561	1,603	1,649							
Personal services	18,267	19,330	20,279	1,163	1,161	1,176							
Business services	27,724	29,651	32,224	6,876	7,526	8,181							
Auto repair, services, and parking	23,073	23,797	24,860	1,136	1,182	1,214							
Miscellaneous repair services	29,170	30,214	31,717	358	360	368							
Motion pictures	37,052	39,685	40,833	421	447	467							
Amusement and recreation services	24,474	25,477	27,183	1,294	1,360	1,394							
Health services	34,598	35,531	36,820	8,778	8,989	9,104							
Legal services	50,636	57,042	59,740	945	963	997							
Educational services	25,213	26,187	27,230	1,844	1,898	1,983							
Social services and membership organizations	20,373	20,759	21,289	4,065	4,239	4,428							
Social services	18,403	18,970	19,637	2,199	2,302	2,429							
Membership organizations	22,696	22,886	23,297	1,866	1,937	1,999							
Other services ³	47,098	49,035	51,592	2,963	3,112	3,308							
Private households	14,112	14,067	15,467	828	834	882							
Government	34,974	36,082	37,349	18,328	18,415	18,550							
Federal	40,101	41,511	42,628	4,378	4,272	4,218							
General government	39,190	40,288	41,587	3,575	3,477	3,416							
Civilian	44,587	45,517	47,144	1,913	1,870	1,845							
Military ⁴	32,978	34,205	35,060	1,662	1,607	1,571							
Government enterprises	44,156	46,860	47,061	803	795	802							
State and local	33,365	34,442	35,796	13,950	14,143	14,332							
General government	33,242	34,307	35,666	13,079	13,282	13,466							
Education	33,176	34,133	35,503	6,887	7,054	7,184							
Other	33,314	34,505	35,852	6,192	6,228	6,282							
Government enterprises	35,220	36,516	37,812	871	861	866							
Rest of the world⁵				-416	-456	-462							

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. Reflects the reclassification of air couriers from trucking and warehousing to transportation by air.
 3. Consists of museums, botanical and zoological gardens; engineering and management services; and services,

not elsewhere classified.
 4. Includes Coast Guard.
 5. 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 (1996) dollars		
	1996	1997	1998	1996	1997	1998
	Farm output	222.6	226.2	214.2	222.6	237.3	237.9
Cash receipts from farm marketings	201.2	208.7	198.2	201.2	218.7	220.3
Crops	108.3	112.1	103.7	108.3	121.2	121.8
Livestock	93.0	96.5	94.5	93.0	97.5	98.7
Farm housing	6.2	6.4	6.6	6.2	6.0	5.9
Farm products consumed on farms .....	.5	.5	.5	.5	.5	.5
Other farm income	6.8	7.8	8.6	6.8	8.2	9.6
Change in farm inventories	7.9	2.8	.3	7.9	3.0	.9
Crops	9.0	3.1	.9	9.0	3.4	1.7
Livestock	-1.1	-4	-6	-1.1	-4	-7
Less: Intermediate goods and services purchased	130.4	138.1	134.1	130.4	134.7	137.4
Intermediate goods and services, other than rent	114.3	122.1	119.0	114.3	119.2	121.9
Rent paid to nonoperator landlords	16.1	16.0	15.1	16.1	15.5	15.5
Equals: Gross farm product	92.2	88.0	80.2	92.2	103.1	100.5
Less: Consumption of fixed capital	25.4	26.2	27.1	25.4	25.8	26.3
Equals: Net farm product	66.8	61.9	53.1	66.8	77.7	74.2
Less: Indirect business tax and nontax liability	5.0	5.2	5.3			
Plus: Subsidies to operators	6.2	6.3	10.7			
Equals: Farm national income	68.1	63.0	58.6			
Compensation of employees	16.6	17.5	18.6			
Wage and salary accruals	14.2	15.0	16.2			
Supplements to wages and salaries	2.4	2.4	2.4			
Proprietors' income and corporate profits with inventory valuation and capital consumption adjustments	42.0	35.5	29.2			
Proprietors' income	34.3	29.5	25.1			
Corporate profits	7.7	6.0	4.1			
Net interest	9.5	10.1	10.8			

NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive.

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

	Billions of dollars			Billions of chained (1996) dollars		
	1996	1997	1998	1996	1997	1998
	Housing output ¹	742.3	777.9	822.8	742.3	755.9	775.2
Nonfarm housing	736.1	771.5	816.2	736.1	749.9	769.3
Owner-occupied	555.4	585.5	622.6	555.4	569.0	586.6
Tenant-occupied	180.6	186.0	193.6	180.6	180.9	182.6
Farm housing	6.2	6.4	6.6	6.2	6.0	5.9
Less: Intermediate goods and services consumed	94.4	103.9	116.8	94.4	100.1	110.0
Equals: Gross housing product	647.9	673.9	705.9	648.0	655.8	665.1
Nonfarm housing	642.8	668.6	700.4	642.8	650.8	660.2
Owner-occupied	482.3	505.7	531.5	482.3	491.9	500.9
Tenant-occupied	160.5	162.9	169.0	160.5	158.9	159.4
Farm housing	5.1	5.3	5.5	5.1	5.0	4.9
Less: Consumption of fixed capital	119.6	126.2	131.9	119.6	122.5	125.7
Capital consumption allowances	63.6	67.6	71.9			
Less: Capital consumption adjustment	-56.0	-58.6	-60.0			
Equals: Net housing product	528.4	547.7	574.0	528.4	533.2	539.4
Less: Indirect business tax and nontax liability plus business transfer payments	118.9	123.4	127.9			
Plus: Subsidies less current surplus of government enterprises	23.3	23.9	23.9			
Equals: Housing national income	432.8	448.3	470.0			
Compensation of employees	8.4	9.0	9.6			
Proprietors' income with inventory valuation adjustment and capital consumption adjustment	22.6	21.6	22.0			
Rental income of persons with capital consumption adjustment	111.2	111.5	119.3			
Corporate profits with inventory valuation adjustment and capital consumption adjustment	4.7	4.7	4.9			
Net interest	285.7	301.6	314.2			

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

NOTE.—Chained (1996) dollar series are calculated as the product of the chain-type quantity index and the 1996 current-dollar value of the corresponding series, divided by 100. Because the formula for the chain-type quantity indexes uses weights of more than one period, the corresponding chained-dollar estimates are usually not additive.

“Table B.12.—Net Stock of Fixed Private Capital, by Type” is not published in this issue. The table will be published when the estimates of fixed assets and consumer durable goods are revised to incorporate the results of the most recent comprehensive revision of the NIPA's. An article presenting the revised estimates of fixed assets and consumer durable goods is scheduled to be published in the April 2000 SURVEY.

C. Historical Measures

This table is derived from the "GDP and Other Major NIPA Series" tables that were published in the December 1999 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 (1996) dollars			Percent change from preceding period		Chain-type price indexes		Implicit price deflators		Percent change from preceding period			
	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	Chain-type price index		Implicit price deflators	
										Gross domestic product	Gross domestic purchases	Gross domestic product	Gross national product
1959	2,300.0	2,298.4	2,315.7			22.06	21.57	22.06	22.04				
1960	2,357.2	2,359.0	2,374.4	2.5	2.6	22.37	21.87	22.37	22.35	1.4	1.4	1.4	1.4
1961	2,412.1	2,415.5	2,430.9	2.3	2.4	22.62	22.10	22.62	22.60	1.1	1.1	1.1	1.1
1962	2,557.6	2,548.1	2,578.8	6.0	5.5	22.93	22.40	22.93	22.91	1.4	1.3	1.4	1.4
1963	2,668.2	2,661.4	2,690.7	4.3	4.4	23.18	22.67	23.19	23.16	1.1	1.2	1.1	1.1
1964	2,822.7	2,820.2	2,847.0	5.8	6.0	23.53	23.02	23.54	23.51	1.5	1.6	1.5	1.5
1965	3,002.8	2,982.7	3,028.3	6.4	5.8	23.98	23.44	23.98	23.96	1.9	1.8	1.9	1.9
1966	3,199.5	3,163.3	3,223.7	6.6	6.1	24.66	24.10	24.67	24.64	2.9	2.9	2.9	2.9
1967	3,279.5	3,259.4	3,304.3	2.5	3.0	25.43	24.80	25.43	25.41	3.1	2.9	3.1	3.1
1968	3,435.6	3,419.5	3,462.2	4.8	4.9	26.52	25.87	26.53	26.50	4.3	4.3	4.3	4.3
1969	3,543.2	3,527.6	3,568.8	3.1	3.2	27.81	27.11	27.81	27.78	4.8	4.8	4.8	4.8
1970	3,549.4	3,559.7	3,574.7	-.2	-.9	29.29	28.57	29.29	29.26	5.3	5.4	5.3	5.3
1971	3,660.2	3,650.5	3,688.8	3.1	2.6	30.83	30.12	30.83	30.80	5.3	5.4	5.3	5.3
1972	3,854.2	3,843.3	3,885.2	5.3	5.3	32.18	31.50	32.18	32.15	4.4	4.6	4.4	4.4
1973	4,073.1	4,043.9	4,114.7	5.2	5.2	34.01	33.37	34.02	33.98	5.7	5.9	5.7	5.7
1974	4,061.7	4,043.4	4,108.0	-3	0	36.94	36.65	36.96	36.92	8.6	9.8	8.6	8.6
1975	4,050.3	4,083.9	4,086.5	-3	1.0	40.37	39.99	40.37	40.34	9.3	9.1	9.2	9.3
1976	4,262.6	4,239.6	4,306.3	5.2	3.8	42.78	42.37	42.79	42.75	6.0	6.0	6.0	6.0
1977	4,455.7	4,422.8	4,505.2	4.5	4.3	45.58	45.31	45.59	45.55	6.5	6.9	6.5	6.5
1978	4,709.9	4,672.4	4,758.8	5.7	5.6	48.74	48.49	48.75	48.71	6.9	7.0	6.9	6.9
1979	4,870.1	4,852.4	4,935.6	3.4	3.9	52.69	52.67	52.70	52.66	8.1	8.6	8.1	8.1
1980	4,872.3	4,899.2	4,936.2	0	1.0	57.39	58.10	57.38	57.35	8.9	10.3	8.9	8.9
1981	4,993.9	4,962.5	5,050.8	2.5	1.3	62.71	63.36	62.70	62.68	9.3	9.1	9.3	9.3
1982	4,900.3	4,935.6	4,956.4	-1.9	-5	66.51	66.94	66.51	66.49	6.1	5.7	6.1	6.1
1983	5,105.6	5,127.5	5,160.6	4.2	3.9	69.23	69.37	69.24	69.21	4.1	3.6	4.1	4.1
1984	5,477.4	5,400.5	5,528.7	7.3	5.3	71.80	71.78	71.80	71.77	3.7	3.5	3.7	3.7
1985	5,689.8	5,671.6	5,726.3	3.9	5.0	74.05	73.87	74.05	74.02	3.1	2.9	3.1	3.1
1986	5,885.7	5,885.9	5,908.4	3.4	3.8	75.67	75.52	75.66	75.63	2.2	2.2	2.2	2.2
1987	6,092.6	6,068.2	6,112.2	3.5	3.1	77.84	77.94	77.84	77.81	2.9	3.2	2.9	2.9
1988	6,349.1	6,333.4	6,373.7	4.2	4.4	80.46	80.57	80.46	80.44	3.4	3.4	3.4	3.4
1989	6,568.7	6,542.4	6,594.7	3.5	3.3	83.56	83.71	83.56	83.54	3.9	3.9	3.9	3.9
1990	6,683.5	6,671.3	6,718.1	1.7	2.0	86.84	87.14	86.83	86.81	3.9	4.1	3.9	3.9
1991	6,669.2	6,674.2	6,696.9	-2	0	89.76	89.90	89.76	89.76	3.4	3.2	3.4	3.4
1992	6,991.1	6,878.7	6,915.8	3.3	3.1	91.70	91.90	91.70	91.71	2.2	2.2	2.2	2.2
1993	7,054.1	7,035.3	7,080.3	2.4	2.3	94.17	94.24	94.16	94.16	2.7	2.5	2.7	2.7
1994	7,337.8	7,275.9	7,355.5	4.0	3.4	96.14	96.18	96.14	96.13	2.1	2.1	2.1	2.1
1995	7,537.1	7,505.5	7,558.0	2.7	3.2	98.19	98.28	98.19	98.19	2.1	2.2	2.1	2.1
1996	7,813.2	7,783.2	7,831.2	3.7	3.7	100.00	100.00	100.00	100.00	1.8	1.7	1.8	1.8
1997	8,165.1	8,095.7	8,168.8	4.5	4.0	101.66	101.39	101.66	101.67	1.7	1.4	1.7	1.7
1998	8,516.3	8,441.3	8,506.0	4.3	4.3	102.86	102.14	102.86	102.87	1.2	.7	1.2	1.2
1999	8,861.0	8,813.7	8,861.0	4.0	4.4	104.32	103.65	104.37	104.37	1.4	1.5	1.5	1.5
1959: I	2,254.4	2,256.3	2,269.3			21.97	21.48	22.01	21.98				
1959: II	2,313.3	2,295.8	2,328.3	10.9	7.2	22.02	21.53	22.01	21.99	.8	.8	.1	.1
1959: III	2,312.4	2,325.0	2,328.4	-2	5.2	22.08	21.59	22.06	22.04	1.1	1.1	.9	.9
1959: IV	2,320.0	2,316.4	2,336.9	1.3	-1.5	22.17	21.68	22.16	22.14	1.7	1.7	1.8	1.8
1960: I	2,371.4	2,340.9	2,387.7	9.1	4.3	22.22	21.72	22.26	22.24	.9	.8	1.8	1.8
1960: II	2,359.7	2,363.1	2,376.4	-1.9	3.8	22.32	21.82	22.34	22.31	1.7	1.8	1.4	1.4
1960: III	2,364.1	2,360.5	2,381.4	.7	-4	22.42	21.92	22.42	22.39	1.8	1.8	1.4	1.4
1960: IV	2,333.7	2,371.4	2,351.8	-5.0	1.9	22.52	22.02	22.48	22.45	1.8	1.9	1.1	1.1
1961: I	2,347.2	2,373.2	2,366.3	2.3	.3	22.55	22.04	22.54	22.51	.5	.4	1.0	1.0
1961: II	2,391.1	2,398.5	2,409.4	7.7	4.3	22.59	22.07	22.58	22.55	.7	.5	.8	.8
1961: III	2,430.4	2,417.7	2,449.1	6.7	3.2	22.64	22.12	22.64	22.62	.9	.9	1.1	1.1
1961: IV	2,479.8	2,472.6	2,499.0	8.4	9.4	22.70	22.17	22.72	22.70	1.0	.9	1.4	1.4
1962: I	2,522.9	2,501.5	2,541.9	7.1	4.8	22.83	22.29	22.86	22.84	2.4	2.2	2.5	2.5
1962: II	2,550.2	2,543.2	2,571.0	4.4	6.8	22.90	22.37	22.90	22.87	1.1	1.3	.6	.6
1962: III	2,575.3	2,564.6	2,596.3	4.0	3.4	22.96	22.42	22.95	22.92	1.1	1.0	.9	1.0
1962: IV	2,581.8	2,582.9	2,605.6	1.0	2.9	23.03	22.50	23.02	23.00	1.4	1.4	1.3	1.3
1963: I	2,612.4	2,597.6	2,635.1	4.8	2.3	23.12	22.59	23.10	23.07	1.4	1.6	1.3	1.3
1963: II	2,646.3	2,641.8	2,668.3	5.3	7.0	23.14	22.62	23.13	23.11	.3	.5	.6	.6
1963: III	2,697.2	2,689.5	2,719.6	7.9	7.4	23.17	22.66	23.17	23.14	.6	.7	.6	.6
1963: IV	2,716.8	2,716.8	2,739.8	2.9	4.1	23.31	22.80	23.35	23.32	2.5	2.6	3.2	3.2
1964: I	2,777.3	2,775.9	2,802.3	9.2	9.0	23.39	22.89	23.42	23.39	1.4	1.5	1.2	1.2
1964: II	2,810.2	2,809.7	2,834.3	4.8	5.0	23.47	22.97	23.47	23.45	1.2	1.4	.9	1.0
1964: III	2,848.0	2,844.1	2,872.9	5.5	5.0	23.58	23.07	23.57	23.54	2.0	1.8	1.6	1.6
1964: IV	2,855.3	2,851.1	2,878.6	1.0	1.0	23.69	23.17	23.69	23.66	1.9	1.7	2.0	2.0
1965: I	2,925.1	2,895.4	2,951.4	10.1	6.4	23.80	23.26	23.81	23.79	1.9	1.6	2.1	2.1
1965: II	2,964.4	2,947.7	2,991.5	5.5	7.4	23.91	23.36	23.92	23.89	1.8	1.8	1.8	1.8
1965: III	3,024.6	3,003.4	3,050.1	8.4	7.8	24.02	23.48	24.01	23.99	1.8	1.9	1.5	1.6
1965: IV	3,096.8	3,084.6	3,120.3	9.9	11.3	24.18	23.65	24.18	24.15	2.7	2.9	2.8	2.8
1966: I	3,173.4	3,137.6	3,197.6	10.3	7.1	24.32	23.77	24.34	24.31	2.4	2.2	2.6	2.7
1966: II	3,185.4	3,152.2	3,209.6	1.5	1.9	24.55	24.00	24.53	24.51	3.8	3.8	3.3	3.3
1966: III	3,205.7	3,177.0	3,229.3	2.6	3.2	24.79	24.22	24.79	24.77	4.0	3.7	4.3	4.3
1966: IV	3,233.5	3,186.4	3,258.1	3.5	1.2	25.00	24.41	25.01	24.98	3.5	3.3	3.5	3.5

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 (1996) dollars			Percent change from preceding period		Chain-type price indexes		Implicit price deflators		Percent change from preceding period			
	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	Chain-type price index		Implicit price deflators	
										Gross domestic product	Gross domestic purchases	Gross domestic product	Gross national product
1967: I	3,263.2	3,218.6	3,287.6	3.7	4.1	25.12	24.51	25.11	25.08	1.9	1.6	1.6	1.6
II	3,261.1	3,252.7	3,284.8	-3	4.3	25.28	24.66	25.27	25.24	2.5	2.5	2.5	2.5
III	3,284.6	3,268.5	3,310.4	2.9	1.9	25.52	24.89	25.53	25.51	3.8	3.9	4.3	4.3
IV	3,309.1	3,297.6	3,334.4	3.0	3.6	25.80	25.16	25.82	25.79	4.5	4.3	4.6	4.5
1968: I	3,375.9	3,363.8	3,401.8	8.3	8.3	26.09	25.45	26.11	26.08	4.7	4.7	4.6	4.6
II	3,434.0	3,397.8	3,460.4	7.1	4.1	26.38	25.71	26.38	26.35	4.5	4.2	4.1	4.2
III	3,458.6	3,447.3	3,485.7	2.9	6.0	26.63	25.97	26.63	26.60	3.8	4.1	3.9	3.8
IV	3,473.9	3,469.2	3,500.8	1.8	2.6	26.99	26.33	26.99	26.97	5.6	5.6	5.7	5.6
1969: I	3,529.1	3,506.8	3,556.0	6.5	4.3	27.25	26.56	27.25	27.23	3.8	3.6	3.9	3.9
II	3,539.2	3,522.9	3,565.1	1.1	2.0	27.61	26.92	27.61	27.58	5.4	5.5	5.2	5.2
III	3,560.5	3,541.1	3,585.2	2.4	2.1	28.01	27.30	28.01	27.98	5.9	5.7	5.9	5.9
IV	3,544.0	3,540.8	3,568.8	-1.8	0	28.36	27.65	28.37	28.34	5.2	5.3	5.2	5.2
1970: I	3,539.3	3,551.5	3,564.6	-5	1.2	28.75	28.04	28.77	28.74	5.6	5.8	5.8	5.8
II	3,546.1	3,545.2	3,572.3	-8	-7	29.17	28.43	29.17	29.14	5.9	5.7	5.7	5.7
III	3,576.0	3,576.6	3,602.0	3.4	3.5	29.41	28.71	29.42	29.39	3.4	4.0	3.4	3.4
IV	3,536.1	3,566.5	3,560.1	-4.4	-1.0	29.81	29.11	29.81	29.78	5.5	5.6	5.5	5.5
1971: I	3,631.9	3,608.9	3,660.2	11.3	4.8	30.28	29.56	30.28	30.25	6.5	6.4	6.5	6.5
II	3,649.7	3,631.3	3,679.6	2.0	2.5	30.70	29.98	30.70	30.67	5.7	5.7	5.6	5.6
III	3,675.8	3,660.2	3,703.2	2.9	3.2	31.03	30.33	31.03	31.00	4.3	4.8	4.4	4.4
IV	3,683.5	3,701.8	3,712.4	.8	4.6	31.30	30.60	31.30	31.27	3.5	3.7	3.5	3.5
1972: I	3,755.6	3,760.7	3,785.7	8.1	6.5	31.77	31.06	31.75	31.72	6.1	6.1	5.8	5.9
II	3,840.6	3,819.4	3,870.4	9.4	6.4	31.97	31.29	31.96	31.93	2.6	3.0	2.7	2.7
III	3,877.2	3,852.1	3,909.4	3.9	3.5	32.29	31.63	32.29	32.26	4.1	4.4	4.2	4.2
IV	3,943.3	3,941.0	3,975.5	7.0	9.6	32.68	32.01	32.71	32.67	4.9	4.9	5.2	5.2
1973: I	4,040.9	4,023.9	4,077.8	10.3	8.7	33.14	32.46	33.12	33.09	5.7	5.7	5.2	5.2
II	4,081.4	4,042.6	4,120.6	4.1	1.9	33.69	33.07	33.67	33.64	6.8	7.7	6.9	6.9
III	4,066.8	4,050.4	4,111.8	-1.4	.8	34.32	33.67	34.28	34.24	7.7	7.4	7.4	7.4
IV	4,103.3	4,058.8	4,148.5	3.6	.8	34.89	34.27	34.98	34.94	6.7	7.3	8.4	8.4
1974: I	4,077.5	4,059.9	4,129.7	-2.5	.1	35.55	35.12	35.56	35.53	7.8	10.4	6.8	6.9
II	4,091.8	4,067.1	4,141.1	1.4	.7	36.31	36.09	36.36	36.32	8.8	11.5	9.3	9.3
III	4,048.9	4,054.0	4,093.9	-4.1	-1.3	37.39	37.16	37.41	37.38	12.5	12.4	12.1	12.1
IV	4,028.5	3,992.5	4,067.4	-2.0	-5.9	38.51	38.21	38.52	38.48	12.5	11.8	12.3	12.3
1975: I	3,978.2	4,022.4	4,011.1	-4.9	3.0	39.39	39.04	39.39	39.36	9.4	8.9	9.4	9.5
II	4,012.7	4,068.1	4,046.0	3.5	4.4	39.95	39.61	39.95	39.92	5.8	6.0	5.8	5.8
III	4,080.7	4,100.9	4,116.7	7.0	3.5	40.70	40.30	40.68	40.64	7.7	7.1	7.5	7.5
IV	4,129.4	4,146.3	4,172.1	4.9	4.5	41.43	41.01	41.42	41.39	7.3	7.2	7.5	7.5
1976: I	4,222.1	4,204.9	4,264.0	9.3	5.8	41.92	41.50	41.93	41.89	4.9	4.9	5.0	5.0
II	4,253.6	4,216.5	4,297.2	3.0	1.1	42.40	41.99	42.39	42.35	4.7	4.8	4.5	4.5
III	4,270.8	4,238.6	4,315.1	1.6	2.1	43.02	42.64	43.01	42.97	5.9	6.3	6.0	6.0
IV	4,303.6	4,298.3	4,349.1	3.1	5.8	43.79	43.37	43.81	43.77	7.3	7.0	7.6	7.6
1977: I	4,355.4	4,338.5	4,407.0	4.9	3.8	44.52	44.19	44.52	44.48	6.9	7.8	6.7	6.7
II	4,433.3	4,407.5	4,484.0	7.3	6.5	45.26	44.97	45.26	45.22	6.8	7.3	6.8	6.9
III	4,513.7	4,453.2	4,564.0	7.5	4.2	45.89	45.66	45.80	45.76	5.7	6.3	4.9	4.9
IV	4,520.5	4,491.9	4,565.5	.6	3.5	46.65	46.43	46.73	46.69	6.7	6.9	8.3	8.3
1978: I	4,536.2	4,499.5	4,587.6	1.4	.7	47.40	47.17	47.41	47.36	6.6	6.5	5.9	5.9
II	4,713.6	4,678.9	4,757.1	16.6	16.9	48.32	48.08	48.30	48.26	8.0	8.0	7.8	7.8
III	4,761.7	4,724.8	4,808.9	4.1	4.0	48.15	48.91	48.91	48.98	7.1	7.1	6.9	6.9
IV	4,828.0	4,786.3	4,881.8	5.7	5.3	50.11	49.81	50.08	50.05	8.0	7.5	8.2	8.2
1979: I	4,841.7	4,808.8	4,897.0	1.1	1.9	51.07	50.82	51.03	51.00	7.9	8.3	7.8	7.8
II	4,847.8	4,809.5	4,909.3	.5	.1	52.20	52.00	52.17	52.14	9.2	9.2	9.2	9.3
III	4,885.6	4,881.3	4,958.4	3.2	6.1	53.23	53.28	53.25	53.22	8.1	10.2	8.5	8.5
IV	4,905.4	4,910.3	4,977.4	1.6	2.4	54.27	54.57	54.30	54.27	8.0	10.0	8.2	8.2
1980: I	4,926.8	4,929.1	4,999.5	1.8	1.5	55.44	56.05	55.47	55.44	8.9	11.3	8.9	8.9
II	4,829.0	4,832.7	4,896.2	-7.7	-7.6	56.68	57.44	56.68	56.65	9.3	10.3	9.0	9.0
III	4,823.3	4,896.5	4,886.8	-5	5.4	57.94	58.72	57.92	57.89	9.2	9.2	9.1	9.1
IV	4,910.1	4,938.5	4,962.3	7.4	3.5	59.48	60.18	59.45	59.42	11.0	10.3	11.0	11.0
1981: I	5,003.6	4,956.8	5,060.1	7.8	1.5	61.02	61.74	61.01	60.99	10.7	10.8	10.9	11.0
II	4,969.3	4,967.8	5,022.7	-2.7	.9	62.10	62.84	62.11	62.08	7.3	7.3	7.4	7.4
III	5,030.0	4,976.8	5,086.1	5.0	.7	63.29	63.86	63.29	63.27	7.9	6.6	7.9	7.9
IV	4,972.5	4,948.4	5,034.5	-4.5	-2.3	64.42	64.99	64.42	64.40	7.3	7.2	7.3	7.3
1982: I	4,894.6	4,939.7	4,951.5	-6.1	-7	65.26	65.79	65.25	65.24	5.4	5.0	5.3	5.3
II	4,916.9	4,935.5	4,980.0	1.8	-3	66.09	66.51	66.08	66.06	5.2	4.5	5.2	5.1
III	4,893.5	4,898.2	4,946.8	-1.9	-3.0	67.00	67.39	67.00	66.98	5.6	5.4	5.7	5.7
IV	4,896.1	4,968.2	4,947.2	.2	5.9	67.71	68.07	67.72	67.70	4.3	4.1	4.4	4.4
1983: I	4,948.5	5,011.8	4,999.9	4.3	3.5	68.31	68.51	68.27	68.25	3.6	2.6	3.3	3.3
II	5,063.6	5,086.7	5,118.5	9.6	6.1	68.95	69.12	68.92	68.89	3.8	3.6	3.8	3.8
III	5,152.6	5,172.1	5,208.5	7.2	6.9	69.54	69.68	69.54	69.51	3.5	3.3	3.7	3.7
IV	5,257.6	5,239.4	5,315.6	8.4	5.3	70.14	70.17	70.16	70.13	3.5	2.8	3.6	3.6
1984: I	5,374.1	5,286.2	5,427.1	9.2	3.6	70.96	71.00	70.96	70.93	4.8	4.8	4.6	4.6
II	5,465.9	5,383.2	5,519.0	7.0	7.5	71.54	71.57	71.52	71.50	3.3	3.3	3.2	3.2
III	5,513.6	5,428.7	5,566.1	3.5	3.4	72.10	72.04	72.09	72.06	3.2	2.7	3.2	3.2
IV	5,555.9	5,503.9	5,602.6	3.1	5.7	72.60	72.49	72.60	72.57	2.8	2.5	2.8	2.8
1985: I	5,602.4	5,592.4	5,639.7	3.4	6.6	73.36	73.12	73.36	73.33	4.3	3.5	4.3	4.2
II	5,646.6	5,629.7	5,686.3	3.2	2.7	73.85	73.63	73.85	73.82	2.7	2.8	2.7	2.7
III	5,731.4	5,718.8	5,764.0	6.1	6.5	74.23	74.04	74.20	74.18	2.1	2.2	1.9	1.9
IV	5,778.8	5,745.4	5,815.1	3.4	1.9	74.75	74.69	74.74	74.72	2.8	3.6	2.9	3.0
1986: I	5,831.1	5,801.0	5,862.3	3.7	3.9	75.04	75.02	75.03	75.00	1.6	1.8	1.6	1.6
II	5,856.0	5,845.4	5,877.4	1.7	3.1	75.39	75.16	75.40	75.37	1.9	.7	2.0	1.9
III	5,911.3	5,929.3	5,935.1	3.8	5.9	75.85	75.68	75.84	75.81	2.5	2.8	2.4	2.4
IV	5,944.3	5,967.8	5,959.0	2.2	2.6	76.38	76.23	76.33	76.31	2.8	2.9	2.6	2.6
1987: I	5,990.7	5,962.8	6,007.2	3.2	-3	77.02	77.02	76.99	76.97	3.4	4.2	3.5	3.5
II	6,056.1	6,045.8	6,076.9	4.4	5.7	77.54	77.64	77.54	77.51	2.7	3.3	2.9	2.9
III	6,108.3	6,118.8	6,127.9	3.5	4.9	78.09	78.23	78.09	78.07	2.8	3.1	2.9	2.9
IV	6,215.4	6,145.3	6,237.0	7.2	1.7	78.71	78.86	78.70	78.67	3.2	3.2	3.1	3.1

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 (1996) dollars			Percent change from preceding period		Chain-type price indexes		Implicit price deflators		Percent change from preceding period			
	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	Chain-type price index		Implicit price deflators	
										Gross domestic product	Gross domestic purchases	Gross domestic product	Gross national product
1988: I	6,257.0	6,244.3	6,285.0	2.7	6.6	79.23	79.42	79.22	79.20	2.7	2.9	2.7	2.7
1988: II	6,331.0	6,315.2	6,355.8	4.8	4.6	80.03	80.22	80.03	80.01	4.1	4.1	4.1	4.1
1988: III	6,363.1	6,346.7	6,384.7	2.0	2.0	80.97	80.97	80.96	80.94	4.8	3.8	4.7	4.7
1988: IV	6,445.0	6,427.3	6,469.2	5.2	5.2	81.61	81.69	81.59	81.57	3.2	3.6	3.1	3.2
1989: I	6,522.4	6,471.5	6,546.4	4.9	2.8	82.47	82.61	82.47	82.45	4.3	4.6	4.4	4.4
1989: II	6,556.9	6,520.4	6,579.5	2.1	3.1	83.30	83.51	83.30	83.28	4.1	4.5	4.1	4.1
1989: III	6,586.8	6,582.1	6,612.0	1.8	3.8	83.92	84.01	83.92	83.90	3.0	2.4	3.0	3.0
1989: IV	6,608.7	6,595.6	6,641.0	1.3	.8	84.56	84.71	84.56	84.54	3.1	3.4	3.1	3.1
1990: I	6,689.2	6,678.7	6,719.3	5.0	5.1	85.53	85.79	85.52	85.51	4.7	5.2	4.6	4.7
1990: II	6,705.4	6,671.3	6,737.1	1.0	-.4	86.51	86.57	86.50	86.47	4.7	3.7	4.6	4.6
1990: III	6,695.4	6,675.2	6,721.0	-6	-.2	87.31	87.54	87.30	87.28	3.7	4.6	3.8	3.8
1990: IV	6,643.9	6,659.6	6,695.0	-3.0	-.9	88.03	88.65	88.01	88.00	3.3	5.1	3.3	3.3
1991: I	6,616.2	6,637.3	6,653.9	-1.7	-1.3	88.98	89.27	88.97	88.96	4.4	2.9	4.4	4.4
1991: II	6,658.4	6,682.4	6,683.0	2.6	2.7	89.54	89.63	89.54	89.53	2.6	1.6	2.6	2.6
1991: III	6,680.2	6,684.5	6,700.5	1.3	.1	90.05	90.09	90.06	90.05	2.3	2.1	2.3	2.3
1991: IV	6,721.7	6,692.8	6,750.1	2.5	.5	90.46	90.59	90.46	90.47	1.8	2.2	1.8	1.9
1992: I	6,792.9	6,798.5	6,819.7	4.3	6.5	91.04	91.13	91.03	91.04	2.6	2.4	2.5	2.5
1992: II	6,859.3	6,839.5	6,885.1	4.0	2.4	91.51	91.66	91.51	91.52	2.1	2.3	2.1	2.1
1992: III	6,912.1	6,895.1	6,934.6	3.1	3.3	91.82	92.11	91.81	91.82	1.3	2.0	1.3	1.3
1992: IV	7,000.0	6,981.7	7,023.7	5.2	5.1	92.44	92.70	92.43	92.44	2.7	2.6	2.7	2.7
1993: I	6,989.9	6,951.9	7,019.5	-7	-1.7	93.35	93.44	93.34	93.34	4.0	3.3	4.0	4.0
1993: II	7,024.0	7,001.6	7,049.6	2.1	2.9	93.93	94.06	93.92	93.91	2.5	2.7	2.5	2.5
1993: III	7,050.8	7,046.6	7,082.3	1.5	2.6	94.41	94.45	94.39	94.39	2.0	1.7	2.0	2.0
1993: IV	7,155.0	7,141.1	7,169.8	6.0	5.5	94.97	94.99	94.98	94.97	2.4	2.3	2.5	2.5
1994: I	7,218.5	7,176.3	7,240.1	3.6	2.0	95.42	95.34	95.42	95.42	1.9	1.5	1.9	1.9
1994: II	7,319.8	7,239.8	7,337.0	5.7	3.6	95.85	95.86	95.85	95.85	1.8	2.2	1.8	1.8
1994: III	7,360.5	7,308.9	7,376.6	2.2	3.9	96.41	96.54	96.41	96.40	2.4	2.8	2.4	2.3
1994: IV	7,452.3	7,378.4	7,468.2	5.1	3.9	96.85	96.96	96.85	96.85	1.8	1.8	1.9	1.9
1995: I	7,480.4	7,419.1	7,502.7	1.5	2.2	97.56	97.60	97.55	97.55	2.9	2.7	2.9	2.9
1995: II	7,496.0	7,462.3	7,522.0	.8	2.3	97.96	98.12	97.95	97.95	1.6	2.1	1.7	1.7
1995: III	7,555.0	7,543.4	7,566.7	3.2	4.4	98.39	98.49	98.38	98.38	1.8	1.5	1.8	1.8
1995: IV	7,616.8	7,597.3	7,640.6	3.3	2.9	98.86	98.91	98.85	98.85	1.9	1.7	1.9	1.9
1996: I	7,671.4	7,664.6	7,698.7	2.9	3.6	99.46	99.48	99.45	99.45	2.5	2.3	2.5	2.5
1996: II	7,800.5	7,770.9	7,818.3	6.9	5.7	99.77	99.77	99.77	99.77	1.3	1.2	1.3	1.3
1996: III	7,843.3	7,793.5	7,854.7	2.2	1.2	100.21	100.14	100.20	100.20	1.8	1.5	1.7	1.7
1996: IV	7,937.5	7,903.7	7,953.3	4.9	5.8	100.56	100.62	100.55	100.56	1.4	1.9	1.4	1.4
1997: I	8,033.4	7,981.1	8,038.1	4.9	4.0	101.14	101.09	101.15	101.16	2.4	1.9	2.4	2.4
1997: II	8,134.8	8,042.0	8,144.0	5.1	3.1	101.53	101.23	101.53	101.54	1.5	.6	1.5	1.5
1997: III	8,214.8	8,155.3	8,216.2	4.0	5.8	101.83	101.48	101.82	101.83	1.2	1.0	1.1	1.2
1997: IV	8,277.3	8,204.3	8,277.2	3.1	2.4	102.15	101.76	102.12	102.13	1.3	1.1	1.2	1.2
1998: I	8,412.7	8,307.0	8,414.8	6.7	5.1	102.41	101.79	102.35	102.36	1.0	.1	.9	.9
1998: II	8,457.2	8,410.4	8,456.6	2.1	5.1	102.70	101.99	102.68	102.69	1.1	.8	1.3	1.3
1998: III	8,536.0	8,459.6	8,510.6	3.8	2.4	103.06	102.26	103.07	103.07	1.4	1.1	1.5	1.5
1998: IV	8,659.2	8,588.3	8,641.9	5.9	6.2	103.28	102.51	103.33	103.34	.9	1.0	1.0	1.0
1999: I	8,737.9	8,685.2	8,723.3	3.7	4.6	103.79	102.92	103.83	103.84	2.0	1.6	2.0	2.0
1999: II	8,778.6	8,757.9	8,764.3	1.9	3.4	104.13	103.40	104.19	104.19	1.3	1.9	1.4	1.4
1999: III	8,900.6	8,855.8	8,885.5	5.7	4.5	104.41	103.85	104.46	104.47	1.1	1.7	1.1	1.0
1999: IV	9,026.9	8,955.9	.....	5.8	4.6	104.94	104.44	104.99	.....	2.0	2.3	2.0	.....

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

	1998	1999	1998		1999											
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Consumer and producer prices, (monthly data seasonally adjusted) ¹																
Consumer price index for all urban consumers, 1982=100:																
All items	163.0	166.6	164.2	164.4	164.6	164.7	165.0	166.2	166.2	166.2	166.7	167.2	167.9	168.2	168.4	168.8
Less food and energy	173.4	177.0	175.0	175.6	175.7	175.8	176.0	176.7	176.9	177.0	177.3	177.5	178.1	178.4	178.8	179.0
Services	184.2	188.8	186.0	186.3	186.5	186.9	187.5	188.1	188.3	188.5	189.0	189.3	189.8	190.2	190.9	191.1
Producer price index, 1982=100:																
Finished goods	130.7	133.1	130.7	131.3	131.7	131.1	131.5	132.2	132.4	132.4	132.7	133.4	134.7	134.5	134.8	135.2
Less food and energy	143.7	146.1	144.4	145.9	145.6	145.7	145.6	145.7	145.8	145.6	145.7	145.6	146.6	147.0	147.0	147.2
Finished consumer goods	128.9	132.1	128.9	129.7	130.2	129.5	130.0	130.9	131.2	131.2	131.7	132.6	134.2	133.8	134.3	134.8
Capital equipment	137.6	137.6	137.8	137.7	137.6	137.7	137.5	137.7	137.7	137.4	137.3	137.2	137.6	138.0	137.9	138.1
Intermediate materials	123.0	123.2	121.9	121.1	121.1	120.7	121.1	121.9	122.3	122.7	123.5	124.2	124.7	125.1	125.5	125.8
Crude materials	96.8	98.2	93.8	90.4	90.9	88.8	89.1	91.3	96.9	97.2	97.3	102.2	106.5	104.8	109.0	104.7
Money, interest rates, and stock prices																
Money stock (monthly and quarterly data seasonally adjusted): ²																
Percent change:																
M1			0.79	0.40	-0.21	0.16	0.85	0.58	-0.32	-0.33	-0.14	0.26	-0.81	0.46	0.85	1.54
M2 .....			.89	.85	.55	.47	.22	.74	.40	.37	.47	.49	.42	.43	.46	.76
Ratio:																
Gross domestic product to M1	8.113	8.387	8.225			8.281			8.276			8.460			8.531	
Personal income to M2	1.743	1.717	1.731	1.716	1.717	1.718	1.718	1.714	1.713	1.721	1.718	1.717	1.711	1.724	1.723	1.715
Interest rates (percent, not seasonally adjusted): ²																
Federal funds rate	5.35	4.97	4.83	4.68	4.63	4.76	4.81	4.74	4.74	4.76	4.99	5.07	5.22	5.20	5.42	5.30
Discount rate on new 91-day Treasury bills	4.81	4.66	4.44	4.42	4.34	4.45	4.48	4.28	4.51	4.59	4.60	4.76	4.73	4.88	5.07	5.23
Yield on new high-grade corporate bonds	6.44	7.00	6.42	6.13	6.14	6.33	6.52	6.58	6.86	7.21	7.20	7.36	7.38	7.51	7.35	7.55
10-Year U.S. Treasury bonds	5.26	5.65	4.83	4.65	4.72	5.00	5.23	5.18	5.54	5.90	5.79	5.94	5.92	6.11	6.03	6.28
Yield on municipal bonds, 20-bond average	5.09	5.43	5.03	4.98	5.01	5.03	5.10	5.08	5.18	5.37	5.36	5.58	5.69	5.92	5.86	5.95
Mortgage commitment rate	6.94	7.43	6.87	6.72	6.79	6.81	7.04	6.92	7.15	7.55	7.63	7.94	7.82	7.85	7.74	7.91
Average prime rate charged by banks	8.35	8.00	7.89	7.75	7.75	7.75	7.75	7.75	7.75	7.75	8.00	8.06	8.25	8.25	8.37	8.50
Index of stock prices (not seasonally adjusted): ³																
500 common stocks, 1941-43=10	1,084.31	1,326.06	1,144.43	1,190.05	1,248.77	1,246.58	1,281.66	1,334.76	1,332.07	1,322.55	1,380.99	1,327.49	1,318.17	1,300.01	1,391.00	1,428.68
Labor markets (thousands, monthly and quarterly data seasonally adjusted, unless otherwise noted) ¹																
Civilian labor force	137,673	139,368	138,230	138,545	139,232	139,137	138,804	139,086	139,013	139,332	139,336	139,372	139,475	139,697	139,834	140,108
Labor force participation rates (percent):																
Males 20 and over	76.8	76.7	76.8	76.8	77.0	76.9	76.7	76.7	76.6	76.6	76.6	76.6	76.6	76.5	76.5	76.6
Females 20 and over	60.4	60.7	60.5	60.6	60.9	60.7	60.7	60.8	60.7	60.9	60.7	60.7	60.6	60.7	60.7	60.7
16-19 years of age	52.8	52.0	52.4	52.8	52.4	52.9	52.0	52.0	51.9	51.4	51.8	51.2	51.5	52.1	52.1	52.3
Civilian employment	131,463	133,488	132,156	132,517	133,225	133,029	132,976	133,054	133,190	133,398	133,399	133,530	133,650	133,940	134,098	134,420
Ratio, civilian employment to working-age population (percent)	64.1	64.3	64.1	64.2	64.4	64.3	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.2	64.3	64.4
Persons engaged in nonagricultural activities	128,085	130,207	128,816	129,276	129,928	129,701	129,686	129,713	129,900	130,068	130,121	130,296	130,471	130,702	130,788	131,141
Employees on nonagricultural payrolls	125,826	128,610	126,841	127,186	127,378	127,730	127,813	128,134	128,162	128,443	128,816	128,945	129,048	129,332	129,554	129,869
Goods-producing industries	25,347	25,240	25,298	25,354	25,315	25,329	25,285	25,288	25,199	25,180	25,247	25,148	25,186	25,198	25,260	25,277
Services-producing industries	100,480	103,370	101,543	101,832	102,063	102,401	102,528	102,846	102,963	103,263	103,569	103,797	103,862	104,134	104,294	104,592
Average weekly hours, manufacturing (hours)	41.7	41.7	41.7	41.7	41.6	41.6	41.5	41.6	41.7	41.7	41.9	41.8	41.8	41.8	41.7	41.7
Average weekly overtime hours, manufacturing (hours)	4.6	4.6	4.5	4.5	4.5	4.5	4.5	4.3	4.6	4.7	4.7	4.7	4.7	4.7	4.6	4.7
Number of persons unemployed	6,210	5,880	6,074	6,028	6,007	6,108	5,828	6,032	5,823	5,934	5,937	5,842	5,825	5,757	5,736	5,688
Unemployment rates (percent):																
Total	4.5	4.2	4.4	4.4	4.3	4.4	4.2	4.3	4.2	4.3	4.3	4.2	4.2	4.1	4.1	4.1
15 weeks and over	1.2	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.2	1.1	1.0	1.0	1.0	1.0	1.0
Average duration of unemployment (weeks)	14.5	13.4	14.4	14.0	13.5	13.8	13.6	13.2	13.4	14.3	13.5	13.2	13.0	13.2	13.0	12.8
Nonfarm business sector, 1992=100:																
Output per hour of all persons	110.2		111.5			112.2			112.4			113.8				
Unit labor costs	108.6		109.4			109.8			111.0			110.9				
Hourly compensation	119.7		122.0			123.3			124.7			126.2				

See footnotes at the end of the table.

Table D.1.—Domestic Perspectives—Continued

	1998	1999	1998		1999											
			Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Construction (monthly data seasonally adjusted at annual rates) ⁴																
Total new private construction put in place (billions of dollars)	520.1	547.0	534.7	541.6	543.5	548.7	555.4	547.9	546.9	546.9	546.0	541.8	540.9	543.8	550.5	554.5
Residential	294.3	321.7	306.3	310.3	315.8	318.5	323.1	322.2	321.8	320.9	320.3	319.7	320.0	322.7	325.7	330.5
Nonresidential	181.9	184.0	186.6	190.0	185.8	189.0	189.3	184.4	184.2	182.9	183.3	181.0	180.9	180.8	183.9	183.3
Housing starts (thousands of units):																
Total	1,617	1,663	1,654	1,750	1,820	1,752	1,746	1,577	1,668	1,607	1,680	1,655	1,637	1,642	1,598	1,712
1-unit structures	1,271	1,332	1,375	1,383	1,393	1,380	1,394	1,260	1,389	1,305	1,332	1,289	1,295	1,339	1,299	1,402
New 1-family houses sold (thousands of units)	886	904	985	958	908	909	885	952	914	932	929	912	860	919	861	900
Manufacturing and trade, inventories and sales (millions of dollars, monthly data seasonally adjusted) ⁴																
Inventories:																
Total manufacturing and trade	1,095,042	1,095,041	1,095,042	1,095,209	1,098,308	1,103,619	1,105,654	1,108,901	1,112,311	1,115,790	1,119,251	1,124,016	1,127,772	1,137,494	1,137,494	1,137,494
Manufacturing	466,798	471,000	466,798	464,867	464,198	463,578	463,194	463,742	462,690	465,043	464,351	465,669	467,522	469,656	469,656	469,656
Merchant wholesalers	287,484	285,615	287,484	286,698	288,638	289,360	289,636	290,216	291,367	293,982	295,558	298,469	299,793	302,947	302,947	302,947
Retail trade	340,760	338,426	340,760	343,644	345,472	350,681	352,824	354,943	358,254	356,765	359,342	359,878	360,457	364,891	364,891	364,891
Sales:																
Total manufacturing and trade	9,333,267	788,042	796,583	794,865	803,481	812,055	812,237	821,761	829,593	834,062	844,439	842,647	846,797	857,765	857,765	857,765
Manufacturing	4,052,248	341,423	344,247	341,673	343,724	349,065	347,568	350,624	354,702	357,301	361,844	358,709	360,201	364,518	364,518	364,518
Merchant wholesalers	2,535,008	212,157	215,550	213,597	216,138	219,595	219,921	223,909	227,863	227,293	229,827	231,135	233,048	236,805	236,805	236,805
Retail trade	2,746,011	234,462	236,786	239,595	243,619	243,395	244,748	247,228	247,028	249,468	252,768	252,803	253,548	256,442	256,442	256,442
Industrial production indexes and capacity utilization rates (monthly data seasonally adjusted) ²																
Industrial production indexes, 1992=100:																
Total	132.4	137.2	133.8	133.8	134.1	134.5	135.1	135.5	136.2	136.6	137.4	137.7	138.1	139.4	139.9	140.5
By industry:																
Durable manufactures	160.7	172.8	165.4	166.2	166.3	166.8	168.1	169.4	170.8	172.2	173.8	174.4	175.0	176.4	177.7	177.9
Nondurable manufactures	111.6	111.8	111.6	111.1	111.3	112.3	111.8	111.5	111.9	111.3	111.0	111.5	111.8	113.1	113.6	114.0
By market category:																
Consumer goods	116.2	117.2	115.6	115.1	116.3	117.2	116.7	116.5	116.8	117.0	116.8	117.6	117.1	118.9	118.9	119.1
Capacity utilization rates (percent):																
Total industry	81.8	80.7	80.9	80.6	80.4	80.4	80.5	80.4	80.5	80.5	80.7	80.7	80.6	81.2	81.2	81.3
Manufacturing	80.9	79.8	80.2	79.9	79.6	79.7	79.6	79.5	79.7	79.6	79.7	79.7	79.7	80.2	80.4	80.3
Credit market borrowing (billions of dollars, quarterly data seasonally adjusted at annual rates) ²																
All sectors, by instrument:																
Total	2,126.5	2,334.0	2,334.0	2,334.0	2,519.6	2,519.6	2,519.6	2,519.6	1,893.0	1,893.0	1,893.0	2,240.0	2,240.0	2,240.0	2,240.0	2,240.0
Open market paper	193.1	83.0	83.0	83.0	161.1	161.1	161.1	161.1	34.1	34.1	34.1	187.0	187.0	187.0	187.0	187.0
U.S. government securities	418.3	619.1	619.1	619.1	517.0	517.0	517.0	517.0	467.0	467.0	467.0	570.1	570.1	570.1	570.1	570.1
Municipal securities	96.8	89.6	89.6	89.6	100.7	100.7	100.7	100.7	48.0	48.0	48.0	74.8	74.8	74.8	74.8	74.8
Corporate and foreign bonds	535.6	440.9	440.9	440.9	765.7	765.7	765.7	765.7	564.8	564.8	564.8	380.2	380.2	380.2	380.2	380.2
Bank loans, n.e.c.	145.0	143.0	143.0	143.0	62.1	62.1	62.1	62.1	38.3	38.3	38.3	99.6	99.6	99.6	99.6	99.6
Other loans and advances	158.5	262.7	262.7	262.7	189.8	189.8	189.8	189.8	98.9	98.9	98.9	231.5	231.5	231.5	231.5	231.5
Mortgages	511.4	625.7	625.7	625.7	594.0	594.0	594.0	594.0	581.8	581.8	581.8	621.3	621.3	621.3	621.3	621.3
Consumer credit	67.6	69.9	69.9	69.9	129.2	129.2	129.2	129.2	60.1	60.1	60.1	75.4	75.4	75.4	75.4	75.4

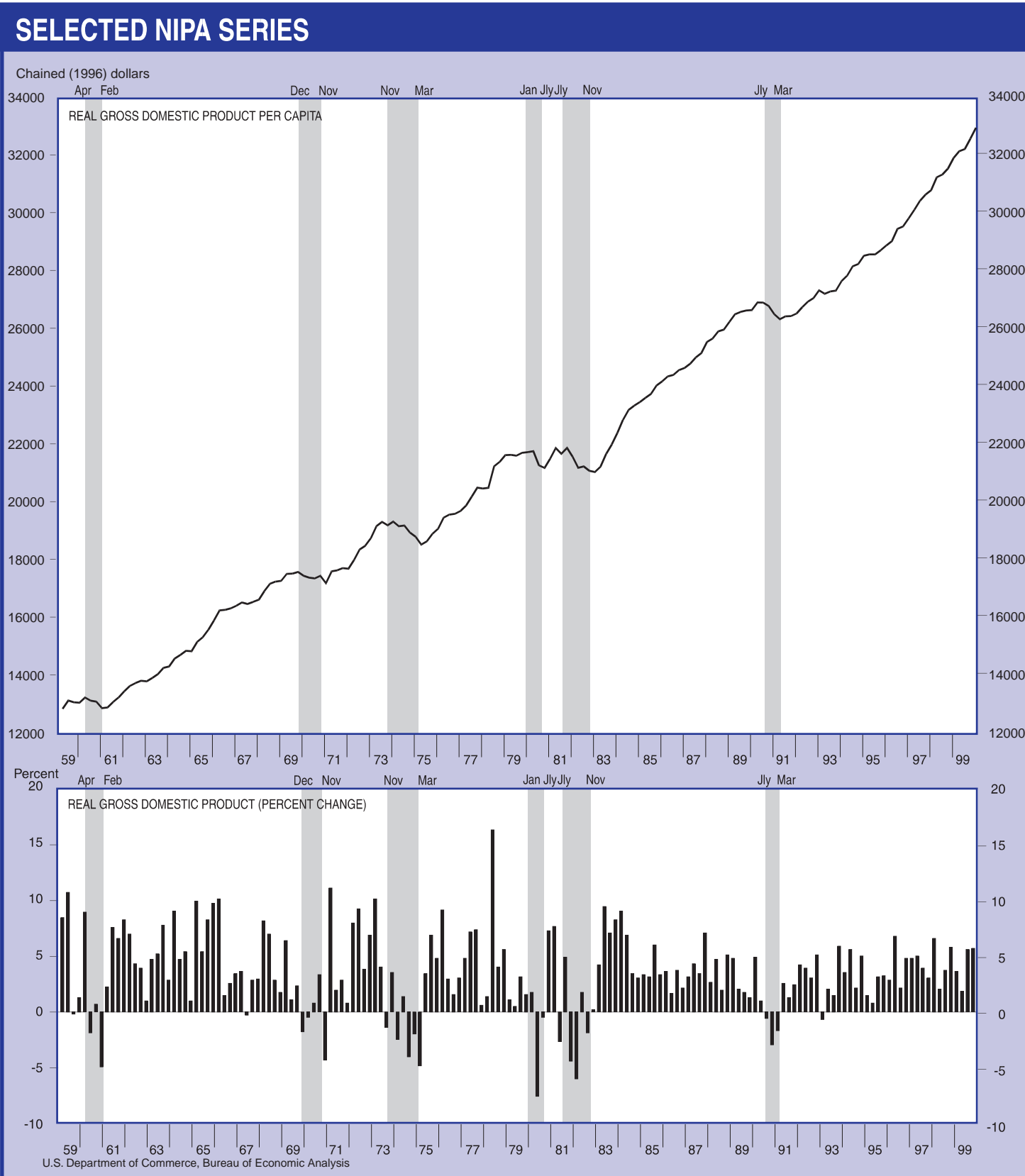
Sources:

1. Bureau of Labor Statistics
2. Federal Reserve Board

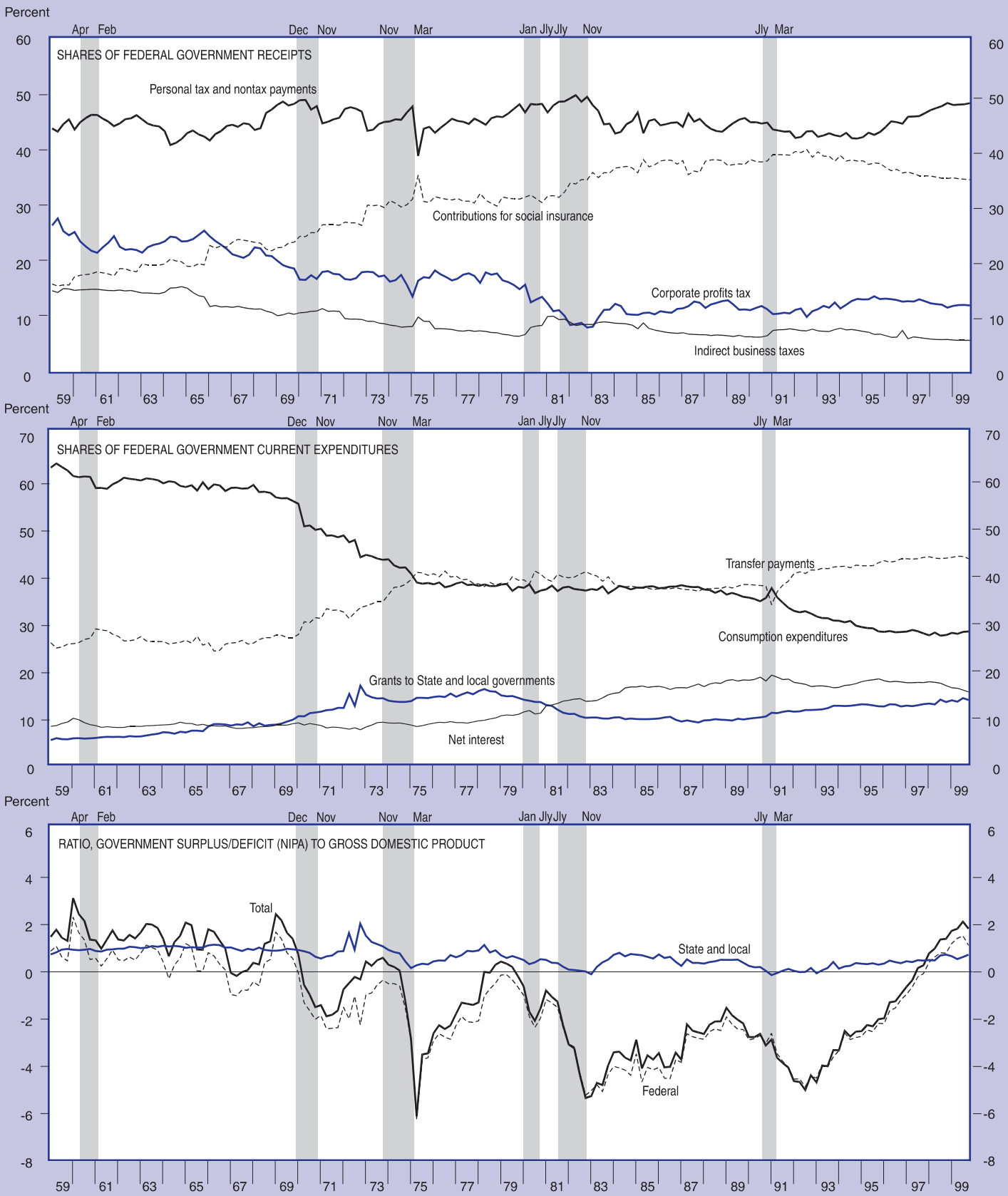
3. Standard and Poor's, Inc.
4. Bureau of the Census
n.e.c. Not elsewhere classified

E. Charts

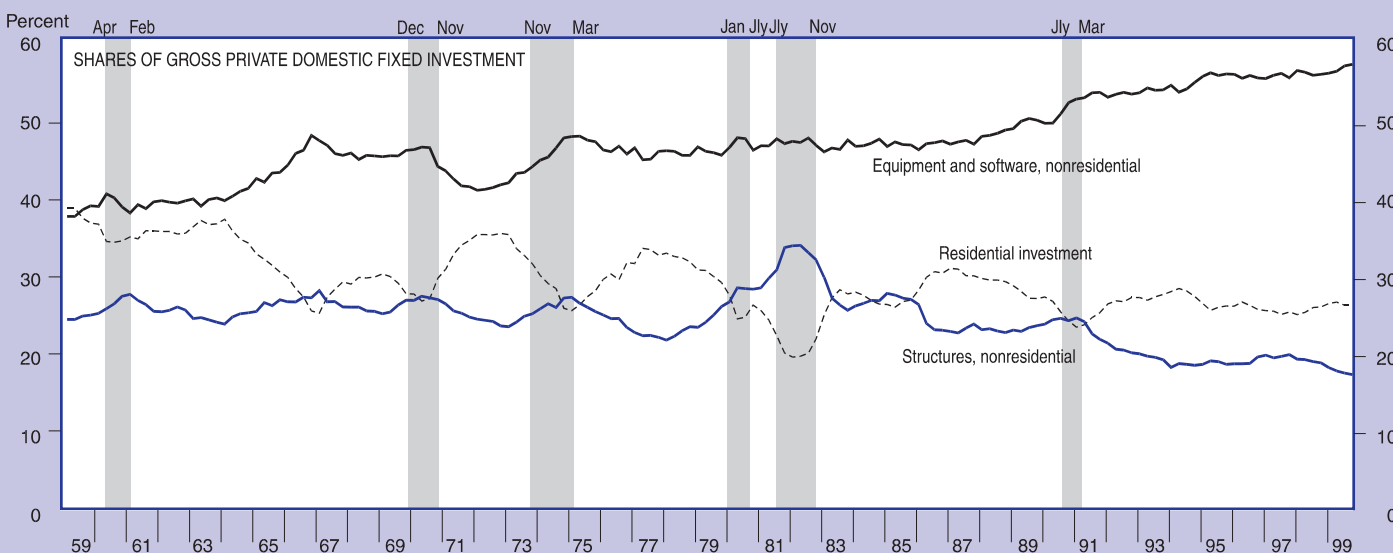
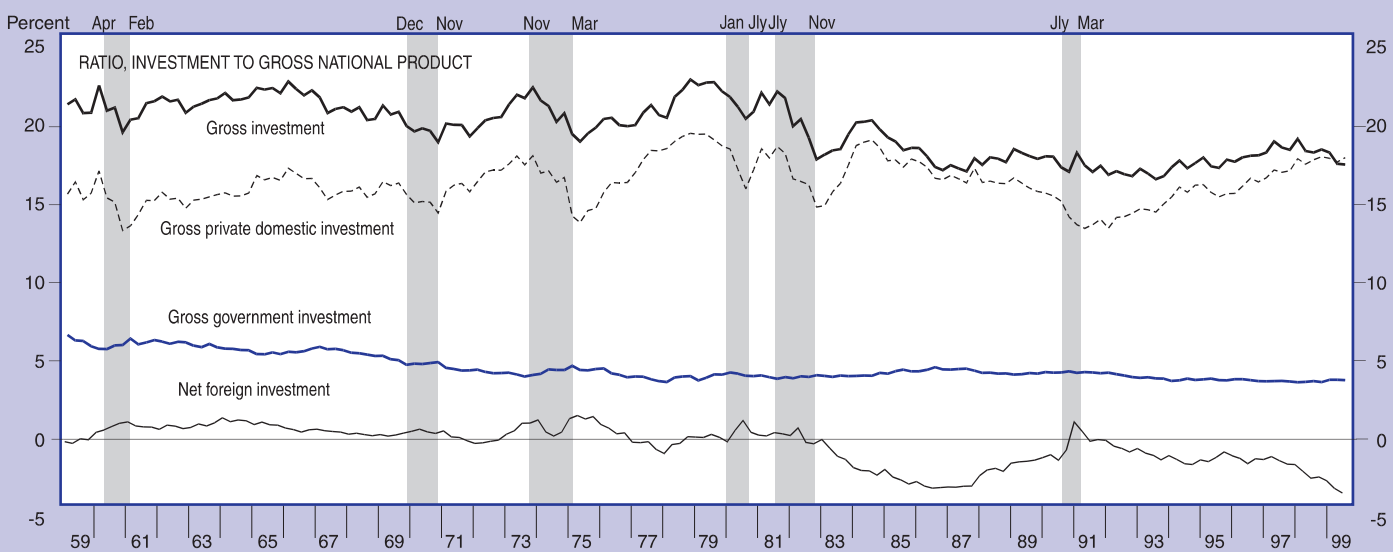
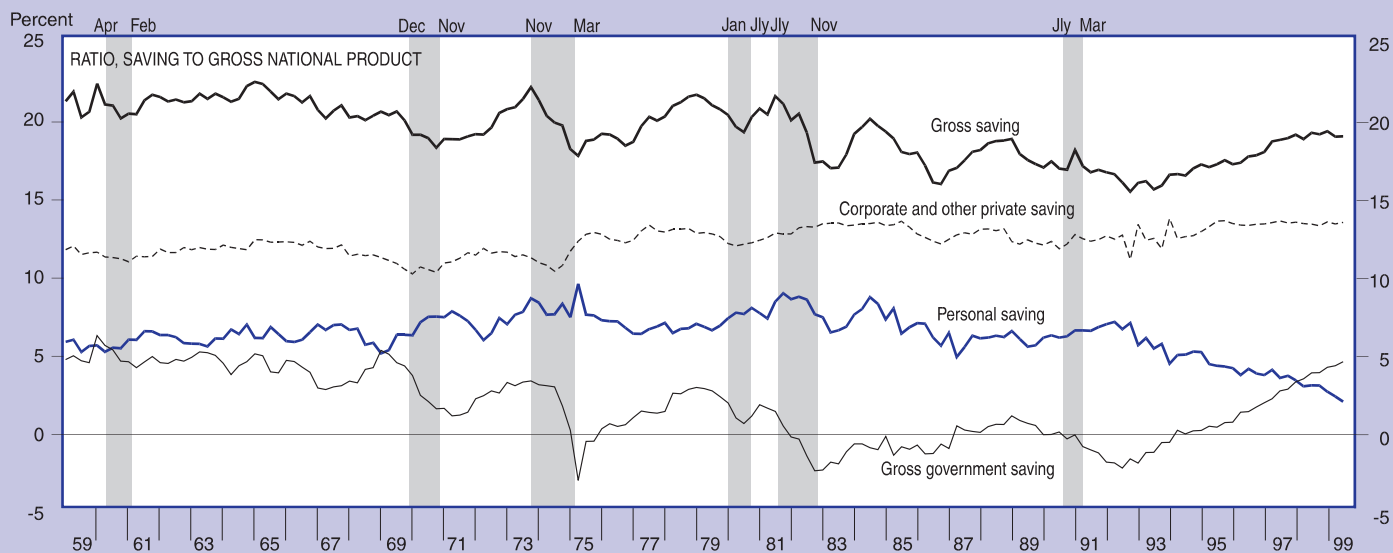
Percent changes shown in this section are based on quarter-to-quarter changes and are expressed at seasonally adjusted annual rates; likewise, levels of series are expressed at seasonally adjusted annual rates as appropriate.



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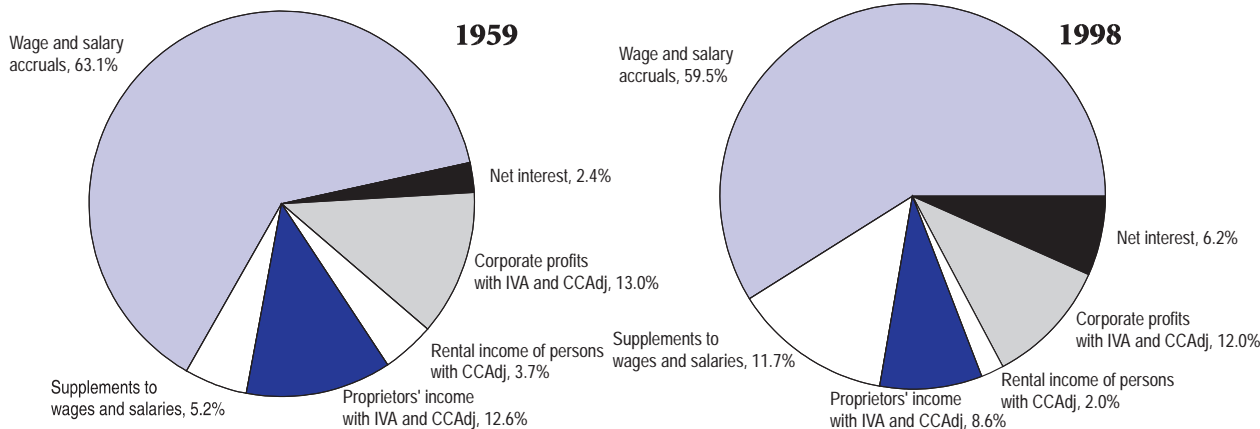


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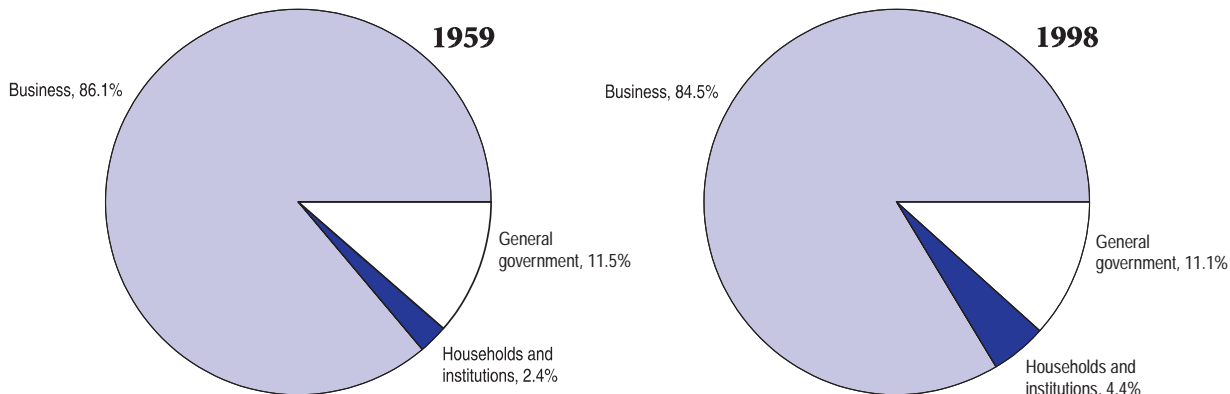


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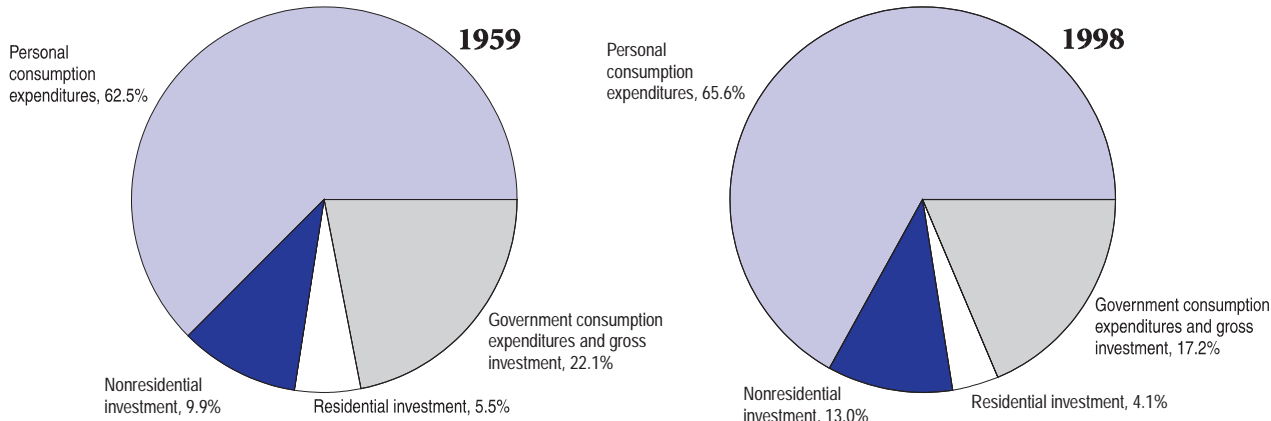
SHARES OF NATIONAL INCOME



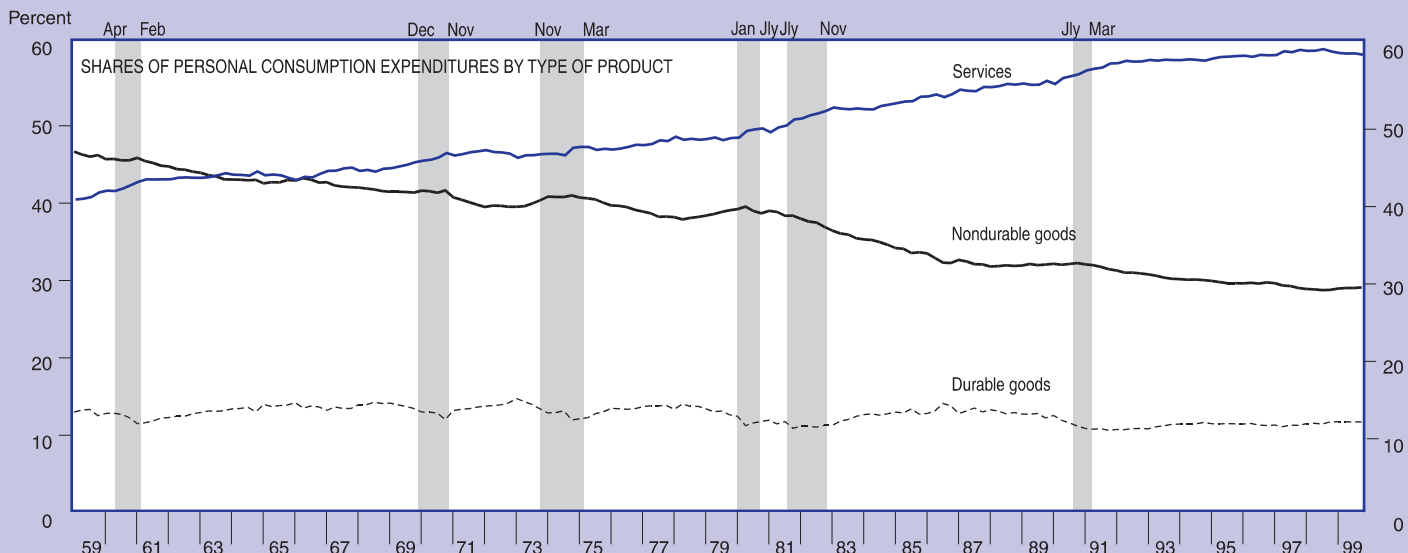
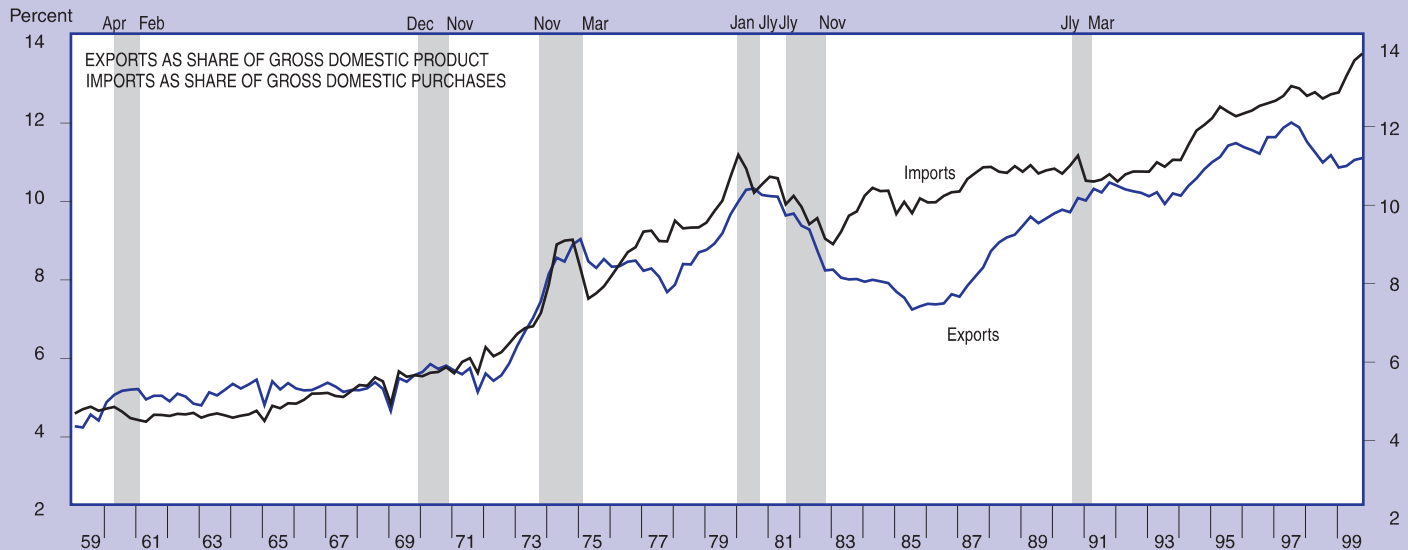
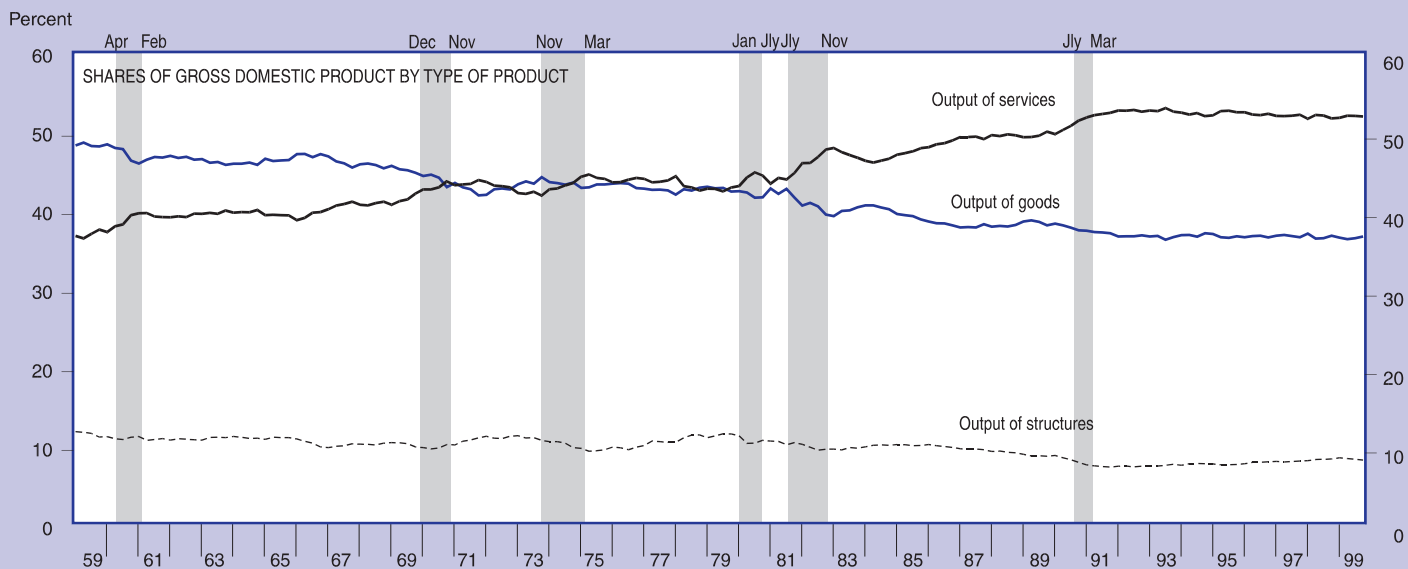
SHARES OF GROSS DOMESTIC PRODUCT BY SECTOR



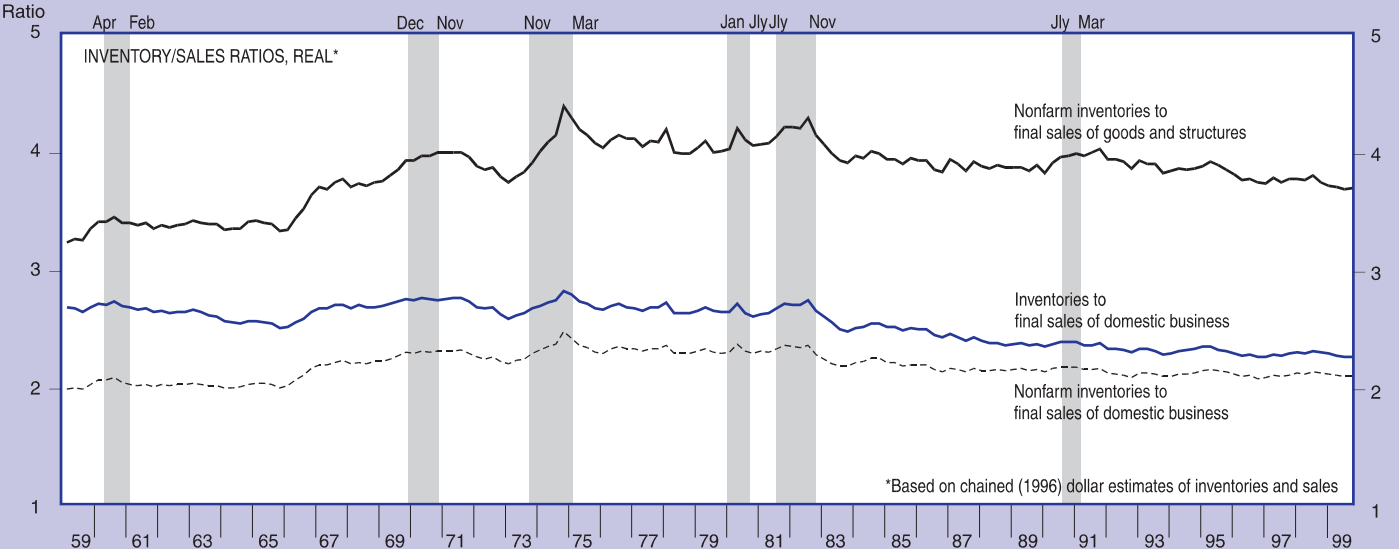
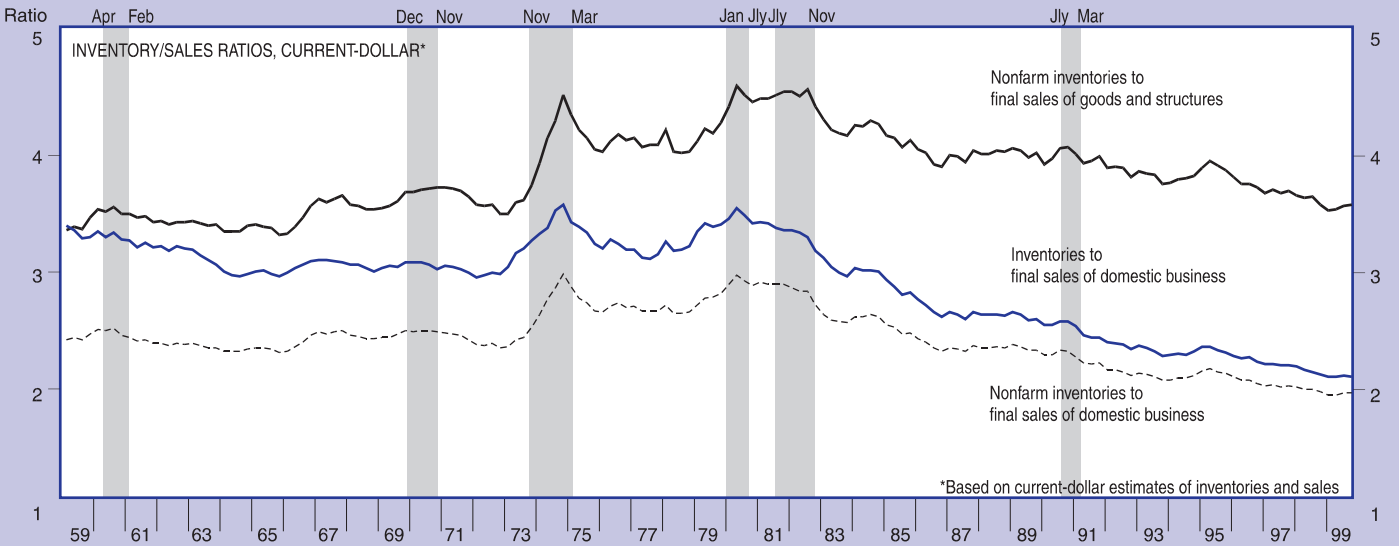
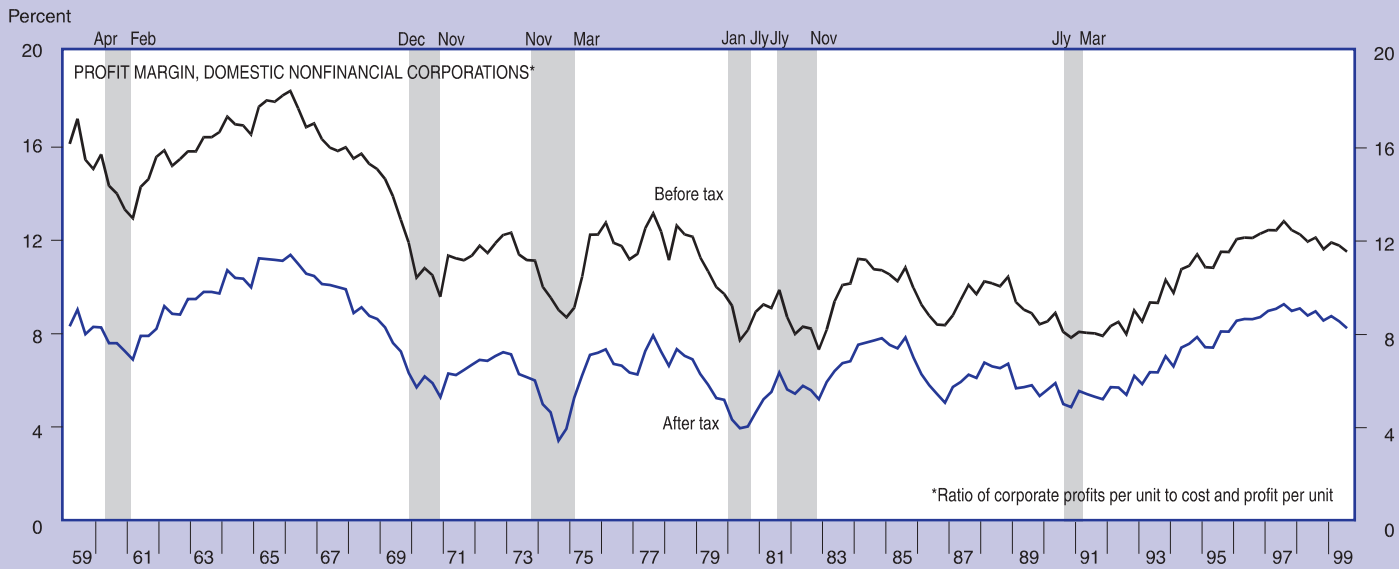
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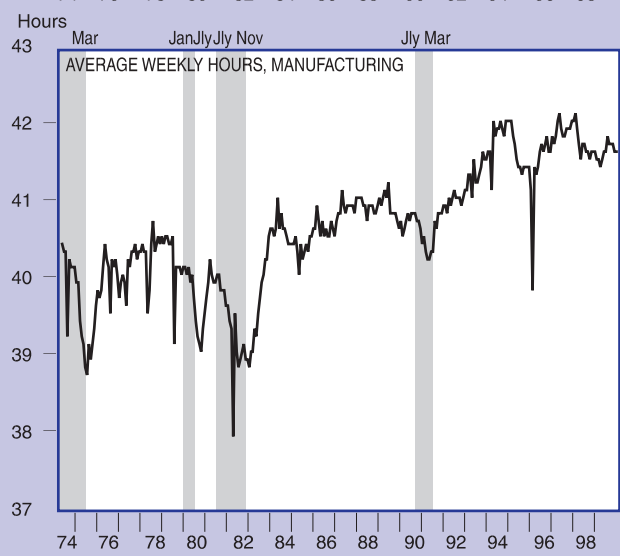
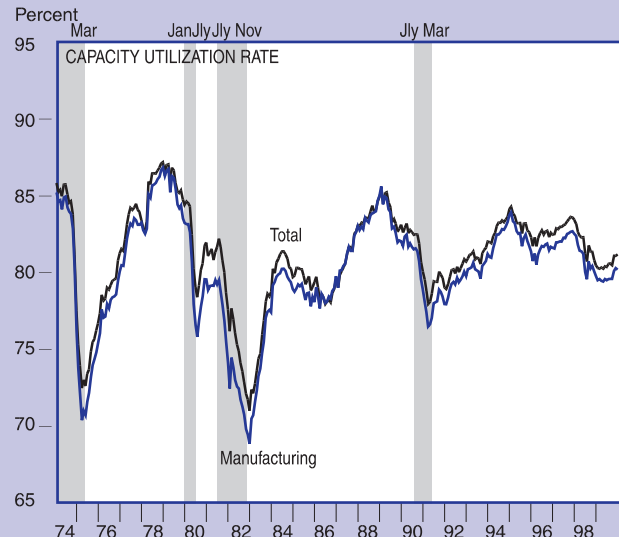
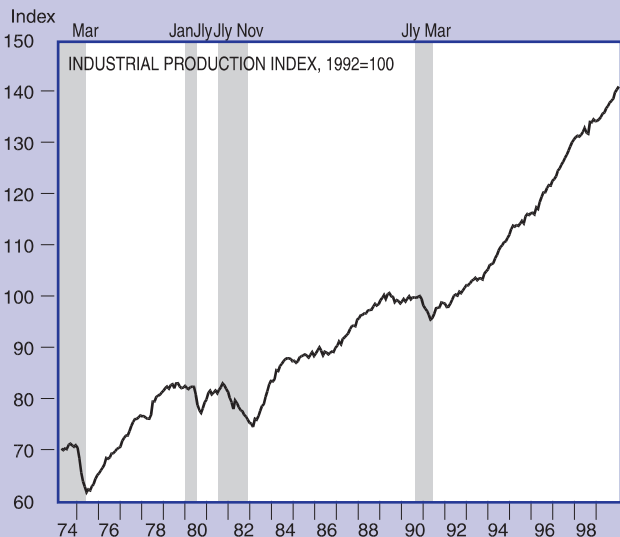
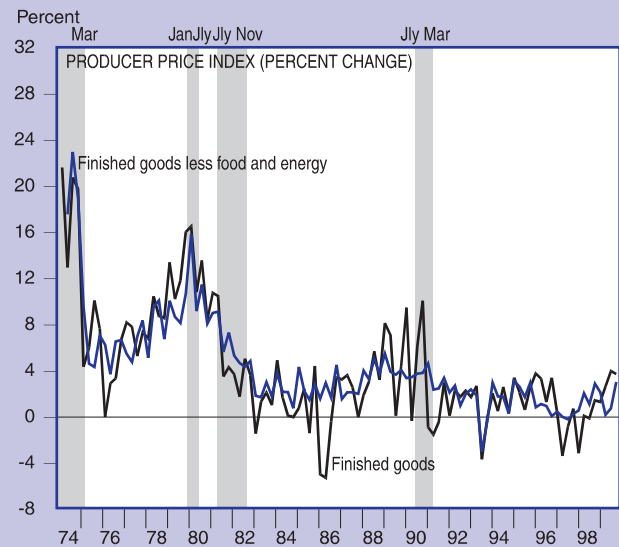
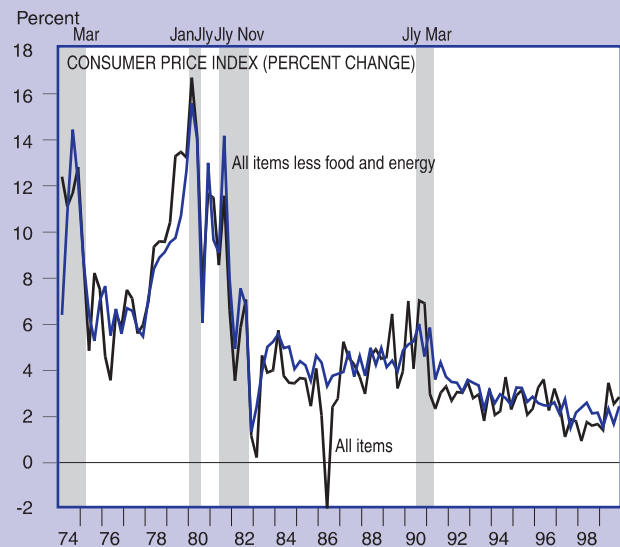
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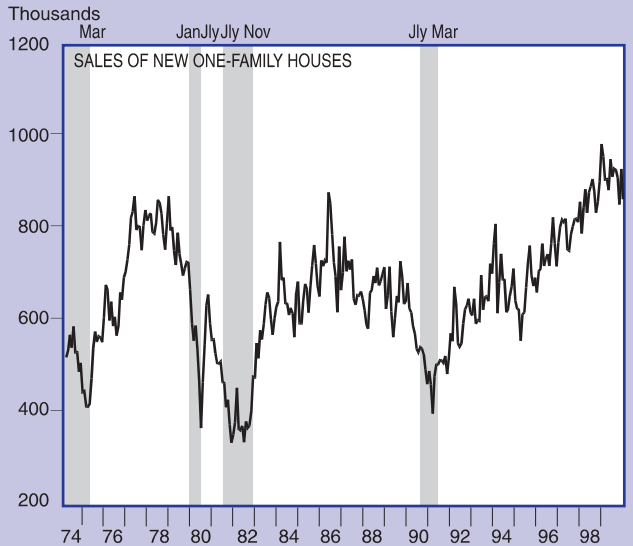
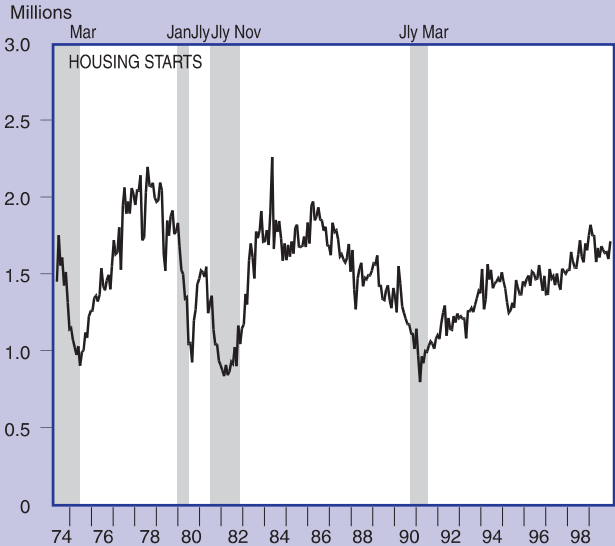
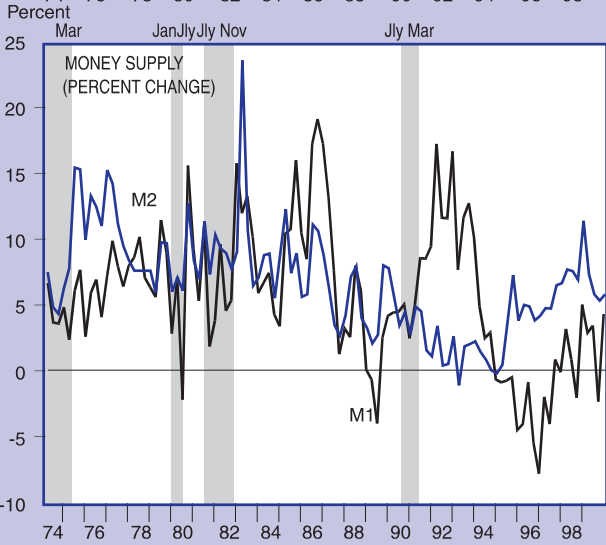
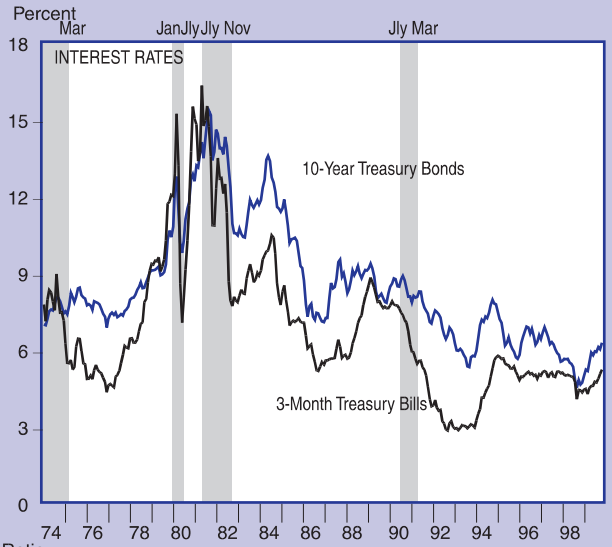
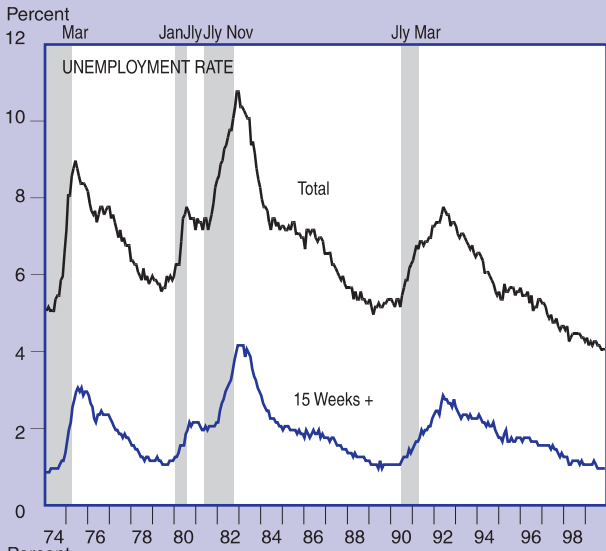
SELECTED NIPA SERIES



OTHER INDICATORS OF THE DOMESTIC ECONOMY



OTHER INDICATORS OF THE DOMESTIC ECONOMY



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 20, 2000 and include "preliminary" estimates for November 1999 and "revised" estimates for October 1999. 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)

	1997	1998	1998			1999										
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct. ^r	Nov. ^p
Exports of goods and services	938,543	933,907	79,617	79,126	78,161	77,833	77,025	77,047	78,062	77,893	78,557	78,815	82,171	82,025	82,334	82,891
Goods	679,715	670,246	57,193	56,926	56,005	55,263	54,704	54,326	55,269	55,121	55,472	55,890	59,139	58,934	58,927	59,543
Foods, feeds, and beverages	51,507	46,397	4,018	3,866	3,992	3,641	3,602	3,559	3,741	3,736	3,842	3,812	3,933	4,032	4,039	3,818
Industrial supplies and materials	158,226	148,266	12,371	12,483	11,832	11,269	11,383	11,430	11,606	11,746	11,720	11,527	12,523	13,127	13,312	13,860
Capital goods, except automotive	294,549	299,612	26,117	25,696	25,470	25,619	24,895	24,900	25,085	24,954	24,842	25,741	27,357	26,723	26,359	26,599
Automotive vehicles, engines, and parts	74,029	73,157	6,156	6,341	6,186	6,049	5,969	5,845	6,174	6,086	6,501	6,098	6,692	6,203	6,311	6,249
Consumer goods (nonfood), except automotive	77,366	79,261	6,620	6,647	6,530	6,573	6,805	6,517	6,737	6,501	6,544	6,653	6,582	6,911	6,749	6,959
Other goods	33,505	35,444	3,119	3,500	3,181	3,066	3,163	3,113	2,919	3,240	3,225	3,090	2,909	3,086	3,058	2,745
Adjustments ¹	-9,468	-11,892	-1,208	-1,608	-1,186	-953	-1,113	-1,038	-994	-1,143	-1,202	-1,032	-855	-1,149	-900	-687
Services	258,828	263,661	22,424	22,200	22,156	22,570	22,321	22,721	22,793	22,772	23,085	22,925	23,032	23,091	23,407	23,348
Travel	73,301	71,250	5,953	5,904	6,081	5,973	6,031	6,134	6,183	6,097	6,157	6,093	6,052	6,177	6,342	6,241
Passenger fares	20,789	19,996	1,627	1,626	1,590	1,621	1,659	1,715	1,731	1,743	1,766	1,760	1,768	1,804	1,871	1,838
Other transportation	27,006	25,518	2,253	2,197	2,125	2,128	2,129	2,244	2,239	2,212	2,280	2,252	2,342	2,327	2,368	2,368
Royalties and license fees	33,781	36,808	3,266	3,314	3,314	3,144	3,105	3,088	3,122	3,123	3,120	3,106	3,104	3,107	3,120	3,124
Other private services	85,566	92,116	7,821	7,672	7,374	7,879	8,037	8,179	8,159	8,146	8,226	8,247	8,213	8,236	8,344	8,432
Transfers under U.S. military agency sales contracts ²	17,561	17,155	1,435	1,417	1,229	1,757	1,291	1,292	1,289	1,380	1,430	1,399	1,485	1,373	1,293	1,276
U.S. Government miscellaneous services	824	818	69	70	70	68	69	69	70	71	106	68	68	67	69	69
Imports of goods and services	1,043,273	1,098,189	93,975	93,789	92,402	93,979	95,540	96,358	96,945	99,376	103,275	104,155	106,124	106,177	107,897	109,394
Goods	876,366	917,178	78,183	78,464	77,064	78,612	79,876	80,006	80,603	83,020	86,651	87,312	89,271	89,145	90,743	91,988
Foods, feeds, and beverages	39,694	41,243	3,432	3,445	3,515	3,528	3,516	3,384	3,548	3,635	3,759	3,674	3,669	3,709	3,637	3,720
Industrial supplies and materials	213,767	200,140	16,549	16,241	15,289	15,537	15,388	16,037	16,965	17,974	18,199	18,670	19,932	20,251	20,839	20,753
Capital goods, except automotive	253,282	269,557	22,948	23,132	22,466	23,082	23,645	23,038	23,279	24,199	25,460	25,492	25,134	24,928	25,844	26,180
Automotive vehicles, engines, and parts	139,812	149,054	13,045	13,377	13,887	13,989	14,306	14,611	13,706	14,588	15,473	15,466	15,727	15,360	15,075	15,531
Consumer goods (nonfood), except automotive	193,811	216,515	18,402	18,470	18,362	18,911	19,447	18,925	19,351	18,908	19,919	20,204	20,246	20,266	20,930	21,168
Other goods	29,338	35,387	3,217	3,278	3,278	3,393	3,364	3,784	3,483	3,503	3,563	3,610	4,095	3,768	3,904	3,716
Adjustments ¹	6,662	5,282	592	522	267	171	213	226	271	213	277	197	468	863	514	920
Services	166,907	181,011	15,792	15,325	15,338	15,367	15,664	16,352	16,342	16,356	16,624	16,843	16,853	17,032	17,154	17,406
Travel	52,051	56,105	4,832	4,602	4,697	4,742	4,890	5,215	5,057	4,951	4,952	5,033	5,028	5,130	5,233	5,277
Passenger fares	18,138	19,797	1,771	1,695	1,659	1,627	1,678	1,809	1,767	1,758	1,791	1,833	1,801	1,822	1,833	1,862
Other transportation	28,959	30,457	2,760	2,588	2,501	2,508	2,528	2,690	2,695	2,739	2,928	2,961	3,108	3,033	3,017	3,078
Royalties and license fees	9,390	11,292	950	974	999	1,040	1,061	1,075	1,077	1,070	1,050	981	968	972	1,012	1,039
Other private services	43,909	47,670	4,108	4,082	4,086	4,064	4,113	4,158	4,321	4,398	4,446	4,519	4,456	4,477	4,499	4,594
Direct defense expenditures ²	11,698	12,841	1,120	1,135	1,151	1,157	1,168	1,178	1,186	1,197	1,210	1,265	1,240	1,345	1,309	1,306
U.S. Government miscellaneous services	2,762	2,849	251	249	245	229	228	227	239	243	247	251	252	253	251	250
Memoranda:																
Balance on goods	-196,652	-246,932	-20,990	-21,539	-21,059	-23,350	-25,173	-25,681	-25,334	-27,899	-31,179	-31,422	-30,132	-30,211	-31,815	-32,444
Balance on services	91,921	82,650	6,632	6,875	6,818	7,203	6,657	6,369	6,451	6,416	6,461	6,082	6,179	6,059	6,253	5,942
Balance on goods and services	-104,731	-164,282	-14,358	-14,664	-14,241	-16,147	-18,516	-19,312	-18,883	-21,483	-24,718	-25,340	-23,953	-24,152	-25,562	-26,502

^p Preliminary.

^r Revised.

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.

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

Table F.2.—U.S. International Transactions

[Millions of dollars]

Line	(Credits +; debits -) ¹	Not seasonally adjusted							Seasonally adjusted					
		1998	1998			1999			1998			1999		
			II	III	IV	I	II ^r	III ^p	II	III	IV	I	II ^r	III ^p
Current account														
1	Exports of goods and services and income receipts	1,192,231	299,641	288,254	303,581	293,632	302,257	308,910	298,463	291,493	299,985	295,932	301,369	312,189
2	Exports of goods and services	933,907	232,905	226,261	241,003	229,124	235,175	239,619	231,889	229,284	236,904	231,904	234,512	242,626
3	Goods, balance of payments basis ²	670,246	168,021	157,386	174,468	163,344	168,453	166,436	165,198	164,259	170,124	164,292	165,862	173,578
4	Services ³	263,661	64,884	68,875	66,535	65,780	66,722	73,183	66,691	65,025	66,780	67,612	68,650	69,048
5	Transfers under U.S. military agency sales contracts ⁴	17,155	4,489	3,979	4,081	4,340	4,099	4,257	4,489	3,979	4,081	4,340	4,099	4,257
6	Travel	71,250	18,119	20,354	17,125	15,809	18,271	21,661	18,260	17,149	17,938	18,138	18,437	18,322
7	Passenger fares	19,996	5,000	5,733	4,682	4,651	5,049	6,051	5,185	5,052	4,843	4,995	5,240	5,332
8	Other transportation	25,518	6,261	6,367	6,689	6,362	6,727	6,951	6,268	6,339	6,575	6,501	6,731	6,921
9	Royalties and license fees ⁵	36,808	8,716	8,866	10,571	9,124	9,063	9,189	9,002	9,029	9,894	9,337	9,365	9,317
10	Other private services ⁵	92,116	22,108	23,377	23,178	25,288	23,266	24,871	23,296	23,278	23,240	24,095	24,531	24,686
11	U.S. Government miscellaneous services	818	191	199	209	206	247	203	191	199	209	206	247	203
12	Income receipts	258,324	66,736	61,993	62,578	64,508	67,082	69,291	66,574	62,209	63,081	64,028	66,857	69,563
13	Income receipts on U.S.-owned assets abroad	256,467	66,273	61,528	62,113	64,038	66,611	68,821	66,111	61,744	62,617	63,558	66,386	69,093
14	Direct investment receipts	102,846	27,095	22,779	25,168	27,313	28,890	29,539	26,744	23,124	25,639	26,910	28,486	29,916
15	Other private receipts	150,001	38,412	37,744	36,019	35,760	37,072	38,426	38,412	37,744	36,019	35,760	37,072	38,426
16	U.S. Government receipts	3,620	766	1,005	926	965	649	856	955	876	959	888	828	751
17	Compensation of employees	1,857	463	465	465	470	471	470	463	465	464	470	471	470
18	Imports of goods and services and income payments	-1,368,718	-341,493	-351,539	-351,384	-342,780	-371,764	-397,886	-340,977	-344,182	-348,180	-354,246	-371,066	-390,934
19	Imports of goods and services	-1,098,189	-273,914	-282,050	-283,536	-275,023	-299,857	-323,064	-273,850	-275,008	-280,166	-285,878	-299,597	-316,451
20	Goods, balance of payments basis ²	-917,178	-227,633	-232,395	-239,118	-230,903	-249,336	-268,109	-228,698	-229,228	-233,711	-238,495	-250,274	-265,723
21	Services ³	-181,011	-46,281	-49,655	-44,418	-44,120	-50,521	-54,955	-45,152	-45,780	-46,455	-47,383	-49,323	-50,728
22	Direct defense expenditures	-12,841	-3,061	-3,276	-3,406	-3,503	-3,593	-3,850	-3,061	-3,276	-3,406	-3,503	-3,593	-3,850
23	Travel	-56,105	-15,193	-17,234	-12,016	-12,543	-16,063	-18,636	-14,168	-14,070	-14,131	-14,847	-14,960	-15,191
24	Passenger fares	-19,797	-5,325	-5,722	-4,518	-4,691	-5,711	-6,147	-4,958	-5,085	-5,125	-5,114	-5,316	-5,456
25	Other transportation	-30,457	-7,533	-7,820	-7,957	-7,554	-8,290	-9,230	-7,590	-7,700	-7,849	-7,726	-8,362	-9,102
26	Royalties and license fees ⁵	-11,292	-2,587	-2,685	-3,081	-3,162	-3,073	-2,881	-2,694	-2,721	-2,923	-3,176	-3,197	-2,921
27	Other private services ⁵	-47,670	-11,915	-12,153	-12,695	-11,985	-13,062	-13,455	-12,014	-12,163	-12,276	-12,335	-13,166	-13,452
28	U.S. Government miscellaneous services	-2,849	-667	-765	-745	-756	-729	-756	-667	-765	-745	-682	-729	-756
29	Income payments	-270,529	-67,579	-69,489	-67,848	-67,757	-71,907	-74,822	-67,127	-69,174	-68,014	-68,368	-71,469	-74,483
30	Income payments on foreign-owned assets in the United States	-263,423	-65,898	-67,631	-65,907	-66,024	-70,138	-72,871	-65,376	-67,381	-66,188	-66,504	-69,611	-72,613
31	Direct investment payments	-43,441	-11,089	-11,540	-10,800	-11,596	-15,023	-14,517	-10,567	-11,290	-11,081	-12,076	-14,496	-14,259
32	Other private payments	-128,863	-31,849	-33,314	-32,408	-31,759	-31,960	-34,207	-31,849	-33,314	-32,408	-31,759	-31,960	-34,207
33	U.S. Government payments	-91,119	-22,960	-22,777	-22,699	-22,669	-23,155	-24,147	-22,960	-22,777	-22,699	-22,669	-23,155	-24,147
34	Compensation of employees	-7,106	-1,681	-1,858	-1,941	-1,733	-1,769	-1,951	-1,751	-1,793	-1,826	-1,864	-1,858	-1,870
35	Unilateral current transfers, net	-44,075	-9,494	-10,607	-13,831	-10,420	-10,744	-11,179	-9,886	-10,787	-13,474	-10,340	-11,212	-11,204
36	U.S. Government grants ⁴	-13,057	-2,168	-2,807	-5,742	-2,200	-2,760	-2,700	-2,168	-2,807	-5,742	-2,200	-2,760	-2,700
37	U.S. Government pensions and other transfers	-4,350	-919	-865	-1,541	-893	-857	-997	-1,095	-1,106	-1,071	-1,104	-1,116	-1,107
38	Private remittances and other transfers ⁶	-26,668	-6,407	-6,935	-6,548	-7,327	-7,127	-7,482	-6,623	-6,874	-6,661	-7,036	-7,336	-7,397
Capital and financial account														
Capital account														
39	Capital account transactions, net	617	160	148	166	166	178	166	160	148	166	166	178	166
Financial account														
40	U.S.-owned assets abroad, net (increase/financial outflow (-))	-292,818	-121,852	-63,492	-44,586	-18,746	-156,044	-102,510	-120,517	-62,097	-50,607	-15,148	-154,713	-101,483
41	U.S. official reserve assets, net	-6,784	-1,945	-2,026	-2,369	4,068	1,159	1,950	-1,945	-2,026	-2,369	4,068	1,159	1,950
42	Gold ⁷	-149	72	188	-227	563	-190	-185	72	188	-227	563	-190	-185
43	Special drawing rights	5,118	-1,031	-2,078	-1,924	3	1,413	2,268	-1,031	-2,078	-1,924	3	1,413	2,268
44	Reserve position in the International Monetary Fund	-1,517	-986	-136	-218	3,502	-64	-133	-986	-136	-218	3,502	-64	-133
45	Foreign currencies	-429	-483	185	-50	119	-392	-673	-429	-483	185	-50	119	-392
46	U.S. Government assets, other than official reserve assets, net	-4,676	-1,156	-1,285	-1,043	-1,304	-2,167	-1,591	-1,156	-1,285	-1,043	-1,304	-2,167	-1,591
47	U.S. credits and other long-term assets	4,102	699	1,332	938	1,545	1,887	1,020	699	1,332	938	1,545	1,887	1,020
48	Repayments on U.S. credits and other long-term assets ⁸	145	-26	138	55	-122	-112	-102	-26	138	55	-122	-112	-102
49	U.S. foreign currency holdings and U.S. short-term assets, net	-285,605	-119,424	-61,651	-42,167	-22,933	-156,811	-103,787	-118,089	-60,256	-48,188	-19,335	-155,480	-102,760
50	U.S. direct investments, net	-132,829	-44,507	-22,981	-24,752	-44,983	-32,897	-45,562	-43,172	-21,586	-30,773	-41,385	-51,566	-44,535
51	Foreign securities	-102,817	-32,886	-14,994	-70,809	8,132	-64,579	-26,511	-32,886	-14,994	-70,809	8,132	-64,579	-26,511
52	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	-25,041	-14,327	-20,320	16,202	-13,853	-16,816	-32,098	-14,327	-20,320	16,202	-13,853	-16,816	-32,098
53	U.S. claims reported by U.S. banks, not included elsewhere	-24,918	-37,304	-33,344	37,192	27,771	-42,519	384	-24,918	-37,304	-33,344	37,192	27,771	-42,519
54	U.S. claims reported by U.S. banks, not included elsewhere	-24,918	-37,304	-33,344	37,192	27,771	-42,519	384	-24,918	-37,304	-33,344	37,192	27,771	-42,519
55	Foreign-owned assets in the United States, net (increase/financial inflow(+))	502,637	163,275	94,776	147,893	88,636	275,220	208,177	162,466	93,547	149,805	88,860	274,271	207,153
56	Foreign official assets in the United States, net	-21,684	-10,551	-46,489	24,352	4,708	-628	12,106	-21,684	-10,551	-46,489	24,352	4,708	-628
57	U.S. Government securities	-3,625	-20,064	-30,905	33,398	6,793	-916	14,812	-3,625	-20,064	-30,905	33,398	6,793	-916
58	U.S. Treasury securities ⁹	-9,957	-20,318	-32,811	31,836	800	-6,708	12,880	-9,957	-20,318	-32,811	31,836	800	-6,708
59	Other ¹⁰	6,332	254	1,906	1,562	5,993	5,792	9,132	6,332	254	1,906	1,562	5,993	5,792
60	Other U.S. Government liabilities ¹¹	-3,113	-807	-224	-1,054	-1,594	-647	-1,163	-807	-224	-1,054	-1,594	-647	-1,163
61	U.S. liabilities reported by U.S. banks, not included elsewhere	-11,469	9,488	-12,866	-7,133	-5,889	1,437	-1,832	9,488	-12,866	-7,133	-5,889	1,437	-1,832
62	Other foreign official assets ¹²	-3,477	832	-2,494	-859	98	-502	289	832	-2,494	-859	98	-502	289
63	Other foreign assets in the United States, net	524,321	173,826	141,265	123,541	83,928	275,848	196,071	173,017	140,036	125,453	84,152	274,899	195,047
64	Direct investment	193,375	21,755	26,135	118,933	22,725	155,322	45,498	20,946	24,906	120,505	22,949	154,373	44,474
65	U.S. Treasury securities	46,155	25,759	-1,438	24,391	-8,781	-5,407	9,713	25,759	-1,438	24,391	-8,781	-5,407	9,713
66	U.S. securities other than U.S. Treasury securities	218,026	71,785	20,103	49,328	61,540	79,067	93,062	71,785	20,103	49,328	61,540	79,067	93,062
67														

Table F.3.—U.S. International Transactions, by Area

[Millions of dollars]

Line	(Credits +; debits -) ¹	Western Europe			European Union ¹⁴			United Kingdom			European Union (6) ¹⁵		
		2000			2000			2000			2000		
		I	II ^r	III	I	II ^r	III	I	II ^r	III	I	II ^r	III ^p
Current account													
1	Exports of goods and services and income receipts	94,152	92,875	94,140	85,586	83,763	84,729	26,593	26,166	26,796	44,932	43,857	44,674
2	Exports of goods and services	64,445	64,038	63,831	58,946	58,246	57,769	16,267	16,106	16,181	32,458	32,026	31,931
3	Goods, balance of payments basis ²	41,287	40,173	37,697	38,499	36,847	34,446	9,809	9,302	8,967	22,381	21,596	20,106
4	Services ³	23,158	23,865	26,134	20,447	21,399	23,323	6,458	6,804	7,214	10,077	10,430	11,825
5	Transfers under U.S. military agency sales contracts ⁴	1,169	1,025	1,262	589	592	791	118	97	87	169	150	323
6	Travel	4,788	5,784	7,055	4,402	5,306	6,462	1,601	1,975	2,188	2,030	2,424	3,238
7	Passenger fares	1,481	1,748	2,081	1,426	1,693	2,009	493	566	625	734	869	1,098
8	Other transportation	1,784	1,785	1,914	1,540	1,551	1,662	385	391	417	724	744	824
9	Royalties and license fees ⁵	4,615	4,477	4,445	4,366	4,220	4,191	874	837	880	2,578	2,436	2,393
10	Other private services ⁵	9,282	9,001	9,341	8,091	7,997	8,177	2,980	2,929	3,008	3,830	3,791	3,934
11	U.S. Government miscellaneous services	39	45	36	33	40	31	7	9	12	16	15	15
12	Income receipts	29,707	28,837	30,309	26,640	25,517	26,960	10,326	10,060	10,615	12,474	11,831	12,743
13	Income receipts on U.S.-owned assets abroad	29,670	28,800	30,272	26,606	25,483	26,926	10,309	10,042	10,597	12,459	11,817	12,729
14	Direct investment receipts	13,952	12,914	13,212	12,232	11,042	11,531	3,795	3,314	3,276	6,679	6,115	6,743
15	Other private receipts	15,427	15,760	16,838	14,130	14,331	15,217	6,514	6,728	7,321	5,616	5,609	5,884
16	U.S. Government receipts	291	126	222	244	110	178	.....	.....	.....	164	93	102
17	Compensation of employees	37	37	37	34	34	34	17	18	18	15	14	14
18	Imports of goods and services and income payments	-101,041	-110,488	-115,271	-91,871	-100,244	-104,133	-31,919	-34,799	-36,526	-47,166	-51,464	-52,930
19	Imports of goods and services	-66,068	-74,157	-77,538	-60,195	-67,146	-69,384	-14,364	-16,250	-16,765	-35,847	-39,500	-40,379
20	Goods, balance of payments basis ²	-48,566	-52,424	-54,252	-44,717	-47,919	-48,921	-8,823	-9,612	-9,918	-28,096	-29,920	-30,237
21	Services ³	-17,502	-21,733	-23,286	-15,478	-19,227	-20,463	-5,541	-6,638	-6,847	-7,751	-9,580	-10,142
22	Direct defense expenditures	-1,935	-2,070	-2,280	-1,704	-1,775	-1,880	-166	-182	-180	-1,440	-1,490	-1,600
23	Travel	-3,593	-6,192	-7,013	-3,284	-5,568	-6,230	-1,108	-1,601	-1,697	-1,619	-2,861	-3,089
24	Passenger fares	-2,064	-3,154	-3,341	-1,869	-2,831	-3,017	-818	-1,202	-1,246	-762	-1,190	-1,247
25	Other transportation	-2,554	-2,714	-3,104	-2,103	-2,248	-2,592	-555	-581	-714	-1,102	-1,102	-1,235
26	Royalties and license fees ⁵	-2,087	-1,942	-1,747	-1,788	-1,626	-1,452	-601	-477	-337	-963	-897	-899
27	Other private services ⁵	-5,002	-5,373	-5,505	-4,504	-4,931	-5,037	-2,271	-2,571	-2,649	-1,770	-1,877	-1,886
28	U.S. Government miscellaneous services	-267	-288	-296	-226	-248	-255	-22	-24	-24	-177	-163	-186
29	Income payments	-34,973	-36,331	-37,733	-31,676	-33,098	-34,749	-17,555	-18,549	-19,761	-11,319	-11,964	-12,551
30	Income payments on foreign-owned assets in the United States	-34,886	-36,255	-37,661	-31,606	-33,035	-34,689	-17,534	-18,529	-19,741	-11,277	-11,926	-12,516
31	Direct investment payments	-9,059	-10,028	-9,752	-7,950	-9,056	-9,232	-2,312	-2,560	-2,718	-4,644	-5,550	-5,738
32	Other private payments	-15,750	-16,246	-17,179	-14,368	-14,749	-16,051	-10,041	-10,783	-11,693	-3,658	-3,352	-3,688
33	U.S. Government payments	-10,077	-9,981	-10,190	-9,288	-9,230	-9,406	-5,181	-5,186	-5,330	-2,975	-3,024	-3,090
34	Compensation of employees	-87	-76	-72	-70	-63	-60	-21	-20	-20	-42	-38	-35
35	Unilateral current transfers, net	-30	66	-22	296	345	311	387	417	432	141	151	110
36	U.S. Government grants ⁴	-172	-100	-167	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	U.S. Government pensions and other transfers	-328	-329	-340	-293	-297	-299	-51	-50	-48	-161	-162	-171
38	Private remittances and other transfers ⁶	470	495	485	589	642	610	438	467	480	302	313	281
Capital and financial account													
Capital account													
39	Capital account transactions, net	37	37	38	34	34	35	12	12	12	16	16	17
Financial account													
40	U.S.-owned assets abroad, net (increase/financial outflow (-))	-22,065	-143,513	-42,804	-17,814	-119,750	-34,648	6,178	-104,891	-26,888	-16,051	-18,111	-6,444
41	U.S. official reserve assets, net	5,502	348	-103	-1,972	-159	-67	.....	.....	.....	.....	.....	.....
42	Gold ⁷ .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Special drawing rights .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Reserve position in the International Monetary Fund .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
45	Foreign currencies	5,502	348	-103	-1,972	-159	-67	.....	.....	.....	.....	.....	.....
46	U.S. Government assets, other than official reserve assets, net	206	61	97	139	9	-6	-4	-2	-4	-16	6	1
47	U.S. credits and other long-term assets	-62	-36	-196	-37	-29	-195	.....	.....	.....	.....	.....	.....
48	Repayments on U.S. credits and other long-term assets ⁸	294	91	288	196	35	190	.....	.....	.....	.....	.....	.....
49	U.S. foreign currency holdings and U.S. short-term assets, net	-26	6	5	-20	3	-1	-4	-2	-4	-16	6	1
50	U.S. private assets, net	-27,773	-143,922	-42,798	-15,981	-119,600	-34,575	6,182	-104,889	-26,884	-16,035	-18,117	-6,445
51	Direct investment	-21,262	-8,262	-32,331	-17,296	-8,218	-30,982	-2,679	-9,303	-21,157	-11,464	-1,712	-8,046
52	Foreign securities	21,689	-49,590	-12,110	20,853	-51,891	-14,525	17,912	-46,591	-13,678	3,095	-8,034	-2,520
53	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	-23,909	-7,476	.....	-22,230	-6,161	.....	-14,819	-8,520	.....	-5,018	1,107	.....
54	U.S. claims reported by U.S. banks, not included elsewhere	-4,291	-78,594	1,643	2,692	53,300	10,932	5,768	-40,475	7,951	-2,648	-12,902	4,121
55	Foreign-owned assets in the United States, net (increase/financial inflow (+))	78,971	191,609	105,732	79,175	167,196	102,937	45,073	113,605	70,224	39,728	61,523	24,526
56	Foreign official assets in the United States, net	-4,419	-9,707	-1,057	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
57	U.S. Government securities	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
58	U.S. Treasury securities ⁹	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
59	Other ¹⁰	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
60	Other U.S. Government liabilities ¹¹	-432	-473	-505	-51	-202	-171	-116	-94	-80	64	49	-99
61	U.S. liabilities reported by U.S. banks, not included elsewhere	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
62	Other foreign official assets ¹²	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
63	Other foreign assets in the United States, net	83,390	201,316	106,789	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
64	Direct investment	21,839	140,447	31,623	20,375	141,856	29,727	1,316	79,370	15,155	16,457	62,635	9,966
65	U.S. Treasury securities	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
66	U.S. securities other than U.S. Treasury securities	48,854	49,525	62,883	45,628	45,850	61,362	30,309	29,020	48,655	12,631	13,210	9,964
67	U.S. currency .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
68	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	19,506	18,265	.....	16,341	16,491	.....	21,863	11,765	.....	-4,591	4,911	.....
69	U.S. liabilities reported by U.S. banks, not included elsewhere	(17)	(17)	(17)	-3,118	-36,799	12,019	-8,299	-6,456	6,494	15,167	-19,282	4,695
70	Statistical discrepancy (sum of above items with sign reversed)	-50,024	-30,586	-41,813	-55,406	-31,344	-49,231	-46,324	-510	-34,050	-21,600	-35,972	-9,953
Memoranda:													
71	Balance on goods (lines 3 and 20)	-7,279	-12,251	-16,555	-6,218	-11,072	-14,475	986	-310	-951	-5,715	-8,324	-10,131
72	Balance on services (lines 4 and 21)	5,656	2,132	2,848	4,969	2,172	2,860	917	166	367	2,326	850	1,683
73	Balance on goods and services (lines 2 and 19)	-1,623	-10,119	-13,707	-1,249	-8,900	-11,615	1,903	-144	-584	-3,389	-7,474	-8,448
74	Balance on income (lines 12 and 29)	-5,266	-7,494	-7,424	-5,036	-7,581	-7,789	-7,229	-8,489	-9,146	1,155	-1,333	192
75	Unilateral current transfers, net (line 35)	-30	66	-22	296	345	311	387	417	432	141	151	110
76	Balance on current account (lines 1, 18, and 35 or lines 73, 74, and 75) ¹³	-6,919	-17,547	-21,153	-5,989	-16,136	-19,093	-4,939	-8,216	-9,298	-2,093	-7,456	-8,146

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. At the present time, all U.S. Treasury-owned gold is held in the United States.

8. Includes sales of foreign obligations to foreigners.

9. Consists of bills, certificates,

Table F.3.—U.S. International Transactions, by Area—Continued

[Millions of dollars]

Line	(Credits +; debits -) ¹	Eastern Europe			Canada			Latin America and Other Western Hemisphere			Japan		
		2000			2000			2000			2000		
		I	II ^r	III	I	II ^r	III	I	II ^r	III	I	II ^r	III ^p
Current account													
1	Exports of goods and services and income receipts	2,653	2,770	3,239	50,011	53,800	50,240	57,854	62,330	65,270	25,346	23,678	25,031
2	Exports of goods and services	2,156	2,273	2,565	45,304	48,257	44,759	43,520	46,284	49,063	22,928	21,152	22,729
3	Goods, balance of payments basis ²	1,213	1,304	1,458	40,070	42,857	39,594	32,125	34,060	35,417	14,432	13,328	13,586
4	Services ³	943	969	1,107	5,234	5,400	5,165	11,395	12,224	13,646	8,496	7,824	9,143
5	Transfers under U.S. military agency sales contracts ⁴	67	81	94	28	34	25	152	135	99	501	173	183
6	Travel	258	319	381	1,674	1,808	1,477	4,347	4,897	5,856	2,358	2,231	2,923
7	Passenger fares	40	44	41	438	363	367	1,255	1,375	1,653	922	872	1,117
8	Other transportation	65	105	112	585	627	625	820	874	910	752	817	840
9	Royalties and license fees ⁵	67	66	70	424	400	434	610	672	672	1,563	1,596	1,689
10	Other private services ⁵	439	344	397	2,064	2,147	2,216	4,170	4,193	4,416	2,383	2,125	2,380
11	U.S. Government miscellaneous services	7	10	12	21	21	21	41	78	40	17	10	11
12	Income receipts	497	497	674	4,707	5,543	5,481	14,334	16,046	16,207	2,418	2,526	2,302
13	Income receipts on U.S.-owned assets abroad	495	495	672	4,687	5,524	5,463	14,297	16,008	16,172	2,415	2,523	2,298
14	Direct investment receipts	-45	13	159	1,909	2,831	2,787	3,979	5,127	4,886	1,003	871	921
15	Other private receipts	484	472	466	2,778	2,693	2,676	10,212	10,754	11,208	1,405	1,667	1,667
16	U.S. Government receipts	56	10	47	.....	.....	.....	106	127	78	7	-15	17
17	Compensation of employees	2	2	2	20	19	18	37	38	35	3	3	4
18	Imports of goods and services and income payments	-3,294	-4,411	-4,346	-52,743	-56,926	-57,328	-58,343	-63,021	-67,952	-42,970	-44,236	-47,341
19	Imports of goods and services	-2,874	-3,998	-3,934	-50,640	-54,264	-54,780	-45,878	-49,579	-53,709	-35,150	-35,203	-37,984
20	Goods, balance of payments basis ²	-2,402	-3,096	-2,856	-47,684	-50,096	-49,408	-37,327	-41,166	-44,660	-31,098	-30,849	-33,435
21	Services ³	-472	-902	-1,078	-2,956	-4,168	-5,372	-8,551	-8,413	-9,049	-4,052	-4,354	-4,549
22	Direct defense expenditures	-50	-47	-80	-14	-16	-20	-94	-76	-79	-328	-378	-380
23	Travel	-151	-458	-573	-875	-1,526	-2,531	-4,028	-3,909	-4,367	-790	-795	-706
24	Passenger fares	-57	-141	-161	-125	-189	-210	-856	-713	-905	-200	-227	-230
25	Other transportation	-42	-71	-80	-727	-822	-817	-605	-620	-656	-1,065	-1,193	-1,405
26	Royalties and license fees ⁵	-1	-3	-3	-114	-114	-119	-67	-64	-68	-627	-687	-686
27	Other private services ⁵	-155	-163	-160	-1,055	-1,447	-1,619	-2,781	-2,899	-2,942	-1,008	-1,039	-1,109
28	U.S. Government miscellaneous services	-16	-19	-21	-46	-54	-56	-120	-132	-132	-34	-35	-33
29	Income payments	-420	-413	-412	-2,103	-2,662	-2,548	-12,465	-13,442	-14,243	-7,820	-9,033	-9,357
30	Income payments on foreign-owned assets in the United States	-401	-397	-397	-2,024	-2,586	-2,474	-11,087	-11,960	-12,555	-7,797	-9,017	-9,343
31	Direct investment payments	-2	-4	-5	-641	-1,239	-984	-282	-492	-484	65	-1,768	-1,606
32	Other private payments	-97	-91	-92	-1,176	-1,099	-1,168	-8,503	-8,941	-9,297	-2,859	-2,118	-2,187
33	U.S. Government payments	-302	-302	-300	-207	-248	-322	-2,302	-2,527	-2,774	-5,003	-5,131	-5,550
34	Compensation of employees	-19	-16	-15	-79	-76	-74	-1,378	-1,482	-1,688	-23	-16	-14
35	Unilateral current transfers, net	-856	-871	-996	-174	-145	-175	-3,379	-3,445	-3,615	-101	-53	-71
36	U.S. Government grants ⁴	-424	-442	-581	.....	.....	.....	380	-421	-493	.....	.....	.....
37	U.S. Government pensions and other transfers	-12	-11	-10	-120	-121	-126	-154	-156	-188	.....	-25	-23
38	Private remittances and other transfers ⁶	-420	-418	-405	-54	-24	-49	-2,845	-2,868	-2,964	-75	-28	-48
Capital and financial account													
Capital account													
39	Capital account transactions, net	6	6	6	28	36	31	62	59	54	6	6	6
Financial account													
40	U.S.-owned assets abroad, net (increase/financial outflow (-))	-1,518	622	-759	2,889	4,023	-706	11,682	-16,356	-38,596	-994	7,605	-15,174
41	U.S. official reserve assets, net	.....	.....	.....	.....	.....	.....	.....	.....	.....	-2,000	-412	-30
42	Gold ⁷	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
43	Special drawing rights	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
44	Reserve position in the International Monetary Fund	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
45	Foreign currencies	.....	.....	.....	.....	.....	.....	.....	.....	.....	-2,000	-412	-30
46	U.S. Government assets, other than official reserve assets, net	-19	-57	-119	.....	.....	.....	170	87	127	12	30	-8
47	U.S. credits and other long-term assets	-164	-1,138	-139	.....	.....	.....	-602	-401	-230	.....	.....	.....
48	Repayments on U.S. credits and other long-term assets ⁸	160	1,086	21	.....	.....	.....	765	497	356	.....	.....	.....
49	U.S. foreign currency holdings and U.S. short-term assets, net	-15	-5	-1	.....	.....	.....	7	-9	1	12	30	-8
50	U.S. private assets, net	-1,499	679	-640	2,889	4,023	-706	11,512	-16,443	-38,723	994	7,987	-15,136
51	Direct investment	-258	-301	-276	-2,644	-6,860	-2,726	-7,013	-9,663	-1,786	-499	-730	-2,170
52	Foreign securities	-120	-118	-7	-980	166	-265	-731	-9,713	-7,941	-10,476	-5,357	-9,648
53	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	72	11	.....	-2,787	1,212	.....	6,346	-8,553	-24,900	6,094	-955	.....
54	U.S. claims reported by U.S. banks, not included elsewhere	-1,193	1,087	-357	9,300	9,505	2,285	12,910	11,486	-4,096	5,875	15,029	-3,318
55	Foreign-owned assets in the United States, net (increase/financial inflow (+))	2,910	-2,632	41	7,951	10,166	7,905	937	57,821	39,267	-21,605	4,855	30,797
56	Foreign official assets in the United States, net	(18)	(18)	(18)	2,904	-598	328	(18)	(18)	(18)	(18)	(18)	(18)
57	U.S. Government securities	(18)	(18)	(18)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
58	U.S. Treasury securities ⁹	(18)	(18)	(18)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
59	Other ¹⁰	(18)	(18)	(18)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
60	Other U.S. Government liabilities ¹¹	59	141	112	8	12	-8	-13	-25	-23	-487	-52	-14
61	U.S. liabilities reported by U.S. banks, not included elsewhere	(18)	(18)	(18)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
62	Other foreign official assets ¹²	(18)	(18)	(18)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
63	Other foreign assets in the United States, net	(18)	(18)	(18)	5,047	10,764	7,577	(18)	(18)	(18)	(18)	(18)	(18)
64	Direct investment	-166	50	107	1,825	7,099	3,685	800	1,642	4,650	-2,889	4,827	3,435
65	U.S. Treasury securities	(18)	(18)	(18)	(17)	(17)	(17)	(18)	(18)	(18)	(18)	(18)	(18)
66	U.S. securities other than U.S. Treasury securities	15	-140	-97	2,241	-306	224	9,053	22,921	14,377	-1,636	3,508	11,614
67	U.S. currency	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
68	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	75	-122	.....	572	413	.....	555	-10,399	3,000	-1,168	-3,094	.....
69	U.S. liabilities reported by U.S. banks, not included elsewhere	2,927	-2,561	-81	(17)	(17)	(17)	-9,458	43,682	17,263	-15,425	-334	15,762
70	Statistical discrepancy (sum of above items with sign reversed)	99	4,516	2,815	-7,962	-10,954	33	-8,813	-37,388	5,572	40,318	8,145	6,752
Memoranda:													
71	Balance on goods (lines 3 and 20)	-1,189	-1,792	-1,398	-7,614	-7,239	-9,814	-5,202	-7,106	-9,243	-16,666	-17,521	-19,849
72	Balance on services (lines 4 and 21)	471	675	29	2,278	1,232	-207	2,844	3,811	4,597	4,444	3,470	4,594
73	Balance on goods and services (lines 2 and 19)	-718	-1,225	-1,369	-5,336	-6,007	-10,021	-2,358	-3,295	-4,646	-12,222	-14,051	-15,255
74	Balance on income (lines 12 and 29)	77	84	262	2,604	2,881	2,933	1,869	2,604	1,964	-5,402	-6,507	-7,055
75	Unilateral current transfers, net (line 35)	-856	-871	-996	-174	-145	-175	-3,379	-3,445	-3,615	-101	-53	-71
76	Balance on current account (lines 1, 18, and 35 or lines 73, 74, and 75) ¹³	-1,497	-2,512	-2,103	-2,906	-3,271	-7,263	-3,868	-4,136	-6,297	-17,725	-20,611	-22,381

13. Conceptually, line 76 is equal to "net foreign investment" in the national income and product accounts (NIPAs). However, the foreign transactions account in the NIPAs (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.

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.

Table F.3.—U.S. International Transactions, by Area—Continued

[Millions of dollars]

Line	(Credits +; debits -) ¹	Australia			Other countries in Asia and Africa			International organizations and unallocated ¹⁶		
		2000			2000			2000		
		I	II ^r	III	I	II ^r	III	I	II ^r	III ^p
Current account										
1	Exports of goods and services and income receipts	4,834	5,458	5,593	51,342	53,930	58,028	7,440	7,416	7,369
2	Exports of goods and services	3,734	4,102	4,337	45,919	47,922	51,148	1,118	1,147	1,187
3	Goods, balance of payments basis ²	2,543	2,758	2,938	31,674	33,973	35,746			
4	Services ³	1,191	1,344	1,399	14,245	13,949	15,402	1,118	1,147	1,187
5	Transfers under U.S. military agency sales contracts ⁴	51	95	99	2,372	2,556	2,495			
6	Travel	342	416	425	2,042	2,816	3,544			
7	Passenger fares	123	154	163	392	493	629			
8	Other transportation	81	86	91	2,160	2,286	2,294	115	147	165
9	Royalties and license fees ⁵	187	187	199	1,165	1,174	1,181	493	491	499
10	Other private services ⁵	406	405	421	6,034	4,542	5,177	510	509	523
11	U.S. Government miscellaneous services	1	1	1	80	82	82			
12	Income receipts	1,100	1,356	1,256	5,423	6,008	6,880	6,322	6,269	6,182
13	Income receipts on U.S.-owned assets abroad	1,098	1,354	1,254	5,406	5,991	6,862	5,970	5,916	5,828
14	Direct investment receipts	365	585	520	2,792	3,367	3,962	3,358	3,182	3,092
15	Other private receipts	733	769	734	2,325	2,414	2,599	2,396	2,545	2,545
16	U.S. Government receipts				289	210	301	216	191	191
17	Compensation of employees	2	2	2	17	17	18	352	353	354
18	Imports of goods and services and income payments	-2,259	-2,475	-2,786	-79,349	-87,337	-99,867	-2,781	-2,870	-2,995
19	Imports of goods and services	-1,888	-2,176	-2,383	-71,961	-79,916	-92,113	-564	-564	-623
20	Goods, balance of payments basis ²	-1,093	-1,372	-1,447	-62,733	-70,333	-82,051			
21	Services ³	-795	-804	-936	-9,228	-9,583	-10,062	-564	-564	-623
22	Direct defense expenditures	-18	-8		-1,064	-998	-1,001			
23	Travel	-301	-310	-427	-2,805	-2,873	-3,019			
24	Passenger fares	-166	-141	-154	-1,223	-1,146	-1,246			
25	Other transportation	-46	-47	-52	-2,230	-2,525	-2,766	-285	-298	-350
26	Royalties and license fees ⁵	-7	-10	-10	-74	-73	-75	-185	-180	-173
27	Other private services ⁵	-249	-277	-268	-1,642	-1,778	-1,752	-93	-86	-100
28	U.S. Government miscellaneous services	-8	-11	-15	-190	-190	-203	-1		
29	Income payments	-371	-299	-403	-7,388	-7,421	-7,754	-2,217	-2,306	-2,372
30	Income payments on foreign-owned assets in the United States	-369	-297	-401	-7,243	-7,320	-7,668	-2,217	-2,306	-2,372
31	Direct investment payments	-153	-44	-112	-159	-3	-169	-1,365	-1,445	-1,405
32	Other private payments	-145	-172	-206	-2,381	-2,438	-2,580	-848	-855	-958
33	U.S. Government payments	-71	-81	-83	-4,703	-4,879	-4,919	-4	-6	-9
34	Compensation of employees	-2	-2	-2	-145	-101	-86			
35	Unilateral current transfers, net	-39	-36	-39	-3,414	-3,569	-3,728	-2,427	-2,691	-2,533
36	U.S. Government grants ⁴				967	-1,423	-1,273	-257	-374	-186
37	U.S. Government pensions and other transfers	-10	-10	-9	-11	-121	121	-124	-84	-210
38	Private remittances and other transfers ⁶	-29	-26	-30	-2,328	-2,025	-2,334	-2,046	-2,233	-2,137
Capital and financial account										
Capital account										
39	Capital account transactions, net	2	2	2	25	32	29			
Financial account										
40	U.S.-owned assets abroad, net (increase/financial outflow (-))	-2,357	-4,709	5,526	-2,448	-2,172	-2,621	-3,935	-1,544	-7,376
41	U.S. official reserve assets, net							566	1,223	2,083
42	Gold ⁷									
43	Special drawing rights							563	-190	-185
44	Reserve position in the International Monetary Fund							3	1,413	2,268
45	Foreign currencies									
46	U.S. Government assets, other than official reserve assets, net	6	-6	-2	11	-218	-520	-267	-289	-248
47	U.S. credits and other long-term assets				-209	-303	-778	-267	-289	-248
48	Repayments on U.S. credits and other long-term assets ⁸				326	213	355			
49	U.S. foreign currency holdings and U.S. short-term assets, net	6	-6	-2	-106	-128	-97			
50	U.S. private assets, net	-2,363	-4,703	5,528	-2,459	-1,954	-2,101	-4,234	-2,478	-9,211
51	Direct investment	-3,389	-265	-331	-6,725	-3,808	-3,018	-3,193	-3,008	-2,924
52	Foreign securities	-82	-974	-114	-1,217	1,118	3,094	49	-111	480
53	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	430	-43		-92	-1,034			22	-7,198
54	U.S. claims reported by U.S. banks, not included elsewhere	678	-3,421	5,973	5,575	1,770	-2,177	-1,083	619	431
55	Foreign-owned assets in the United States, net (increase/financial inflow (+))	691	3,893	1,000	13,028	3,249	5,839	5,753	6,259	17,596
56	Foreign official assets in the United States, net	(18)	(18)	(18)	(18)	(18)	(18)			
57	U.S. Government securities	(18)	(18)	(18)	(18)	(18)	(18)			
58	U.S. Treasury securities ⁹	(18)	(18)	(18)	(18)	(18)	(18)			
59	Other ¹⁰	(18)	(18)	(18)	(18)	(18)	(18)			
60	Other U.S. Government liabilities ¹¹	8	-35	-44	-737	-215	-681			
61	U.S. liabilities reported by U.S. banks, not included elsewhere	(18)	(18)	(18)	(18)	(18)	(18)			
62	Other foreign official assets ¹²	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)	(18)
63	Other foreign assets in the United States, net	(18)	(18)	(18)	(18)	(18)	(18)	5,753	6,259	17,596
64	Direct investment	167	425	217	-48	-400	514	1,197	1,232	1,267
65	U.S. Treasury securities	(18)	(18)	(18)	(18)	(18)	(18)			
66	U.S. securities other than U.S. Treasury securities	42	157	1,155	3,119	3,532	2,413	-148	-130	493
67	U.S. currency							2,440	3,057	4,697
68	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	-175	1,879		805	1,892		18	37	9,136
69	U.S. liabilities reported by U.S. banks, not included elsewhere	649	1,467	-328	9,889	-1,560	3,593	2,246	2,063	2,003
70	Statistical discrepancy (sum of above items with sign reversed)	-872	-2,133	-9,296	20,816	35,867	42,320	-4,050	-6,570	-12,061
Memoranda:										
71	Balance on goods (lines 3 and 20)	1,450	1,386	1,491	-31,059	-36,360	-46,305			
72	Balance on services (lines 4 and 21)	396	540	463	5,017	4,366	5,340	554	583	564
73	Balance on goods and services (lines 2 and 19)	1,846	1,926	1,954	-26,042	-31,994	-40,965	554	583	564
74	Balance on income (lines 12 and 29)	729	1,057	853	-1,965	-1,413	-874	4,105	3,963	3,810
75	Unilateral current transfers, net (line 35)	-39	-36	-39	-3,414	-3,569	-3,728	-2,427	-2,691	-2,533
76	Balance on current account (lines 1, 18, and 35 or lines 73, 74, and 75) ¹³	2,536	2,947	2,768	-31,421	-36,976	-45,567	2,232	1,855	1,841

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 56 and 63.

18. Details not shown separately are included in line 69.

NOTE.—The data in tables F.2 and F.3 are from tables 1 and 10 in "U.S. International Transactions, Third Quarter 1999" the January 2000 SURVEY OF CURRENT BUSINESS, which presents the most recent estimates from the U.S. international transactions accounts.

Table F.4—Private Service Transactions

[Millions of dollars]

Line		1997	1998	Seasonally adjusted					
				1998			1999		
				II	III	IV	I	II ^r	III ^p
1	Exports of private services	240,443	245,688	62,011	60,847	62,490	63,066	64,304	64,588
2	Travel (table F.2, line 6)	73,301	71,250	18,260	17,149	17,938	18,138	18,437	18,322
3	Passenger fares (table F.2, line 7)	20,789	19,996	5,185	5,052	4,843	4,995	5,240	5,332
4	Other transportation (table F.2, line 8)	27,006	25,518	6,268	6,339	6,575	6,501	6,731	6,921
5	Freight	11,789	11,178	2,769	2,684	2,852	2,819	2,848	2,966
6	Port services	15,217	14,340	3,498	3,654	3,722	3,682	3,883	3,955
7	Royalties and license fees (table F.2, line 9)	33,781	36,808	9,002	9,029	9,894	9,337	9,365	9,317
8	Affiliated	25,024	26,761	6,542	6,491	7,223	6,640	6,603	6,493
9	U.S. parents' receipts	23,221	24,712	6,066	6,091	6,591	6,081	6,003	5,971
10	U.S. affiliates' receipts	1,803	2,049	476	400	632	559	600	522
11	Unaffiliated	8,757	10,047	2,460	2,538	2,671	2,697	2,762	2,824
12	Industrial processes ¹	3,552	4,138	1,018	1,053	1,094	1,093	1,097	1,097
13	Other ²	5,205	5,909	1,442	1,485	1,578	1,604	1,665	1,727
14	Other private services (table F.2, line 10)	85,566	92,116	23,296	23,278	23,240	24,095	24,531	24,696
15	Affiliated services	27,272	28,321	7,114	7,184	7,036	7,454	7,086	7,316
16	U.S. parents' receipts	17,271	18,212	4,631	4,411	4,561	4,560	4,402	4,626
17	U.S. affiliates' receipts	10,001	10,109	2,483	2,773	2,475	2,894	2,684	2,690
18	Unaffiliated services	58,294	63,795	16,182	16,094	16,204	16,641	17,445	17,380
19	Education	8,343	8,964	2,251	2,310	2,243	2,312	2,309	2,351
20	Financial services	11,539	13,698	3,778	3,419	3,369	3,419	3,951	3,624
21	Insurance, net	2,485	2,842	696	717	746	794	831	869
22	Premiums received	6,133	6,985	1,722	1,780	1,826	1,860	1,887	1,911
23	Losses paid	3,648	4,143	1,026	1,063	1,080	1,066	1,056	1,042
24	Telecommunications	3,949	3,689	926	900	908	882	872	818
25	Business, professional, and technical services	22,467	24,338	6,017	6,164	6,299	6,544	6,746	6,892
26	Other unaffiliated services ³	9,511	10,264	2,513	2,583	2,640	2,690	2,737	2,826
27	Imports of private services	152,447	165,321	41,424	41,739	42,304	43,198	45,001	46,122
28	Travel (table F.2, line 23)	52,051	56,105	14,168	14,070	14,131	14,847	14,960	15,191
29	Passenger fares (table F.2, line 24)	18,138	19,797	4,958	5,085	5,125	5,114	5,316	5,456
30	Other transportation (table F.2, line 25)	28,959	30,457	7,590	7,700	7,849	7,726	8,362	9,102
31	Freight	17,654	19,412	4,858	4,999	5,006	4,864	5,413	6,031
32	Port services	11,305	11,048	2,732	2,701	2,843	2,862	2,949	3,071
33	Royalties and license fees (table F.2, line 26)	9,390	11,292	2,694	2,721	2,923	3,176	3,197	2,921
34	Affiliated	6,967	8,374	2,050	2,037	2,271	2,514	2,519	2,208
35	U.S. parents' payments	989	1,169	273	298	308	304	310	307
36	U.S. affiliates' payments	5,978	7,205	1,777	1,739	1,963	2,210	2,209	1,901
37	Unaffiliated	2,423	2,918	644	684	652	662	678	713
38	Industrial processes ¹	1,418	1,546	382	392	401	408	414	420
39	Other ²	1,006	1,372	262	292	252	254	264	292
40	Other private services (table F.2, line 27)	43,909	47,670	12,014	12,163	12,276	12,335	13,166	13,452
41	Affiliated services	17,728	19,095	4,856	4,974	4,998	5,033	5,620	5,742
42	U.S. parents' payments	8,927	9,730	2,424	2,453	2,565	2,581	2,744	2,726
43	U.S. affiliates' payments	8,801	9,365	2,432	2,521	2,433	2,452	2,876	3,016
44	Unaffiliated services	26,181	28,575	7,158	7,189	7,278	7,302	7,546	7,710
45	Education	1,395	1,538	380	401	401	404	423	440
46	Financial services	3,563	3,771	1,010	932	902	834	949	1,072
47	Insurance, net	6,002	6,908	1,717	1,736	1,753	1,816	1,878	1,949
48	Premiums paid	15,233	18,581	4,572	4,770	4,910	4,998	5,054	5,095
49	Losses recovered	9,231	11,673	2,855	3,034	3,157	3,183	3,175	3,146
50	Telecommunications	8,351	8,125	2,032	2,014	2,029	2,024	2,011	1,915
51	Business, professional, and technical services	6,358	7,684	1,884	1,968	2,045	2,103	2,160	2,211
52	Other unaffiliated services ³	511	549	135	138	148	121	124	123
	Memoranda:								
53	Balance on goods (table F.2, line 71)	-196,651	-246,932	-63,500	-64,969	-63,587	-74,203	-84,412	-92,145
54	Balance on private services (line 1 minus line 27)	87,996	80,367	20,587	19,108	20,186	19,868	19,303	18,466
55	Balance on goods and private services (lines 53 and 54)	-108,655	-166,565	-42,913	-45,861	-43,401	-54,335	-65,109	-73,679

^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 expenditures of U.S. residents temporarily working abroad and film rentals.

NOTE.—The data in this table are from table 3 in "U.S. International Transactions, Third Quarter 1999" in the January 2000 SURVEY OF CURRENT BUSINESS, which presents the most recent estimates from the U.S. international transactions accounts.

G. Investment Tables

Table G.1.—International Investment Position of the United States at Yearend, 1997 and 1998

[Millions of dollars]

Line	Type of investment	Position, 1997 ^r	Changes in position in 1998 (decrease (-))				Total (a+b+c+d)	Position, 1998 ^r
			Attributable to:					
			Financial flows	Valuation adjustments				
				Price changes	Exchange rate changes ¹	Other changes ²		
		(a)	(b)	(c)	(d)			
1	Net international investment position of the United States:							
2	With direct investment positions at current cost (line 3 less line 24) ...	-968,208	-209,819	-167,585	45,380	61,064	-270,960	-1,239,168
	With direct investment positions at market value (line 4 less line 25) ...	-1,066,262	-209,819	-319,300	56,282	1,633	-471,204	-1,537,466
	U.S.-owned assets abroad:							
3	With direct investment positions at current cost (lines 5+10+15)	4,508,626	292,818	101,041	43,704	-15,293	422,270	4,930,896
4	With direct investment positions at market value (lines 5+10+16)	5,288,892	292,818	315,522	54,584	-3,833	659,091	5,947,983
5	U.S. official reserve assets	134,836	6,784	-628	5,024	-10	11,170	146,006
6	Gold	75,929		³ -628		⁴ -10	-638	75,291
7	Special drawing rights	10,027	149		427		576	10,603
8	Reserve position in the International Monetary Fund	18,071	5,118		922		6,040	24,111
9	Foreign currencies	30,809	1,517		3,675		5,192	36,001
10	U.S. Government assets, other than official reserve assets	81,960	429		-5	-2	422	82,382
11	U.S. credits and other long-term assets ⁵	79,607	574			-2	572	80,179
12	Repayable in dollars	79,273	602			-1	601	79,874
13	Other ⁶	334	-28			-1	-29	305
14	U.S. foreign currency holdings and U.S. short-term assets	2,353	-145		-5		-150	2,203
	U.S. private assets:							
15	With direct investment at current cost (lines 17+19+22+23)	4,291,830	285,605	101,669	38,685	-15,281	410,678	4,702,508
16	With direct investment at market value (lines 18+19+22+23)	5,072,096	285,605	316,150	49,565	-3,821	647,499	5,719,595
	Direct investment abroad:							
17	At current cost	1,004,228	132,829	2,892	1,957	-18,465	119,213	1,123,441
18	At market value	1,784,494	132,829	217,373	12,837	-7,005	356,034	2,140,528
19	Foreign securities	1,739,400	102,817	98,777	27,962		229,556	1,968,956
20	Bonds	538,400	25,064	18,441	-20,079		23,426	561,826
21	Corporate stocks	1,201,000	77,753	80,336	48,041		206,130	1,407,130
22	U.S. claims on unaffiliated foreigners reported by U.S. nonbanking concerns	562,396	25,041		5,610	3,175	33,826	596,222
23	U.S. claims reported by U.S. banks, not included elsewhere	985,806	24,918		3,156	9	28,083	1,013,889
	Foreign-owned assets in the United States:							
24	With direct investment at current cost (lines 26+33)	5,476,834	502,637	268,626	-1,676	-76,357	693,230	6,170,064
25	With direct investment at market value (lines 26+34)	6,355,154	502,637	634,822	-1,698	-5,466	1,130,295	7,485,449
26	Foreign official assets in the United States	835,709	-21,684	22,437		-409	344	836,053
27	U.S. Government securities	614,530	-3,625	9,344			5,719	620,249
28	U.S. Treasury securities	589,792	-9,957	9,152			-805	588,987
29	Other	24,738	6,332	192			6,524	31,262
30	Other U.S. Government liabilities ⁷	21,459	-3,113				-3,113	18,346
31	U.S. liabilities reported by U.S. banks, not included elsewhere	135,384	-11,469				-11,469	123,915
32	Other foreign official assets	64,336	-3,477	13,093		-409	9,207	73,543
	Other foreign assets:							
33	With direct investment at current cost (lines 35+37+38+39+42+43)	4,641,125	524,321	246,189	-1,676	-75,948	692,886	5,334,011
34	With direct investment at market value (lines 36+37+38+39+42+43)	5,519,445	524,321	612,385	-1,698	-5,057	1,129,951	6,649,396
	Direct investment in the United States:							
35	At current cost	764,045	193,375	-3,877	22	-74,848	114,672	878,717
36	At market value	1,642,365	193,375	362,319		-3,957	551,737	2,194,102
37	U.S. Treasury securities	662,228	46,155	18,961			65,116	727,344
38	U.S. currency	211,628	16,622				16,622	228,250
39	U.S. securities other than U.S. Treasury securities	1,578,994	218,026	231,105	-6,005		443,126	2,021,820
40	Corporate and other bonds	715,196	170,539	21,019	-6,005		185,553	900,749
41	Corporate stocks	863,498	47,487	210,086			257,573	1,121,071
42	U.S. liabilities to unaffiliated foreigners reported by U.S. nonbanking concerns	453,555	9,412		-1,080	-1,100	7,232	460,787
43	U.S. liabilities reported by U.S. banks, not included elsewhere	970,975	40,731		5,387		46,118	1,017,093

^r Preliminary.^r Revised.

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

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

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

4. Reflects changes in gold stock from U.S. Treasury sales of gold medallions and commemorative and bullion coins; also reflects replenishment through open market purchases. These demonetizations/monetizations are not included in international transactions capital flows.

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

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

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

NOTE.—The data in this table are from table 1 in "International Investment Position of the United States at Yearend 1998" in the July 1999 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, 1996–98

[Millions of dollars]

	Direct investment position on a historical-cost basis			Capital outflows (inflows (-))			Income		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
All countries, all industries	795,195	865,531	980,565	84,426	99,517	121,644	93,594	103,892	90,242
By country									
Canada	89,592	96,031	103,908	7,181	7,493	10,259	9,258	10,548	8,104
Europe	389,378	420,108	489,539	40,148	51,698	74,538	44,286	48,757	49,308
<i>Of which:</i>									
France	35,200	35,800	39,188	4,463	2,543	2,895	3,224	2,575	2,450
Germany	41,281	38,490	42,853	1,956	1,627	2,025	3,797	3,339	4,787
Netherlands	54,118	64,361	79,386	6,308	14,327	14,996	9,632	12,370	12,594
United Kingdom	134,559	153,108	178,648	16,421	22,411	34,428	12,220	13,126	11,582
Latin America and Other Western Hemisphere	155,925	178,505	196,655	18,138	21,966	18,020	17,762	21,408	16,908
<i>Of which:</i>									
Brazil	29,105	35,091	37,802	4,159	6,514	3,790	4,172	4,675	3,037
Mexico	19,351	24,181	25,877	2,405	5,646	2,533	2,721	3,905	3,177
Africa	8,162	11,157	13,491	1,678	3,371	2,712	1,801	1,954	1,719
Middle East	8,294	8,803	10,599	467	601	2,062	1,412	1,328	757
Asia and Pacific	139,548	146,610	161,797	15,363	13,693	13,471	18,795	19,513	12,623
<i>Of which:</i>									
Australia	30,006	29,910	33,676	3,787	2,393	3,659	2,851	3,598	1,898
Japan	34,578	33,725	38,153	-280	-371	3,844	3,475	3,516	2,179
International	4,295	4,317	4,578	1,451	694	582	278	383	823
By industry									
Petroleum	75,232	82,212	91,113	6,239	9,603	9,780	12,082	11,823	8,059
Manufacturing	270,288	280,332	304,690	24,325	28,097	26,680	34,342	38,283	31,416
Food and kindred products	31,024	32,465	33,871	2,095	3,806	1,670	4,452	4,910	4,262
Chemicals and allied products	74,858	77,112	83,589	5,796	7,210	7,072	9,529	10,050	9,930
Primary and fabricated metals	16,309	15,924	17,098	6,064	444	1,109	1,358	1,406	1,278
Industrial machinery and equipment	30,336	32,293	34,755	2,752	4,381	2,810	4,637	5,669	4,213
Electronic and other electric equipment	31,832	31,624	34,531	3,440	2,992	2,670	4,280	4,700	2,763
Transportation equipment	32,092	34,907	35,615	708	4,419	1,692	3,409	5,048	2,385
Other manufacturing	53,837	56,006	65,231	3,470	4,845	9,658	6,677	6,500	6,586
Wholesale trade	67,125	64,432	75,188	6,498	846	9,130	9,068	9,538	10,794
Depository institutions	36,807	40,169	42,029	2,448	3,036	1,253	3,329	3,374	577
Finance, (except depository institutions), insurance, and real estate	254,739	293,116	337,600	31,601	41,388	44,445	28,938	31,912	30,702
Services	37,850	42,342	52,514	3,511	4,557	10,867	3,627	5,533	4,722
Other industries	53,155	62,925	77,432	9,804	11,990	19,490	2,209	3,429	3,972

NOTES.—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 16 and 17 in "U.S. Direct Investment Abroad: Detail for Historical-Cost Position and Related Capital and Income Flows, 1998" in the September 1999 issue of the SURVEY.

Table G.3.—Selected Financial and Operating Data for Nonbank Foreign Affiliates of U.S. Companies, by Country and by Industry of Foreign Affiliate, 1997

	Number of affiliates	Millions of dollars			Thousands of employees
		Total assets	Sales	Net income	
All countries, all industries	22,871	3,397,262	2,356,416	155,267	8,018.0
By country					
Canada	2,073	294,943	274,205	13,654	941.9
Europe	11,209	1,914,373	1,214,194	77,854	3,333.9
<i>Of which:</i>					
France	1,297	144,057	130,883	3,424	483.7
Germany	1,424	213,029	234,508	7,531	627.4
Italy	783	66,091	74,035	2,311	205.5
Netherlands	1,104	179,751	130,053	17,014	169.4
Switzerland	545	93,348	67,620	9,155	L
United Kingdom	2,532	923,207	337,907	18,020	977.2
Latin America and Other Western Hemisphere	3,583	458,889	268,912	30,849	1,629.2
<i>Of which:</i>					
Brazil	461	79,240	67,380	4,934	340.8
Mexico	874	83,500	88,063	8,488	793.0
Africa	559	40,602	29,150	2,653	186.6
Middle East	355	39,411	24,950	2,603	77.4
Asia and Pacific	4,977	628,118	536,462	26,231	1,835.8
<i>Of which:</i>					
Australia	904	96,250	68,519	3,899	304.2
Japan	990	266,028	205,072	5,925	396.7
International	115	20,926	8,545	1,422	13.2
By industry					
Petroleum	1,622	295,313	360,452	19,778	226.1
Manufacturing	8,528	884,113	1,086,129	61,660	4,592.9
Food and kindred products	789	112,875	127,710	8,810	598.0
Chemicals and allied products	2,065	220,923	207,988	17,900	622.4
Primary and fabricated metals	760	47,209	44,679	2,043	244.7
Industrial machinery and equipment	1,090	123,273	178,257	9,033	634.1
Electronic and other electric equipment	908	84,525	110,625	6,905	774.5
Transportation equipment	530	131,550	244,199	6,198	724.2
Other manufacturing	2,386	163,757	172,671	10,772	995.0
Wholesale trade	5,045	223,451	422,285	15,218	588.0
Finance, (except depository institutions), insurance, and real estate	3,115	1,498,127	135,331	42,922	218.8
Services	2,873	154,234	128,639	6,843	988.9
Other industries	1,688	342,025	223,580	8,846	1,403.3

NOTES.—Size ranges are given in employment cells that are suppressed. The size range is L—50,000–99,999.

The data in this table are from "U.S. Multinational Companies: Operations in 1997" in the July 1999 issue of the SURVEY.

Table G.4.—Foreign Direct Investment in the United States: Selected Items, by Country of Foreign Parent and by Industry of Affiliate, 1996–98

[Millions of dollars]

	Direct investment position on a historical-cost basis			Capital inflows (outflows (-))			Income		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
All countries, all industries	598,021	693,207	811,756	84,455	105,488	188,960	30,407	42,115	38,015
By country									
Canada	54,836	69,866	74,840	8,590	15,399	11,859	3,190	3,361	3,010
Europe	370,843	432,622	539,906	55,989	70,508	167,655	23,724	31,380	27,635
<i>Of which:</i>									
France	43,253	49,503	62,167	7,244	10,993	12,308	2,405	3,183	3,137
Germany	61,096	71,289	95,045	19,616	12,919	42,145	2,509	3,294	4,392
Netherlands	75,349	89,570	96,904	12,262	13,658	7,018	5,271	7,103	5,920
United Kingdom	121,582	131,315	151,335	14,404	11,234	69,968	10,374	11,440	7,815
Latin America and Other Western Hemisphere	28,002	33,546	32,210	1,990	3,993	278	1,383	1,752	1,494
<i>Of which:</i>									
Brazil	697	742	609	-64	64	-132	45	44	82
Mexico	1,641	3,315	4,029	-47	330	864	1	171	270
Africa	994	1,465	884	-101	435	-572	-136	-352	-89
Middle East	5,812	6,593	7,831	496	791	967	118	617	475
Asia and Pacific	137,533	149,115	156,085	17,493	14,361	8,773	2,129	5,356	5,489
<i>Of which:</i>									
Australia	14,968	14,703	14,755	5,321	2,254	2,034	492	214	672
Japan	116,144	125,131	132,569	13,337	9,275	7,101	2,939	5,780	5,187
By industry									
Petroleum	43,483	42,085	53,254	8,852	2,805	57,355	4,160	4,555	1,443
Manufacturing	245,662	273,122	329,346	37,538	36,086	87,454	15,694	18,628	20,696
Food and kindred products	28,088	26,710	18,112	1,981	-903	-5,020	1,819	1,532	1,056
Chemicals and allied products	79,515	88,831	101,351	8,081	13,746	10,325	5,014	5,556	6,190
Primary and fabricated metals	18,576	23,366	22,512	5,397	4,258	1,041	1,024	1,572	1,744
Machinery	39,093	46,636	59,260	2,868	7,573	18,475	1,166	2,805	2,718
Other manufacturing	80,390	87,580	128,112	19,211	11,411	62,632	6,671	7,162	8,988
Wholesale trade	73,506	87,630	96,261	7,974	14,729	11,004	2,256	3,972	5,247
Retail trade	13,765	16,718	18,778	2,708	2,622	1,946	509	487	579
Depository institutions	31,264	38,118	44,785	138	6,800	5,684	2,867	3,930	3,067
Finance, except depository institutions	37,531	43,413	50,858	6,186	7,140	5,812	855	1,979	-718
Insurance	56,124	70,492	80,378	6,747	12,097	6,817	2,382	4,681	4,019
Real estate	35,169	40,060	44,436	2,535	4,675	3,284	-59	789	948
Services	29,391	38,521	50,252	4,214	7,862	10,744	-14	916	1,358
Other industries	32,126	43,049	43,409	7,562	10,673	-1,139	1,757	2,178	1,376

NOTES.—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, 1998" in the September 1999 issue of the Survey.

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, 1997

	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	9,474	3,034,404	1,717,240	42,547	384,883	5,164.3	140,924	261,482
By country								
Canada	945	309,080	139,409	3,693	34,464	601.6	7,787	14,356
Europe	4,071	1,809,319	940,672	31,107	245,919	3,213.9	62,392	94,512
<i>Of which:</i>								
France	513	322,270	135,414	2,959	35,863	411.2	14,032	12,936
Germany	1,011	302,740	194,492	5,071	46,171	657.6	13,973	32,032
Netherlands	302	260,034	124,109	5,508	33,750	391.4	4,592	10,191
Switzerland	404	339,896	110,077	2,986	25,637	352.1	6,233	7,127
United Kingdom	929	454,081	258,845	12,119	78,550	983.2	14,543	15,363
Latin America and Other Western Hemisphere	632	59,833	53,469	2,522	13,545	168.1	5,308	9,622
Africa	41	11,969	11,222	326	2,843	22.4	855	634
Middle East	307	28,841	25,246	1,151	7,295	92.7	814	5,534
Asia and Pacific	3,373	687,245	523,479	918	73,667	1,012.6	62,709	135,739
<i>Of which:</i>								
Australia	135	55,514	26,132	-101	5,207	80.1	1,410	1,501
Japan	2,587	582,570	446,422	2,701	62,345	812.4	52,883	120,357
United States	105	128,117	23,742	2,829	7,151	52.9	1,058	1,084
By industry ¹								
Manufacturing	2,846	680,260	667,576	18,826	188,477	2,227.0	70,053	99,304
<i>Of which:</i>								
Food	214	43,894	47,082	183	10,953	152.7	2,620	2,675
Chemicals	339	190,326	141,744	4,280	40,906	389.4	15,259	16,019
Primary and fabricated metals	373	67,516	65,075	1,744	16,510	219.4	5,133	8,329
Machinery	359	47,246	56,680	1,390	16,607	260.8	10,357	8,267
Computers and electronic products	333	53,182	73,413	-257	15,658	239.6	13,092	20,612
Electrical equipment, appliances, and components	104	22,574	26,203	631	7,537	129.5	3,430	3,421
Transportation equipment	260	49,211	72,607	2,060	13,554	207.9	7,631	18,203
Wholesale trade	1,708	293,144	530,141	3,889	51,856	538.5	63,231	155,716
Retail trade	210	49,802	96,624	1,197	25,009	688.7	1,951	3,973
Information	236	144,497	80,845	2,445	27,120	293.4	888	374
Finance (except depository institutions) and insurance	570	1,534,492	175,822	11,220	26,331	219.8	(^D)	(^D)
Real estate and rental and leasing	1,935	116,679	20,813	204	9,084	47.0	(^D)	(^D)
Professional, scientific, and technical services	301	17,299	15,972	-570	5,981	82.6	361	567
Other industries	1,668	198,229	129,448	5,337	51,025	1,067.3	4,332	1,255

^D Suppressed to avoid disclosure of data of individual companies.

1. The industry classification system used to classify the data for U.S. affiliates is based on the North American Industry Classification System. Prior to 1997, the affiliate data were classified

using an industry classification system based on the Standard Industrial Classification system.

NOTE.—The data in this table are from "Foreign Direct Investment in the United States: Preliminary Results from the 1997 Benchmark Survey" in the August 1999 issue of the SURVEY.

H. International Perspectives

Quarterly data in this table are shown in the middle month of the quarter.

Table H.1.—International Perspectives

	1997	1998	1998			1999										
			Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.
Exchange rates per U.S. dollar (not seasonally adjusted) ¹																
Canada (Can./US\$)	1.3849	1.4836	1.5452	1.5404	1.5433	1.5194	1.4977	1.5176	1.4881	1.4611	1.4695	1.4890	1.4932	1.4771	1.4776	1.4674
European Monetary Union (US\$/Euro) ²						1.1591	1.1203	1.0886	1.0701	1.0630	1.0377	1.0370	1.0605	1.0497	1.0706	1.0328
France (FFr/US\$) ²	5.8393	5.8995	5.4925	5.6422	5.5981											
Germany (DM/US\$) ²	1.7348	1.7597	1.6381	1.6827	1.6698											
Italy (L/US\$) ²	17.0381	17.3685	16.2096	16.6491	16.5323											
Japan (¥/US\$)	1.2106	1.3099	1.2105	1.2029	1.1707	1.1329	1.1667	1.1947	1.1977	1.2200	1.2072	1.1933	1.1323	1.0688	1.0597	1.0465
Mexico (Peso/US\$)	7.9177	9.1520	10.1594	9.9680	9.9070	10.1280	10.0060	9.7320	9.4300	9.3950	9.5150	9.3700	9.3980	9.3410	9.5750	9.4160
United Kingdom (US\$/£)	1.6376	1.6573	1.6944	1.6611	1.6708	1.6498	1.6276	1.6213	1.6089	1.6154	1.5950	1.5751	1.6058	1.6247	1.6572	1.6205
Addendum: Exchange value of the U.S. dollar ³ ..	104.44	116.48	115.85	115.73	114.98	115.16	116.84	118.22	117.57	117.34	117.93	117.97	117.00	116.38	115.88	116.08
Unemployment rates (percent, monthly data seasonally adjusted)																
Canada	9.2	8.3	8.0	8.0	8.0	7.8	7.8	7.8	8.3	8.1	7.6	7.7	7.8	7.5	7.2	.....
France	12.5	11.8	11.7	11.6	11.5	11.5	11.4	11.4	11.3	11.4	11.3	11.2	11.3	11.1	11.0	10.8
Germany	11.5	11.1	10.6	10.7	10.7	10.6	10.6	10.6	10.6	10.5	10.5	10.5	10.5	10.5	10.5	10.4
Italy	12.3	12.3	.....	12.4	.....	.....	12.3	.....	.....	11.8	.....	.....	.....	.....	.....	.....
Japan	3.4	4.1	4.3	4.4	4.4	4.4	4.6	4.8	4.8	4.6	4.9	4.9	4.7	4.6	4.6	4.5
Mexico	3.7	3.2	3.1	2.6	2.6	2.8	3.2	2.7	2.7	2.4	2.6	2.3	2.5	2.2	2.4	2.3
United Kingdom	5.5	4.7	4.6	4.6	4.6	4.5	4.6	4.5	4.5	4.5	4.4	4.3	4.2	4.2	4.2	4.1
Addendum: United States	4.9	4.5	4.5	4.4	4.4	4.3	4.4	4.2	4.3	4.2	4.3	4.3	4.2	4.2	4.1	4.1
Consumer prices (monthly data seasonally adjusted, 1995=100)																
Canada	103.22	104.25	104.60	104.60	104.31	104.50	104.69	105.08	105.65	105.94	106.04	106.33	106.61	106.90	107.0	106.9
France	103.23	104.01	104.02	103.91	104.02	103.70	104.02	104.43	104.64	104.64	104.64	104.43	104.54	104.74	104.8	104.8
Germany	103.34	104.30	104.21	104.21	104.31	104.11	104.31	104.41	104.81	104.81	104.91	105.41	105.31	105.11	105.0	105.2
Italy	106.13	108.22	108.60	108.80	108.80	108.90	109.10	109.30	109.60	109.80	109.80	110.10	110.20	110.40	110.8	111.0
Japan	101.84	102.50	103.29	103.19	102.79	102.29	101.89	101.99	102.49	102.49	102.19	101.79	102.09	102.39	102.6	102.0
Mexico	162.09	187.91	195.42	198.88	203.73	208.88	211.68	213.65	215.61	216.91	218.33	219.78	221.01	223.15	224.6	226.6
United Kingdom	105.66	109.27	110.36	110.29	110.29	109.62	109.82	110.09	110.83	111.10	111.10	110.76	111.03	111.50	111.7	111.8
Addendum: United States	105.34	106.97	107.56	107.75	107.89	108.02	108.08	108.28	109.07	109.07	109.07	109.40	109.72	110.18	110.4	110.5
Real gross domestic product (percent change from preceding quarter, quarterly data seasonally adjusted at annual rates)																
Canada	4.0	3.1	.....	4.8	.....	.....	4.2	.....	.....	3.3	.....	.....	.....	.....	.....	.....
France	2.0	3.3	.....	2.6	.....	.....	1.4	.....	.....	2.5	.....	.....	.....	.....	.....	.....
Germany	1.5	2.1	.....	-1.1	.....	.....	1.8	.....	.....	2	.....	.....	.....	.....	.....	.....
Italy	1.5	1.3	.....	-1.0	.....	.....	.7	.....	.....	1.3	.....	.....	.....	.....	.....	.....
Japan	1.4	-2.8	.....	-3.3	.....	.....	8.1	.....	.....	.9	.....	.....	.....	.....	.....	.....
Mexico	6.8	4.8	.....	-4.3	.....	.....	3.6	.....	.....	9.2	.....	.....	.....	.....	.....	.....
United Kingdom	3.5	2.2	.....	.2	.....	.....	.9	.....	.....	2.6	.....	.....	.....	.....	.....	.....
Addendum: United States	4.5	4.3	.....	5.9	.....	.....	3.7	.....	.....	1.9	.....	.....	5.7	.....	.....	5.8

See footnotes at the end of the table.

Table H.1.—International Perspectives—Continued

	1997	1998	1998			1999										
			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	3.53	5.04	5.27	5.13	4.99	4.99	5.02	5.00	4.71	4.58	4.80	4.77	4.89	4.81	5.00	5.03
France	3.46	3.56	3.56	3.59	3.32	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Germany	3.33	3.54	3.57	3.63	3.38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Italy	6.88	4.99	4.53	3.95	3.38	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Japan .....	.60	.72	.61	.63	.62	.69	.58	.20	.19	.08	.07	.08	.07	.12	.....	.....
Mexico	21.27	26.11	37.49	34.30	34.35	32.27	28.72	23.86	21.05	21.02	21.35	20.78	21.49	21.34	20.30	18.68
United Kingdom	6.83	7.33	7.13	6.88	6.37	5.79	5.42	5.29	5.23	5.25	5.12	5.07	5.17	5.32	5.94	5.78
Addendum:																
United States	5.07	4.81	4.08	4.44	4.42	4.34	4.45	4.48	4.28	4.51	4.59	4.60	4.76	4.73	4.88	5.07
Long-term interest rates, government bond yields (percent, not seasonally adjusted)																
Canada	6.47	5.45	5.17	5.39	5.07	5.13	5.26	5.34	5.26	5.51	5.70	5.61	5.85	5.88	6.26	6.15
France	5.67	4.82	4.51	4.43	4.41	4.13	4.42	4.39	4.25	4.45	4.94	5.08	5.17	5.35	5.67	5.66
Germany	5.66	4.58	4.10	4.10	3.90	3.70	3.90	4.00	3.90	4.00	4.40	4.68	4.88	5.04	.....	.....
Italy	6.86	4.88	4.49	4.38	4.00	3.92	4.05	4.27	4.11	4.28	4.62	4.94	5.13	5.28	5.52	5.25
Japan	2.37	1.54	.88	.98	1.49	1.91	2.12	1.82	1.56	1.33	1.63	1.70	1.88	1.76	.....	.....
United Kingdom	7.04	5.52	5.00	4.91	4.50	4.29	4.45	4.66	4.59	4.91	5.16	5.33	5.38	5.65	5.83	5.28
Addendum:																
United States	6.35	5.26	4.53	4.83	4.65	4.72	5.00	5.23	5.18	5.54	5.90	5.79	5.94	5.92	6.11	6.03
Share price indices (not seasonally adjusted, 1995=100)																
Canada	145.70	152.40	140.00	143.10	146.30	151.80	142.40	148.80	158.20	154.30	158.10	159.70	157.20	156.90	163.7	169.7
France	147.01	192.24	171.01	190.90	193.39	210.44	210.06	211.54	220.92	225.11	230.17	236.08	231.73	242.28	243.0	264.9
Germany	154.73	197.73	171.38	188.86	186.88	199.85	195.26	191.41	200.13	200.70	202.32	209.77	200.77	203.21	202.7	218.1
Italy	137.74	220.53	188.79	213.89	224.00	241.37	236.94	248.62	251.95	247.42	247.42	248.11	234.24	242.54	235.0	241.0
Japan	101.03	85.36	74.15	80.59	80.25	78.31	79.78	87.18	96.31	96.25	99.81	106.74	106.15	108.33	.....	.....
Mexico	200.17	191.09	183.61	169.86	178.41	178.34	191.98	222.15	243.96	246.81	262.67	237.02	229.20	227.56	245.6	276.5
United Kingdom	128.26	150.50	136.64	148.92	150.07	157.29	159.40	162.89	169.18	168.18	171.00	173.50	168.92	166.66	164.3	175.0
Addendum:																
United States	156.81	189.00	175.68	193.80	197.85	204.51	202.20	207.35	215.61	218.31	216.22	222.85	213.30	208.78	206.0	218.0

1. All exchange rates are from the Board of Governors of the Federal Reserve System.

2. As of January 1, 1999, the euro is reported in place of the individual euro-area currencies. These currency rates can be derived from the euro rate by using the following conversion rates: 1 euro = 6.55957 French francs, 1.95583 German marks, and 1936.27 Italian lire.

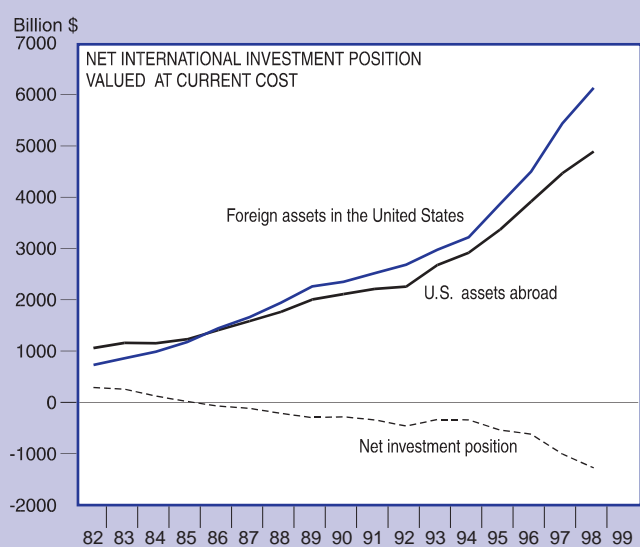
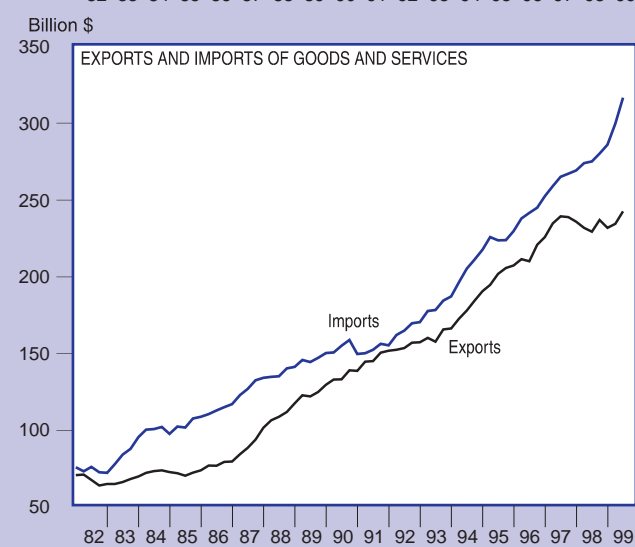
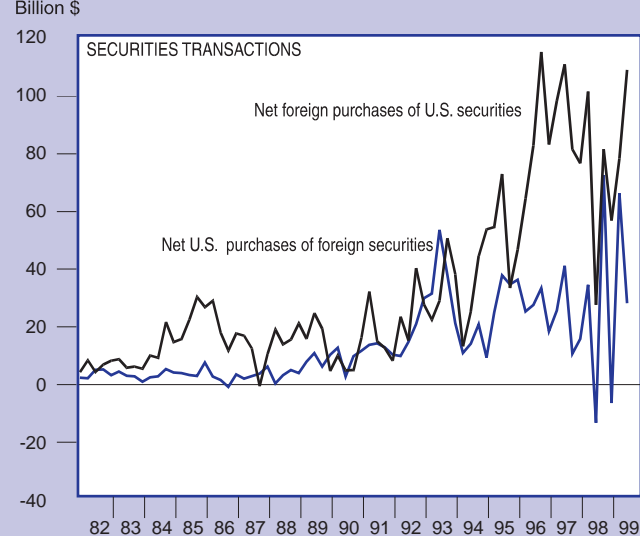
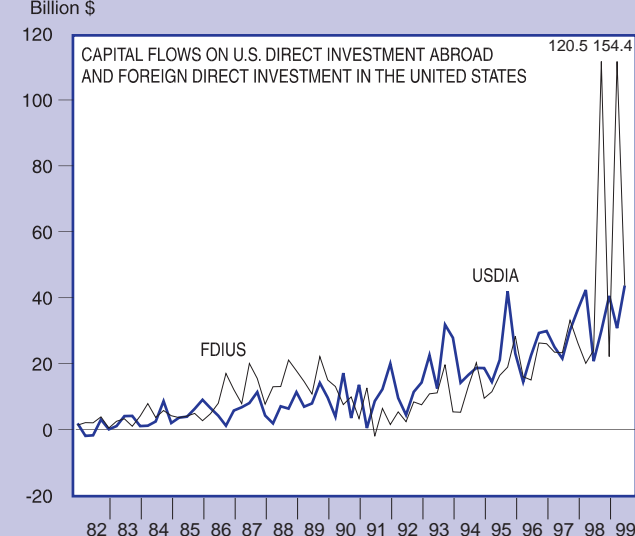
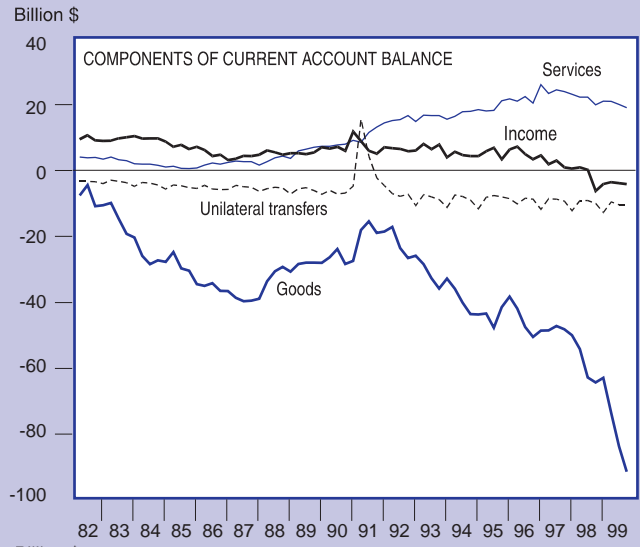
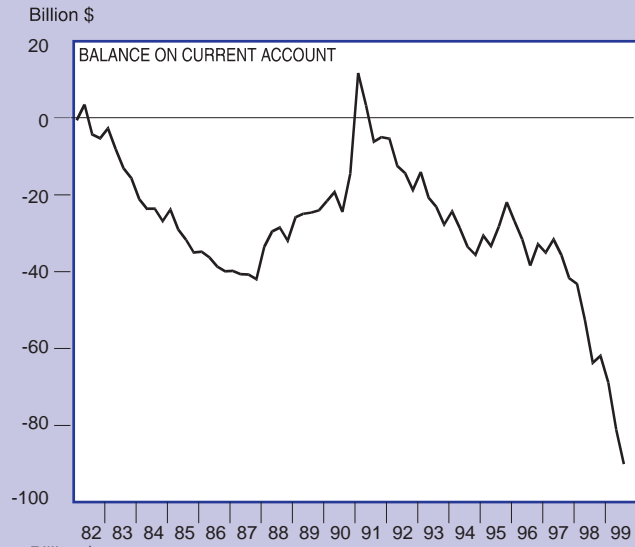
3. The rate shown for the United States is an index of the weighted average of the foreign exchange value of the U.S. dollar against the currencies of a broad group of major U.S. trading partners, January 1997=100; and

reflects revised trade weights. For more information, see "New Summary Measures of the Foreign Exchange Value of the Dollar," *Federal Reserve Bulletin* 84 (October 1998): 811-18.

NOTE.—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 1995 to facilitate comparison) are © OECD, January 2000, *OECD Main Economic Indicators* and are reproduced with permission of the OECD.

I. Charts

THE U.S. IN THE INTERNATIONAL ECONOMY



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 State 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 by State and Region

Area name	Millions of dollars, seasonally adjusted at annual rates												Percent change ¹			
	1997				1998				1999				1998:III- 1998:IV	1998:IV- 1999:I	1999:I- 1999:II	1999:II- 1999:III
	I	II	III	IV	I	II	III	IV	I	II	III					
United States	6,650,207	6,726,629	6,807,506	6,898,259	7,016,041	7,108,060	7,199,440	7,309,162	7,406,673	7,504,566	7,601,815	1.5	1.3	1.3	1.3	
New England	399,830	403,744	408,242	415,615	419,963	426,088	433,011	440,347	443,257	450,901	457,711	1.7	.7	1.7	1.5	
Connecticut	115,126	116,357	117,455	119,755	121,057	122,052	123,950	126,664	127,236	129,428	131,570	2.2	-.5	1.7	1.7	
Maine	26,877	27,112	27,267	27,715	27,865	28,406	28,936	29,271	29,236	30,017	30,390	1.2	-1.1	1.7	1.2	
Massachusetts	187,831	189,367	191,863	194,969	197,207	200,905	204,031	206,866	209,219	212,737	215,906	1.4	1.1	1.7	1.5	
New Hampshire	31,755	32,233	32,759	33,436	33,646	34,124	34,937	35,796	35,587	36,190	36,692	2.5	-6	1.7	1.4	
Rhode Island	24,886	25,223	25,372	25,877	26,152	26,370	26,762	27,172	27,335	27,564	28,007	1.5	6	1.7	1.6	
Vermont	13,354	13,452	13,524	13,864	14,037	14,230	14,394	14,578	14,644	14,965	15,147	1.3	5	2.2	1.2	
Mideast	1,287,567	1,293,436	1,309,439	1,325,328	1,345,232	1,364,051	1,380,603	1,389,923	1,420,878	1,435,616	1,453,918	.7	2.2	1.0	1.3	
Delaware	20,631	20,639	21,094	21,422	21,892	22,118	22,225	22,796	23,078	23,191	23,541	2.6	1.2	.5	1.5	
District of Columbia	18,760	18,805	19,028	19,085	19,191	19,408	19,687	19,817	20,235	20,450	20,709	7	2.1	1.1	1.3	
Maryland	143,770	145,016	146,589	148,983	150,778	153,116	155,299	157,464	159,802	161,725	163,589	1.4	1.5	1.2	1.2	
New Jersey	257,066	258,617	261,795	265,466	270,299	273,177	278,572	280,078	288,406	291,133	294,092	5	3.0	.9	1.0	
New York	543,350	543,675	551,780	556,901	565,642	575,201	581,019	581,208	598,865	603,200	612,924	0	3.0	1.7	1.6	
Pennsylvania	303,989	306,686	309,153	313,471	317,430	321,031	323,801	328,561	330,493	335,917	339,062	1.5	6	1.6	.9	
Great Lakes	1,089,113	1,102,312	1,112,380	1,126,771	1,143,432	1,155,114	1,163,136	1,185,908	1,192,794	1,207,693	1,223,340	2.0	.6	1.2	1.3	
Illinois	325,749	330,416	333,657	338,040	342,467	346,668	350,023	356,961	361,142	366,399	371,323	2.0	1.2	1.5	1.3	
Indiana	133,919	135,408	136,348	138,619	140,635	142,285	143,902	146,627	147,355	148,532	150,129	1.9	.5	.8	1.1	
Michigan	240,467	243,025	245,370	247,430	253,117	254,683	253,375	258,980	259,761	262,359	265,883	2.2	.3	1.0	1.3	
Ohio	266,151	269,084	271,385	275,181	278,627	280,966	283,518	288,569	290,063	293,306	297,072	1.8	5	1.1	1.3	
Wisconsin	122,827	124,778	125,620	127,501	128,587	130,512	132,318	134,771	134,472	137,098	138,932	1.9	-2	2.0	1.3	
Plains	438,635	444,771	449,351	454,161	460,014	466,078	470,605	482,185	484,446	492,615	496,817	2.5	.5	1.7	.9	
Iowa	64,874	65,808	66,185	67,105	67,104	67,830	68,745	71,199	70,660	71,542	72,266	3.6	-8	1.2	1.0	
Kansas	61,007	62,081	62,782	63,581	64,435	65,385	65,973	67,625	67,566	68,751	69,264	2.5	-1	1.8	.7	
Minnesota	120,365	122,372	123,869	125,434	128,013	129,951	130,696	134,286	135,399	137,966	140,045	2.7	.8	1.9	1.5	
Missouri	126,067	127,093	128,381	129,637	130,680	132,228	133,834	135,080	136,906	138,775	139,964	2.7	9	1.4	1.4	
Nebraska	38,487	39,037	39,412	39,604	40,140	40,820	41,349	42,538	42,435	43,082	43,198	2.9	-2	1.5	-.3	
North Dakota	12,646	12,838	12,986	13,072	13,623	13,680	13,758	14,358	14,419	14,906	14,692	4.4	4	3.4	-1.4	
South Dakota	15,190	15,541	15,736	15,729	16,019	16,185	16,250	17,099	17,062	17,594	17,388	5.2	-2	3.1	-1.2	
Southeast	1,458,318	1,472,319	1,488,852	1,509,533	1,535,161	1,557,124	1,580,149	1,601,518	1,620,186	1,638,193	1,657,547	1.4	1.2	1.1	1.2	
Alabama	88,240	88,927	89,599	90,626	91,987	92,976	94,041	95,265	95,780	97,014	98,145	1.3	.5	1.3	1.2	
Arkansas	48,531	49,268	49,629	50,338	50,874	51,403	51,790	52,984	53,182	53,759	53,827	2.3	4	1.1	-.1	
Florida	357,463	361,282	366,450	370,723	377,760	383,881	389,957	395,019	396,747	403,978	411,109	1.3	4	1.8	1.8	
Georgia	175,822	177,615	179,751	182,310	186,808	189,851	193,919	196,882	201,289	203,893	206,991	1.5	2.2	1.3	1.5	
Kentucky	79,087	80,058	80,819	81,777	83,283	84,440	85,430	86,183	87,280	88,019	89,326	9	1.3	.8	1.5	
Louisiana	87,638	88,570	89,247	90,811	91,958	93,334	93,822	94,605	94,707	95,555	96,399	.8	1	.9	.9	
Mississippi	48,597	49,213	49,609	50,330	51,250	51,828	52,660	53,374	53,518	54,094	54,754	1.3	.3	1.1	1.2	
North Carolina	169,449	171,121	172,593	175,453	178,542	180,852	183,188	185,561	188,551	190,432	188,436	1.3	1.6	1.0	-1.0	
South Carolina	76,523	77,139	78,010	79,071	79,995	81,170	82,960	84,033	84,595	86,002	87,303	1.3	1.7	1.7	1.5	
Tennessee	120,173	120,999	122,280	124,284	125,583	127,546	129,172	130,676	132,161	133,735	135,935	1.2	1.1	1.2	1.6	
Virginia	173,146	174,227	176,798	179,473	182,445	184,931	187,900	191,467	196,815	195,755	198,751	1.9	2.8	1.5	1.5	
West Virginia	33,649	33,900	34,066	34,337	34,676	34,911	35,290	35,469	35,562	35,955	36,570	5	.3	1.1	1.7	
Southwest	643,609	655,242	666,522	676,461	692,740	702,120	713,181	723,371	731,553	743,460	754,190	1.4	1.1	1.6	1.4	
Arizona	97,748	99,234	100,914	102,744	104,765	106,967	109,091	111,522	111,051	115,051	117,435	2.2	-4	3.6	2.1	
New Mexico	32,780	33,202	33,404	33,689	34,239	34,543	34,800	35,431	35,190	36,063	36,471	1.8	-7	2.5	1.1	
Oklahoma	66,453	67,024	67,623	68,676	69,562	70,257	70,847	71,211	71,909	72,927	73,682	5	1.0	1.4	1.0	
Texas	446,628	455,782	464,580	471,352	484,174	490,352	498,443	505,206	513,403	519,419	526,601	1.4	1.6	1.2	1.4	
Rocky Mountain	194,734	198,098	201,433	204,128	209,209	211,736	214,437	219,191	222,178	227,417	230,648	2.2	1.4	2.4	1.4	
Colorado	101,986	104,199	106,206	108,182	111,925	113,255	114,793	117,823	119,334	122,654	124,766	2.6	1.3	2.8	1.7	
Idaho	24,167	24,524	24,894	25,017	25,426	25,622	26,076	26,480	27,054	27,403	27,660	1.5	2.2	1.3	.9	
Montana	17,007	17,182	17,349	17,565	17,547	17,786	17,728	18,246	18,476	18,964	19,024	2.9	1.3	2.6	-.3	
Utah	40,836	41,410	42,087	42,393	43,288	44,070	44,561	45,269	45,727	46,729	47,466	1.6	1.0	2.2	1.6	
Wyoming	10,737	10,783	10,897	10,972	11,023	11,004	11,278	11,372	11,587	11,666	11,732	.8	1.9	1.7	.6	
Far West	1,138,401	1,156,706	1,171,286	1,186,262	1,210,289	1,225,749	1,244,320	1,266,721	1,291,380	1,308,673	1,327,645	1.8	1.9	1.3	1.4	
Alaska	14,984	15,237	15,275	15,393	15,805	15,749	15,762	15,978	16,154	16,114	16,236	1.4	1.1	-2	.8	
California	828,154	842,113	853,136	863,952	881,119	892,504	906,175	923,802	941,435	956,059	969,041	1.9	1.9	1.6	1.4	
Hawaii	30,224	30,437	30,727	30,669	31,022	31,192	31,316	31,543	31,649	32,061	32,523	7	.3	1.3	1.4	
Nevada	43,671	44,255	44,662	45,450	46,344	47,203	48,135	49,497	50,522	51,156	52,435	2.8	2.1	1.3	2.5	
Oregon	76,340	77,063	78,110	78,803	80,391	81,101	81,532									

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		Millions of dollars			Percent change	
	1996	1997	1998	1996-97	1997-98	1996	1997	1998	1996-97	1997-98
United States	6,408,103	6,770,650	7,158,176	5.7	5.7	5,518,569	5,782,712	6,061,088	4.8	4.8
New England	384,540	406,858	429,852	5.8	5.7	323,239	338,425	353,824	4.7	4.6
Connecticut	110,904	117,173	123,431	5.7	5.3	91,503	95,453	99,259	4.3	4.0
Maine	25,934	27,243	28,620	5.0	5.1	22,772	23,671	24,650	3.9	4.1
Massachusetts	179,998	191,008	202,252	6.1	5.9	149,777	157,389	164,889	5.1	4.8
New Hampshire	30,633	32,546	34,626	6.2	6.4	26,831	28,254	29,849	5.3	5.6
Rhode Island	24,067	25,340	26,614	5.3	5.0	21,022	21,942	22,878	4.4	4.3
Vermont	13,004	13,549	14,309	4.2	5.6	11,333	11,717	12,299	3.4	5.0
Mideast	1,245,254	1,303,943	1,369,952	4.7	5.1	1,057,756	1,096,946	1,140,195	3.7	3.9
Delaware	19,723	20,946	22,258	6.2	6.3	16,796	17,699	18,647	5.4	5.4
District of Columbia	18,463	18,119	19,526	2.5	3.2	15,623	15,851	16,100	1.5	1.6
Maryland	138,068	146,090	154,164	5.8	5.5	117,094	122,434	128,282	4.6	4.8
New Jersey	247,381	260,736	275,531	5.4	5.7	210,191	219,885	229,892	4.6	4.6
New York	526,390	548,927	575,768	4.3	4.9	442,273	456,565	472,647	3.2	3.5
Pennsylvania	295,230	308,325	322,706	4.4	4.7	255,779	264,511	274,626	3.4	3.8
Great Lakes	1,054,547	1,107,644	1,161,898	5.0	4.9	902,103	939,326	977,559	4.1	4.1
Illinois	314,960	331,966	349,029	5.4	5.1	268,434	280,280	292,419	4.4	4.3
Indiana	129,570	136,073	143,362	5.0	5.4	111,656	116,414	121,876	4.3	4.7
Michigan	233,571	244,073	255,039	4.5	4.5	199,607	206,608	214,329	3.5	3.7
Ohio	257,506	270,450	282,920	5.0	4.6	221,394	230,780	239,089	4.2	3.6
Wisconsin	118,940	125,081	131,547	5.2	5.2	101,011	105,244	109,846	4.2	4.4
Plains	425,718	446,730	469,721	4.9	5.1	367,001	381,713	398,925	4.0	4.5
Iowa	62,759	65,993	68,720	5.2	4.1	54,824	57,253	59,222	4.4	3.4
Kansas	58,690	62,363	65,854	6.3	5.6	50,703	53,488	56,057	5.5	4.8
Minnesota	117,293	123,010	130,737	4.9	6.3	97,774	101,468	107,358	3.8	5.8
Missouri	121,265	127,795	132,955	5.4	4.0	105,529	110,307	113,948	4.5	3.3
Nebraska	37,652	39,135	41,212	3.9	5.3	32,903	33,827	35,446	2.8	4.8
North Dakota	12,983	12,885	13,855	-8	7.5	11,620	11,389	12,230	-2.0	7.4
South Dakota	15,076	15,549	16,388	3.1	5.4	13,649	13,982	14,665	2.4	4.9
Southeast	1,401,506	1,482,256	1,568,488	5.8	5.8	1,225,384	1,286,377	1,350,586	5.0	5.0
Alabama	85,128	89,348	93,567	5.0	4.7	75,473	78,809	82,148	4.4	4.2
Arkansas	47,116	49,442	51,763	4.9	4.7	41,791	43,686	45,394	4.5	3.9
Florida	343,806	363,980	386,654	5.9	6.2	298,933	313,790	330,157	5.0	5.2
Georgia	167,956	178,875	191,865	6.5	7.3	145,199	153,506	163,232	5.7	6.3
Kentucky	75,612	80,435	84,834	6.4	5.5	65,938	69,749	73,168	5.8	4.9
Louisiana	85,099	89,067	93,430	4.7	4.9	76,061	78,903	82,179	3.7	4.2
Mississippi	47,150	49,437	52,283	4.9	5.8	42,827	44,697	47,079	4.4	5.3
North Carolina	161,179	172,154	182,036	6.8	5.7	139,842	148,266	155,290	6.0	4.7
South Carolina	73,435	77,686	82,039	5.8	5.6	64,545	67,858	71,340	5.1	5.1
Tennessee	115,697	121,934	128,244	5.4	5.2	102,991	107,789	112,656	4.7	4.5
Virginia	166,351	175,911	186,686	5.7	6.1	142,308	149,103	156,916	4.8	5.2
West Virginia	32,976	33,988	35,087	3.1	3.2	29,476	30,222	31,026	2.5	2.7
Southwest	614,265	660,458	707,853	7.5	7.2	543,363	581,106	618,773	6.9	6.5
Arizona	93,391	100,160	108,087	7.2	7.9	81,041	86,119	92,333	6.3	7.2
New Mexico	31,826	33,269	34,753	4.5	4.5	28,249	29,307	30,524	3.7	4.2
Oklahoma	63,750	67,444	70,469	5.8	4.5	56,059	58,974	61,218	5.2	3.8
Texas	425,298	459,585	494,544	8.1	7.6	378,015	406,707	434,698	7.6	6.9
Rocky Mountain	186,887	199,598	213,643	6.8	7.0	160,565	170,034	180,610	5.9	6.2
Colorado	97,735	105,143	114,449	7.6	8.9	83,250	88,686	95,810	6.5	8.0
Idaho	23,418	24,651	25,901	5.3	5.1	20,420	21,347	22,275	4.5	4.3
Montana	16,546	17,276	17,827	4.4	3.2	14,546	15,064	15,434	3.6	2.5
Utah	38,856	41,681	44,297	7.3	6.3	33,433	35,657	37,627	6.7	5.5
Wyoming	10,333	10,847	11,169	5.0	3.0	8,915	9,281	9,463	4.1	2.0
Far West	1,095,386	1,163,164	1,236,770	6.2	6.3	939,159	988,785	1,040,616	5.3	5.2
Alaska	14,713	15,222	15,823	3.5	3.9	12,567	12,926	13,349	2.9	3.3
California	798,580	846,839	900,900	6.0	6.4	682,968	717,988	755,232	5.1	5.2
Hawaii	29,784	30,514	31,268	2.5	2.5	25,911	26,398	26,843	1.9	1.7
Nevada	41,412	44,510	47,795	7.5	7.4	35,342	37,654	40,107	6.5	6.5
Oregon	73,156	77,579	81,310	6.0	4.8	62,206	65,177	67,866	4.8	4.1
Washington	137,741	148,500	159,674	7.8	7.5	120,166	128,640	137,220	7.1	6.7

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's) because of differences in coverage, in the methodologies used to prepare the estimates, and in the timing of the availability of source data. In particular, it differs from the NIPA estimate because, by defini-

tion, 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.

Source: Tables 1 and 2 in "State Personal Income, First Quarter 1999" in the August 1999 issue of the SURVEY.

Table J.3.—Per Capita Personal Income and Per Capita Disposable Personal Income for States and Regions

Area name	Per capita personal income ¹				Per capita disposable personal income ¹			
	Dollars			Rank in U.S.	Dollars			Rank in U.S.
	1996	1997	1998	1998	1996	1997	1998	1998
United States	24,164	25,288	26,482	.....	20,810	21,598	22,424	.....
New England	28,872	30,427	32,007	.....	24,269	25,309	26,346	.....
Connecticut	33,979	35,863	37,700	1	28,035	29,215	30,317	1
Maine	20,948	21,937	23,002	36	18,394	19,061	19,811	35
Massachusetts	29,591	31,239	32,902	3	24,623	25,740	26,824	3
New Hampshire	26,418	27,766	29,219	7	23,140	24,104	25,188	5
Rhode Island	24,356	25,667	26,924	15	21,274	22,225	23,145	11
Vermont	22,179	23,017	24,217	30	19,328	19,905	20,815	28
Midwest	27,978	29,252	30,652	.....	23,765	24,609	25,512	.....
Delaware	27,125	28,493	29,932	6	23,100	24,076	25,077	6
District of Columbia	34,213	35,704	37,325	.....	28,950	29,914	30,776	.....
Maryland	27,298	28,674	30,023	5	23,151	24,031	24,983	7
New Jersey	30,892	32,356	33,953	2	26,248	27,286	28,329	2
New York	29,015	30,250	31,679	4	24,378	25,160	26,005	4
Pennsylvania	24,533	25,670	26,889	16	21,255	22,022	22,883	15
Great Lakes	24,055	25,158	26,290	.....	20,578	21,335	22,119	.....
Illinois	26,393	27,688	28,976	8	22,494	23,377	24,277	8
Indiana	22,234	23,202	24,302	29	19,160	19,849	20,660	32
Michigan	23,996	24,956	25,979	18	20,507	21,126	21,832	20
Ohio	23,054	24,163	25,239	21	19,821	20,618	21,329	23
Wisconsin	22,987	24,048	25,184	22	19,521	20,235	21,029	26
Plains	23,039	24,034	25,126	.....	19,861	20,536	21,339	.....
Iowa	22,032	23,120	24,007	32	19,246	20,058	20,689	30
Kansas	22,707	23,972	25,049	24	19,617	20,561	21,322	24
Minnesota	25,235	26,243	27,667	11	21,035	21,647	22,719	16
Missouri	22,586	23,629	24,447	28	19,656	20,395	20,952	27
Nebraska	22,847	23,618	24,786	26	19,965	20,415	21,318	25
North Dakota	20,197	20,103	21,708	38	18,077	17,768	19,162	38
South Dakota	20,450	21,076	22,201	37	18,513	18,952	19,866	34
Southeast	21,787	22,751	23,793	.....	19,049	19,744	20,488	.....
Alabama	19,838	20,672	21,500	40	17,588	18,234	18,876	39
Arkansas	18,808	19,595	20,393	46	16,682	17,314	17,884	46
Florida	23,834	24,799	25,922	19	20,723	21,379	22,134	18
Georgia	22,900	23,882	25,106	23	19,798	20,495	21,359	22
Kentucky	19,475	20,570	21,551	39	16,983	17,837	18,587	42
Louisiana	19,609	20,458	21,385	42	17,526	18,123	18,810	40
Mississippi	17,398	18,098	18,998	50	15,803	16,363	17,107	50
North Carolina	22,053	23,168	24,122	31	19,134	19,953	20,578	33
South Carolina	19,651	20,508	21,387	41	17,272	17,913	18,598	41
Tennessee	21,800	22,699	23,615	33	19,406	20,066	20,745	29
Virginia	24,950	26,109	27,489	13	21,344	22,130	23,105	13
West Virginia	18,116	18,724	19,373	49	16,193	16,649	17,131	49
Southwest	21,577	22,787	23,985	.....	19,086	20,049	20,967	.....
Arizona	21,071	21,998	23,152	35	18,284	18,914	19,777	36
New Mexico	18,634	19,298	20,008	48	16,540	17,000	17,574	47
Oklahoma	19,342	20,305	21,056	45	17,008	17,755	18,292	43
Texas	22,345	23,707	25,028	25	19,861	20,980	21,999	19
Rocky Mountain	22,304	23,414	24,668	.....	19,163	19,946	20,854	.....
Colorado	25,627	27,015	28,821	9	21,829	22,787	24,128	9
Idaho	19,741	20,392	21,080	44	17,214	17,658	18,129	44
Montana	18,872	19,660	20,247	47	16,591	17,143	17,530	48
Utah	19,214	20,185	21,096	43	16,533	17,267	17,920	45
Wyoming	21,524	22,596	23,225	34	18,570	19,333	19,678	37
Far West	24,969	26,127	27,367	.....	21,408	22,210	23,027	.....
Alaska	24,310	24,969	25,771	20	20,765	21,203	21,741	21
California	25,142	26,314	27,579	12	21,503	22,310	23,119	12
Hawaii	25,086	25,598	26,210	17	21,824	22,145	22,500	17
Nevada	25,877	26,514	27,360	14	22,084	22,431	22,959	14
Oregon	22,894	23,920	24,775	27	19,467	20,096	20,678	31
Washington	24,958	26,451	28,066	10	21,774	22,914	24,119	10

1. Per capita personal income and per capita disposable personal income were computed using midyear population estimates from 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 (NIPAs) because of differences in coverage, in the methodologies used to prepare the estimates, and in the timing

of the availability of source data. In particular, it differs from the NIPA estimate 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.

Source: Tables 1 and 2 in "State Personal Income, First Quarter 1999" in the August 1999 issue of the SURVEY.

Table J.4.—Gross State Product for States and Regions by Industry, 1997

[Millions of dollars]

State and region	Rank of total gross state product	Total gross state product	Agriculture, forestry, and fishing	Mining	Construction	Manufacturing	Transportation and public utilities	Wholesale trade	Retail trade	Finance, insurance, and real estate	Services	Government
United States		8,103,234	131,745	120,515	328,806	1,378,869	676,313	562,755	712,890	1,570,308	1,656,849	964,184
New England		466,857	3,445	310	15,771	76,656	29,998	32,219	38,059	116,542	109,730	44,128
Connecticut	21	134,565	899	36	4,351	22,510	8,011	9,373	9,862	38,988	29,184	11,350
Maine	42	30,156	460	19	1,356	5,153	2,250	1,848	3,459	5,779	5,800	4,033
Massachusetts	11	221,009	1,284	156	7,161	32,394	13,924	16,133	17,510	53,708	58,449	20,291
New Hampshire	39	38,106	263	45	1,282	9,521	2,671	2,410	3,348	8,377	7,004	3,186
Rhode Island	44	27,806	210	15	959	4,347	1,911	1,537	2,385	6,941	6,092	3,410
Vermont	50	15,214	329	39	663	2,731	1,231	918	1,494	2,749	3,202	1,858
Mideast		1,523,401	8,905	2,737	51,564	204,283	122,778	99,738	112,108	392,621	344,626	184,041
Delaware	41	31,585	273	5	1,038	6,108	1,545	1,192	1,842	12,348	4,482	2,753
District of Columbia		52,372	16	13	481	1,308	2,710	588	1,314	9,531	16,969	19,441
Maryland	16	153,797	1,304	116	7,835	13,230	11,457	9,716	13,254	34,137	36,268	26,479
New Jersey	8	294,055	1,502	186	10,414	41,062	28,256	27,283	21,293	68,841	64,380	30,838
New York	2	651,652	2,689	480	18,505	74,446	49,335	40,277	44,440	203,219	148,253	70,007
Pennsylvania	6	339,940	3,121	1,935	13,291	68,129	29,476	20,683	29,965	64,544	74,274	34,523
Great Lakes		1,295,671	17,478	4,860	54,174	316,788	100,547	94,731	115,023	217,559	242,173	132,337
Illinois	4	393,532	5,110	1,268	16,385	71,671	35,807	30,972	31,881	79,466	82,375	38,597
Indiana	15	161,701	2,883	846	7,845	50,155	12,369	10,036	14,807	21,351	25,676	15,732
Michigan	9	272,607	2,698	1,246	11,052	70,234	18,230	20,831	25,735	41,850	51,635	29,095
Ohio	7	320,506	3,947	1,210	12,515	83,850	23,955	23,338	29,669	50,967	57,798	33,256
Wisconsin	19	147,325	2,840	290	6,378	40,878	10,186	9,553	12,930	23,924	24,690	15,657
Plains		538,494	21,360	3,164	23,831	102,629	49,367	42,281	48,237	85,150	99,193	63,280
Iowa	29	80,479	5,612	193	3,287	19,617	6,177	5,701	6,579	11,889	12,327	9,096
Kansas	31	71,737	2,933	1,021	3,040	12,784	7,608	5,822	7,039	9,432	12,298	9,759
Minnesota	18	149,394	3,631	679	6,693	28,271	11,485	12,568	13,004	27,515	29,839	15,710
Missouri	17	152,100	2,855	453	7,146	31,195	15,521	11,564	14,033	22,615	29,825	16,892
Nebraska	36	48,812	3,506	125	2,088	6,681	5,394	3,839	4,148	7,429	8,663	6,939
North Dakota	49	15,786	1,072	451	784	1,389	1,629	1,463	1,523	2,128	2,908	2,438
South Dakota	46	20,186	1,751	241	793	2,692	1,554	1,324	1,911	4,141	3,332	2,447
Southeast		1,763,114	31,716	32,479	76,652	315,895	157,072	121,470	171,379	286,834	333,401	236,216
Alabama	25	103,109	2,145	1,600	4,304	22,115	9,172	6,687	10,535	13,657	17,155	15,738
Arkansas	32	58,479	2,775	606	2,333	14,006	6,129	3,689	6,170	6,929	8,862	6,980
Florida	5	380,607	6,691	1,027	17,876	29,108	33,388	28,533	42,487	83,763	91,196	46,538
Georgia	10	229,473	4,066	1,002	8,910	40,035	25,274	20,947	20,587	37,774	42,441	28,439
Kentucky	26	100,076	2,723	2,659	4,101	27,360	8,087	6,014	9,033	11,646	15,217	13,239
Louisiana	23	124,350	1,292	19,797	5,395	19,566	11,037	7,078	10,232	16,068	20,127	13,758
Mississippi	33	58,314	1,659	540	2,355	13,198	5,865	3,383	5,985	6,898	9,725	8,705
North Carolina	12	218,888	5,118	298	9,643	57,971	16,578	14,328	19,427	33,045	34,351	28,130
South Carolina	28	93,259	1,280	215	4,500	23,289	7,057	5,619	9,955	12,894	14,626	13,824
Tennessee	20	146,999	1,745	480	6,012	31,281	11,759	11,299	16,267	21,233	29,856	17,067
Virginia	13	211,331	1,961	1,102	9,439	31,282	18,056	11,839	17,278	38,537	43,411	38,426
West Virginia	38	38,228	261	3,154	1,785	6,684	4,672	2,053	3,423	4,391	6,434	5,371
Southwest		844,766	13,481	52,354	37,222	133,678	84,895	60,142	76,363	126,830	157,507	102,294
Arizona	24	121,239	1,934	1,300	6,937	17,815	9,047	8,095	12,574	23,531	24,974	15,031
New Mexico	37	45,242	897	3,271	2,046	7,887	3,280	1,981	4,137	6,207	7,791	7,745
Oklahoma	30	76,642	2,085	4,087	2,377	13,015	7,523	4,697	7,664	9,587	13,514	12,090
Texas	3	601,643	8,565	43,695	25,861	94,961	65,044	45,369	51,987	87,505	111,227	67,428
Rocky Mountain		247,372	5,924	11,026	13,354	31,372	25,517	15,282	24,137	39,172	48,933	32,656
Colorado	22	126,084	2,147	2,708	6,910	14,480	13,762	8,223	12,229	21,885	27,850	15,891
Idaho	43	29,149	1,730	273	1,669	5,809	2,492	1,838	2,961	3,644	4,860	3,873
Montana	47	19,160	1,019	880	965	1,486	2,241	1,241	1,956	2,593	3,773	3,005
Utah	35	55,417	612	1,654	3,132	8,601	4,709	3,383	5,791	9,119	10,735	7,682
Wyoming	48	17,561	416	5,512	679	996	2,312	595	1,201	1,930	1,715	2,205
Far West		1,423,561	29,436	13,585	56,236	197,569	106,140	96,892	127,584	305,601	321,285	169,233
Alaska	45	24,494	314	5,169	1,007	1,134	3,822	713	1,673	2,795	3,029	4,838
California	1	1,033,016	21,633	6,381	34,883	146,173	72,301	71,177	91,300	237,282	236,925	114,962
Hawaii	40	38,024	463	26	1,640	1,213	3,904	1,493	4,332	8,503	8,413	8,036
Nevada	34	57,407	427	1,568	4,978	2,608	4,333	2,809	5,553	10,773	18,670	5,688
Oregon	27	98,367	2,473	124	5,173	24,666	6,943	7,727	8,175	14,903	17,030	11,154
Washington	14	172,253	4,127	317	8,555	21,776	14,837	12,974	16,550	31,344	37,219	24,554

NOTE.—Totals shown for the United States differ from the national income and product account estimates of gross domestic product (GDP) because GSP is derived from gross domestic income, which differs from GDP by the statistical discrepancy. In addition, GSP excludes and GDP includes 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 domestically located office equipment. GSP and GDP also have different revision

schedules.

Source: Tables 6 and 7 in "Gross State Product by Industry, 1995-97" in the June 1999 issue of the SURVEY OF CURRENT BUSINESS.

K. Local Area Table

Table K.1.—Personal Income and Per Capita Personal Income by Metropolitan Area, 1995–97

Area name	Personal income				Per capita personal income ¹				Area name	Personal income				Per capita personal income ¹			
	Millions of dollars			Percent change 1996–97	Dollars			Rank in U.S.		Millions of dollars			Percent change 1996–97	Dollars			Rank in U.S.
	1995	1996	1997		1995	1996	1997			1995	1996	1997		1995	1996	1997	
United States²	6,059,091	6,408,103	6,770,650	5.7	23,059	24,164	25,288										
Metropolitan portion	5,137,433	5,430,631	5,747,454	5.8	24,470	25,623	26,840										
Nonmetropolitan portion	921,658	977,472	1,023,196	4.7	17,449	18,559	19,089										
Consolidated Metropolitan Statistical Areas																	
Chicago-Gary-Kenosha, IL-IN-WI	235,526	248,253	262,357	5.7	27,296	28,555	29,981		Colorado Springs, CO	9,748	10,514	11,270	7.2	20,978	22,263	23,493	131
Cincinnati-Hamilton, OH-KY-IN	44,660	47,149	50,006	6.1	23,427	24,574	25,855		Columbia, MO	2,618	2,779	2,915	4.9	21,232	22,106	22,797	152
Cleveland-Akron, OH	71,327	74,337	77,920	4.8	24,499	25,495	26,733		Columbia, SC	10,429	11,121	11,820	6.3	21,259	22,344	23,435	134
Dallas-Fort Worth, TX	113,904	123,121	134,293	9.1	25,612	27,023	28,709		Columbus, GA-AL	5,021	5,331	5,700	6.9	18,468	19,624	20,929	232
Denver-Boulder-Greeley, CO	60,179	64,674	69,800	7.9	27,024	28,483	30,019		Columbus, OH	33,904	35,336	37,471	6.0	23,706	24,502	25,728	75
Detroit-Ann Arbor-Flint, MI	139,276	143,074	149,232	4.3	25,889	26,374	27,499		Corpus Christi, TX	6,830	7,235	7,639	5.6	18,045	18,933	19,781	269
Houston-Galveston-Brazoria, TX	105,523	112,366	121,775	8.4	25,408	26,566	28,225		Cumberland, MD-WV	1,715	1,788	1,874	4.8	17,027	17,859	18,919	291
Los Angeles-Riverside-Orange County, CA	355,870	373,755	393,604	5.3	23,321	24,318	25,313		Dallas, TX	80,161	86,962	95,191	9.5	27,081	28,637	30,481	22
Miami-Fort Lauderdale, FL	78,661	83,186	86,917	4.5	22,619	23,459	24,131		Danville, VA	1,928	1,987	2,082	4.8	17,609	18,193	19,126	288
Milwaukee-Racine, WI	41,484	43,512	45,898	5.5	25,230	26,433	27,899		Davenport-Moline-Rock Island, IA-IL	7,632	8,056	8,541	6.0	21,359	22,561	23,906	123
New York-No. New Jersey-Long Island, NY-NJ-CT-PA	619,350	654,862	688,267	5.1	31,352	33,031	34,560		Dayton-Springfield, OH	21,960	22,676	23,685	4.9	22,918	23,607	24,877	96
Philadelphia-Wilmington-Atlantic City, PA-NJ-DE-MD	158,253	166,947	175,008	4.8	26,493	27,936	29,292		Daytona Beach, FL	8,300	8,864	9,341	5.4	18,492	19,489	20,187	256
Portland-Salem, OR-WA	47,988	52,031	55,815	7.3	23,697	25,100	26,396		Decatur, AL	2,764	2,874	3,003	4.5	19,814	20,458	21,202	216
Sacramento-Yolo, CA	37,445	39,292	41,621	5.9	23,326	24,099	25,138		Decatur, IL	2,512	2,665	2,753	3.3	21,629	23,126	24,107	117
San Francisco-Oakland-San Jose, CA	200,245	215,995	232,660	7.9	30,562	32,571	34,634		Denver, CO*	50,303	54,103	58,471	8.1	27,553	29,055	30,743	20
Seattle-Tacoma-Bremerton, WA	86,045	92,306	100,810	9.2	26,363	27,855	29,839		Des Moines, IA	10,522	11,167	11,830	5.9	24,883	26,102	27,403	45
Washington-Baltimore, DC-MD-VA-WV	202,626	213,221	225,524	5.8	28,601	29,838	31,265		Detroit, MI*	115,080	118,194	123,417	4.4	26,009	26,506	27,169	44
Metropolitan Statistical Areas³																	
Abilene, TX	2,300	2,424	2,566	5.9	18,800	20,014	21,202	216	Dothan, AL	2,492	2,559	2,668	4.3	18,589	19,073	19,869	267
Akron, OH*	15,555	16,229	17,079	5.2	22,856	23,700	24,849	99	Dover, DE	2,308	2,507	2,550	1.7	19,094	20,611	20,776	239
Albany, GA	2,163	2,296	2,381	3.7	18,586	19,617	20,207	255	Dubuque, IA	1,832	1,931	2,016	4.4	20,746	21,849	22,874	149
Albany-Schenectady-Troy, NY	20,787	21,444	22,217	3.6	23,606	24,429	25,275	83	Duluth-Superior, MN-WI	4,708	4,950	5,167	4.4	19,794	20,839	21,723	191
Albuquerque, NM	14,064	14,759	15,466	4.8	21,324	22,089	22,937	146	Dutchess County, NY*	6,404	6,776	7,144	5.4	24,522	25,805	27,085	54
Alexandria, LA	2,389	2,456	2,532	3.1	18,861	19,447	20,007	262	Eau Claire, WI	2,720	2,878	3,035	5.5	19,132	20,155	21,154	219
Allentown-Bethlehem-Easton, PA	14,328	15,045	15,835	5.3	23,438	24,551	25,762	73	El Paso, TX	9,431	9,895	10,504	6.2	14,037	14,600	15,216	312
Altoona, PA	2,453	2,578	2,677	3.8	18,597	19,644	20,482	246	Elkhart-Goshen, IN	3,781	3,873	3,998	3.2	22,718	22,969	23,423	135
Amarillo, TX	4,171	4,343	4,576	5.4	20,457	21,112	22,051	180	Elmira, NY	1,825	1,906	1,968	3.3	19,423	20,459	21,312	210
Anchorage, AK	6,989	7,162	7,475	4.4	27,845	28,690	29,765	28	Enid, OK	1,091	1,143	1,222	6.9	19,088	20,092	21,474	205
Ann Arbor, MI*	14,369	14,989	15,941	6.4	27,573	28,266	29,579	29	Erie, PA	5,670	5,925	6,140	3.6	20,326	21,285	22,120	179
Annapolis, MD	2,024	2,110	2,210	4.7	17,350	18,098	18,855	292	Eugene-Springfield, OR	6,117	6,544	6,920	5.7	20,201	21,358	22,231	173
Appleton-Oshkosh-Neenah, WI	7,601	8,047	8,530	6.0	22,655	23,718	24,957	91	Evansville-Henderson, IN-KY	6,290	6,643	6,942	4.5	21,906	23,051	24,010	121
Asheville, NC	4,363	4,604	4,898	6.4	21,083	21,971	23,158	140	Fargo-Moorhead, ND-MN	3,315	3,608	3,746	3.8	20,264	21,876	22,466	166
Athens, GA	2,588	2,788	2,936	5.3	19,232	20,428	21,256	214	Fayetteville, NC	5,209	5,461	5,742	5.1	18,314	19,240	20,219	253
Atlanta, GA	87,823	95,356	102,678	7.7	25,603	26,993	28,253	36	Fayetteville-Springdale-Rogers, AR	5,053	5,413	5,799	7.1	19,923	20,704	21,655	198
Atlantic-Cape May, NJ*	8,999	9,431	9,722	3.1	27,188	28,339	29,833	33	Flagstaff, AZ-UT	1,939	2,076	2,178	4.9	16,663	17,585	18,184	298
Augusta-Aiken, GA-SC	8,763	9,086	9,476	4.3	19,398	20,106	20,821	236	Flint, MI*	9,827	9,891	9,875	-2	22,647	22,720	22,685	158
Austin-San Marcos, TX	22,572	24,580	27,194	10.6	22,524	23,665	25,420	84	Florence, AL	2,544	2,636	2,715	3.0	18,729	19,295	19,800	268
Bakersfield, CA	10,544	11,004	11,449	4.0	17,201	17,801	18,319	297	Florence, SC	2,280	2,426	2,566	5.8	18,617	19,697	20,622	242
Baltimore, MD*	61,948	65,177	68,758	5.5	25,157	26,399	27,770	41	Fort Collins-Loveland, CO	4,810	5,259	5,613	6.7	22,174	23,750	24,852	98
Bangor, ME (NECMA)	2,683	2,794	2,927	4.8	18,582	19,418	20,425	248	Fort Lauderdale, FL*	36,123	38,534	40,743	5.7	25,561	26,752	27,661	43
Barnstable-Yarmouth, MA (NECMA)	5,415	5,815	6,190	6.4	27,199	28,758	30,199	25	Fort Myers-Cape Coral, FL	8,749	9,303	9,863	6.0	23,372	24,510	25,668	78
Baton Rouge, LA	11,776	12,331	12,786	3.7	20,956	21,786	22,408	168	Fort Pierce-Port St. Lucie, FL	6,681	7,211	7,607	5.5	23,804	25,209	26,135	68
Beaumont-Port Arthur, TX	7,276	7,505	7,804	7.0	19,413	20,062	21,453	207	Fort Smith, AR-OK	3,403	3,563	3,772	5.9	18,061	18,648	19,570	280
Bellingham, WA	2,920	3,151	3,309	5.0	19,589	20,694	21,438	208	Fort Walton Beach, FL	3,176	3,511	3,736	6.4	19,453	21,200	22,274	171
Benton Harbor, MI	3,366	3,451	3,647	5.7	20,839	21,415	22,689	157	Fort Wayne, IN	10,859	11,288	11,886	5.3	23,072	23,805	24,891	94
Bergen-Passaic, NJ*	44,162	46,207	49,111	6.3	33,425	34,795	36,769	5	Fort Worth-Arlington, TX*	33,743	36,159	39,102	8.1	22,689	23,798	25,150	88
Billings, MT	2,634	2,729	2,851	4.5	21,162	21,737	22,647	159	Fresno, CA	15,106	15,850	16,367	3.3	17,959	18,573	19,858	290
Bloix-Gulfport-Pascagoula, MS	6,006	6,266	6,614	5.6	17,594	18,350	19,211	287	Gadsden, AL	1,814	1,884	1,984	5.3	17,465	18,341	19,126	288
Binghamton, NY	5,208	5,357	5,542	3.5	20,251	21,147	22,123	177	Gainesville, FL	3,876	4,095	4,313	5.3	19,871	20,844	21,822	189
Birmingham, AL	20,268	21,363	22,445	5.1	22,640	23,858	24,898	93	Galveston-Texas City, TX*	5,014	5,269	5,514	4.6	21,164	21,986	22,737	155
Bismarck, ND	1,789	1,906	1,972	3.5	20,103	21,151	21,711	192	Gary, IN*	13,326	13,943	14,689	5.4	21,363	22,460	23,593	128
Bloomington, IN	2,135	2,269	2,369	4.4	18,544	19,587	20,316	251	Glens Falls, NY	2,317	2,410	2,484	3.1	19,961	19,754	20,386	250
Bloomington-Normal, IL	3,181	3,373	3,545	5.1	22,944	24,172	25,200	87	Goldensboro, NC	1,866	1,971	2,085	5.8	16,877	17,640	18,611	295
Boise City, ID	8,423	8,906	9,430	5.9	23,349	23,901	24,567	108	Grand Forks, ND-MN	1,854	1,985	1,991	-3	17,854	19,206	19,657	275
Boston-Worcester-Lawrence-Lowell-Brockton, MA-NH (NECMA)	164,632	174,335	185,340	6.3	28,612	30,124	31,308	15	Grand Junction, CO	1,998	2,125	2,276	7.1	18,853	19,644	20,593	243

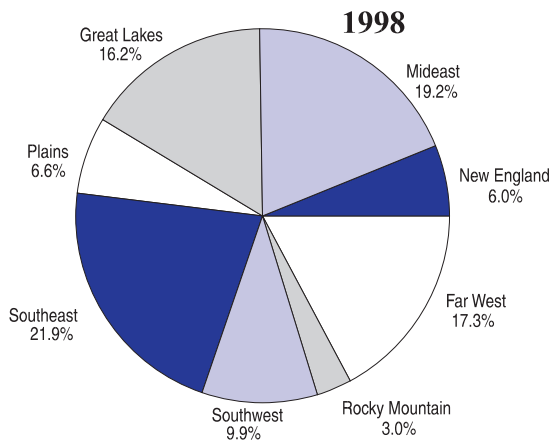
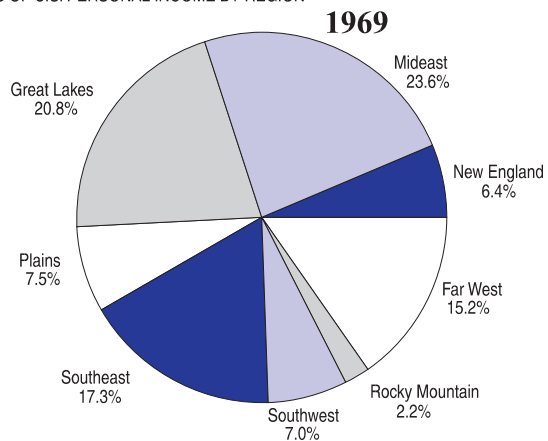
Table K.1.—Personal Income and Per Capita Personal Income by Metropolitan Area, 1995–97—Continued

Area name	Personal income				Per capita personal income ¹				Area name	Personal income				Per capita personal income ¹			
	Millions of dollars			Percent change	Dollars			Rank in U.S.		Millions of dollars			Percent change	Dollars			Rank in U.S.
	1995	1996	1997	1996-97	1995	1996	1997	1997		1995	1996	1997	1996-97	1995	1996	1997	1997
Jonesboro, AR	1,328	1,404	1,487	5.9	17,867	18,581	19,456	283	Raleigh-Durham-Chapel Hill, NC	24,621	26,671	29,107	9.1	24,798	26,301	27,711	42
Joplin, MO	2,717	2,872	3,065	6.7	18,924	19,724	20,817	237	Rapid City, SD	1,720	1,770	1,852	4.6	19,760	20,383	21,270	212
Kalamazoo-Battle Creek, MI	9,639	10,057	10,438	3.8	21,820	22,693	23,481	132	Reading, PA	8,339	8,761	9,220	5.2	23,813	24,893	26,051	69
Kankakee, IL*	2,007	2,124	2,211	4.1	19,823	20,925	21,677	194	Redding, CA	3,095	3,202	3,341	4.3	19,283	19,843	20,539	244
Kansas City, MO-KS	40,847	43,133	45,714	6.0	24,233	25,450	26,627	59	Reno, NV	8,064	8,747	9,262	5.9	27,761	29,284	30,214	24
Kenosha, WI*	2,936	3,073	3,302	7.5	21,082	21,743	23,124	142	Richland-Kennewick-Pasco, WA	3,681	3,780	3,876	2.5	20,650	21,120	21,417	209
Killeen-Temple, TX	4,819	5,074	5,348	5.4	16,563	17,059	17,861	303	Richmond-Petersburg, VA	23,575	24,857	26,312	5.9	25,429	26,553	27,797	40
Knoxville, TN	13,738	14,260	14,888	4.4	21,482	22,004	22,745	154	Riverside-San Bernardino, CA*	54,153	56,769	59,748	5.2	18,335	18,949	19,604	278
Kokomo, IN	2,370	2,336	2,412	3.3	23,780	23,287	24,061	119	Roanoke, VA	5,476	5,730	5,977	4.3	24,003	25,085	26,182	66
La Crosse, WI-MN	2,509	2,643	2,770	4.8	20,812	21,812	22,815	150	Rochester, MN	2,752	2,945	3,119	5.9	24,466	26,044	27,233	51
Lafayette, LA	6,424	6,911	7,453	7.8	17,627	18,783	20,031	261	Rochester, NY	26,383	27,410	28,374	3.5	24,310	25,247	26,170	67
Lafayette, IN	3,291	3,393	3,582	5.6	19,386	19,841	20,800	235	Rockford, IL	7,839	8,165	8,528	4.4	22,432	23,128	24,024	120
Lake Charles, LA	3,359	3,547	3,747	5.6	19,109	19,906	20,901	234	Rocky Mount, NC	2,618	2,809	2,937	4.6	18,414	19,554	20,214	254
Lakeland-Winter Haven, FL	8,133	8,643	9,207	6.5	18,699	19,649	20,625	241	Sacramento, CA*	34,184	35,985	38,101	6.1	23,452	24,236	25,335	85
Lancaster, PA	10,107	10,726	11,205	4.5	22,600	23,816	24,694	102	Saginaw-Bay City-Midland, MI	8,840	9,103	9,485	4.2	21,969	22,604	23,570	129
Lansing-East Lansing, MI	9,541	9,835	10,208	3.2	21,026	21,907	22,691	156	St. Cloud, MN	2,888	3,081	3,164	2.7	18,230	19,285	19,627	277
Laredo, TX	1,993	2,156	2,357	9.2	11,696	12,332	12,999	314	St. Joseph, MO	1,855	1,947	2,035	4.5	19,056	20,059	20,939	230
Las Cruces, NM	2,254	2,370	2,482	4.7	14,194	14,564	14,923	313	St. Louis, MO-IL	63,014	65,847	69,547	5.6	24,785	25,824	27,177	53
Las Vegas, NV-AZ	26,458	29,423	31,876	8.3	23,245	24,575	25,250	86	Salem, OR*	6,055	6,471	6,796	5.0	19,362	20,310	20,927	233
Lawrence, KS	1,603	1,695	1,820	7.4	18,161	18,896	19,976	264	Salinas, CA	8,357	8,631	9,227	6.9	24,394	24,890	25,747	74
Lawton, OK	1,882	1,932	1,993	3.2	16,323	16,801	17,487	304	Salt Lake City-Ogden, UT	24,016	25,953	27,849	7.3	19,802	21,121	22,264	172
Lewiston-Auburn, ME (NECMA)	1,979	2,067	2,120	2.6	19,292	20,329	20,939	230	San Angelo, TX	1,930	2,027	2,146	5.9	19,053	19,898	20,968	228
Lexington, KY	9,650	10,275	11,033	7.4	22,237	23,374	24,838	100	San Antonio, TX	29,796	31,526	33,716	6.9	20,474	21,276	22,379	169
Lima, OH	3,069	3,129	3,248	3.8	19,744	20,142	20,997	227	San Diego, CA	60,432	63,908	67,998	6.4	22,882	23,903	24,965	89
Lincoln, NE	5,058	5,429	5,752	5.9	22,081	23,482	24,602	106	San Francisco, CA*	60,217	64,159	68,671	7.0	36,668	38,813	41,128	1
Little Rock-North Little Rock, AR	11,717	12,446	13,089	5.2	21,629	22,726	23,707	125	San Jose, CA*	50,602	55,607	61,345	10.3	32,289	34,880	37,856	4
Longview-Marshall, TX	3,852	4,105	4,374	6.6	18,941	19,939	21,025	224	San Luis Obispo-Atascadero-Paso Robles, CA	4,575	4,897	5,223	6.7	20,244	21,412	22,568	162
Los Angeles-Long Beach, CA*	213,656	223,742	234,469	4.8	23,662	24,706	25,719	76	Santa Barbara-Santa Maria-Lompoc, CA	9,685	10,197	10,760	5.5	25,401	26,675	27,839	39
Louisville, KY-IN	22,950	24,043	25,353	5.4	23,317	24,307	25,493	80	Santa Cruz-Watsonville, CA*	6,117	6,535	7,010	7.3	26,059	27,733	29,406	30
Lubbock, TX	4,571	4,853	5,085	4.7	19,757	20,980	22,032	181	Santa Fe, NM	3,351	3,495	3,680	5.3	24,765	25,507	26,319	64
Lynchburg, VA	4,087	4,261	4,462	4.8	20,037	20,729	21,543	202	Santa Rosa, CA*	10,632	11,447	12,439	8.7	25,636	27,295	29,188	32
Macon, GA	6,183	6,583	6,884	4.6	20,039	21,114	21,770	190	Sarasota-Bradenton, FL	15,134	16,109	17,020	5.7	23,898	25,060	26,317	16
Madison, WI	10,339	10,958	11,550	5.4	25,254	26,379	27,361	47	Savannah, GA	5,884	6,280	6,544	4.2	21,109	22,363	23,054	143
Mansfield, OH	3,328	3,456	3,619	4.7	18,993	19,719	20,673	240	Scranton-Wilkes-Barre-Hazleton, PA	12,754	13,309	13,770	3.5	20,199	21,228	22,177	176
McAllen-Edinburg-Mission, TX	5,265	5,660	6,018	7.0	11,044	11,548	12,005	316	Seattle-Bellevue-Everett, WA*	63,953	68,967	76,064	10.3	39,088	39,916	43,373	13
Medford-Ashland, OR	3,325	3,553	3,744	5.4	20,109	21,120	21,933	187	Sharon, PA	2,227	2,342	2,435	4.0	18,256	19,162	19,950	265
Melbourne-Titusville-Palm Bay, FL	9,265	9,765	10,342	5.9	20,609	21,531	22,505	164	Sheboygan, WI	2,437	2,539	2,637	3.9	22,456	23,215	24,009	122
Memphis, TN-AR-MS	25,271	26,569	28,043	5.5	23,746	24,725	25,905	71	Sherman-Denison, TX	1,869	2,017	2,135	5.9	19,069	20,144	21,006	226
Merced, CA	2,987	3,269	3,394	3.8	15,546	17,113	17,485	305	Shreveport-Bossier City, LA	7,554	7,782	8,064	3.6	19,953	20,532	21,259	213
Miami, FL*	42,538	44,653	46,174	3.4	20,605	21,207	21,688	193	Sioux City, IA-NE	2,456	2,646	2,760	3.2	20,436	21,905	23,633	160
Middlesex-Somerset-Hunterdon, NJ*	34,966	37,105	39,514	6.5	32,461	34,027	35,734	8	Sioux Falls, SD	3,669	3,955	4,203	6.3	23,417	24,797	26,030	70
Milwaukee-Waukesha, WI*	37,232	39,023	41,131	5.4	25,492	26,695	28,176	37	South Bend, IN	5,697	5,841	6,074	4.0	22,214	22,693	23,537	130
Minneapolis-St. Paul, MN-WI	74,448	79,350	84,193	6.1	27,315	28,739	30,123	26	Spokane, WA	8,219	8,604	9,037	5.0	20,478	21,300	22,293	170
Missoula, MT	1,734	1,831	1,910	4.3	19,850	20,735	21,496	204	Springfield, IL	4,536	4,814	5,031	4.5	22,339	23,616	24,679	103
Mobile, AL	9,498	10,064	10,604	5.4	18,415	19,327	20,119	257	Springfield, MO	6,019	6,328	6,686	5.7	20,481	21,314	22,206	175
Modesto, CA	7,310	7,762	8,238	6.1	17,879	18,768	19,650	276	Springfield, MA (NECMA)	13,307	13,812	14,496	5.0	22,461	23,397	24,576	107
Monmouth-Ocean, NJ*	29,420	31,048	32,680	5.3	28,000	29,148	30,275	23	State College, PA	2,499	2,651	2,793	5.4	19,185	20,070	21,028	223
Monroe, LA	2,706	2,856	2,899	1.5	18,474	19,466	19,723	271	Staubenville-Weirton, OH-WV	2,492	2,561	2,564	1	17,887	18,539	18,794	293
Montgomery, AL	6,549	6,872	7,185	4.6	20,867	21,716	22,498	165	Stoughton-Lodi, CA	9,764	10,252	10,854	5.9	18,646	19,286	20,092	259
Muncie, IN	2,389	2,438	2,527	3.7	20,131	20,635	21,185	203	Sumter, SC	1,624	1,719	1,800	4.7	15,225	16,070	16,883	309
Myrtle Beach, SC	3,056	3,326	3,591	8.0	19,380	20,301	21,184	218	Syracuse, NY	15,978	16,411	16,949	3.3	21,363	22,069	22,952	145
Naples, FL	5,934	6,503	6,969	7.2	32,836	35,001	36,210	7	Tacoma, WA*	13,372	14,130	14,973	6.0	20,658	21,551	22,511	163
Nashville, TN	27,528	28,986	31,057	7.1	25,205	25,995	27,324	48	Tallahassee, FL	5,111	5,419	5,730	5.7	19,902	21,002	22,032	181
Nassau-Suffolk, NY*	84,441	89,022	92,861	4.3	31,890	33,542	34,902	10	Tampa-St. Petersburg-Clearwater, FL	48,799	51,926	55,356	6.6	22,440	23,654	24,879	95
New Haven-Bridgeport-Stamford-Danbury-Waterbury, CT*	58,754	62,869	66,562	5.9	36,233	38,727	40,928	2	Terre Haute, IN	2,771	2,829	2,895	2.3	18,513	19,914	19,988	282
New London-Norwich, CT (NECMA)	6,552	6,840	7,084	3.6	26,270	27,441	28,466	35	Texarkana, TX-Texarkana, AR	2,212	2,336	2,469	5.7	18,035	18,918	19,590	263
New Orleans, LA	27,906	28,837	30,281	5.0	21,293	22,038	23,148	141	Toledo, OH	13,881	14,291	14,850	3.9	22,727	23,422	24,315	113
New York, NY*	268,292	284,422	298,085	4.8	31,189	32,991	34,459	11	Topeka, KS	3,728	3,896	4,027	3.4	22,637	23,652	24,364	112
Newark, NJ	61,710	64,847	68,094	5.0	31,906	33,455	35,038	9	Trenton, NJ*	10,696	11,169	12,070	8.1	32,483	33,893	36,598	6
Newburgh, NY-PA*	7,682	8,028	8,314	3.6	21,446	22,198	22,753	153	Tucson, AZ	14,816	15,627	16,409	5.0	19,375	20,375	21,068	221
Norfolk-Virginia Beach-Newport News, VA-NC	31,034	32,448	33,958	4.7	20,255	21,125	21,983	184	Tulsa, OK	16,334	17,309	18,511	6.9	21,921	22,956	24,206	114
Oakland, CA*	62,115	66,771	71,260	6.7	28,061	29,846	31,338	18	Tuscaloosa, AL	2,992	3,127	3,299	5.5	18,884	19,692	20,514	245
Ocala, FL	4,052	4,358	4,652	6.7	17,986	18,930	19,723	271	Tyler, TX	3,425	3,685	3,943	7.0	21,209	22,432	23,696	126
Odessa-Midland, TX	5,063	5,366	5,687	9.7	21,414	22,488	24,										

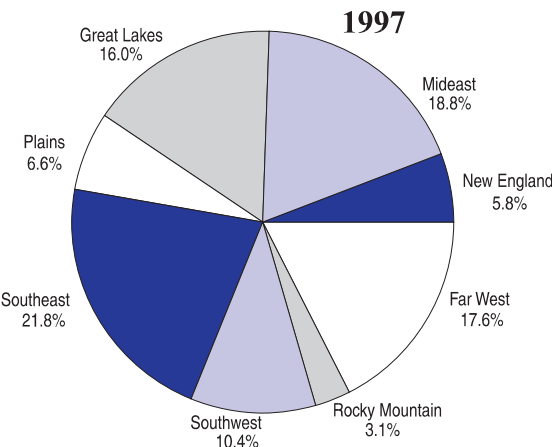
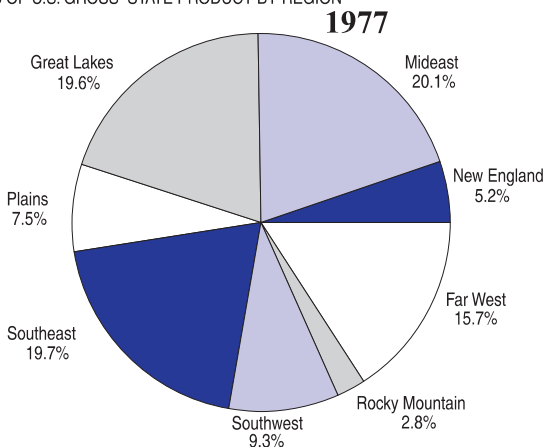
L. Charts

SELECTED REGIONAL ESTIMATES

SHARES OF U.S. PERSONAL INCOME BY REGION

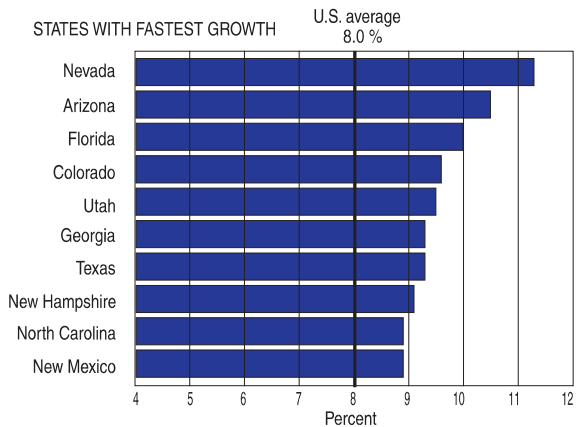


SHARES OF U.S. GROSS STATE PRODUCT BY REGION

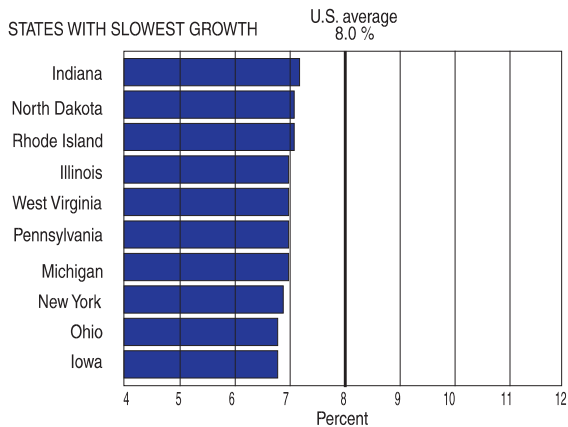


AVERAGE ANNUAL GROWTH RATE OF PERSONAL INCOME, 1969-98

STATES WITH FASTEST GROWTH

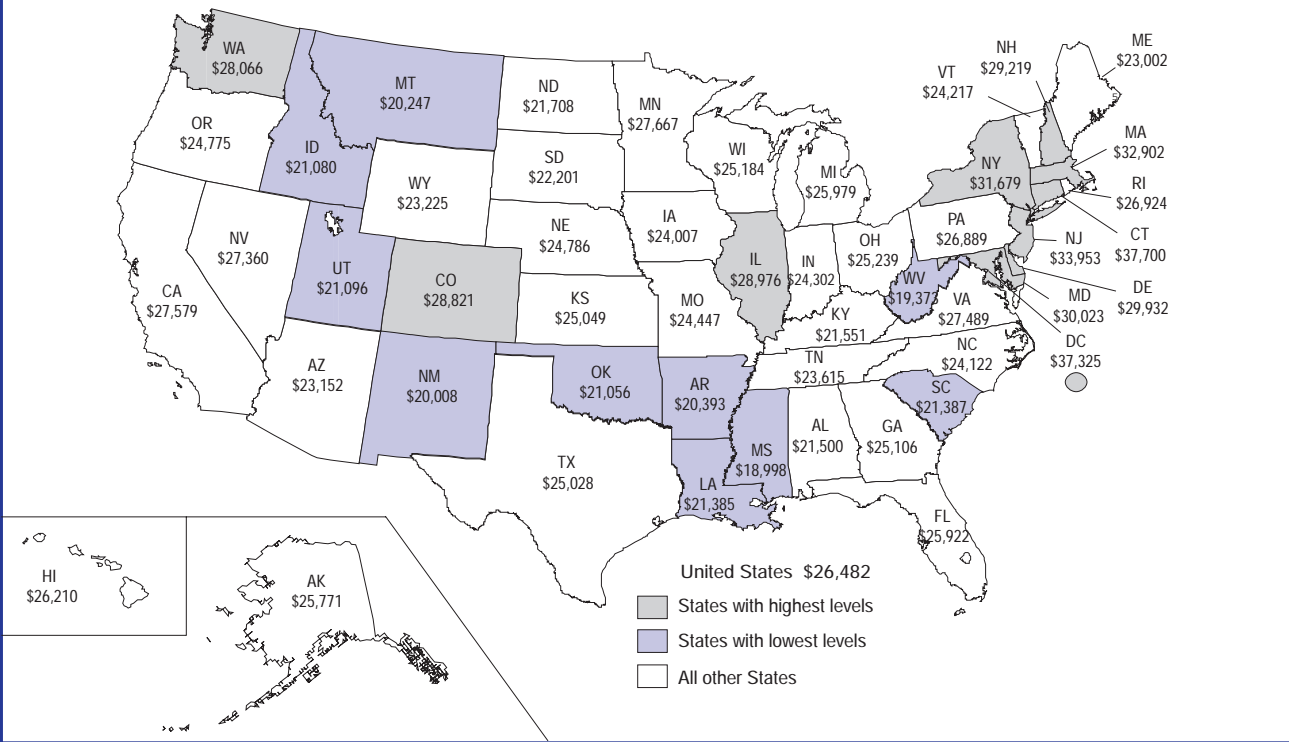


STATES WITH SLOWEST GROWTH

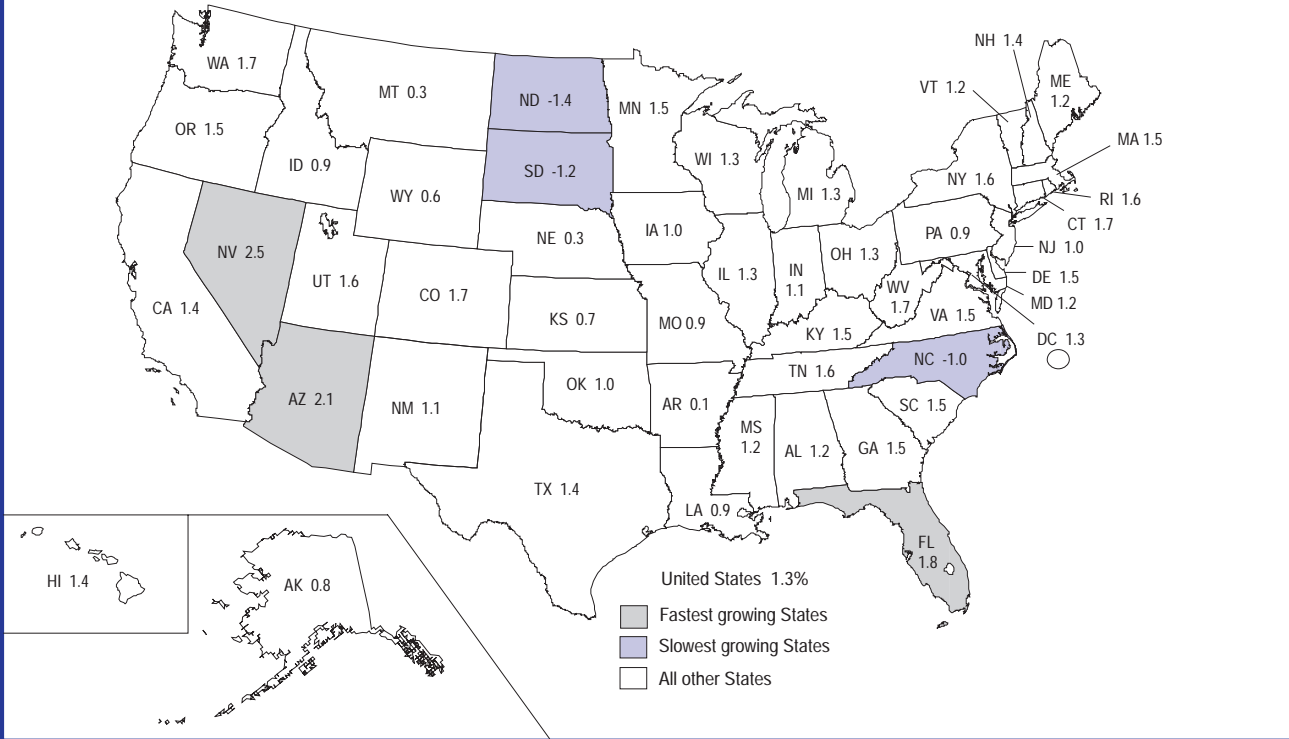


SELECTED REGIONAL ESTIMATES

PER CAPITA PERSONAL INCOME, 1998



PERSONAL INCOME: PERCENT CHANGE, 1999:II-1999:III



Appendix A

Additional Information About the NIPA Estimates

Statistical Conventions

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

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

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

In addition, BEA prepares measures of real GDP and its components in a dollar-denominated form, designated “*chained (1996) dollar estimates.*” These estimates are computed by multiplying the 1996 current-dollar value of GDP, or of a GDP component, by the corresponding quantity index number. For example, if a current-dollar GDP component equaled \$100 in 1996 and if real output for this component increased by 10 percent in 1997, then the “chained (1996) dollar” value of this component in 1997 would be \$110 ($\100×1.10).

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

Note that percentage changes in the chained (1996) dollar estimates and the percentage changes calculated from the quantity indexes are identical, except for small differences due to rounding.

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

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

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

	1997	1998	Seasonally adjusted at annual rates					
			1998			1999		
			II	III	IV	I	II	III
BEA-derived compensation per hour of all persons in the nonfarm business sector (less housing) ¹	3.6	5.2	5.6	6.2	4.6	4.2	4.8	5.4
<i>Less:</i> Contribution of supplements to wages and salaries per hour	-.5	-.5	-.6	-.5	-.5	0	-.2	-.3
<i>Plus:</i> Contribution of wages and salaries per hour of persons in housing and in nonprofit institutions	-.1	-.3	-.1	-.3	-.1	-.1	-.1	-.3
<i>Less:</i> Contribution of wages and salaries per hour of persons in government enterprises, unpaid family workers, and self-employed	-.1	-.2	-.1	-.1	-.1	-.3	.1	.5
Equals: BEA-derived wages and salaries per hour of all employees in the private nonfarm sector	4.0	5.6	6.1	6.4	5.0	4.3	4.7	4.9
<i>Less:</i> Contribution of wages and salaries per hour of nonproduction workers in manufacturing .....	.1	-.1	.7	.4	.4	.4	.4	.4
<i>Less:</i> Other differences ²	0	1.6	1.1	2.3	1.5	0	.7	.8
Equals: BLS average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls	3.9	4.1	4.3	3.7	3.2	4.0	3.6	3.7
Addendum: BLS estimates of compensation per hour in the nonfarm business sector ³	3.6	5.2	5.6	6.2	4.6	4.2	4.8	4.7

¹ Preliminary.

1. Includes BLS data on compensation and hours of nonfarm proprietors and hours worked of unpaid family workers.

2. 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.

3. These estimates differ from the BEA-derived estimates (first line) because the BLS estimates include compensation and hours of tenant-occupied housing.

BLS Bureau of Labor Statistics

Table 2.—Relation of Net Exports of Goods and Services and Net Receipts of Income in the NIPA's to Balance on Goods, Services, and Income in the ITA's

[Billions of dollars]

	Line	1997	1998	Seasonally adjusted at annual rates					
				1998			1999		
				II	III	IV	I	II	III
Exports of goods, services, and income receipts, ITA's	1	1,197.2	1,192.2	1,193.9	1,166.0	1,199.9	1,183.7	1,205.5	1,248.8
<i>Less:</i> Gold, ITA's	2	5.7	5.5	4.4	5.2	7.1	2.9	3.3	6.0
Statistical differences ¹	3	0	0	0	0	0	0	-1.1	-2.6
Other items	4	.8	.8	.6	.8	1.2	.8	.9	.9
<i>Plus:</i> Adjustment for grossing of parent/affiliate interest payments	5	4.5	5.0	4.9	5.2	5.7	4.3	4.4	4.6
Adjustment for U.S. territories and Puerto Rico	6	38.1	42.3	40.9	41.4	46.4	47.2	48.1	47.3
Services furnished without payment by financial intermediaries except life insurance carriers	7	17.3	18.5	18.4	18.8	18.9	19.2	19.4	19.9
Equals: Exports of goods and services and income receipts, NIPA's	8	1,250.6	1,251.6	1,253.0	1,225.5	1,262.7	1,250.7	1,274.3	1,316.2
Imports of goods, services, and income payments, ITA's	9	1,298.7	1,368.7	1,363.9	1,376.7	1,392.7	1,417.0	1,484.3	1,563.7
<i>Less:</i> Gold, ITA's	10	6.6	6.5	5.5	7.3	6.6	3.2	3.2	7.6
Statistical differences ¹	11	0	0	0	0	0	0	.9	.8
Other items	12	0	0	0	0	0	0	0	0
<i>Plus:</i> Gold, NIPA's	13	-3.6	-3.1	-3.1	-2.9	-2.9	-2.3	-2.4	-2.5
Adjustment for grossing of parent/affiliate interest payments	14	4.5	5.0	4.9	5.2	5.7	4.3	4.4	4.6
Adjustment for U.S. territories and Puerto Rico	15	24.3	28.5	28.3	26.2	33.1	31.7	32.8	32.3
Imputed interest paid to rest of world	16	17.3	18.5	18.4	18.8	18.9	19.2	19.4	19.9
Equals: Imports of goods and services and income payments, NIPA's	17	1,334.7	1,411.1	1,407.0	1,416.8	1,441.0	1,466.7	1,534.4	1,609.8
Balance on goods, services, and income, ITA's (1-9)	18	-101.5	-176.5	-170.0	-210.7	-192.8	-233.3	-278.8	-314.9
<i>Less:</i> Gold (2-10+13)	19	-4.5	-4.1	-4.2	-5.0	-2.4	-2.6	-2.3	-4.1
Statistical differences (3-11) ¹	20	0	0	0	0	0	0	-2.0	-3.4
Other items (4-12)	21	.8	.8	.6	.8	1.2	.8	.9	.9
<i>Plus:</i> Adjustment for U.S. territories and Puerto Rico (6-15)	22	13.8	13.8	12.6	15.2	13.3	15.5	15.3	15.0
Equals: Net exports of goods and services and net receipts of income, NIPA's (8-17)	23	-84.1	-159.5	-154.0	-191.3	-178.3	-216.0	-260.1	-293.6

1. Consists of statistical revisions in the NIPA's that have not yet been incorporated into the ITA's (1999:II) and statistical revisions in the ITA's that have not yet been incorporated into the NIPA's (1999:II-1999:II).

ITA's International transactions accounts
NIPA's National income and product accounts

Appendix B

Suggested Reading

BEA's Mission and Strategic Plan

BEA's mission statement and the latest update to BEA's strategic plan for improving the accuracy, reliability, and relevance of the national, regional, and international accounts are available on BEA's Web site (see the box below). The initial development and implementation of the strategic plan is described in the following articles in the SURVEY OF CURRENT BUSINESS.

"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)

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) [Revised version forthcoming]

GNP: An Overview of Source Data and Estimating Methods (NIPA Methodology Paper No. 4, 1987) [Largely superseded by "A Guide to the NIPA's" (March 1998 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.

The most recent comprehensive revision of the NIPA's is described in the following series of SURVEY articles.

"A Preview of the 1999 Comprehensive Revision of the National Income and Product Accounts":

"Definitional and Classificational Changes" (August 1999)

"New and Redesigned Tables" (September 1999)

"Statistical Changes" (October 1999)

"Improved Estimates of the National Income and Product Accounts for 1959-98: Results of the Comprehensive Revision" (December 1999)

"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 1998 issue, describes the annual NIPA revisions and the improvements in methodology.

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

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, 1929-97* (1999).

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

"Reliability of the Quarterly and Annual Estimates of GDP and Gross Domestic Income" (December 1998)

Availability

Most of the items listed here are available on BEA's Web site at <www.bea.doc.gov>. In addition, see the *BEA Catalog of Products* for the availability of printed publications. The *Catalog* is available on BEA's Web site; a printed copy can be obtained by writing to the Public Information Office, BE-53, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230, or by calling 202-606-9900.

SURVEY) evaluates the reliability of these estimates by examining the record of revisions to them.

Wealth and related estimates

Fixed Reproducible Tangible Wealth in the United States, 1929–94 (1999) discusses the conceptual and statistical considerations underlying the BEA wealth estimates and explains the derivation of the estimates.

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) and “Gross Product by Industry, 1995–97” (November 1998 SURVEY) present the most recent revisions to the estimates of gross product by industry and briefly describe 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 (I-O) accounts and the concepts and methods underlying the U.S. I-O accounts.

“Annual Input-Output Accounts of the U.S. Economy, 1996” (January 2000 SURVEY) presents annual I-O tables for 1996 that update the 1992 benchmark I-O accounts.

Satellite accounts

Satellite accounts that extend the analytical capacity of the national accounts by focusing on a particular aspect of activity are presented in the following SURVEY articles.

“Integrated Economic and Environmental Satellite Accounts” and “Accounting for Mineral Resources: Issues and BEA’s Initial Estimates” (April 1994)

“A Satellite Account for Research and Development” (November 1994)

“U.S. Transportation Satellite Accounts for 1992” (April 1998)

“U.S. Travel and Tourism Satellite Accounts for 1992” (July 1998)

International

International transactions accounts (ITA’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 ITA’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 ITA’s.

“U.S. International Transactions, Revised Estimates”: This series of SURVEY articles, the latest of

which was published in the July 1999 issue, describes the annual ITA revisions and the improvements in methodology.

Direct investment

International Direct Investment: Studies by the Bureau of Economic Analysis (1999) presents a collection of previously published studies on U.S. direct investment abroad and foreign direct investment in the United States. In addition, it includes the following guides to BEA’s statistics and methodologies used to prepare the estimates.

“Methodology for U.S. Direct Investment Abroad” (*U.S. Direct Investment Abroad: 1994 Benchmark Survey, Final Results* (1998))

“A Guide to BEA Statistics on U.S. Multinational Companies” (March 1995 SURVEY)

“Methodology for Foreign Direct Investment in the United States” (*Foreign Direct Investment in the United States: 1992 Benchmark Survey, Final Results* (1995))

“A Guide to BEA Statistics on Foreign Direct Investment in the United States” (February 1990 SURVEY)

Surveys of international services

U.S. International Transactions in Private Services: A Guide to the Surveys Conducted by the Bureau of Economic Analysis (1998) provides information on the 11 surveys that BEA conducts on these transactions—including classifications, definitions, release schedules, and methods used to prepare the estimates—and samples of the survey forms.

Regional

Personal income

State Personal Income, 1929–97 (1999) includes a description of the methodology used to prepare the estimates of State personal income. [Also available on the CD-ROM *State Personal Income, 1929–97*]

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, 1969–97*]

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.

“Gross State Product by Industry, 1977–96” (June 1998 SURVEY) and “Gross State Product by Industry, 1995–97” (June 1999 SURVEY) present the most recent revisions to the estimates of gross state product by industry and briefly describe changes in methodology. 