

MAY 1989 / VOLUME 69 NUMBER

5



SURVEY OF CURRENT BUSINESS



UNITED STATES DEPARTMENT OF COMMERCE / BUREAU OF ECONOMIC ANALYSIS



SURVEY OF CURRENT BUSINESS



U.S. Department of Commerce

Robert A. Mosbacher / *Secretary*
 Michael R. Darby / *Under Secretary*
 for Economic Affairs

Bureau of Economic Analysis

Allan H. Young / *Director*
 Carol S. Carson / *Deputy Director*

Editor-in-Chief: Carol S. Carson
Managing Editor: Leland L. Scott

Staff Contributors to This Issue: Douglas R. Fox, Shelby A. Herman, Ellen M. Herr, Daniel J. Larkins, National Income and Wealth Division, James E. Rankin, Jane S. Reeb, Charles S. Robinson, Jack E. Triplett, Joseph C. Wakefield.

SURVEY OF CURRENT BUSINESS. Published monthly by the Bureau of Economic Analysis of the U.S. Department of Commerce. Editorial correspondence should be addressed to the Editor-in-Chief, **SURVEY OF CURRENT BUSINESS**, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230.

Annual subscription: *Second-class mail*—\$18.00 domestic, \$22.50 foreign; *first-class mail*—\$46.00. Single copy—\$6.50 domestic, \$8.13 foreign.

Mail subscription orders and address changes to the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Make checks payable to the Superintendent of Documents.

Second-class postage paid at Washington, DC and at additional mailing offices. (USPS 337-790).

The Secretary of Commerce has determined that the publication of this periodical is necessary in the transaction of the public business required by law of this Department.

1 Business Situation

- 2 Corporate Profits
- 2 Government Sector

4 National Income and Product Accounts Tables

- 4 Selected NIPA Tables
- 18 Reconciliation and Other Special Tables

21 Composite Indexes of Leading, Coincident, and Lagging Indicators

22 U.S. Business Enterprises Acquired or Established by Foreign Direct Investors in 1988

31 Papers from the Conference on Research in Income and Wealth

- 31 The Capital Stock Survey Project
- 36 The Social Policy Simulation Database and Model: An Example of Survey and Administrative Data Integration
- 40 A Comment

Blue pages: Current Business Statistics

(See page S-36 for subject index to Current Business Statistics)

Inside back cover: BEA Information

NOTE.—This issue of the **SURVEY** went to the printer on June 5, 1989. It incorporates data from the following monthly **BEA** news releases:

- Gross National Product (May 25),
- Personal Income and Outlays (May 26), and
- Composite Indexes of Leading, Coincident, and Lagging Indicators (May 31).

the BUSINESS SITUATION

PRELIMINARY estimates show that real GNP—a measure of U.S. production—increased at an annual rate of 4½ percent in the first quarter of 1989; the advance estimates issued a month ago had shown an increase of 5½ percent (see table 1 on page 18). The fourth-quarter increase in real gross domestic purchases—a measure of U.S. demand—was revised down from 4½

percent to 2½ percent at an annual rate. Increases in both the GNP price index (fixed weights) and the gross domestic purchases price index (fixed weights) were unrevised at annual rates of 5 percent and 5½ percent, respectively (chart 1).¹

The unusually large downward revisions in real GNP, which amounted to \$11.7 billion, and in real gross domestic purchases, which amounted to \$19.7 billion, were mainly attributable to a substantial revision in inventory

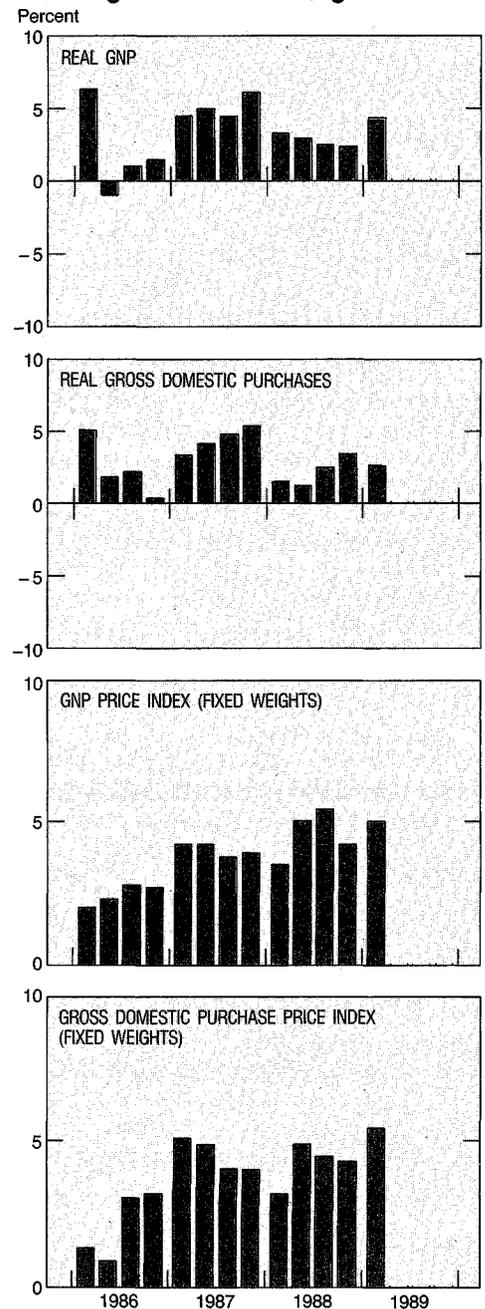
NOTE.—Quarterly estimates in the national income and product accounts are expressed at seasonally adjusted annual rates, and quarterly changes in them are differences between these rates. Quarter-to-quarter percent changes are compounded to annual rates. Real, or constant-dollar, estimates are expressed in 1982 dollars.

1. The regularly featured estimates of real GNP and GNP prices are based on 1982 weights. Alternative measures based on more current weights are shown in tables 4 and 5 on page 20.

Looking Ahead...

- **Computers.** An article reviewing the concepts and statistical procedures used by BEA in measuring the output of computers will appear in an upcoming issue of the SURVEY.
- **U.S. International Transactions and Investment Position.** Revised estimates of U.S. international transactions will be presented in the June SURVEY, along with preliminary estimates for the first quarter of 1989. The revisions cover 1985–88. The same issue will present preliminary estimates for yearend 1988 of U.S. assets abroad and foreign assets in the United States and the sources of change in the investment position.
- **U.S. Multinational Companies.** Data and analysis of the operations in 1987 of U.S. parent companies and their foreign affiliates, by industry and country of foreign affiliate, will be presented in the June SURVEY. Selected data will be available as of June 28.
- **Pollution Abatement and Control Expenditures.** Estimates of U.S. expenditures for pollution abatement and control for 1985–87 will be presented in the June SURVEY.
- **U.S. Affiliates of Foreign Companies: Benchmark Survey Results.** Data on the operations of foreign-owned U.S. companies in 1987, based on preliminary results of BEA's latest benchmark survey of foreign direct investment in the United States, will be presented in the July SURVEY. Comparable estimates of key items for 1986, analysis of changes in affiliate operations in 1987, and a discussion of the share of the U.S. economy accounted for by affiliates will also be presented. Selected data will be available as of June 27.
- **Annual Revisions of the National Income and Product Accounts.** Revised estimates will be presented in the July SURVEY. The revisions cover the 3-year period beginning with the first quarter of 1986.
- **Annual Revisions of State Personal Income.** State personal income for 1986–88 will be presented in the August SURVEY.

CHART 1
Selected Measures:
Change From Preceding Quarter



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

investment—that is, change in business inventories. In turn, about three-fourths of the \$15.8 billion revision in inventory investment was in nonfarm inventories, mostly in wholesale and retail trade (monthly Census Bureau data on trade inventories for March and revised data for February). A \$2.3 billion downward revision in nonresidential fixed investment was traceable to petroleum and natural gas drilling (monthly data from the Energy Information Administration for March and revised data for February) and to public utilities (quarterly information on anticipated expenditures from the Census Bureau plant and equipment survey). Within government purchases, Federal purchases were revised up \$2.6 billion; about one-half of the revision was accounted for by Commodity Credit Corporation inventory transactions (new and revised monthly data from the Department of Agriculture). A \$2.1 billion downward revision in State and local government purchases was accounted for by structures (monthly Census Bureau data on construction put in place for March and revised data for February).

The difference between the size of the downward revision in real GNP and that in real domestic purchases was accounted for by a \$7.8 billion upward revision in net exports. Within net exports, exports were revised up \$5.6 billion and imports were revised down \$2.2 billion (monthly Census Bureau merchandise trade data for March and revised data for February).

The preliminary GNP estimates show a somewhat different picture of the economy than sketched in the last month's "Business Situation." If the impact of the 1988 drought is excluded, the preliminary estimate for real GNP increased 2 percent in the first quarter of 1989, somewhat slower than the pace of 3 to 4 percent registered in the four preceding quarters; the comparable advance estimate increased 3 percent, which was in the range of the four preceding quarters. Among the components of real GNP, the preliminary estimates for nonfarm inventories show smaller accumulations in all categories—manufacturing, wholesale, retail, and "other"—in the first quarter than in the fourth; the advance estimates had shown larger accumula-

tions in both wholesale and retail trade inventories.

Corporate Profits

In the first quarter of 1989, profits from current production fell \$21½ billion—the largest decline in 7 years; declines were very widespread. Profits before tax (PBT), in contrast, declined only \$½ billion.

The current-production measure of profits includes two adjustments that are not included in PBT—namely, the inventory valuation adjustment (IVA), which declined \$14½ billion, and the capital consumption adjustment (CCAdj), which declined \$6½ billion.

The decline in the IVA mirrored an increase in inventory profits that resulted from a step-up in the rate of increase of inventory prices. For example, the Producer Price Index, a major source for estimating inventory prices, increased 9 percent (annual rate) in the first quarter, following a 2-percent increase in the fourth. Although the most dramatic step-up in prices was in crude materials (reflecting an almost 150-percent increase in crude petroleum prices), step-ups were significant in all major stages of processing and in many industrial commodities.

The CCAdj is the difference between depreciation based largely on tax accounting, on the one hand, and economic depreciation as estimated by BEA, on the other. The first-quarter decline in the CCAdj reflected the continuing impact of the Tax Reform Act of 1986, which lengthened the service lives that may be used in calculating most depreciation allowances for tax purposes. (The CCAdj, now \$33½ billion, is expected to turn negative in the early 1990's.)

Domestic nonfinancial corporations accounted for most of the first-quarter drop in profits from current production. (Profits of domestic financial corporations declined \$½ billion, and profits from the rest of the world declined \$1½ billion.) Real product of domestic nonfinancial corporations increased slightly, but profits per unit fell sharply. The decline in unit profits reflected a smaller increase in unit

prices than in unit costs; both labor and nonlabor unit costs increased.

Government Sector

The fiscal position of the government sector improved slightly in the first quarter of 1989, as the combined deficit of the Federal Government and of State and local governments declined \$1½ billion (table 1). The deficit of the Federal Government increased \$1 billion, and the surplus of State and local governments increased \$2½ billion.

The Federal sector.—The Federal Government deficit increased to \$158½ billion, as expenditures increased more than receipts.

Receipts increased \$32½ billion, compared with a \$16 billion increase in the fourth quarter of 1988. Personal tax and nontax receipts increased \$15½ billion, and contributions for social insurance increased \$14 billion. Contributions were boosted by the following special factors, all of which were effective January 1, 1989: (1) An increase in the social security tax base to \$48,000 from \$45,000 (\$3½ billion); (2) the initiation of premiums for catastrophic health insurance (\$2 billion); (3) an increase in the supplemental medical insurance premium to \$27.90 per month from \$24.80 (\$1½ billion); and (4) an increase in the contribution for military retirement (\$1 billion). Corporate profits tax accruals increased \$2 billion, and indirect business tax and nontax accruals increased \$½ billion.

Expenditures increased \$33½ billion, compared with a \$50 billion increase in the fourth quarter of 1988 that reflected increased spending for agricultural purchases and subsidies. Over one-half of the increase was in transfer payments to persons; an \$18 billion increase included \$12 billion for cost-of-living adjustments (COLA's). The largest COLA's were for social security (\$8½ billion), civilian and military retirement (\$1 billion each), and veterans pensions and disability payments (\$½ billion). Net interest paid increased \$10 billion, reflecting higher interest rates, and grants-in-aid to State and local governments increased

\$6 billion, including \$2½ billion for highways and \$1½ billion for public assistance. Nondefense purchases of goods and services and subsidies less the current surplus of government enterprises each increased by smaller amounts. The increases in expenditures were partly offset by declines in transfer payments to foreigners and in national defense purchases of goods and services.

Cyclically adjusted surplus or deficit.—When measured using simplified cyclical adjustments (see next paragraph) based on a 6-percent unemployment rate trend GNP, the Fed-

eral deficit on the national income and product accounts basis increased from \$177.3 billion in the fourth quarter of 1988 to \$187.5 billion in the first quarter of 1989 (see table 3 on page 19). The cyclically adjusted deficit as a percentage of the 6-percent unemployment rate trend GNP increased from 3.6 percent in the fourth quarter to 3.7 percent in the first.

Beginning with the estimate of the cyclically adjusted deficit for the first quarter of 1989, BEA will temporarily discontinue use of detailed models to derive the estimates. Instead, BEA will use a simplified procedure to derive cyclically adjusted receipts, expen-

ditures, and surplus or deficit based on a 6-percent unemployment rate trend GNP. This change is being made because the more detailed models need to be reviewed and updated to reflect, for example, new income tax elasticities that may have resulted from tax legislation. Until a review can be completed, BEA will use the simplified procedure, which yields results that are very similar to the detailed models. Using the simplified procedure allows BEA to continue to provide users with cyclically adjusted budget estimates while freeing the resources necessary for the review. A description of the simplified procedure and an historical series based on this procedure is available upon request.²

The State and local sector.—The State and local government surplus increased to \$55 billion, as receipts increased more than expenditures.

Receipts increased \$15 billion, compared with a \$12½ billion increase in the fourth quarter of 1988. A large increase in Federal grants-in-aid—\$6 billion—more than accounted for the acceleration. Indirect business taxes increased \$5 billion, of which \$2½ billion was in property taxes. Personal tax and nontax receipts increased \$4 billion, and contributions for social insurance increased \$½ billion.

Expenditures increased \$12½ billion, compared with a \$15½ billion increase in the fourth quarter of 1988. All of the first-quarter increase was in purchases of goods and services; on balance, all other types of expenditures were unchanged. Purchases of nondurable goods increased \$2½ billion, compared with a \$½ billion increase in the previous quarter; the first-quarter increase largely reflected higher prices for petroleum products. Purchases of services also accelerated, increasing \$3 billion, compared with a \$2 billion increase in the fourth quarter; the first-quarter increase largely reflected higher prices for air fares and lodging. Purchases of durable goods increased at the same pace as in the previous quarter, and purchases of structures was unchanged after a \$4 billion increase in the fourth quarter.

Table 1.—Government Sector Receipts and Expenditures

[Billions of dollars, seasonally adjusted at annual rates]

	Change from preceding quarter					Level 1989:I
	1988				1989	
	I	II	III	IV	I	
Government sector						
Receipts.....	15.5	45.6	1.0	26.5	41.8	1,640.7
Expenditures.....	4.0	23.3	-8.5	64.3	40.3	1,744.1
Surplus or deficit (-).....	11.5	22.3	9.6	-37.8	1.5	-103.4
Federal Government						
Receipts.....	6.6	31.9	-7.5	16.1	32.5	1,024.0
Personal tax and nontax receipts.....	-17.7	20.4	-16.7	7.5	15.7	431.6
Corporate profits tax accruals.....	-5	4.6	1.4	.7	2.2	116.0
Indirect business tax and nontax accruals.....	.9	.1	1.1	.8	.4	58.3
Contributions for social insurance.....	24.0	6.9	6.7	7.0	14.2	418.2
Expenditures.....	1.2	10.2	-17.3	50.0	33.5	1,182.5
Purchases of goods and services.....	-13.7	4.6	-14.5	28.6	1.6	397.8
National defense.....	-8	.5	-4.5	7.6	-2.2	299.8
Nondefense.....	-12.9	4.1	-10.0	21.0	3.7	98.1
Of which: Commodity Credit Corporation inventory change.....	-16.1	.7	-5.8	17.8	-3	-5.2
Transfer payments.....	11.9	3.1	3.2	6.8	13.0	460.5
To persons.....	16.8	3.6	1.7	2.7	17.8	448.8
To foreigners.....	-4.9	-5	1.4	4.1	-4.8	11.7
Grants-in-aid to State and local governments.....	9.7	-7	1.1	1.5	5.9	118.9
Net interest paid.....	.4	2.2	2.9	4.0	10.0	168.9
Subsidies less current surplus of government enterprises.....	-6.7	1.0	-9.9	9.2	3.0	36.3
Subsidies.....	-8.0	2.8	-15.7	18.6	-9	34.6
Of which: Agricultural subsidies.....	-8.0	2.8	-15.8	18.2	-1.4	18.6
Less: Current surplus of government enterprises.....	-1.2	1.8	-5.3	9.4	-3.9	-1.8
Less: Wage accruals less disbursements.....						
Surplus or deficit (-).....	5.3	21.8	9.8	-34.0	-1.0	-158.5
State and local governments						
Receipts.....	18.6	12.9	9.7	12.4	15.2	735.6
Personal tax and nontax receipts.....	2.7	4.7	2.2	4.0	3.8	186.0
Corporate profits tax accruals.....	1.2	1.8	.2	.5		32.2
Indirect business tax and nontax accruals.....	4.3	6.3	5.4	5.5	4.8	345.6
Contributions for social insurance.....	.7	.7	.7	.7	.7	52.8
Federal grants-in-aid.....	9.7	-7	1.1	1.5	5.9	118.9
Expenditures.....	12.5	12.5	9.9	15.7	12.7	680.5
Purchases of goods and services.....	11.6	11.8	8.2	13.6	12.7	613.9
Of which: Structures.....	2.1	1.3	-1.5	4.2	.1	69.3
Transfer payments to persons.....	2.1	2.1	3.3	4.3	2.0	135.6
Net interest paid.....	-7	-8	-9	-9	-1.0	-43.1
Less: Dividends received by government.....	.3	.3	.3	.3	.3	9.0
Subsidies less current surplus of government enterprises.....	-3	-3	-5	-1.0	-7	-17.0
Subsidies.....						1.0
Less: Current surplus of government enterprises.....	.4	.4	.5	1.0	.7	18.0
Less: Wage accruals less disbursements.....						
Surplus or deficit (-).....	6.1	.4	-2	-3.4	2.5	55.2
Social insurance funds.....	1.5	1.6	1.5	1.6	1.6	72.5
Other.....	4.5	-1.2	-1.9	5.0	.9	-17.3

NOTE.—Dollar levels are found in tables 3.2 and 3.3 of the "Selected NIPA Tables."

2. Thomas M. Holloway, "Measuring the Cyclical Sensitivity of Federal Receipts and Expenditures: Simplified Estimation Procedures," 1986.

National Income and Product Accounts Tables

Selected NIPA Tables

New estimates in this issue: First quarter 1989, revised.

The selected set of 54 national income and product accounts (NIPA) tables shown in this section presents quarterly estimates, which are updated monthly. (In most of these tables, annual estimates are also shown.) The full set of 132 tables usually shown in July presents annual NIPA revisions. For more information on the presentation of the estimates, see "National Income and Product Accounts Estimates: When They are Released, Where They Are Available, and How They Are Presented" in the July 1988 SURVEY.

The full set of estimates for 1985-87 is in the July 1988 issue of the SURVEY; estimates for 1984 are in the July 1987 issue; estimates for 1983 are in the July 1986 issue. Estimates for 1929-82 are in *National Income and Product Accounts, 1929-82: Statistical Tables* (GPO Stock No. 003-010-00174-7, price \$23.00). These publications are available from the Superintendent of Documents; see address on inside front cover.

The full set of NIPA tables is available on diskette for \$200 per year (12 updates, for the quarterly estimates prepared each month). For more information, write to the Bureau of Economic Analysis (BE-54), U.S. Department of Commerce, Washington, DC 20230.

Table 1.1.—Gross National Product

	[Billions of dollars]									
	1987	1988	Seasonally adjusted at annual rates							
			1987	1988				1989		
			IV	I	II	III	IV	I		
Gross national product	4,526.7	4,864.3	4,662.8	4,724.5	4,823.8	4,909.0	4,999.7	5,105.0		
Personal consumption expenditures.....	3,012.1	3,227.5	3,076.3	3,128.1	3,194.6	3,261.2	3,326.4	3,377.2		
Durable goods.....	421.9	451.1	422.0	437.8	449.8	452.9	464.0	459.4		
Nondurable goods.....	997.9	1,046.9	1,012.4	1,016.2	1,036.6	1,060.8	1,073.9	1,093.0		
Services.....	1,592.3	1,729.6	1,641.9	1,674.1	1,708.2	1,747.5	1,788.5	1,824.8		
Gross private domestic investment	712.9	766.5	764.9	763.4	758.1	772.5	772.0	793.6		
Fixed investment.....	673.7	718.1	692.9	698.1	714.4	722.8	737.2	750.0		
Nonresidential.....	446.8	488.4	464.1	471.5	487.8	493.7	500.6	512.9		
Structures.....	139.5	142.8	147.7	140.1	142.3	143.8	145.0	148.5		
Producers' durable equipment.....	307.3	345.6	316.3	331.3	345.5	349.9	355.6	364.4		
Residential.....	226.9	229.7	228.8	226.6	226.5	229.1	236.6	237.1		
Change in business inventories.....	39.2	48.4	72.0	65.3	43.7	49.7	34.7	43.5		
Nonfarm.....	40.7	42.2	72.8	49.4	33.1	41.9	44.6	29.3		
Farm.....	-1.5	6.1	-8	15.9	10.6	7.8	-9.8	14.3		
Net exports of goods and services.....	-123.0	-94.6	-125.7	-112.1	-90.4	-80.0	-96.1	-77.5		
Exports.....	428.0	519.7	459.7	487.8	507.1	536.1	548.0	577.8		
Imports.....	551.1	614.4	585.4	599.9	597.5	616.0	644.0	655.2		
Government purchases of goods and services.....	924.7	964.9	947.3	945.2	961.6	955.3	997.5	1,011.8		
Federal.....	382.0	381.0	391.4	377.7	382.2	367.7	396.3	397.8		
National defense.....	295.3	298.4	299.2	298.4	298.8	294.3	301.9	299.8		
Nondefense.....	86.7	82.6	92.2	79.3	83.4	73.4	94.3	98.1		
State and local.....	542.8	583.9	555.9	567.5	579.4	587.6	601.2	613.9		

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

Table 1.2.—Gross National Product in Constant Dollars

	[Billions of 1982 dollars]									
	1987	1988	Seasonally adjusted at annual rates							
			1987	1988				1989		
			IV	I	II	III	IV	I		
Gross national product	3,847.0	3,996.1	3,923.0	3,956.1	3,985.2	4,009.4	4,033.4	4,076.5		
Personal consumption expenditures.....	2,521.0	2,592.2	2,531.7	2,559.8	2,579.0	2,603.8	2,626.2	2,633.6		
Durable goods.....	390.9	409.7	387.6	401.1	410.6	416.5	411.9			
Nondurable goods.....	890.5	899.6	890.5	892.7	893.6	904.5	911.4			
Services.....	1,239.5	1,283.0	1,253.6	1,265.9	1,274.8	1,288.9	1,302.2	1,310.3		
Gross private domestic investment	674.8	721.8	724.7	728.9	715.1	726.1	717.1	732.4		
Fixed investment.....	640.4	679.3	657.6	662.9	679.7	686.6	688.0	694.4		
Nonresidential.....	445.1	487.5	464.8	473.4	490.2	495.0	491.4	500.5		
Structures.....	125.5	125.1	132.1	124.0	125.0	125.8	125.5	126.3		
Producers' durable equipment.....	319.6	362.4	332.7	349.4	365.1	369.2	365.9	374.2		
Residential.....	195.2	191.8	192.7	189.5	189.6	191.6	196.6	193.9		
Change in business inventories.....	34.4	42.5	67.1	66.0	35.3	39.5	29.1	38.0		
Nonfarm.....	36.9	40.0	68.2	51.9	30.1	40.4	37.6	29.1		
Farm.....	-2.5	2.5	-1.1	14.1	5.3	-8	-8.5	8.8		
Net exports of goods and services.....	-128.9	-100.2	-126.0	-109.0	-92.6	-93.9	-105.4	-87.8		
Exports.....	427.8	504.8	459.2	486.2	496.9	514.0	522.1	541.0		
Imports.....	556.7	605.0	585.2	595.1	589.5	607.9	627.4	628.8		
Government purchases of goods and services.....	780.2	782.3	792.6	776.4	783.8	773.5	795.5	798.3		
Federal.....	339.0	328.7	347.7	327.8	331.6	320.1	335.5	335.8		
National defense.....	264.9	261.8	268.2	264.6	263.6	256.4	262.5	256.7		
Nondefense.....	74.1	66.9	79.5	63.2	67.9	63.7	72.9	79.2		
State and local.....	441.2	453.6	444.9	448.7	452.2	453.4	460.0	462.4		

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

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

	[Billions of dollars]									
	1987	1988	Seasonally adjusted at annual rates							
			1987	1988				1989		
			IV	I	II	III	IV	I		
Gross national product	4,526.7	4,864.3	4,662.8	4,724.5	4,823.8	4,909.0	4,999.7	5,105.0		
Final sales.....	4,487.5	4,815.9	4,590.7	4,659.2	4,780.1	4,859.3	4,965.0	5,061.5		
Change in business inventories.....	39.2	48.4	72.0	65.3	43.7	49.7	34.7	43.5		
Goods.....	1,792.5	1,938.7	1,849.3	1,879.5	1,928.0	1,960.1	1,987.1	2,038.8		
Final sales.....	1,753.3	1,890.3	1,777.3	1,814.2	1,884.3	1,910.4	1,952.4	1,995.3		
Change in business inventories.....	39.2	48.4	72.0	65.3	43.7	49.7	34.7	43.5		
Durable goods.....	776.3	858.3	808.7	819.3	849.5	881.6	882.7	895.0		
Final sales.....	749.7	827.3	758.2	792.7	831.6	836.4	848.6	863.3		
Change in business inventories.....	26.6	30.9	50.5	26.6	17.8	45.1	34.1	31.7		
Nondurable goods.....	1,016.2	1,080.4	1,040.7	1,060.1	1,078.5	1,078.5	1,104.4	1,143.8		
Final sales.....	1,003.6	1,063.0	1,019.1	1,021.5	1,052.7	1,074.0	1,103.8	1,132.0		
Change in business inventories.....	12.6	17.4	21.6	38.6	25.9	4.6	.6	11.8		
Services.....	2,295.7	2,477.9	2,363.9	2,405.2	2,451.5	2,501.6	2,553.5	2,603.1		
Structures.....	438.4	447.6	449.5	439.9	444.3	447.3	459.1	463.1		

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

Table 1.4.—Gross National Product by Major Type of Product in Constant Dollars

	[Billions of 1982 dollars]									
	1987	1988	Seasonally adjusted at annual rates							
			1987	1988				1989		
			IV	I	II	III	IV	I		
Gross national product	3,847.0	3,996.1	3,923.0	3,956.1	3,985.2	4,009.4	4,033.4	4,076.5		
Final sales.....	3,812.6	3,953.6	3,855.9	3,890.1	3,949.9	3,969.9	4,004.4	4,038.5		
Change in business inventories.....	34.4	42.5	67.1	66.0	35.3	39.5	29.1	38.0		
Goods.....	1,663.3	1,762.3	1,713.9	1,748.1	1,762.4	1,768.9	1,769.6	1,809.3		
Final sales.....	1,628.9	1,719.8	1,646.8	1,682.2	1,727.1	1,729.4	1,740.6	1,771.3		
Change in business inventories.....	34.4	42.5	67.1	66.0	35.3	39.5	29.1	38.0		
Durable goods.....	774.6	864.8	812.7	832.5	861.7	885.0	879.8	883.8		
Final sales.....	750.7	837.3	767.2	809.0	845.8	844.6	849.7	856.8		
Change in business inventories.....	23.9	27.5	45.5	23.5	15.9	40.4	30.1	27.0		
Nondurable goods.....	888.8	897.5	901.2	915.6	900.7	884.0	889.8	925.4		
Final sales.....	878.2	882.5	879.6	873.2	881.3	884.9	890.8	914.5		
Change in business inventories.....	10.5	15.0	21.6	42.4	19.4	-9	-1.0	10.9		
Services.....	1,801.1	1,855.4	1,822.3	1,833.4	1,846.1	1,862.8	1,879.2	1,885.5		
Structures.....	382.6	378.4	386.7	374.6	376.7	377.7	384.6	381.7		

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

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

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates					
			1987	1988				1989
			IV	I	II	III	IV	F ²
Gross national product	4,526.7	4,864.3	4,662.8	4,724.5	4,823.8	4,909.0	4,999.7	5,105.0
Less: Exports of goods and services	428.0	519.7	459.7	487.8	507.1	536.1	548.0	577.8
Plus: Imports of goods and services	551.1	614.4	585.4	599.9	597.5	616.0	644.0	655.2
Equals: Gross domestic purchases ¹	4,649.7	4,958.9	4,788.4	4,836.6	4,914.2	4,989.0	5,095.8	5,182.5
Less: Change in business inventories	39.2	48.4	72.0	65.3	43.7	49.7	34.7	43.5
Equals: Final sales to domestic purchasers ²	4,610.5	4,910.6	4,716.4	4,771.3	4,870.5	4,939.3	5,061.1	5,139.0

1. Purchases in the United States of goods and services wherever produced.
2. Final sales in the United States of goods and services wherever produced.

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

Table 1.7.—Gross National Product by Sector

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates					
			1987	1988				1989
			IV	I	II	III	IV	F ²
Gross national product	4,526.7	4,864.3	4,662.8	4,724.5	4,823.8	4,909.0	4,999.7	5,105.0
Gross domestic product	4,497.2	4,839.4	4,631.8	4,702.1	4,802.5	4,882.2	4,970.7	5,077.8
Business	3,855.5	4,148.2	3,972.9	4,028.1	4,117.5	4,185.2	4,262.1	4,351.1
Nonfarm	3,787.8	4,091.9	3,905.8	3,965.4	4,048.0	4,123.7	4,230.6	4,287.8
Nonfarm less housing	3,416.5	3,693.8	3,522.7	3,576.0	3,654.0	3,722.5	3,822.6	3,873.9
Housing	371.3	398.1	383.1	389.4	394.0	401.2	408.0	413.9
Farm	75.9	70.7	73.4	77.7	74.6	75.6	54.8	87.2
Statistical discrepancy	-8.1	-14.3	-6.4	-15.0	-5.1	-14.0	-23.2	-23.9
Households and institutions	168.9	188.4	176.4	180.9	185.6	191.2	196.0	200.8
Private households	9.2	9.5	9.3	9.3	9.4	9.6	9.7	9.8
Nonprofit institutions	159.8	178.9	167.1	171.6	176.1	181.6	186.4	191.0
Government	472.7	502.8	482.5	493.1	499.4	505.8	512.6	525.9
Federal	151.0	157.8	152.7	156.7	157.4	158.1	159.0	166.2
State and local	321.7	345.0	329.9	336.4	342.1	347.8	353.6	359.7
Rest of the world	29.5	24.9	31.0	22.4	21.3	26.8	29.0	27.2
Addendum:								
Gross domestic business product less housing	3,476.7							

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

Table 1.6.—Relation of Gross National Product, Gross Domestic Purchases, and Final Sales to Domestic Purchasers in Constant Dollars

[Billions of 1982 dollars]

	1987	1988	Seasonally adjusted at annual rates					
			1987	1988				1989
			IV	I	II	III	IV	F ²
Gross national product	3,847.0	3,996.1	3,923.0	3,956.1	3,985.2	4,009.4	4,033.4	4,076.5
Less: Exports of goods and services	427.8	504.8	459.2	486.2	496.9	514.0	522.1	541.0
Plus: Imports of goods and services	556.7	605.0	585.2	595.1	589.5	607.9	627.4	628.8
Equals: Gross domestic purchases ¹	3,975.9	4,096.3	4,049.0	4,065.1	4,077.9	4,103.4	4,138.8	4,164.2
Less: Change in business inventories	34.4	42.5	67.1	66.0	35.3	39.5	29.1	38.0
Equals: Final sales to domestic purchasers ²	3,941.5	4,053.8	3,981.9	3,999.1	4,042.6	4,063.8	4,109.7	4,126.3

1. Purchases in the United States of goods and services wherever produced.
2. Final sales in the United States of goods and services wherever produced.

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

Table 1.8.—Gross National Product by Sector in Constant Dollars

[Billions of 1982 dollars]

	1987	1988	Seasonally adjusted at annual rates					
			1987	1988				1989
			IV	I	II	III	IV	F ²
Gross national product	3,847.0	3,996.1	3,923.0	3,956.1	3,985.2	4,009.4	4,033.4	4,076.5
Gross domestic product	3,821.4	3,975.0	3,896.3	3,936.6	3,967.0	3,987.0	4,009.6	4,054.3
Business	3,322.5	3,464.8	3,393.6	3,430.5	3,458.9	3,475.1	3,494.7	3,537.0
Nonfarm	3,247.1	3,408.9	3,317.2	3,360.9	3,393.1	3,421.5	3,460.0	3,479.0
Nonfarm less housing	2,965.7	3,120.8	3,032.8	3,074.8	3,105.7	3,132.8	3,170.1	3,187.3
Housing	281.4	288.0	284.4	286.1	287.4	288.8	289.9	291.6
Farm	82.5	67.9	81.8	82.3	70.1	65.2	53.8	77.5
Statistical discrepancy	-7.0	-11.9	-5.4	-12.8	-4.3	-11.6	-19.1	-19.5
Households and institutions	129.0	135.6	130.7	133.3	134.4	136.8	138.0	139.5
Private households	8.8	9.0	8.8	8.9	8.9	9.0	9.1	9.2
Nonprofit institutions	120.2	126.6	121.9	124.4	125.5	127.8	128.9	130.3
Government	369.9	374.6	372.0	372.8	373.7	375.2	376.8	377.8
Federal	123.5	124.2	123.9	123.9	123.8	124.2	124.8	124.9
State and local	246.4	250.5	248.1	249.0	249.9	251.0	252.0	253.0
Rest of the world	25.6	21.0	26.7	19.5	18.3	22.4	23.9	22.2
Addendum:								
Gross domestic business product less housing	3,032.1							

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

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

	[Billions of dollars]								
	1987	1988	Seasonally adjusted at annual rates						1989
			1987		1988				
			IV	I	II	III	IV	I ^r	
Gross national product	4,526.7	4,864.3	4,662.8	4,724.5	4,823.8	4,909.0	4,999.7	5,105.0	
Less: Capital consumption allowances with capital consumption adjustment ..	480.0	506.3	489.5	498.3	503.2	507.7	516.2	524.7	
Capital consumption allowances without capital consumption adjustment	507.6	524.5	516.4	520.8	524.1	526.0	527.0	526.6	
Less: Capital consumption adjustment	27.6	18.1	26.9	22.5	20.9	18.2	10.9	1.9	
Equals: Net national product	4,046.7	4,357.9	4,173.3	4,226.2	4,320.5	4,401.3	4,483.6	4,580.3	
Less: Indirect business tax and nontax liability	366.3	389.0	374.2	379.4	385.8	392.3	398.7	403.9	
Business transfer payments	28.1	30.7	29.0	29.6	30.3	31.1	31.8	32.6	
Statistical discrepancy	-8.1	-14.3	-6.4	-15.0	-5.1	-14.0	-23.2	-23.9	
Plus: Subsidies less current surplus of government enterprises	18.3	15.9	25.6	18.6	19.2	8.8	17.1	19.4	
Equals: National income	3,678.7	3,968.4	3,802.0	3,850.8	3,928.8	4,000.7	4,093.4	4,187.1	
Less: Corporate profits with inventory valuation and capital consumption adjustments	310.4	328.4	316.1	316.2	326.5	330.0	340.9	319.3	
Net interest	353.6	391.5	369.5	373.9	380.6	396.2	415.4	435.3	
Contributions for social insurance	399.1	444.7	408.6	433.3	440.9	448.4	456.1	471.0	
Wage accruals less disbursements	0	0	-2	0	0	0	0	0	
Plus: Government transfer payments to persons	520.6	555.3	527.8	546.7	552.5	557.6	564.5	584.4	
Personal interest income	527.0	575.9	550.0	554.2	563.7	581.9	603.7	632.9	
Personal dividend income	88.6	96.3	91.9	93.5	95.0	97.3	99.4	102.1	
Business transfer payments	28.1	30.7	29.0	29.6	30.3	31.1	31.8	32.6	
Equals: Personal income	3,780.0	4,062.1	3,906.8	3,951.4	4,022.4	4,094.0	4,180.5	4,313.6	

Table 1.10.—Relation of Gross National Product, Net National Product, and National Income in Constant Dollars

	[Billions of 1982 dollars]							
Gross national product	3,847.0	3,996.1	3,923.0	3,956.1	3,985.2	4,009.4	4,033.4	4,076.5
Less: Capital consumption allowances with capital consumption adjustment ..	460.8	479.7	468.2	472.9	477.3	481.9	486.5	491.2
Equals: Net national product	3,386.2	3,516.4	3,454.8	3,483.2	3,507.9	3,527.5	3,547.0	3,585.3
Less: Indirect business tax and nontax liability plus business transfer payments less subsidies plus current surplus of government enterprises	319.2	327.5	321.0	324.4	326.2	328.1	331.1	330.8
Statistical discrepancy	-7.0	-11.9	-5.4	-12.8	-4.3	-11.6	-19.1	-19.5
Equals: National income	3,074.0	3,200.9	3,139.3	3,171.5	3,186.0	3,211.1	3,235.0	3,274.0

Table 1.11.—Command-Basis Gross National Product in Constant Dollars

	[Billions of 1982 dollars]							
Gross national product	3,847.0	3,996.1	3,923.0	3,956.1	3,985.2	4,009.4	4,033.4	4,076.5
Less: Net exports of goods and services	-128.9	-100.2	-126.0	-109.0	-92.6	-93.9	-105.4	-87.8
Exports	427.8	504.8	459.2	486.2	496.9	514.0	522.1	541.0
Imports	556.7	605.0	585.2	595.1	589.5	607.9	627.4	628.8
Equals: Gross domestic purchases	3,975.9	4,096.3	4,049.0	4,065.1	4,077.9	4,103.4	4,138.8	4,164.2
Plus: Command-basis net exports of goods and services	-124.3	-93.2	-125.6	-111.2	-89.2	-78.9	-93.6	-74.4
Command-basis exports ¹	432.4	511.8	459.6	483.9	500.3	529.0	533.9	554.4
Imports	556.7	605.0	585.2	595.1	589.5	607.9	627.4	628.8
Equals: Command-basis gross national product	3,851.6	4,003.1	3,923.4	3,953.9	3,988.7	4,024.5	4,045.2	4,089.9
Addendum:								
Terms of trade ²	101.0	101.4	100.1	99.5	100.7	103.0	102.3	102.5

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

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

Table 1.14.—National Income by Type of Income

	[Billions of dollars]									
	1987	1988	Seasonally adjusted at annual rates						1989	
			1987		1988					
			IV	I	II	III	IV	I ^r		
National income	3,678.7	3,968.4	3,802.0	3,850.8	3,928.8	4,000.7	4,093.4	4,187.1		
Compensation of employees	2,683.4	2,904.7	2,769.9	2,816.4	2,874.0	2,933.2	2,995.3	3,060.5		
Wages and salaries	2,248.4	2,436.9	2,324.8	2,358.7	2,410.0	2,462.0	2,516.8	2,574.3		
Government and government enterprises	420.1	446.1	429.2	437.1	442.9	449.1	455.4	465.9		
Other	1,828.3	1,990.7	1,895.6	1,921.6	1,967.1	2,012.9	2,061.4	2,108.4		
Supplements to wages and salaries	435.0	467.8	445.1	457.7	464.0	471.1	478.5	486.2		
Employer contributions for social insurance	227.1	249.6	232.7	243.1	247.5	251.7	256.0	260.8		
Other labor income	207.9	218.3	212.4	214.6	216.5	219.5	222.5	225.4		
Proprietors' income with inventory valuation and capital consumption adjustments	312.9	324.5	326.0	323.9	328.8	321.6	323.8	358.1		
Farm	43.0	36.3	47.0	44.7	43.4	30.9	26.0	57.2		
Proprietors' income with inventory valuation adjustment	50.6	43.4	54.5	52.2	50.8	37.9	32.9	64.0		
Capital consumption adjustment	-7.6	-7.2	-7.5	-7.5	-7.3	-7.0	-6.9	-6.8		
Nonfarm	270.0	288.2	279.0	279.2	285.3	290.7	297.7	300.9		
Proprietors' income	233.0	254.0	243.4	243.7	250.9	256.8	264.5	270.4		
Inventory valuation adjustment	-1.0	-1.3	-1.7	-1.2	-1.7	-1.5	-9	-2.3		
Capital consumption adjustment	38.0	35.6	37.4	36.6	36.1	35.4	34.2	32.8		
Rental income of persons with capital consumption adjustment	18.4	19.3	20.5	20.5	19.1	19.7	18.1	14.0		
Rental income of persons	66.2	68.3	69.1	69.6	68.0	68.5	67.2	64.4		
Capital consumption adjustment	-47.8	-49.0	-48.6	-49.1	-49.0	-48.8	-49.1	-50.4		
Corporate profits with inventory valuation and capital consumption adjustments	310.4	328.4	316.1	316.2	326.5	330.0	340.9	319.3		
Corporate profits with inventory valuation adjustment	258.7	282.8	263.7	266.8	278.5	284.6	301.3	286.0		
Profits before tax	276.7	306.6	281.9	286.2	305.9	313.9	320.6	319.9		
Profits tax liability	133.8	142.7	136.2	136.9	143.2	144.8	146.1	148.3		
Profits after tax	142.9	163.9	145.7	149.4	162.7	169.1	174.5	171.6		
Dividends	95.5	104.5	99.3	101.3	103.1	105.7	108.0	111.1		
Undistributed profits	47.4	59.4	46.4	48.1	59.6	63.4	66.4	60.5		
Inventory valuation adjustment	-18.0	-23.8	-18.2	-19.4	-27.4	-29.3	-19.2	-33.9		
Capital consumption adjustment	51.7	45.6	52.4	49.4	48.0	45.4	39.6	33.3		
Net interest	353.6	391.5	369.5	373.9	380.6	396.2	415.4	435.3		
Addenda:										
Corporate profits after tax with inventory valuation and capital consumption adjustments	176.6	185.7	179.9	179.3	183.2	185.2	194.8	171.0		
Net cash flow with inventory valuation and capital consumption adjustments	378.6	396.9	384.2	387.8	393.4	396.4	409.8	388.1		
Undistributed profits with inventory valuation and capital consumption adjustments	81.1	81.1	80.5	78.1	80.1	79.5	86.8	59.9		
Capital consumption allowances with capital consumption adjustment	297.5	315.7	303.7	309.8	313.3	316.8	323.0	328.2		
Less: Inventory valuation adjustment	-18.0	-23.8	-18.2	-19.4	-27.4	-29.3	-19.2	-33.9		
Equals: Net cash flow	396.6	420.7	402.4	407.3	420.8	425.7	429.0	422.0		

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

			Seasonally adjusted at annual rates					
	1987	1988	1987		1988			1989
			IV	I	II	III	IV		I^{2}
Billions of dollars								
Gross domestic product of corporate business	2,717.9	2,930.5	2,793.0	2,845.1	2,901.1	2,954.2	3,021.6	3,055.0
Capital consumption allowances with capital consumption adjustment.....	297.5	315.7	303.7	309.8	313.3	316.8	323.0	328.2
Net domestic product.....	2,420.4	2,614.8	2,489.3	2,535.4	2,587.8	2,637.4	2,698.5	2,726.8
Indirect business tax and nontax liability plus business transfer payments less subsidies.....	257.5	274.7	262.8	267.7	271.8	278.0	281.2	284.9
Domestic income.....	2,162.9	2,340.1	2,226.5	2,267.6	2,316.1	2,359.4	2,417.4	2,441.9
Compensation of employees.....	1,803.7	1,949.3	1,858.4	1,887.7	1,927.9	1,968.8	2,012.7	2,052.3
Wages and salaries.....	1,520.6	1,649.6	1,569.3	1,594.7	1,630.8	1,667.0	1,705.9	1,742.9
Supplements to wages and salaries.....	283.0	299.7	289.1	293.1	297.1	301.8	306.8	309.3
Corporate profits with inventory valuation and capital consumption adjustments.....	274.0	291.3	274.6	286.0	291.1	289.2	298.8	278.8
Profits before tax.....	240.3	269.5	240.4	256.0	270.5	273.1	278.4	279.5
Profits tax liability.....	133.8	142.7	136.2	136.9	143.2	144.8	146.1	148.3
Profits after tax.....	106.5	126.8	104.2	119.2	127.3	128.3	132.4	131.2
Dividends.....	83.4	89.1	91.3	75.3	87.1	99.6	94.6	97.2
Undistributed profits.....	23.1	37.7	12.9	43.9	40.2	28.7	37.8	34.0
Inventory valuation adjustment.....	-18.0	-23.8	-18.2	-19.4	-27.4	-29.3	-19.2	-33.9
Capital consumption adjustment.....	51.7	45.6	52.4	49.4	48.0	45.4	39.6	33.3
Net interest.....	85.2	99.6	93.5	93.9	97.1	101.4	105.9	110.9
Gross domestic product of financial corporate business	204.4	219.2	207.4	212.0	217.1	222.2	225.4	228.7
Gross domestic product of nonfinancial corporate business	2,513.5	2,711.3	2,585.6	2,633.2	2,684.0	2,732.1	2,796.1	2,826.3
Capital consumption allowances with capital consumption adjustment.....	276.2	292.1	281.3	286.8	290.0	293.0	298.5	303.1
Net domestic product.....	2,237.3	2,419.3	2,304.3	2,346.4	2,394.0	2,439.1	2,497.6	2,523.2
Indirect business tax and nontax liability plus business transfer payments less subsidies.....	239.8	255.6	244.5	249.2	253.0	258.8	261.7	265.1
Domestic income.....	1,997.5	2,163.6	2,059.7	2,097.2	2,141.1	2,180.3	2,235.9	2,258.1
Compensation of employees.....	1,661.4	1,797.4	1,714.7	1,739.6	1,777.8	1,816.4	1,855.8	1,891.8
Wages and salaries.....	1,399.7	1,520.0	1,447.0	1,468.4	1,502.8	1,536.9	1,571.9	1,605.5
Supplements to wages and salaries.....	261.8	277.4	267.8	271.2	275.0	279.5	283.9	286.2
Corporate profits with inventory valuation and capital consumption adjustments.....	237.5	252.7	238.4	250.6	252.6	248.2	259.4	239.9
Profits before tax.....	210.2	239.0	211.6	228.4	240.5	240.4	246.6	248.1
Profits tax liability.....	99.0	108.6	101.7	104.4	109.4	109.1	111.6	114.9
Profits after tax.....	111.2	130.4	109.9	124.1	131.1	131.3	135.0	133.2
Dividends.....	83.8	88.3	90.8	74.6	86.2	98.7	93.6	96.0
Undistributed profits.....	27.4	42.1	19.1	49.5	44.9	32.7	41.4	37.2
Inventory valuation adjustment.....	-18.0	-23.8	-18.2	-19.4	-27.4	-29.3	-19.2	-33.9
Capital consumption adjustment.....	45.3	37.5	45.0	41.5	39.5	37.1	32.0	25.7
Net interest.....	98.6	113.6	106.6	107.1	110.7	115.7	120.8	126.4
Billions of 1982 dollars								
Gross domestic product of nonfinancial corporate business	2,270.4	2,390.4	2,322.5	2,363.5	2,380.9	2,395.5	2,421.7	2,430.0
Capital consumption allowances with capital consumption adjustment.....	269.4	279.3	273.2	275.7	278.1	280.6	283.0	285.4
Net domestic product.....	2,001.0	2,111.1	2,049.3	2,087.8	2,102.9	2,114.9	2,138.7	2,144.6
Indirect business tax and nontax liability plus business transfer payments less subsidies.....	203.2	208.7	204.3	206.3	207.8	209.6	211.1	210.5
Domestic income.....	1,797.8	1,902.4	1,845.1	1,881.4	1,895.1	1,905.3	1,927.7	1,934.1

Table 1.17.—Auto Output

[Billions of dollars]

			Seasonally adjusted at annual rates					
	1987	1988	1987		1988			1989
			IV	I	II	III	IV		I^{2}
Auto output	116.3	127.0	120.6	113.1	130.3	132.0	132.5	130.5
Final sales.....	109.4	125.3	106.6	117.8	129.3	128.0	126.1	119.6
Personal consumption expenditures.....	130.0	138.6	128.0	133.9	139.8	139.2	141.7	135.5
New autos.....	94.1	101.2	90.9	100.2	100.1	101.1	103.3	98.7
Net purchases of used autos.....	35.9	37.5	37.0	33.7	39.7	38.1	38.4	36.8
Producers' durable equipment.....	19.2	23.2	19.3	22.1	23.7	23.7	23.3	21.9
New autos.....	44.4	50.3	44.9	47.9	50.0	52.3	51.1	46.7
Net purchases of used autos.....	-25.2	-27.1	-25.6	-25.7	-26.4	-28.6	-27.8	-24.9
Net exports of goods and services.....	-41.3	-38.2	-42.3	-40.1	-35.8	-36.4	-40.5	-39.6
Exports.....	6.6	8.8	8.1	8.2	8.3	9.8	9.0	9.6
Imports.....	47.9	47.0	50.3	48.3	44.1	46.2	49.5	49.2
Government purchases of goods and services.....	1.5	1.7	1.6	1.9	1.6	1.5	1.6	1.8
Change in business inventories of new and used autos	6.9	1.7	14.0	-4.7	1.1	4.0	6.4	10.8
New.....	6.7	.6	14.0	-9.1	3.4	2.7	5.5	10.3
Used.....	.2	1.1	0	4.4	-2.3	1.3	.9	.5
Addenda:								
Domestic output of new autos ¹	94.8	101.6	98.7	88.7	104.2	103.0	110.7	106.3
Sales of imported new autos ²	55.0	59.7	57.2	60.2	60.6	60.2	57.9	56.0

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

Table 1.18.—Auto Output in Constant Dollars

[Billions of 1982 dollars]

			Seasonally adjusted at annual rates					
	1987	1988	1987		1988			1989
			IV	I	II	III	IV		I^{2}
Auto output	100.6	107.5	102.9	96.0	111.2	111.5	111.3	108.2
Final sales.....	95.1	106.7	91.4	101.0	110.4	108.5	106.9	100.1
Personal consumption expenditures.....	108.8	113.6	105.3	110.4	115.5	113.7	114.7	108.5
New autos.....	80.0	84.4	76.5	84.3	83.9	84.1	85.2	80.7
Net purchases of used autos.....	28.8	29.2	28.8	26.0	31.6	29.6	29.6	27.8
Producers' durable equipment.....	16.3	19.8	16.4	19.0	20.1	20.3	19.7	18.5
New autos.....	37.7	42.0	37.8	40.3	41.9	43.5	42.2	38.2
Net purchases of used autos.....	-21.5	-22.2	-21.4	-21.2	-21.8	-23.3	-22.5	-19.8
Net exports of goods and services.....	-31.4	-28.1	-31.8	-30.1	-26.5	-26.8	-28.9	-28.5
Exports.....	5.4	7.1	6.6	6.7	6.8	7.9	7.2	7.6
Imports.....	36.8	35.2	38.4	36.8	33.3	34.7	36.1	36.1
Government purchases of goods and services.....	1.4	1.5	1.4	1.7	1.4	1.3	1.4	1.6
Change in business inventories of new and used autos	5.5	.8	11.5	-4.9	.8	3.0	4.3	8.1
New.....	5.3	0	11.5	-8.5	2.8	2.0	3.6	7.7
Used.....	.2	.8	0	3.6	-2.0	1.1	.7	.4
Addenda:								
Domestic output of new autos ¹	80.5	84.5	83.1	74.2	87.3	85.4	91.1	86.3
Sales of imported new autos ²	46.8	49.8	48.1	50.7	50.8	50.1	47.8	45.8

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

Table 1.19.—Truck Output

	[Billions of dollars]		Seasonally adjusted at annual rates					
	1987	1988	1988					1989
			IV	I	II	III	IV	
Truck output ¹	59.6	67.0	64.6	65.8	65.3	64.3	72.5	70.4
Final sales.....	58.3	66.6	60.9	66.2	65.4	67.3	67.5	65.3
Personal consumption expenditures.....	27.7	29.2	27.3	28.7	28.8	29.8	29.4	29.3
Producers' durable equipment.....	33.0	37.3	34.2	36.4	36.1	37.4	39.2	36.7
Net exports of goods and services.....	-7.0	-5.6	-5.6	-4.9	-5.3	-5.6	-6.8	-6.6
Exports.....	3.3	3.8	4.2	4.1	3.7	3.8	3.8	3.9
Imports.....	10.3	9.5	9.8	9.0	9.0	9.4	10.6	10.5
Government purchases of goods and services.....	4.7	5.8	5.0	6.0	5.8	5.7	5.6	6.0
Change in business inventories.....	1.3	.4	3.7	-4	0	-3.0	5.1	5.1

1. Includes new trucks only.

Table 2.1.—Personal Income and Its Disposition

	[Billions of dollars]		Seasonally adjusted at annual rates					
	1987	1988	1988					1989
			IV	I	II	III	IV	
Personal income.....	3,780.0	4,062.1	3,906.8	3,951.4	4,022.4	4,094.0	4,180.5	4,313.6
Wage and salary disbursements.....	2,248.4	2,436.9	2,325.1	2,358.7	2,410.0	2,462.0	2,516.8	2,574.3
Commodity-producing industries.....	649.8	695.4	665.5	676.0	689.1	701.3	715.4	727.4
Manufacturing.....	490.3	522.5	501.3	509.6	517.4	525.9	537.1	545.2
Distributive industries.....	531.7	578.7	547.3	558.2	572.1	585.8	598.6	611.9
Service industries.....	646.8	716.6	682.8	687.4	705.9	725.8	747.4	769.1
Government and government enterprises.....	420.1	446.1	429.5	437.1	442.9	449.1	455.4	465.9
Other labor income.....	207.9	218.3	212.4	214.6	216.5	219.5	222.5	225.4
Proprietors' income with inventory valuation and capital consumption adjustments.....	312.9	324.5	326.0	323.9	328.8	321.6	323.8	358.1
Farm.....	43.0	36.3	47.0	44.7	43.4	30.9	26.0	57.2
Nonfarm.....	270.0	288.2	279.0	279.2	285.3	290.7	297.7	300.9
Rental income of persons with capital consumption adjustment.....	18.4	19.3	20.5	20.5	19.1	19.7	18.1	14.0
Personal dividend income.....	88.6	96.3	91.9	93.5	95.0	97.3	99.4	102.1
Personal interest income.....	527.0	575.9	550.0	554.2	563.7	581.9	603.7	632.9
Transfer payments.....	548.8	586.0	556.8	576.3	582.8	588.6	596.4	617.0
Old-age, survivors, disability, and health insurance benefits.....	282.9	301.8	286.5	298.1	300.4	303.1	305.7	317.8
Government unemployment insurance benefits.....	14.7	13.3	13.4	13.9	13.4	13.4	12.7	13.6
Veterans benefits.....	16.6	17.0	16.6	17.0	17.1	17.1	16.9	17.2
Government employees retirement benefits.....	75.7	81.7	77.1	80.4	82.3	81.6	82.4	85.8
Other transfer payments.....	158.9	172.1	163.3	166.9	169.6	173.4	178.6	182.4
Aid to families with dependent children.....	16.7	17.2	16.8	16.9	17.1	17.2	17.5	17.4
Other.....	142.1	155.0	146.5	150.0	152.5	156.2	161.1	165.1
Less: Personal contributions for social insurance.....	172.0	195.1	175.9	190.2	193.5	196.7	200.1	210.2
Less: Personal tax and nontax payments.....	570.3	590.3	591.0	575.8	601.0	586.5	598.0	617.5
Equals: Disposable personal income.....	3,209.7	3,471.8	3,315.8	3,375.6	3,421.5	3,507.5	3,582.5	3,696.0
Less: Personal outlays.....	3,105.5	3,327.5	3,076.3	3,225.7	3,293.6	3,361.8	3,428.7	3,481.5
Personal consumption expenditures.....	3,012.1	3,227.5	3,076.3	3,128.1	3,194.6	3,261.2	3,326.4	3,377.2
Interest paid by consumers to business.....	92.1	98.9	94.4	96.4	98.2	99.8	101.2	103.3
Personal transfer payments to foreigners (net).....	1.3	1.0	1.2	1.2	.8	.8	1.1	1.1
Equals: Personal saving.....	104.2	144.3	144.0	149.9	127.8	145.7	153.8	214.5
Addenda:								
Disposable personal income:								
Total, billions of 1982 dollars.....	2,686.3	2,788.3	2,728.9	2,762.3	2,762.2	2,800.4	2,828.4	2,882.2
Per capita:								
Current dollars.....	13,157	14,103	13,543	13,760	13,919	14,231	14,497	14,924
1982 dollars.....	11,012	11,326	11,145	11,260	11,237	11,362	11,445	11,638
Population (mid-period, millions).....	243.9	246.2	244.8	245.3	245.8	246.5	247.1	247.7
Personal saving as percentage of disposable personal income.....	3.2	4.2	4.3	4.4	3.7	4.2	4.3	5.8

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

Table 1.20.—Truck Output in Constant Dollars

	[Billions of 1982 dollars]		Seasonally adjusted at annual rates					
	1987	1988	1988					1989
			IV	I	II	III	IV	
Truck output ¹	50.8	56.2	54.9	55.8	55.5	54.1	59.2	57.1
Final sales.....	49.7	55.9	51.9	56.2	55.5	56.5	55.3	53.1
Personal consumption expenditures.....	23.5	24.5	23.0	24.2	24.3	24.3	25.1	24.4
Producers' durable equipment.....	28.2	31.2	29.3	31.0	30.8	31.3	31.8	29.7
Net exports of goods and services.....	-6.0	-4.7	-4.7	-4.1	-4.5	-4.7	-5.6	-5.4
Exports.....	2.8	3.2	3.6	3.5	3.1	3.2	3.1	3.1
Imports.....	8.8	7.9	8.3	7.6	7.6	7.8	8.7	8.5
Government purchases of goods and services.....	4.0	4.8	4.3	5.1	4.9	4.8	4.6	4.8
Change in business inventories.....	1.1	.3	3.0	-3	0	-2.3	4.0	4.0

1. Includes new trucks only.

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

	[Billions of dollars]		Seasonally adjusted at annual rates					
	1987	1988	1988					1989
			IV	I	II	III	IV	
Personal consumption expenditures.....	3,012.1	3,227.5	3,076.3	3,128.1	3,194.6	3,261.2	3,326.4	3,377.2
Durable goods.....	421.9	451.1	422.0	437.8	449.8	452.9	464.0	459.4
Motor vehicles and parts.....	195.8	208.6	194.0	202.2	208.7	210.2	213.2	206.5
Furniture and household equipment.....	148.3	159.0	149.4	154.7	159.5	159.5	162.3	167.8
Other.....	77.8	83.6	78.6	81.0	81.5	83.2	88.5	85.2
Nondurable goods.....	997.9	1,046.9	1,012.4	1,016.2	1,036.6	1,060.8	1,073.9	1,093.0
Food.....	526.4	551.5	530.9	535.9	546.3	558.9	564.9	578.7
Clothing and shoes.....	178.2	186.4	181.2	180.5	183.2	188.4	193.6	193.9
Gasoline and oil.....	77.0	78.8	79.3	76.3	78.8	80.5	79.5	78.6
Other nondurable goods.....	216.3	230.2	220.9	223.5	228.2	233.0	235.9	241.8
Fuel oil and coal.....	16.2	17.2	16.6	17.0	17.2	17.4	17.3	16.5
Other.....	200.1	212.9	204.2	206.6	211.0	215.6	218.6	225.3
Services.....	1,592.3	1,729.6	1,641.9	1,674.1	1,708.2	1,747.5	1,788.5	1,824.8
Housing.....	467.7	501.6	481.8	490.1	496.4	506.0	514.0	522.0
Household operation.....	186.3	196.7	188.2	190.9	193.5	199.7	202.7	200.1
Electricity and gas.....	88.8	93.1	88.8	90.2	90.9	94.6	96.7	92.5
Other.....	97.5	103.6	99.5	100.7	102.7	105.1	106.0	107.5
Transportation.....	106.2	117.2	112.0	111.3	116.4	118.5	122.5	125.1
Medical care.....	360.3	404.1	374.4	384.9	396.6	410.4	424.7	440.4
Other.....	471.8	510.0	485.4	497.0	505.2	512.9	524.8	537.3

Table 2.3.—Personal Consumption Expenditures by Major Type of Product in Constant Dollars

	[Billions of 1982 dollars]		Seasonally adjusted at annual rates					
	1987	1988	1988					1989
			IV	I	II	III	IV	
Personal consumption expenditures.....	2,521.0	2,592.2	2,531.7	2,559.8	2,579.0	2,603.8	2,626.2	2,633.6
Durable goods.....	390.9	409.7	387.6	401.1	410.6	410.4	416.5	411.9
Motor vehicles and parts.....	170.4	177.7	166.7	173.5	179.0	178.7	179.6	172.3
Furniture and household equipment.....	151.0	160.8	151.9	157.3	161.8	161.0	163.0	169.1
Other.....	69.6	71.2	69.0	70.3	69.8	70.7	73.9	70.5
Nondurable goods.....	890.5	899.6	890.5	892.7	893.6	904.5	907.4	911.4
Food.....	450.4	453.3	449.2	451.4	453.2	453.8	454.8	459.9
Clothing and shoes.....	160.5	161.1	160.3	159.6	156.3	164.2	164.1	164.3
Gasoline and oil.....	98.3	99.6	98.4	98.8	99.8	99.5	100.3	99.2
Other nondurable goods.....	181.3	185.6	182.6	183.0	184.2	187.0	188.2	188.0
Fuel oil and coal.....	21.1	22.4	21.4	22.0	21.8	22.4	23.6	21.2
Other.....	160.2	163.2	161.2	161.0	162.4	164.6	164.6	166.7
Services.....	1,239.5	1,283.0	1,253.6	1,265.9	1,274.8	1,288.9	1,302.2	1,310.3
Housing.....	358.3	366.5	361.7	363.6	365.6	367.7	369.0	371.1
Household operation.....	157.0	163.5	158.1	160.4	161.1	165.9	166.4	163.0
Electricity and gas.....	79.0	82.3	79.2	80.5	80.6	83.8	84.2	80.2
Other.....	78.0	81.2	79.0	80.0	80.4	82.1	82.2	82.8
Transportation.....	89.3	93.7	90.8	91.7	92.9	94.2	96.0	95.7
Medical care.....	268.2	282.0	274.0	276.9	279.5	283.4	288.2	293.3
Other.....	366.6	377.3	369.0	373.2	375.8	377.7	382.6	387.1

Table 3.2.—Federal Government Receipts and Expenditures

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates					
			1988					1989
			IV	I	II	III	IV	
Receipts	916.5	975.2	944.4	951.0	983.0	975.5	991.5	1,024.0
Personal tax and nontax receipts.....	405.6	413.4	422.3	404.6	425.0	408.3	415.8	431.6
Income taxes.....	396.8	404.0	414.1	395.9	415.1	398.6	406.4	422.1
Estate and gift taxes.....	7.4	7.9	6.7	7.1	8.2	8.3	7.9	7.9
Nontaxes.....	1.4	1.6	1.6	1.5	1.7	1.4	1.5	1.5
Corporate profits tax accruals.....	105.8	111.4	107.7	107.2	111.7	113.1	113.8	116.0
Federal Reserve banks.....	17.7	18.6	17.9	18.4	18.3	19.1	18.5	19.7
Other.....	88.1	92.9	89.8	88.8	93.4	94.0	95.3	96.4
Indirect business tax and nontax accruals.....	54.0	56.7	55.0	55.9	55.9	57.1	57.9	58.3
Excise taxes.....	31.8	33.1	32.2	32.4	33.0	33.2	33.9	33.7
Customs duties.....	15.4	16.4	15.8	16.5	15.9	16.3	16.8	17.3
Nontaxes.....	6.8	7.2	7.0	7.0	7.0	7.5	7.2	7.2
Contributions for social insurance.....	351.0	393.7	359.4	383.4	390.3	397.0	404.0	418.2
Expenditures	1,074.2	1,117.6	1,104.9	1,106.1	1,116.3	1,099.0	1,149.0	1,182.5
Purchases of goods and services.....	382.0	381.0	391.4	377.7	382.2	367.7	396.3	397.8
National defense.....	295.3	298.4	299.2	298.4	298.8	294.3	301.9	299.8
Nondefense.....	86.7	82.6	92.2	79.3	83.4	73.4	94.3	98.1
Transfer payments.....	414.2	440.1	422.5	434.4	437.6	440.7	447.5	460.5
To persons.....	402.0	427.2	406.1	422.9	426.5	428.3	430.9	448.8
To foreigners.....	12.2	12.9	16.4	11.5	11.0	12.5	16.6	11.7
Grants-in-aid to State and local governments.....	102.7	111.5	101.4	111.1	110.4	111.5	113.0	118.9
Net interest paid.....	143.0	153.9	149.5	149.9	152.1	154.9	158.9	168.9
Interest paid.....	162.5	174.4	168.4	172.5	171.8	174.3	179.1	188.4
To persons and business.....	138.4	146.7	143.8	146.0	145.0	146.5	149.5	157.0
To foreigners.....	24.1	27.7	24.6	26.6	26.6	27.8	29.6	31.4
Less: Interest received by government.....	19.4	20.5	18.9	22.6	19.8	19.4	20.2	19.5
Subsidies less current surplus of government enterprises.....	32.4	31.1	39.7	33.0	34.0	24.1	33.3	36.3
Subsidies.....	30.8	28.6	37.6	29.6	32.5	16.8	35.4	34.6
Less: Current surplus of government enterprises.....	-1.6	-2.5	-2.1	-3.3	-1.5	-7.3	2.1	-1.8
Less: Wage accruals less disbursements.....	0	0	-2	0	0	0	0	0
Surplus or deficit (-), national income and product accounts	-157.8	-142.3	-160.4	-155.1	-133.3	-123.5	-157.5	-158.5
Social insurance funds.....	27.5	53.2	34.9	44.8	49.8	56.0	62.1	61.3
Other.....	-185.3	-195.5	-195.3	-199.8	-183.1	-179.5	-219.6	-219.7

Table 3.3.—State and Local Government Receipts and Expenditures

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates					
			1988					1989
			IV	I	II	III	IV	
Receipts	655.7	703.1	666.9	685.5	698.4	708.0	720.4	735.6
Personal tax and nontax receipts.....	164.7	176.9	168.6	171.3	176.0	178.2	182.2	186.0
Income taxes.....	86.1	92.7	88.1	89.3	92.6	93.3	95.7	97.8
Nontaxes.....	64.8	69.4	66.5	67.6	68.7	69.9	71.2	72.5
Other.....	13.8	14.8	14.1	14.3	14.7	15.0	15.3	15.7
Corporate profits tax accruals.....	27.9	31.3	28.5	29.7	31.5	31.7	32.3	32.2
Indirect business tax and nontax accruals.....	312.3	332.3	319.2	323.5	329.8	335.3	340.8	345.6
Sales taxes.....	148.7	158.9	152.5	154.3	157.9	160.2	163.2	164.8
Property taxes.....	121.9	129.6	124.7	126.6	128.5	130.6	132.9	135.1
Other.....	41.6	43.8	42.0	42.6	43.4	44.5	44.7	45.7
Contributions for social insurance.....	48.1	51.0	49.2	49.9	50.6	51.4	52.1	52.8
Federal grants-in-aid.....	102.7	111.5	101.4	111.1	110.4	111.5	113.0	118.9
Expenditures	602.8	647.9	617.2	629.7	642.1	652.0	667.8	680.5
Purchases of goods and services.....	542.8	583.9	555.9	567.5	579.4	587.6	601.2	613.9
Compensation of employees.....	321.7	345.0	329.9	336.4	342.1	347.8	353.6	359.7
Other.....	221.1	239.0	226.0	231.1	237.3	239.8	247.6	254.2
Transfer payments to persons.....	118.7	128.2	121.7	123.8	126.0	129.3	133.6	135.6
Net interest paid.....	-37.7	-40.8	-38.8	-39.5	-40.3	-41.2	-42.1	-43.1
Interest paid.....	53.3	59.0	55.4	56.8	58.3	59.7	61.2	62.7
Less: Interest received by government.....	91.0	99.8	94.2	96.3	98.6	101.0	103.3	105.8
Less: Dividends received by government.....	6.9	8.2	7.5	7.8	8.1	8.4	8.7	9.0
Subsidies less current surplus of government enterprises.....	-14.0	-15.2	-14.1	-14.4	-14.7	-15.3	-16.2	-17.0
Subsidies.....	1.0	1.0	1.0	1.0	1.1	1.0	1.0	1.0
Less: Current surplus of government enterprises.....	15.0	16.2	15.1	15.5	15.8	16.3	17.3	18.0
Less: Wage accruals less disbursements.....	0	0	0	0	0	0	0	0
Surplus or deficit (-), national income and product accounts	52.9	55.2	49.7	55.8	56.2	56.0	52.6	55.2
Social insurance funds.....	62.1	68.5	64.6	66.1	67.7	69.3	70.9	72.5
Other.....	-9.2	-13.3	-14.8	-10.3	-11.5	-13.3	-18.2	-17.3

Table 3.7B.—Government Purchases of Goods and Services by Type

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates					
			1988					1989
			IV	I	II	III	IV	
Government purchases of goods and services	924.7	964.9	947.3	945.2	961.6	955.3	997.5	1,011.8
Federal	382.0	381.0	391.4	377.7	382.2	367.7	396.3	397.8
National defense.....	295.3	298.4	299.2	298.4	298.8	294.3	301.9	299.8
Durable goods.....	89.8	84.1	88.4	83.8	84.2	81.7	86.6	83.4
Nondurable goods.....	10.5	11.0	11.3	10.8	11.4	10.7	11.3	11.2
Services.....	187.8	196.2	191.9	197.3	195.8	194.8	197.0	198.4
Compensation of employees.....	108.9	112.9	110.0	112.7	112.6	112.9	113.5	118.4
Military.....	73.2	75.8	73.9	75.5	75.7	75.9	76.2	79.2
Civilian.....	35.7	37.1	36.2	37.2	37.0	37.0	37.3	39.2
Other services.....	78.9	83.3	81.9	84.6	83.1	81.8	83.5	80.0
Structures.....	7.2	7.1	7.6	6.6	7.5	7.2	7.1	6.7
Nondefense.....	86.7	82.6	92.2	79.3	83.4	73.4	94.3	98.1
Durable goods.....	4.1	4.6	4.5	4.6	4.8	4.2	4.6	4.7
Nondurable goods.....	3.2	-7.9	4.9	-9.1	-8.2	-16.4	2.0	2.5
Commodity Credit Corporation inventory change.....	-3.3	-15.4	-1.4	-17.5	-16.8	-22.6	-4.8	-5.2
Other nondurables.....	6.5	7.5	6.3	8.4	8.6	6.1	6.8	7.7
Services.....	70.9	78.1	74.5	76.4	78.8	77.0	80.1	82.9
Compensation of employees.....	42.1	44.8	42.7	44.0	44.7	45.1	45.5	47.8
Other services.....	28.8	33.2	31.8	32.3	34.1	31.9	34.7	35.1
Structures.....	8.5	7.9	8.3	7.5	7.9	8.6	7.6	8.0
State and local	542.8	583.9	555.9	567.5	579.4	587.6	601.2	613.9
Durable goods.....	26.9	29.6	27.8	28.4	29.2	30.0	30.7	31.5
Nondurable goods.....	44.1	47.3	45.0	45.3	47.0	48.1	48.8	51.3
Services.....	409.6	440.6	420.0	428.7	436.7	444.6	452.5	461.8
Compensation of employees.....	321.7	345.0	329.9	336.4	342.1	347.8	353.6	359.7
Other services.....	87.9	95.7	90.2	92.2	94.6	96.8	98.9	102.1
Structures.....	62.2	66.4	63.1	65.2	66.4	65.0	69.2	69.3

Table 3.8B.—Government Purchases of Goods and Services by Type in Constant Dollars

[Billions of 1982 dollars]

	1987	1988	Seasonally adjusted at annual rates					
			1988					1989
			IV	I	II	III	IV	
Government purchases of goods and services	780.2	782.3	792.6	776.4	783.8	773.5	795.5	798.3
Federal	339.0	328.7	347.7	327.8	331.6	320.1	335.5	335.8
National defense.....	264.9	261.8	268.2	264.6	263.6	256.4	262.5	256.7
Durable goods.....	87.9	84.1	88.4	84.9	85.1	81.2	85.0	82.4
Nondurable goods.....	14.7	14.3	15.6	14.6	14.8	13.2	14.7	15.0
Services.....	156.4	157.8	158.0	159.9	157.8	156.4	157.4	154.1
Compensation of employees.....	89.3	89.1	89.5	89.3	88.8	89.0	89.3	89.3
Military.....	60.2	60.1	60.3	60.1	59.9	60.0	60.2	60.1
Civilian.....	29.0	29.0	29.2	29.2	28.9	28.9	29.1	29.2
Other services.....	67.2	68.7	68.6	70.5	69.0	67.4	68.0	64.8
Structures.....	5.9	5.6	6.1	5.2	5.9	5.6	5.5	5.1
Nondefense.....	74.1	66.9	79.5	63.2	67.9	63.7	72.9	79.2
Durable goods.....	4.8	5.5	5.4	5.6	5.8	5.2	5.4	5.5
Nondurable goods.....	2.5	-8.5	4.9	-11.1	-8.6	-11.0	-3.4	2.3
Commodity Credit Corporation inventory change.....	-3.9	-15.5	-1.1	-19.3	-16.8	-16.5	-9.4	-4.7
Other nondurables.....	6.4	7.0	6.1	8.2	8.3	5.5	6.0	7.0
Services.....	59.2	63.2	61.8	62.2	63.9	62.1	64.5	64.6
Compensation of employees.....	34.2	35.1	34.4	34.5	35.0	35.2	35.5	35.5
Other services.....	25.0	28.1	27.4	27.7	28.9	26.9	29.0	29.1
Structures.....	7.5	6.8	7.3	6.5	6.8	7.3	6.5	6.7
State and local	441.2	453.6	444.9	448.7	452.2	453.4	460.0	462.4
Durable goods.....	24.4	26.2	25.1					

Table 3.9.—National Defense Purchases of Goods and Services

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates						
			1987	1988					1989
				IV	I	II	III	IV		F
National defense purchases	295.3	298.4	299.2	298.4	298.8	294.3	301.9	299.8	
Durable goods	89.8	84.1	88.4	83.8	84.2	81.7	86.6	83.4	
Military equipment	77.3	73.0	75.9	72.3	73.3	70.9	75.4	73.2	
Aircraft	33.4	29.3	33.7	29.8	29.8	27.4	29.9	27.8	
Missiles	13.0	12.6	13.3	11.7	12.8	11.7	14.2	13.7	
Ships	8.5	8.5	8.2	8.4	7.9	8.0	9.4	10.4	
Vehicles	4.8	4.1	4.6	4.5	4.2	4.2	3.6	3.5	
Electronic equipment	5.8	6.2	5.6	5.9	6.0	5.7	7.0	5.5	
Other	11.8	12.4	10.5	12.0	12.6	13.8	11.1	12.2	
Other durable goods	12.5	11.1	12.4	11.5	11.0	10.8	11.2	10.3	
Nondurable goods	10.5	11.0	11.3	10.8	11.4	10.7	11.3	11.2	
Petroleum products	4.2	4.4	5.3	4.3	4.4	4.3	4.7	4.6	
Ammunition	3.8	4.0	3.6	3.8	4.5	3.7	4.0	3.9	
Other nondurable goods	2.5	2.6	2.4	2.6	2.4	2.7	2.5	2.7	
Services	187.8	196.2	191.9	197.3	195.8	194.8	197.0	198.4	
Compensation of employees	108.9	112.9	110.0	112.7	112.6	112.9	113.5	118.4	
Military	73.2	75.8	73.9	75.5	75.7	75.9	76.2	79.2	
Civilian	35.7	37.1	36.2	37.2	37.0	37.0	37.3	39.2	
Other services	78.9	83.3	81.9	84.6	83.1	81.8	83.5	80.0	
Contractual research and development	28.5	30.5	28.4	30.6	30.2	30.1	31.0	30.9	
Installation support ¹	22.3	24.0	23.4	24.7	23.9	23.6	23.6	22.8	
Weapons support ²	9.0	9.2	9.3	9.3	9.2	9.2	9.1	8.3	
Personnel support ³	11.3	11.6	11.9	11.7	11.6	11.7	11.5	10.9	
Transportation of materiel	4.0	4.1	4.5	4.3	4.2	3.9	4.0	3.3	
Travel of persons	3.8	3.9	3.9	3.7	3.9	3.9	3.9	3.8	
Other	0	.1	.7	.3	.1	-.5	.3	0	
Structures	7.2	7.1	7.6	6.6	7.5	7.2	7.1	6.7	
Military facilities	4.9	4.7	5.3	4.2	5.0	4.9	4.6	4.3	
Other	2.4	2.4	2.3	2.4	2.4	2.3	2.5	2.5	

1. Includes utilities, communications, rental payments, maintenance and repair, and payments to contractors to operate installations.
2. Includes depot maintenance and contractual services for weapons systems, other than research and development.
3. Includes compensation of foreign personnel, consulting, training, and education.

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

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates						
			1987	1988					1989
				IV	I	II	III	IV		F
Receipts from foreigners	428.0	519.7	459.7	487.8	507.1	536.1	548.0	577.8	
Exports of goods and services	428.0	519.7	459.7	487.8	507.1	536.1	548.0	577.8	
Merchandise	254.8	321.6	276.7	300.8	316.9	331.0	337.6	357.3	
Durable goods	158.3	201.3	175.0	188.2	198.4	204.8	213.8	224.6	
Nondurable goods	96.4	120.2	101.7	112.5	118.5	126.1	123.7	132.7	
Services	173.3	198.2	183.0	187.0	190.2	205.1	210.4	220.4	
Factor income ¹	96.1	111.9	105.1	104.7	104.2	116.1	122.5	129.4	
Other	77.2	86.3	77.9	82.3	86.1	89.0	87.9	91.0	
Capital grants received by the United States (net)	0	0	0	0	0	0	0	0	
Payments to foreigners	428.0	519.7	459.7	487.8	507.1	536.1	548.0	577.8	
Imports of goods and services	551.1	614.4	585.4	599.9	597.5	616.0	644.0	655.2	
Merchandise	413.0	449.7	438.0	441.7	439.4	448.6	469.0	470.1	
Durable goods	264.5	295.2	281.8	287.5	286.6	293.4	313.2	311.3	
Nondurable goods	148.5	154.5	156.2	154.2	152.7	155.2	155.8	158.7	
Services	138.1	164.7	147.4	158.2	158.2	167.5	175.0	185.1	
Factor income ¹	66.6	87.0	74.1	82.3	82.9	89.3	93.5	102.2	
Other	71.5	77.7	73.3	75.8	75.3	78.1	81.5	83.0	
Transfer payments (net)	13.5	13.9	17.6	12.7	11.8	13.3	17.6	12.8	
From persons (net)	1.3	1.0	1.2	1.2	.8	.8	1.1	1.1	
From government (net)	12.2	12.9	16.4	11.5	11.0	12.5	16.6	11.7	
Interest paid by government to foreigners	24.1	27.7	24.6	26.6	26.8	27.8	29.6	31.4	
Net foreign investment	-160.6	-136.2	-167.8	-151.3	-129.1	-121.1	-143.3	-121.7	

1. Line 7 less line 16 equals rest-of-the-world product as shown in table 1.7.

Table 3.10.—National Defense Purchases of Goods and Services in Constant Dollars

[Billions of 1982 dollars]

	1987	1988	Seasonally adjusted at annual rates						
			1987	1988					1989
				IV	I	II	III	IV		F
National defense purchases	264.9	261.8	268.2	264.6	263.6	256.4	262.5	256.7	
Durable goods	87.9	84.1	88.4	84.9	85.1	81.2	85.0	82.4	
Military equipment	72.5	69.4	72.6	69.5	70.3	67.2	70.6	68.8	
Aircraft	30.7	28.2	31.9	29.0	28.6	26.5	28.7	26.7	
Missiles	12.8	12.7	13.7	12.2	13.3	11.5	13.6	13.8	
Ships	7.3	7.1	7.1	7.2	6.8	6.7	7.8	8.4	
Vehicles	5.1	4.4	4.9	4.7	4.5	4.4	3.9	3.9	
Electronic equipment	5.5	5.8	5.3	5.5	5.7	5.5	6.6	5.2	
Other	11.0	11.2	9.7	10.9	11.4	12.5	9.9	10.8	
Other durable goods	15.4	14.7	15.9	15.4	14.9	14.0	14.4	13.6	
Nondurable goods	14.7	14.3	15.6	14.6	14.8	13.2	14.7	15.0	
Petroleum products	8.4	7.8	9.5	8.3	7.8	6.9	8.2	8.3	
Ammunition	4.0	4.3	3.9	4.1	4.9	4.0	4.3	4.4	
Other nondurable goods	2.3	2.2	2.2	2.3	2.2	2.3	2.2	2.3	
Services	156.4	157.8	158.0	159.9	157.8	156.4	157.4	154.1	
Compensation of employees	89.3	89.1	89.5	89.3	88.8	89.0	89.3	89.3	
Military	60.2	60.1	60.3	60.1	59.9	60.0	60.2	60.1	
Civilian	29.0	29.0	29.2	29.2	28.9	28.9	29.1	29.2	
Other services	67.2	68.7	68.6	70.5	69.0	67.4	68.0	64.8	
Contractual research and development	24.7	25.5	24.2	25.9	25.4	25.0	25.5	25.3	
Installation support ¹	17.9	18.8	18.4	19.5	18.8	18.4	18.4	17.7	
Weapons support ²	7.9	7.8	8.0	8.0	7.9	7.8	7.7	6.9	
Personnel support ³	8.8	8.7	9.0	8.9	8.7	8.7	8.5	7.9	
Transportation of materiel	4.2	4.2	4.6	4.4	4.3	4.0	4.0	3.3	
Travel of persons	3.7	3.8	3.8	3.6	3.8	3.8	3.8	3.7	
Other	0	.1	.5	.2	.1	-.4	.3	0	
Structures	5.9	5.6	6.1	5.2	5.9	5.6	5.5	5.1	
Military facilities	3.9	3.7	4.2	3.3	4.0	3.8	3.5	3.2	
Other	2.0	1.9	1.9	1.9	1.9	1.8	2.0	1.9	

1. Includes utilities, communications, rental payments, maintenance and repair, and payments to contractors to operate installations.
2. Includes depot maintenance and contractual services for weapons systems.
3. Includes compensation of foreign personnel, consulting, training, and education.

Table 4.2.—Exports and Imports of Goods and Services in Constant Dollars

[Billions of 1982 dollars]

	1987	1988	Seasonally adjusted at annual rates						
			1987	1988					1989
				IV	I	II	III	IV		F
Exports of goods and services	427.8	504.8	459.2	486.2	496.9	514.0	522.1	541.0	
Merchandise	280.1	341.5	304.6	329.0	339.1	345.9	351.9	364.7	
Durable goods	177.3	226.4	198.8	215.4	223.1	229.4	237.8	243.6	
Nondurable goods	102.8	115.0	105.8	113.6	116.0	116.5	114.2	121.1	
Services	147.7	163.4	154.6	157.1	157.8	168.1	170.2	176.3	
Factor income ¹	80.3	90.2	87.0	86.3	84.5	93.0	96.9	101.3	
Other	67.4	73.1	67.6	70.9	73.3	75.1	73.3	75.0	
Imports of goods and services	556.7	605.0	585.2	595.1	589.5	607.9	627.4	628.8	
Merchandise	439.0	469.8	461.0	463.1	459.1	470.9	486.0	480.6	
Durable goods	260.2	283.2	276.9	279.1	276.3	283.5	294.1	294.6	
Nondurable goods	178.8	186.6	184.1	184.1	182.8	187.4	191.9	186.0	
Services	117.7	135.3	124.2	132.0	130.4	137.0	141.4	148.2	
Factor income ¹	54.7	69.2	60.3	66.8	66.3	70.6	73.0	79.1	
Other	63.0	66.0	63.9	65.2	64.2	66.4	68.4	69.1	

1. Line 6 less line 13 equals rest-of-the-world product as shown in table 1.8.

Table 4.3.—Merchandise Exports and Imports by Type of Product and by End-Use Category

	[Billions of dollars]									
	1987	1988	Seasonally adjusted at annual rates							1989
			1987	1988					1989	
				IV	I	II	III	IV			F
Merchandise exports	254.8	321.6	276.7	300.8	316.9	331.0	337.6	357.3		
Foods, feeds, and beverages	24.6	33.2	25.4	30.1	32.8	36.2	33.7	38.1		
Industrial supplies and materials	66.5	83.0	71.0	77.8	82.1	86.0	86.2	92.7		
Durable goods	20.9	27.8	22.8	24.6	28.0	28.4	30.3	32.7		
Nondurable goods	45.6	55.2	48.1	53.3	54.1	57.6	55.9	60.0		
Capital goods, except autos	88.1	111.6	96.5	105.4	109.2	114.1	117.8	121.5		
Autos	26.3	32.6	30.5	31.7	32.2	32.2	34.4	35.4		
Consumer goods	18.0	23.8	19.3	21.2	22.8	24.9	26.2	30.3		
Durable goods	7.4	10.6	8.1	9.3	10.1	11.4	11.7	15.3		
Nondurable goods	10.5	13.2	11.1	11.9	12.8	13.5	14.4	15.0		
Other	31.3	37.3	34.1	34.6	37.8	37.5	39.3	39.3		
Durable goods ¹	15.7	18.7	17.0	17.3	18.9	18.8	19.6	19.7		
Nondurable goods ¹	15.7	18.6	17.0	17.3	18.9	18.8	19.6	19.7		
Merchandise imports	413.0	449.7	438.0	441.7	439.4	448.6	469.0	470.1		
Foods, feeds, and beverages	24.7	25.0	25.1	26.0	23.8	25.0	25.2	25.3		
Industrial supplies and materials, excluding petroleum	66.6	77.6	72.3	76.7	75.3	77.4	80.8	81.7		
Durable goods	35.6	42.0	38.6	41.8	40.1	41.2	44.9	45.5		
Nondurable goods	31.0	35.6	33.7	35.0	35.2	36.2	36.0	36.2		
Petroleum and products	42.9	39.4	45.2	39.8	41.1	39.4	37.2	43.6		
Capital goods, except autos	84.8	101.4	93.2	96.4	100.7	101.9	106.5	107.1		
Autos	85.2	88.1	88.7	87.4	84.5	86.4	93.8	91.9		
Consumer goods	88.7	96.4	92.0	94.2	92.8	96.1	102.4	99.2		
Durable goods	49.0	52.8	50.6	51.5	50.7	52.6	56.5	56.2		
Nondurable goods	39.7	43.6	41.4	42.8	42.1	43.4	46.0	43.0		
Other	20.2	21.9	21.4	21.1	21.1	22.4	23.0	21.2		
Durable goods ¹	10.1	11.0	10.7	10.5	10.6	11.2	11.3	10.6		
Nondurable goods ¹	10.1	11.0	10.7	10.5	10.6	11.2	11.5	10.6		
Addenda:										
Exports of agricultural products ²	29.5	38.7	30.5	36.1	38.5	41.6	38.5	42.9		
Exports of nonagricultural products	225.3	282.9	246.2	264.7	278.4	289.4	299.0	314.4		
Imports of nonpetroleum products	370.1	410.3	392.8	401.9	398.3	409.2	431.8	426.5		

1. Because no data are available to distribute exports and imports of "other" merchandise between durable and nondurable goods, they are distributed equally.

2. Includes parts of line 2 and line 5.

NOTE.—Beginning with 1985, the definitions of the end-use categories have been changed. For a description of the new definitions, see the technical notes in "U.S. International Transactions, First Quarter 1988," SURVEY OF CURRENT BUSINESS 68 (June 1988): 34-39 and 57.

Table 4.4.—Merchandise Exports and Imports by Type of Product and by End-Use Category in Constant Dollars

	[Billions of 1982 dollars]									
	1987	1988	Seasonally adjusted at annual rates							1989
			1987	1988					1989	
				IV	I	II	III	IV			F
Merchandise exports	280.1	341.5	304.6	329.0	339.1	345.9	351.9	364.7		
Foods, feeds, and beverages	29.9	33.3	30.5	34.1	34.9	33.2	31.2	35.0		
Industrial supplies and materials	69.7	79.8	72.0	76.9	79.4	81.3	81.5	86.6		
Durable goods	21.9	26.7	23.2	24.3	27.1	26.8	28.6	30.6		
Nondurable goods	47.8	53.1	48.9	52.6	52.3	54.4	52.9	56.0		
Capital goods, except autos	109.5	144.2	124.5	138.0	140.6	147.1	150.9	151.3		
Autos	23.2	28.5	26.8	27.9	28.3	28.0	29.7	30.3		
Consumer goods	16.7	21.2	17.6	19.1	20.5	22.2	23.1	26.3		
Durable goods	7.3	9.8	7.8	8.8	9.4	10.4	10.7	13.8		
Nondurable goods	9.5	11.4	9.8	10.3	11.1	11.8	12.4	12.5		
Other	31.0	34.5	33.2	33.0	35.4	34.1	35.5	35.3		
Durable goods ¹	15.5	17.3	16.6	16.5	17.7	17.0	17.8	17.6		
Nondurable goods ¹	15.5	17.3	16.6	16.5	17.7	17.0	17.8	17.6		
Merchandise imports	439.0	469.8	461.0	463.1	459.1	470.9	486.0	480.6		
Foods, feeds, and beverages	23.9	22.8	23.7	23.8	21.7	22.7	22.8	23.0		
Industrial supplies and materials, excluding petroleum	74.2	74.7	77.0	77.1	72.8	73.7	75.3	74.9		
Durable goods	39.8	40.5	41.1	42.0	38.8	39.3	41.8	41.7		
Nondurable goods	34.5	34.3	35.9	35.1	34.0	34.4	33.5	33.2		
Petroleum and products	77.9	86.4	81.4	82.2	85.4	87.1	90.7	88.1		
Capital goods, except autos	99.4	122.3	112.2	116.4	121.5	125.0	126.3	129.8		
Autos	68.1	67.1	69.9	67.7	64.8	65.9	69.9	68.2		
Consumer goods	77.1	78.1	77.8	77.6	75.0	77.7	82.1	79.2		
Durable goods	43.8	44.1	44.1	43.8	42.2	44.0	46.6	46.2		
Nondurable goods	33.4	34.0	33.7	33.8	32.8	33.8	35.6	33.0		
Other	18.3	18.4	18.9	18.1	17.8	18.8	18.9	17.4		
Durable goods ¹	9.2	9.2	9.5	9.1	8.9	9.4	9.4	8.7		
Nondurable goods ¹	9.2	9.2	9.5	9.1	8.9	9.4	9.4	8.7		
Addenda:										
Exports of agricultural products ²	34.9	38.2	35.2	39.3	39.8	37.9	35.6	39.4		
Exports of nonagricultural products	245.2	303.3	269.4	289.7	299.3	308.0	316.3	325.3		
Imports of nonpetroleum products	361.1	383.4	379.6	380.9	373.7	383.8	395.4	392.5		

1. Because no data are available to distribute exports and imports of "other" merchandise between durable and nondurable goods, they are distributed equally.

2. Includes parts of line 2 and line 5.

NOTE.—Beginning with 1985, the definitions of the end-use categories have been changed. For a description of the new definitions, see the technical notes in "U.S. International Transactions, First Quarter 1988," SURVEY OF CURRENT BUSINESS 68 (June 1988): 34-39 and 57.

Table 5.1.—Gross Saving and Investment

	[Billions of dollars]									
	1987	1988	Seasonally adjusted at annual rates							1989
			1987	1988					1989	
				IV	I	II	III	IV			F
Gross saving	560.4	644.6	603.4	627.0	634.1	665.4	651.9	695.8		
Gross private saving	665.3	731.8	714.1	726.3	711.2	732.9	756.7	799.2		
Personal saving	104.2	144.3	144.0	149.9	127.8	145.7	153.8	214.5		
Undistributed corporate profits with inventory valuation and capital consumption adjustments	81.1	81.1	80.5	78.1	80.1	79.5	86.8	59.9		
Undistributed profits	47.4	59.4	46.4	48.1	59.6	63.4	66.4	60.5		
Inventory valuation adjustment	-18.0	-23.8	-18.2	-19.4	-27.4	-29.3	-19.2	-33.9		
Capital consumption adjustment	51.7	45.6	52.4	49.4	48.0	45.4	39.6	33.3		
Corporate capital consumption allowances with capital consumption adjustment	297.5	315.7	303.7	309.8	313.3	316.8	323.0	328.2		
Noncorporate capital consumption allowances with capital consumption adjustment	182.5	190.6	185.8	188.5	189.9	190.9	193.1	196.6		
Wage accruals less disbursements	0	0	0	0	0	0	0	0		
Government surplus or deficit (-), national income and product accounts	-104.9	-87.2	-110.7	-99.2	-77.1	-67.5	-104.8	-103.3		
Federal	-157.8	-142.3	-160.4	-155.1	-133.3	-123.5	-157.5	-158.5		
State and local	52.9	55.2	49.7	55.8	56.2	56.0	52.6	55.2		
Capital grants received by the United States (net)	0	0	0	0	0	0	0	0		
Gross investment	552.3	630.3	597.0	612.0	629.0	651.4	628.7	671.9		
Gross private domestic investment	712.9	766.5	764.9	763.4	758.1	772.5	772.0	793.6		
Net foreign investment	-160.6	-136.2	-167.8	-151.3	-129.1	-121.1	-143.3	-121.7		
Statistical discrepancy	-8.1	-14.3	-6.4	-15.0	-5.1	-14.0	-23.2	-23.9		

Table 5.8.—Change in Business Inventories by Industry

	[Billions of dollars]		Seasonally adjusted at annual rates					
	1987	1988	1988					
			IV	I	II	III	IV	r
Change in business inventories	39.2	48.4	72.0	65.3	43.7	49.7	34.7	43.5
Farm.....	-1.5	6.1	-8	15.9	10.6	7.8	-9.8	14.3
Nonfarm.....	40.7	42.2	72.8	49.4	33.1	41.9	44.6	29.3
Change in book value.....	64.5	77.6	96.9	78.1	74.7	83.8	73.8	82.0
Inventory valuation adjustment ¹	-23.8	-35.4	-24.1	-28.7	-41.6	-41.9	-29.2	-52.8
Manufacturing.....	6.1	10.6	14.8	15.4	6.3	6.9	13.8	6.7
Durable goods.....	4.6	9.7	11.7	9.6	6.7	8.5	13.8	12.3
Nondurable goods.....	1.5	1.0	3.2	5.8	-4	-1.6	0	-5.6
Wholesale trade.....	7.4	10.0	22.0	24.6	-4	11.1	4.9	-1.1
Durable goods.....	5.3	8.2	15.4	21.2	-7.9	16.8	2.9	3.2
Nondurable goods.....	2.1	1.8	6.6	3.4	7.5	-5.7	2.0	-4.2
Merchant wholesalers.....	7.2	8.6	20.1	22.6	.3	8.2	3.1	-2.3
Durable goods.....	4.8	6.7	13.6	19.3	-7.8	14.7	.6	2.6
Nondurable goods.....	2.3	1.9	6.5	3.3	8.1	-6.5	2.6	-5.0
Nonmerchant wholesalers.....	.2	1.5	1.8	2.0	-7	2.8	1.8	1.3
Durable goods.....	.5	1.5	1.8	1.9	-1	2.1	2.4	.6
Nondurable goods.....	-.3	-.1	.1	.2	-.6	.8	-.6	.7
Retail trade.....	21.3	11.3	28.2	1.2	15.6	13.3	15.0	14.0
Durable goods.....	14.6	8.5	21.9	-7.0	14.5	14.4	12.2	10.6
Automotive.....	10.6	4.9	15.1	-11.6	12.7	10.1	8.7	12.3
Other.....	4.0	3.6	6.8	4.6	1.8	4.4	3.5	-1.7
Nondurable goods.....	6.7	2.7	6.2	8.2	1.1	-1.1	2.8	3.4
Other.....	5.9	10.3	7.8	8.2	11.6	10.7	10.8	9.6
Durable goods.....	2.0	4.5	1.4	2.9	4.5	5.4	5.2	5.7
Nondurable goods.....	3.9	5.8	6.4	5.3	7.0	5.3	5.6	3.9

1. 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 (first-in, first-out; last-in, first-out; etc.) underlying book value inventories derived primarily from Census Bureau statistics. This mix differs from that underlying business income derived primarily from Internal Revenue Service statistics.

Table 5.10.—Inventories and Final Sales of Business by Industry

	[Billions of dollars]						
	1987	Seasonally adjusted quarterly totals					1989
		IV	I	II	III	IV		r
Inventories¹	941.5	965.2	992.3	1,015.8	1,035.6	1,061.5	
Farm.....	68.8	72.6	78.7	81.8	81.2	83.9	
Nonfarm.....	872.8	892.6	913.6	934.0	954.4	977.6	
Durable goods.....	513.3	523.5	533.3	549.0	563.6	578.0	
Nondurable goods.....	359.5	369.1	380.2	385.0	390.8	399.6	
Manufacturing.....	346.2	353.4	360.4	366.0	372.7	381.3	
Durable goods.....	231.9	236.1	240.6	244.8	250.9	257.6	
Nondurable goods.....	114.3	117.3	119.7	121.3	121.8	123.7	
Wholesale trade.....	201.0	209.3	213.6	219.5	222.5	226.4	
Durable goods.....	130.6	137.0	136.4	141.9	144.3	147.0	
Nondurable goods.....	70.5	72.3	77.2	77.6	78.2	79.3	
Merchant wholesalers.....	175.2	182.7	186.7	191.8	194.1	196.5	
Durable goods.....	115.0	120.8	120.1	124.8	126.4	128.7	
Nondurable goods.....	60.2	61.9	66.7	67.0	67.7	67.8	
Nonmerchant wholesalers.....	25.8	26.7	26.9	27.7	28.4	29.8	
Durable goods.....	15.6	16.2	16.4	17.0	17.8	18.3	
Nondurable goods.....	10.2	10.5	10.5	10.7	10.6	11.5	
Retail trade.....	213.7	215.2	221.5	226.7	232.5	238.5	
Durable goods.....	109.4	108.0	112.3	116.6	120.8	124.0	
Automotive.....	56.7	53.8	57.2	60.0	62.8	65.8	
Other.....	52.7	54.2	55.1	56.6	58.0	58.2	
Nondurable goods.....	104.3	107.2	109.1	110.1	111.7	114.5	
Other.....	111.7	114.7	118.1	121.8	126.6	131.4	
Final sales²	325.1	330.2	339.5	344.6	352.3	359.0	
Final sales of goods and structures ²	185.6	187.8	194.0	196.5	201.0	204.9	
Ratio of inventories to final sales							
Inventories to final sales.....	2.90	2.92	2.92	2.95	2.94	2.96	
Nonfarm inventories to final sales.....	2.68	2.70	2.69	2.71	2.71	2.72	
Nonfarm inventories to final sales of goods and structures.....	4.70	4.75	4.71	4.75	4.75	4.77	

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

2. Quarterly totals at monthly rates. Business final sales equals final sales less gross product of households and institutions, government, and rest of the world, and includes a small amount of final sales by farms.

Table 5.9.—Change in Business Inventories by Industry in Constant Dollars

	[Billions of 1982 dollars]							
	1987	1988	Seasonally adjusted at annual rates					
			1987	1988				1989
	IV	I	II	III	IV	r		
Change in business inventories	34.4	42.5	67.1	66.0	35.3	39.5	29.1	38.0
Farm.....	-2.5	2.5	-1.1	14.1	5.3	-8	-8.5	8.8
Nonfarm.....	36.9	40.0	68.2	51.9	30.1	40.4	37.6	29.1
Manufacturing.....	5.2	9.6	14.4	15.8	5.8	5.7	11.2	6.1
Durable goods.....	4.1	8.8	10.6	8.7	6.2	8.0	12.3	10.6
Nondurable goods.....	1.1	.8	3.8	7.1	-4	-2.3	-1.1	-4.4
Wholesale trade.....	5.8	9.5	19.4	24.9	-1.2	11.2	3.2	1.1
Durable goods.....	4.9	7.3	14.1	18.2	-6.8	15.1	2.9	2.8
Nondurable goods.....	.9	2.2	5.3	6.7	5.7	-3.9	.3	-1.7
Merchant wholesalers.....	5.8	8.2	18.1	22.7	0	8.1	2.2	-9
Durable goods.....	4.4	5.8	12.5	16.4	-6.8	13.1	.6	2.2
Nondurable goods.....	1.4	2.4	5.6	6.3	6.7	-5.1	1.6	-3.1
Nonmerchant wholesalers.....	0	1.3	1.3	2.2	-1.1	3.2	1.0	1.9
Durable goods.....	.5	1.5	1.7	1.8	-1	2.0	2.3	.5
Nondurable goods.....	-.5	-.2	-.4	.4	-1.1	1.2	-1.3	1.4
Retail trade.....	19.2	9.9	25.1	1.5	13.7	11.7	12.9	12.0
Durable goods.....	13.1	7.5	19.5	-5.9	12.7	12.7	10.5	8.9
Automotive.....	9.3	4.3	13.2	-10.1	11.0	8.7	7.5	10.5
Other.....	3.7	3.2	6.3	4.2	1.7	4.0	3.0	-1.5
Nondurable goods.....	6.1	2.4	5.6	7.4	1.0	-1.0	2.4	3.0
Other.....	6.7	10.9	9.3	9.7	11.8	11.8	10.3	10.0
Durable goods.....	1.9	3.9	1.3	2.5	3.9	4.7	4.4	4.8
Nondurable goods.....	4.9	7.0	8.0	7.2	7.9	7.1	5.9	5.2

Table 5.11.—Inventories and Final Sales of Business by Industry in Constant Dollars

	[Billions of 1982 dollars]						
	1987	Seasonally adjusted quarterly totals					1989
		IV	I	II	III	IV		r
Inventories¹	883.2	899.7	908.5	918.4	925.7	935.2	
Farm.....	70.2	73.7	75.0	74.8	72.7	74.9	
Nonfarm.....	813.0	826.0	833.5	843.6	853.0	860.3	
Durable goods.....	461.3	467.1	471.1	481.2	488.8	495.5	
Nondurable goods.....	351.7	358.8	362.4	362.4	364.2	364.7	
Manufacturing.....	322.3	326.3	327.7	329.1	332.0	333.5	
Durable goods.....	210.2	212.4	213.9	215.9	219.0	221.6	
Nondurable goods.....	112.2	113.9	113.8	113.2	113.0	111.9	
Wholesale trade.....	187.2	193.4	193.1	195.9	196.7	197.0	
Durable goods.....	117.4	122.0	120.3	124.0	124.8	125.5	
Nondurable goods.....	69.8	71.4	72.9	71.9	72.0	71.5	
Merchant wholesalers.....	161.2	166.9	166.9	168.9	169.5	169.2	
Durable goods.....	103.5	107.6	105.9	109.2	109.3	109.9	
Nondurable goods.....	57.8	59.3	61.0	59.8	60.2	59.4	
Nonmerchant wholesalers.....	26.0	26.5	26.2	27.0	27.3	27.7	
Durable goods.....	14.0	14.4	14.4	14.9	15.5	15.6	
Nondurable goods.....	12.0	12.1	11.8	12.1	11.8	12.1	
Retail trade.....	191.3	191.7	195.1	198.1	201.3	204.3	
Durable goods.....	97.2	95.8	98.9	102.1	104.7	107.0	
Automotive.....	49.2	46.7	49.5	51.6	53.5	56.1	
Other.....	48.0	49.0	49.5	50.5	51.2	50.9	
Nondurable goods.....	94.1	95.9	96.2	95.9	96.5	97.3	
Other.....	112.1	114.6	117.5	120.5	123.0	125.5	
Final sales²	277.2	280.4	285.3	286.3	288.8	291.6	
Final sales of goods and structures ²	169.5	171.4	175.3	175.6	177.1	179.4	
Ratio of inventories to final sales							
Inventories to final sales.....	3.19	3.21	3.18	3.21	3.21	3.21	
Nonfarm inventories to final sales.....	2.93	2.95	2.92	2.95	2.95	2.95	
Nonfarm inventories to final sales of goods and structures.....	4.80	4.82	4.75	4.80	4.82	4.79	

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

2. Quarterly totals at monthly rates. Business final sales equals final sales less gross product of households and institutions, government, and rest of the world, and includes a small amount of final sales by farms.

Table 5.12.—Fixed Investment by Type

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates						
			1987		1988				1989
			IV	I	II	III	IV	I ^r	
Fixed investment.....	673.7	718.1	692.9	698.1	714.4	722.8	737.2	750.0	
Nonresidential.....	446.8	488.4	464.1	471.5	487.8	493.7	500.6	512.9	
Structures.....	139.5	142.8	147.7	140.1	142.3	143.8	145.0	148.5	
Nonresidential buildings, excluding farm.....	92.6	94.2	96.6	93.3	95.7	93.5	94.4	100.1	
Public utilities.....	28.4	30.3	30.8	27.7	28.8	32.1	32.5	31.7	
Mining exploration, shafts, and wells.....	13.9	14.5	15.8	15.1	14.3	14.6	14.0	13.0	
Other.....	4.5	3.8	4.6	4.0	3.5	3.6	4.1	3.8	
Producers' durable equipment.....	307.3	345.6	316.3	331.3	345.5	349.9	355.6	364.4	
Information processing and related equipment.....	101.2	111.0	102.8	107.0	111.5	112.9	112.4	113.8	
Industrial equipment.....	70.6	82.9	74.2	77.2	81.3	83.8	89.3	95.2	
Transportation and related equipment.....	67.8	77.5	68.5	74.2	78.7	79.0	78.1	77.2	
Other.....	67.6	74.2	70.9	73.0	74.0	74.1	75.8	78.2	
Residential.....	226.9	229.7	228.8	226.6	226.5	229.1	236.6	237.1	
Single-family structures.....	114.5	117.1	117.3	116.5	116.2	115.4	120.4	121.4	
Multifamily structures.....	25.5	21.3	24.1	22.1	20.7	21.2	21.0	22.3	
Other.....	87.0	91.3	87.4	87.9	89.6	92.6	95.2	93.5	

Table 5.13.—Fixed Investment by Type in Constant Dollars

[Billions of 1982 dollars]

	1987	1988	Seasonally adjusted at annual rates						
			1987		1988				1989
			IV	I	II	III	IV	I ^r	
Fixed investment.....	640.4	679.3	657.6	662.9	679.7	686.6	688.0	694.4	
Nonresidential.....	445.1	487.5	464.8	473.4	490.2	495.0	491.4	500.5	
Structures.....	125.5	125.1	132.1	124.0	125.0	125.8	125.5	126.3	
Nonresidential buildings, excluding farm.....	77.1	76.4	79.4	76.1	78.0	75.7	75.8	79.5	
Public utilities.....	25.7	26.6	27.6	24.6	25.4	28.1	28.2	27.3	
Mining exploration, shafts, and wells.....	18.8	18.9	21.1	19.8	18.7	19.0	18.1	16.5	
Other.....	3.9	3.2	4.0	3.4	2.9	3.0	3.4	3.1	
Producers' durable equipment.....	319.6	362.4	332.7	349.4	365.1	369.2	365.9	374.2	
Information processing and related equipment.....	139.4	162.7	147.0	155.9	165.0	167.4	162.4	166.4	
Industrial equipment.....	61.4	69.0	63.4	65.2	68.0	69.9	73.0	76.9	
Transportation and related equipment.....	59.1	66.7	59.8	64.9	68.3	68.0	65.7	64.9	
Other.....	59.7	64.0	62.5	63.4	63.8	63.9	64.8	66.0	
Residential.....	195.2	191.8	192.7	189.5	189.6	191.6	196.6	193.9	
Single-family structures.....	97.5	96.7	97.3	96.2	96.3	95.5	98.9	97.9	
Multifamily structures.....	21.7	17.6	20.0	18.2	17.2	17.5	17.3	18.0	
Other.....	76.0	77.6	75.4	75.2	76.1	78.6	80.4	78.0	

Table 6.3B.—National Income Without Capital Consumption Adjustment by Industry

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates						
			1987		1988				1989
			IV	I	II	III	IV	I ^r	
National income without capital consumption adjustment.....	3,644.4	3,943.4	3,768.3	3,821.4	3,901.1	3,975.6	4,075.6	4,178.2	
Domestic industries.....	3,614.9	3,918.6	3,737.3	3,799.1	3,879.8	3,948.9	4,046.6	4,151.0	
Private industries.....	3,085.7	3,355.2	3,196.8	3,246.7	3,320.2	3,381.8	3,471.9	3,561.4	
Agriculture, forestry, and fisheries.....	88.2	82.8	92.6	90.9	90.2	77.3	72.9	.....
Mining.....	31.0	35.9	35.2	35.3	36.1	36.5	35.7	.....
Construction.....	196.7	211.6	200.1	203.4	210.0	214.0	219.1	.....
Manufacturing.....	727.4	786.4	747.6	766.4	780.0	788.0	811.4	.....
Durable goods.....	419.4	447.8	420.6	432.7	445.9	450.4	462.1	.....
Nondurable goods.....	308.0	338.7	327.0	333.7	334.1	337.7	349.3	.....
Transportation and public utilities.....	276.8	299.9	285.8	286.4	296.8	304.0	312.4	.....
Transportation.....	120.7	131.0	124.4	124.8	129.4	133.0	136.8	.....
Communication.....	76.3	80.9	78.4	77.3	80.1	82.3	83.7	.....
Electric, gas, and sanitary services.....	79.9	88.1	83.1	84.2	87.3	88.8	91.9	.....
Wholesale trade.....	213.6	230.8	219.8	225.0	224.8	231.0	242.4	.....
Retail trade.....	316.2	339.8	324.6	331.4	336.5	342.6	348.8	.....
Finance, insurance, and real estate.....	524.0	577.1	545.9	553.6	567.2	585.1	602.5	.....
Services.....	711.6	790.8	745.1	754.4	778.7	803.2	826.6	.....
Government and government enterprises.....	529.2	563.4	540.5	552.3	559.6	567.1	574.7	589.5	
Rest of the world.....	29.5	24.9	31.0	22.4	21.3	26.8	29.0	27.2	

Table 6.18B.—Corporate Profits by Industry

[Billions of dollars]

	1987	1988	Seasonally adjusted at annual rates						
			1987		1988				1989
			IV	I	II	III	IV	I ^r	
Corporate profits with inventory valuation and capital consumption adjustments.....	310.4	328.4	316.1	316.2	326.5	330.0	340.9	319.3	
Domestic industries.....	274.0	291.3	274.6	286.0	291.1	289.2	298.8	278.8	
Financial.....	36.5	38.6	36.2	35.4	38.5	41.0	39.4	38.9	
Nonfinancial.....	237.5	252.7	238.4	250.6	252.6	248.2	259.4	239.9	
Rest of the world.....	36.4	37.1	41.4	30.2	35.4	40.8	42.1	40.4	
Corporate profits with inventory valuation adjustment.....	258.7	282.8	263.7	266.8	278.5	284.6	301.3	286.0	
Domestic industries.....	222.3	245.7	222.2	236.6	243.1	243.8	259.2	245.5	
Financial.....	30.1	30.5	28.8	27.6	30.0	32.7	31.8	31.3	
Federal Reserve banks.....	16.0	18.1	16.2	17.5	17.4	18.2	19.2	20.5	
Other.....	14.1	12.4	12.6	10.1	12.6	14.5	12.6	10.8	
Nonfinancial.....	192.1	215.1	193.4	209.0	213.1	211.1	227.4	214.2	
Manufacturing.....	96.8	114.1	101.7	110.6	114.5	111.4	120.1	.....
Durable goods.....	36.5	39.0	29.4	33.9	41.5	39.0	41.5	.....
Primary metal industries.....	1.4	4.7	2.6	3.2	5.1	5.2	5.3	.....
Fabricated metal products.....	5.7	6.9	6.7	8.0	7.5	5.4	6.8	.....
Machinery, except electrical.....	3.2	4.2	1.7	3.3	5.5	5.9	2.3	.....
Electric and electronic equipment.....	3.2	3.7	—	1.2	4.1	4.4	5.2	.....
Motor vehicles and equipment.....	7.3	5.5	4.5	4.2	4.6	5.8	7.6	.....
Other.....	15.7	13.8	14.6	14.0	14.7	12.4	14.3	.....
Nondurable goods.....	60.3	75.2	72.4	76.8	73.0	72.3	78.6	.....
Food and kindred products.....	12.8	16.8	14.9	15.9	17.5	15.9	17.7	.....
Chemicals and allied products.....	13.5	20.2	15.3	19.1	18.6	18.4	25.0	.....
Petroleum and coal products.....	12.2	16.8	18.8	17.4	14.8	16.8	18.0	.....
Other.....	21.9	21.4	23.4	24.5	22.1	21.2	17.9	.....
Transportation and public utilities.....	34.9	38.6	36.1	34.5	38.2	39.3	42.4	.....
Wholesale and retail trade.....	42.8	39.7	43.0	43.9	37.0	36.6	41.3	.....
Other.....	17.6	22.7	12.6	20.0	23.4	23.8	23.6	.....
Rest of the world.....	36.4	37.1	41.4	30.2	35.4	40.8	42.1	40.4	

Table 7.1.—Fixed-Weighted Price Indexes for Gross National Product, 1982 Weights

[Index numbers, 1982=100]

	1987	1988	Seasonally adjusted						
			1987	1988					1989
			IV	I	II	III	IV	I ¹	
Gross national product	119.1	124.1	120.8	121.8	123.3	124.9	126.2	127.8	
Personal consumption expenditures	120.4	125.6	122.5	123.2	124.9	126.5	127.9	129.5	
Durable goods	109.7	112.5	111.0	111.4	111.9	112.8	113.9	114.6	
Nondurable goods	112.6	117.2	114.3	114.6	116.7	118.2	119.4	120.8	
Services	129.0	135.2	131.5	132.6	134.4	136.0	137.8	139.6	
Gross private domestic investment									
Fixed investment	108.8	111.6	109.9	110.8	111.3	111.6	112.7	114.1	
Nonresidential	106.8	109.3	107.5	108.3	109.0	109.4	110.6	111.8	
Structures	105.1	108.3	106.4	107.5	107.8	108.5	109.4	110.7	
Producers' durable equipment	107.9	110.0	108.1	108.9	109.8	110.0	111.3	112.5	
Residential	115.9	119.5	118.3	119.2	119.3	119.4	120.1	122.0	
Change in business inventories									
Net exports of goods and services									
Exports	106.0	111.5	107.0	108.7	110.5	113.0	113.7	114.9	
Imports	100.8	105.1	103.0	103.9	105.3	105.4	106.2	108.3	
Government purchases of goods and services	119.6	124.9	121.2	122.9	124.3	125.7	126.6	128.9	
Federal	113.5	117.8	114.4	116.3	117.2	118.5	118.9	121.6	
National defense	114.0	117.6	114.8	116.6	117.4	118.0	118.4	120.9	
Nondefense	112.1	118.2	113.6	115.7	116.9	119.7	120.2	123.3	
State and local	124.1	130.2	126.1	127.8	129.5	131.0	132.3	134.3	
Addenda:									
Final sales	119.0	123.9	120.6	121.7	123.2	124.8	126.1	127.6	
Personal consumption expenditures, food	117.2	122.2	118.6	119.2	121.0	123.7	124.9	126.4	
Personal consumption expenditures, energy	91.7	92.4	92.9	91.1	92.3	93.2	92.9	93.6	
Other personal consumption expenditures	124.9	130.7	127.2	128.3	130.0	131.3	133.1	134.7	

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

Table 7.2.—Fixed-Weighted Price Indexes for Gross National Product by Major Type of Product, 1982 Weights

[Index numbers, 1982=100]

	1987	1988	Seasonally adjusted						
			1987	1988					1989
			IV	I	II	III	IV	I ¹	
Gross national product	119.1	124.1	120.8	121.8	123.3	124.9	126.2	127.8	
Final sales	119.0	123.9	120.6	121.7	123.2	124.8	126.1	127.6	
Change in business inventories									
Goods	111.0	115.1	112.1	112.6	114.3	116.2	117.2	118.1	
Final sales	110.8	114.9	111.9	112.5	114.1	116.0	117.1	118.0	
Change in business inventories									
Durable goods	107.1	108.1	107.0	107.2	107.6	108.4	109.0	109.9	
Final sales	107.0	108.2	107.1	107.3	107.7	108.5	109.2	110.0	
Change in business inventories									
Nondurable goods	113.7	119.8	115.5	116.3	118.7	121.4	122.8	123.7	
Final sales	113.5	119.6	115.3	116.1	118.5	121.2	122.5	123.4	
Change in business inventories									
Services	127.6	133.6	129.8	131.2	132.8	134.3	135.9	138.0	
Structures	110.7	114.4	112.4	113.5	113.9	114.6	115.4	117.0	

Table 7.3.—Fixed-Weighted Price Indexes for Relation of Gross National Product, Gross Domestic Purchases, and Final Sales to Domestic Purchasers, 1982 Weights

[Index numbers, 1982=100]

	1987	1988	Seasonally adjusted						
			1987	1988					1989
			IV	I	II	III	IV	I ¹	
Gross national product	119.1	124.1	120.8	121.8	123.3	124.9	126.2	127.8	
Less: Exports of goods and services	106.0	111.5	107.0	108.7	110.5	113.0	113.7	114.9	
Plus: Imports of goods and services	100.8	105.1	103.0	103.9	105.3	105.4	106.2	108.3	
Equals: Gross domestic purchases ¹	118.7	123.5	120.5	121.4	122.9	124.2	125.5	127.2	
Less: Change in business inventories									
Equals: Final sales to domestic purchasers ²	118.5	123.4	120.3	121.3	122.8	124.1	125.4	127.1	

1. Purchases in the United States of goods and services wherever produced.

2. Final sales in the United States of goods and services wherever produced.

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

Table 7.4.—Implicit Price Deflators for Gross National Product

[Index numbers, 1982=100]

	1987	1988	Seasonally adjusted					
			1987	1988				1989
				IV	I	II	III		IV
Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.2
Personal consumption expenditures	119.5	124.5	121.5	122.2	123.9	125.2	126.7	128.2
Durable goods.....	107.9	110.1	108.9	109.1	109.6	110.4	111.4	111.5
Nondurable goods.....	112.1	116.4	113.7	113.8	116.0	117.3	118.3	119.9
Services.....	128.5	134.8	131.0	132.2	134.0	135.6	137.3	139.3
Gross private domestic investment								
Fixed investment.....	105.2	105.7	105.4	105.3	105.1	105.3	107.2	108.0
Nonresidential.....	100.4	100.2	99.8	99.6	99.5	99.7	101.9	102.5
Structures.....	111.1	114.2	111.8	113.0	113.8	114.3	115.6	117.6
Producers' durable equipment.....	96.2	95.4	95.1	94.8	94.6	94.8	97.2	97.4
Residential.....	116.2	119.7	118.7	119.5	119.5	119.6	120.4	122.3
Change in business inventories.....								
Net exports of goods and services								
Exports.....	100.0	102.9	100.1	100.3	102.1	104.3	105.0	106.8
Imports.....	99.0	101.5	100.0	100.8	101.4	101.3	102.6	104.2
Government purchases of goods and services	118.5	123.3	119.5	121.7	122.7	123.5	125.4	126.7
Federal.....	112.7	115.9	112.6	115.2	115.3	114.9	118.1	118.5
National defense.....	111.5	114.0	111.6	112.8	113.4	114.8	115.0	116.8
Nondefense.....	117.0	123.4	116.0	125.5	122.7	115.2	129.3	123.9
State and local.....	123.0	128.7	124.9	126.5	128.1	129.6	130.7	132.8

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

Table 7.5.—Implicit Price Deflators for Gross National Product by Major Type of Product

[Index numbers, 1982=100]

	1987	1988	1989	1990	1991	1992	1993	1994
Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.2
Final sales.....	117.7	121.8	119.1	119.8	121.0	122.4	124.0	125.3
Change in business inventories.....								
Goods	107.8	110.0	107.9	107.5	109.4	110.8	112.3	112.7
Final sales.....	107.6	109.9	107.9	107.8	109.1	110.5	112.2	112.6
Change in business inventories.....								
Durable goods	100.2	99.2	99.5	98.4	98.6	99.6	100.3	101.3
Final sales.....	99.9	98.8	98.8	98.0	98.3	99.0	99.9	100.8
Change in business inventories.....								
Nondurable goods	114.3	120.4	115.5	115.8	119.7	122.0	124.1	123.6
Final sales.....	114.3	120.4	115.9	117.0	119.4	121.4	123.9	123.8
Change in business inventories.....								
Services	127.5	133.6	129.7	131.2	132.8	134.3	135.9	138.1
Structures	114.6	118.3	116.2	117.4	117.9	118.4	119.4	121.3

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

Table 7.6.—Implicit Price Deflators for Gross National Product by Sector

[Index numbers, 1982=100]

	1987	1988	1989	1990	1991	1992	1993	1994
Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.2
Gross domestic product	117.7	121.7	118.9	119.4	121.1	122.5	124.0	125.2
Business	116.0	119.7	117.1	117.4	119.0	120.4	122.0	123.0
Nonfarm.....	116.7	120.0	117.7	118.0	119.3	120.5	122.3	123.2
Nonfarm less housing.....	115.2	118.4	116.2	116.3	117.7	118.8	120.6	121.5
Housing.....	131.9	138.2	134.7	136.1	137.1	138.9	140.7	141.9
Farm.....	92.0	104.1	89.8	94.4	106.4	115.8	101.8	112.6
Statistical discrepancy.....	116.0	119.7	117.1	117.4	119.0	120.4	122.0	123.0
Households and institutions	131.0	138.9	134.9	135.7	138.1	139.8	142.0	144.0
Private households.....	104.8	105.8	105.0	105.0	105.8	106.1	106.4	106.9
Nonprofit institutions.....	132.9	141.3	137.1	137.9	140.4	142.2	144.5	146.6
Government	127.8	134.2	129.7	132.3	133.6	134.8	136.0	139.2
Federal.....	122.3	127.1	123.2	126.5	127.2	127.3	127.4	133.1
State and local.....	130.5	137.7	133.0	135.1	136.9	138.6	140.3	142.2
Rest of the world	119.5	124.0	120.8	121.4	123.2	124.8	126.4	127.8
Addendum:								
Gross domestic business product less housing.....	114.7							

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

Table 7.7.—Implicit Price Deflators for the Relation of Gross National Product, Net National Product, and National Income

[Index numbers, 1982=100]

	1987	1988	Seasonally adjusted					
			1987	1988				1989
				IV	I	II	III		IV
Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.2
Less: Capital consumption allowances with capital consumption adjustment.....	104.2	105.6	104.6	105.4	105.4	105.4	106.1	106.8
Equals: Net national product	119.5	123.9	120.8	121.3	123.2	124.8	126.4	127.8
Less: Indirect business tax and nontax liability plus business transfer payments less subsidies plus current surplus of government enterprises.....	117.8	123.3	117.6	120.3	121.6	126.4	124.9	126.1
Statistical discrepancy.....	116.0	119.7	117.1	117.4	119.0	120.4	122.0	123.0
Equals: National income	119.7	124.0	121.1	121.4	123.3	124.6	126.5	127.9

Table 7.8.—Implicit Price Deflators for Command-Basis Gross National Product

[Index numbers, 1982=100]

	1987	1988	1989	1990	1991	1992	1993	1994
Gross national product	117.7	121.7	118.9	119.4	121.0	122.4	124.0	125.2
Less: Net exports of goods and services.....	100.0	102.9	100.1	100.3	102.1	104.3	105.0	106.8
Exports.....	100.0	102.9	100.1	100.3	102.1	104.3	105.0	106.8
Imports.....	99.0	101.5	100.0	100.8	101.4	101.3	102.6	104.2
Equals: Gross domestic purchases	116.9	121.1	118.3	119.0	120.5	121.6	123.1	124.5
Plus: Command-basis net exports of goods and services.....								
Command-basis exports.....	99.0	101.5	100.0	100.8	101.4	101.3	102.6	104.2
Imports.....	99.0	101.5	100.0	100.8	101.4	101.3	102.6	104.2
Equals: Command-basis gross national product	117.5	121.5	118.8	119.5	120.9	122.0	123.6	124.8

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

Table 7.9.—Fixed-Weighted Price Indexes for Personal Consumption Expenditures by Major Type of Product, 1982 Weights

[Index numbers, 1982=100]

	1987	1988	1989	1990	1991	1992	1993	1994
Personal consumption expenditures	120.4	125.6	122.5	123.2	124.9	126.5	127.9	129.5
Durable goods	109.7	112.5	111.0	111.4	111.9	112.8	113.9	114.6
Motor vehicles and parts.....	115.3	117.7	117.0	117.0	116.8	117.9	118.9	120.2
Furniture and household equipment.....	102.1	103.8	102.4	102.9	103.5	104.3	104.7	104.8
Other.....	112.7	118.5	115.0	116.2	117.8	118.8	121.1	121.8
Nondurable goods	112.6	117.2	114.3	114.6	116.7	118.2	119.4	120.8
Food.....	117.2	122.2	118.6	119.2	121.0	123.7	124.9	126.4
Clothing and shoes.....	111.0	115.8	113.0	113.1	117.2	114.8	117.9	118.0
Gasoline and oil.....	78.4	79.1	80.6	77.2	79.0	80.9	79.2	79.3
Other nondurable goods.....	121.4	127.2	123.5	124.9	126.7	127.9	129.3	132.2
Fuel oil and coal.....	76.6	76.8	77.7	77.1	78.9	77.5	73.5	77.6
Other.....	127.6	134.1	129.8	131.5	133.2	134.8	136.9	139.6
Services	129.0	135.2	131.5	132.6	134.4	136.0	137.8	139.6
Housing.....	130.0	136.3	132.7	134.2	135.2	137.0	138.7	140.0
Household operation.....	118.3	119.8	118.6	118.5	119.6	119.8	121.4	122.1
Electricity and gas.....	111.8	112.6	111.7	111.6	112.2	112.2	114.6	115.1
Other.....	125.0	127.2	125.7	125.7	127.2	127.6	128.4	129.3
Transportation.....	120.3	126.3	125.1	122.5	126.7	126.9	128.8	131.7
Medical care.....	135.6	144.8	138.0	140.4	143.4	146.3	149.2	152.1
Other.....	130.2	136.6	133.1	134.6	135.9	137.2	138.7	140.4

Table 7.14.—Fixed-Weighted Price Indexes for Exports and Imports of Goods and Services, 1982 Weights

[Index numbers, 1982=100]

	1987	1988	1989	1990	1991	1992	1993	1994
Exports of goods and services	106.0	111.5	107.0	108.7	110.5	113.0	113.7	114.9
Merchandise.....	97.8	104.5	99.2	101.3	103.3	106.7	106.9	107.8
Durable goods.....	101.7	105.0	102.2	103.5	104.5	105.7	106.2	106.7
Nondurable goods.....	92.7	103.9	94.9	98.3	101.5	108.1	108.0	109.2
Services.....	117.7	121.7	118.6	119.4	121.0	122.3	123.7	125.1
Factor income.....	120.3	124.8	121.6	122.2	124.0	125.5	127.2	128.4
Other.....	113.1	116.1	113.1	114.4	115.7	116.7	117.7	119.4
Imports of goods and services	100.8	105.1	103.0	103.9	105.4	106.2	108.3	
Merchandise.....	94.7	98.9	97.1	97.9	99.4	99.2	99.7	102.2
Durable goods.....	109.7	117.8	112.4	115.4	117.4	117.9	120.2	120.7
Nondurable goods.....	79.5	79.9	81.5	80.1	81.0	80.1	78.7	83.3
Services.....	118.4	123.2	120.2	121.4	122.7	123.5	125.2	126.2
Factor income.....	119.6	124.0	120.8	121.4	123.2	124.7	126.4	127.7
Other.....	117.5	122.6	119.7	121.4	122.3	122.5	124.3	125.0

Table 7.15.—Fixed-Weighted Price Indexes for Merchandise Exports and Imports by Type of Product and by End-Use Category, 1982 Weights

	[Index numbers, 1982=100]								
	1987	1988	Seasonally adjusted						1989
			1987	1988				1989	
			IV	I	II	III	IV	I ^r	
Merchandise exports	97.8	104.5	99.2	101.3	103.3	106.7	106.9	107.8	
Foods, feeds, and beverages	82.1	99.6	83.3	88.2	94.0	109.0	108.3	109.0	
Industrial supplies and materials	95.4	104.1	98.5	101.2	103.4	105.8	105.7	107.0	
Durable goods	95.5	104.1	98.5	101.2	103.4	105.8	105.7	107.0	
Nondurable goods	95.4	104.0	98.5	101.2	103.4	105.8	105.7	107.0	
Capital goods, except autos	100.5	102.4	100.1	101.2	102.0	102.5	103.2	103.3	
Autos	113.1	114.7	114.1	113.8	113.9	115.3	115.9	116.9	
Consumer goods	107.4	112.2	109.2	111.0	111.6	112.4	113.6	116.2	
Durable goods	102.2	107.8	104.0	105.4	107.0	109.1	109.3	111.3	
Nondurable goods	111.5	115.7	113.2	115.5	115.3	115.0	116.9	120.0	
Other	100.9	108.0	102.7	104.7	106.7	110.1	110.5	111.4	
Durable goods	100.9	108.0	102.7	104.7	106.7	110.1	110.5	111.4	
Nondurable goods	100.9	108.0	102.7	104.7	106.7	110.1	110.5	111.4	
Merchandise imports	94.7	98.9	97.1	97.9	99.4	99.2	99.7	102.2	
Foods, feeds, and beverages	103.6	109.9	106.2	109.1	109.6	110.3	110.6	110.0	
Industrial supplies and materials, excluding petroleum	90.1	104.0	94.3	99.9	103.7	105.2	107.4	109.0	
Durable goods	90.3	104.1	94.5	100.1	103.8	105.2	107.4	108.9	
Nondurable goods	90.0	103.9	94.1	99.8	103.6	105.1	107.4	109.0	
Petroleum and products	55.1	45.6	55.5	48.4	48.1	45.2	41.0	49.5	
Capital goods, except autos	109.2	115.3	111.8	113.8	115.0	115.2	117.7	117.5	
Autos	125.1	131.2	126.9	129.0	130.4	131.2	134.2	134.8	
Consumer goods	114.8	123.2	118.1	121.2	123.5	123.4	124.5	125.2	
Durable goods	111.8	119.7	114.6	117.6	120.2	119.7	121.2	121.6	
Nondurable goods	119.1	128.2	123.0	126.4	128.2	128.7	129.3	130.3	
Other	110.1	119.0	113.2	116.4	118.7	119.3	121.5	122.0	
Durable goods	110.1	119.0	113.1	116.4	118.7	119.3	121.5	122.0	
Nondurable goods	110.1	119.0	113.2	116.4	118.7	119.3	121.5	122.0	

Table 7.17.—Fixed-Weighted Price Indexes for National Defense Purchases of Goods and Services, 1982 Weights

	[Index numbers, 1982=100]								
	1987	1988	Seasonally adjusted						1989
			1987	1988				1989	
			IV	I	II	III	IV	I ^r	
National defense purchases	114.0	117.6	114.8	116.6	117.4	118.0	118.4	120.9	
Durable goods	109.0	109.6	107.6	108.6	109.2	109.9	110.5	111.1	
Military equipment	110.9	111.2	109.2	110.3	110.9	111.5	112.0	112.4	
Aircraft	110.4	111.1	108.5	110.3	111.2	111.4	111.5	111.6	
Missiles	119.1	113.9	112.6	112.7	112.9	114.2	115.7	114.8	
Ships	119.7	121.2	119.8	120.4	120.3	121.7	122.3	123.3	
Vehicles	89.8	90.1	88.4	88.1	89.7	91.2	91.4	91.5	
Electronic equipment	106.7	107.1	106.6	106.9	106.9	107.1	107.4	108.8	
Other	107.9	111.3	108.6	110.7	110.9	111.3	112.2	113.4	
Other durable goods	100.5	102.3	100.5	100.9	101.8	102.7	103.8	105.1	
Nondurable goods	68.7	73.1	71.3	70.1	72.3	76.4	73.4	71.9	
Petroleum products	52.4	58.2	56.9	54.4	57.4	63.0	58.0	55.3	
Ammunition	97.2	95.4	93.3	95.0	94.9	95.3	96.4	97.2	
Other nondurable goods	109.6	113.8	110.6	112.0	113.3	114.4	115.4	116.9	
Services	120.6	125.1	121.9	124.3	125.0	125.3	125.9	129.6	
Compensation of employees	122.0	126.8	123.0	126.2	126.9	127.0	127.1	132.6	
Military	121.6	126.3	122.5	125.6	126.4	126.5	126.6	131.7	
Civilian	122.9	127.9	123.9	127.4	128.0	128.0	128.1	134.4	
Other services	117.8	121.9	119.8	120.7	121.4	122.0	123.6	123.8	
Contractual research and development	115.6	119.8	117.3	118.2	119.1	120.3	121.7	122.2	
Installation support ¹	123.7	127.5	125.2	125.9	127.1	128.1	128.7	128.8	
Weapons support ²	114.6	117.6	116.4	116.6	116.7	117.8	119.3	120.5	
Personnel support ³	145.7	155.2	152.8	155.5	156.4	151.4	157.6	156.0	
Transportation of materiel	93.0	96.1	94.6	95.6	95.0	95.7	98.1	96.6	
Travel of persons	103.9	104.9	103.8	103.8	104.6	104.9	106.1	106.9	
Other									
Structures	121.7	127.0	123.9	125.5	125.8	127.4	129.3	130.5	
Military facilities	123.3	128.6	124.7	126.4	127.1	129.4	131.5	132.5	
Other	119.5	124.6	122.8	124.2	123.8	124.6	125.9	127.6	

1. Includes utilities, communications, rental payments, maintenance and repair, and payments to contractors to operate installations.
 2. Includes depot maintenance and contractual services for weapons systems.
 3. Includes compensation of foreign personnel, consulting, training, and education.

Table 7.16.—Fixed-Weighted Price Indexes for Government Purchases of Goods and Services by Type, 1982 Weights

	[Index numbers, 1982=100]								
	1987	1988	Seasonally adjusted						1989
			1987	1988				1989	
			IV	I	II	III	IV	I ^r	
Government purchases of goods and services	119.6	124.9	121.2	122.9	124.3	125.7	126.6	128.9	
Federal	113.5	117.8	114.4	116.3	117.2	118.5	118.9	121.6	
National defense	114.0	117.6	114.8	116.6	117.4	118.0	118.4	120.9	
Durable goods	109.0	109.6	107.6	108.6	109.2	109.9	110.5	111.1	
Nondurable goods	68.7	73.1	71.3	70.1	72.3	76.4	73.4	71.9	
Services	120.6	125.1	121.9	124.3	125.0	125.3	125.9	129.6	
Compensation of employees	122.0	126.8	123.0	126.2	126.9	127.0	127.1	132.6	
Military	121.6	126.3	122.5	125.6	126.4	126.5	126.6	131.7	
Civilian	122.9	127.9	123.9	127.4	128.0	128.0	128.1	134.4	
Other services	117.8	121.9	119.8	120.7	121.4	122.0	123.6	123.8	
Structures	121.7	127.0	123.9	125.5	125.8	127.4	129.3	130.5	
Nondefense	112.1	118.2	113.6	115.7	116.9	119.7	120.2	123.3	
Durable goods	99.6	101.5	99.5	100.2	101.3	101.6	103.0	104.2	
Nondurable goods									
Commodity Credit Corporation inventory change									
Other nondurables	96.9	98.7	96.2	97.8	98.9	98.2	99.7	103.0	
Services	120.2	124.3	121.2	123.5	124.2	124.6	125.0	129.3	
Compensation of employees	123.0	127.9	123.9	127.4	127.9	128.0	128.1	134.4	
Other services	115.8	118.9	116.9	117.4	118.4	119.4	120.2	121.5	
Structures	111.3	115.3	112.2	113.5	114.8	116.1	116.6	118.3	
State and local	124.1	130.2	126.1	127.8	129.5	131.0	132.3	134.3	
Durable goods	110.6	113.4	111.1	111.9	112.8	114.0	114.8	116.2	
Nondurable goods	95.0	97.3	96.2	95.5	97.6	98.1	98.0	101.4	
Services	129.9	136.7	132.2	134.2	135.9	137.5	139.1	141.1	
Compensation of employees	130.6	137.8	133.0	135.2	136.9	138.6	140.4	142.3	
Other services	126.6	131.6	128.3	129.6	131.2	132.3	133.3	135.7	
Structures	114.5	119.6	115.9	117.4	118.9	120.8	121.3	123.0	

Table 7.18.—Current-Dollar Cost and Profit Per Unit of Constant-Dollar Gross Domestic Product of Nonfinancial Corporate Business

	[Dollars]								
	1987	1988	Seasonally adjusted						1989
			1987	1988				1989	
			IV	I	II	III	IV	I ^r	
Current-dollar cost and profit per unit of constant-dollar gross domestic product ¹	1.107	1.134	1.113	1.114	1.127	1.140	1.155	1.163	
Capital consumption allowances with capital consumption adjustment .....	.122	.122	.121	.121	.122	.122	.123	.125
Net domestic product .....	.985	1.012	.992	.993	1.005	1.018	1.031	1.038
Indirect business tax and nontax liability plus business transfer payments less subsidies .....	.106	.107	.105	.105	.106	.108	.108	.109
Domestic income .....	.880	.905	.887	.887	.899	.910	.923	.929
Compensation of employees .....	.732	.752	.738	.736	.747	.758	.766	.779
Corporate profits with inventory valuation and capital consumption adjustments .....	.105	.106	.103	.106	.106	.104	.107	.099
Profits tax liability .....	.044	.045	.044	.044	.046	.046	.046	.047
Profits after tax with inventory valuation and capital consumption adjustments .....	.061	.060	.059	.062	.060	.058	.061	.051
Net interest .....	.043	.048	.046	.045	.047	.048	.050	.052

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

Reconciliation and Other Special Tables

Table 1.—Revisions in Selected Component Series of the NIPA's, First Quarter of 1989

	Seasonally adjusted at annual rates			Percent change from preceding quarter at annual rates	
	Advance	Preliminary	Difference	Advance	Preliminary
	Billions of current dollars				
GNP	5,116.8	5,105.0	-11.8	9.7	8.7
National income		4,187.1			9.5
Compensation of employees	3,060.3	3,060.5	.2	9.0	9.0
Corporate profits with inventory valuation and capital consumption adjustments		319.3			-23.0
Other	806.6	807.4	.8	28.7	29.2
Personal income	4,312.4	4,313.6	1.2	13.2	13.4
	Billions of constant (1982) dollars				
GNP	4,088.2	4,076.5	-11.7	5.5	4.3
Less: Exports	535.4	541.0	5.6	10.6	15.3
Plus: Imports	631.0	628.8	-2.2	2.3	.9
Equals: Gross domestic purchases	4,183.9	4,164.2	-19.7	4.4	2.5
Personal consumption expenditures	2,634.8	2,633.6	-1.2	1.3	1.1
Nonresidential fixed investment	502.8	500.5	-2.3	9.6	7.6
Residential investment	194.8	193.9	-.9	-3.6	-5.4
Change in business inventories	53.8	38.0	-15.8		
Government purchases	797.7	798.3	.6	1.1	1.4
	Index numbers, 1982=100 ¹				
GNP price index (fixed weights)	127.8	127.8	0	5.0	5.0
GNP price index (chained weights)				4.8	4.8
GNP implicit price deflator	125.2	125.2	0	3.9	3.9
Gross domestic purchases price index (fixed weights)	127.2	127.2	0	5.4	5.4

1. Not at annual rates.

NOTE.—For the first quarter of 1989, the following revised or additional major source data were incorporated: For *personal consumption expenditures*, revised retail sales for February and March; for *nonresidential fixed investment*, construction put in place in February (revised) and March, manufacturers' shipments of equipment for February (revised) and March, and partial information on plant and equipment expenditures for the quarter; for *residential investment*, construction put in place for February (revised) and March; for *change in business inventories*, manufacturing and trade inventories for February (revised) and March; for *net exports of goods and services*, merchandise exports and merchandise imports for February (revised) and March; for *government purchases of goods and services*, Federal outlays for March, and State and local construction put in place for February (revised) and March; for *wages and salaries*, revised employment, average hourly earnings, and average weekly hours for February and March; for *corporate profits*, domestic book profits for the quarter; and for *GNP prices*, merchandise export and import price indexes for March, unit-value indexes for petroleum imports for March, and residential housing prices for the quarter.

Table 2.—Reconciliation of Changes in Compensation Per Hour in the Business Economy Other Than Farm and Housing and Average Hourly Earnings in the Private Nonfarm Economy, Seasonally Adjusted

	1988			1989
	II	III	IV ^a	I ^a
1. Compensation per hour of all persons in the business economy other than farm and housing (percent change at annual rate) ¹	4.3	5.5	6.0	4.8
2. Less: Contribution of supplements.....	-9	-1	-4	-8
3. Plus: Contribution of housing and nonprofit institutions.....	.1	.2	0	0
4. Less: Contribution of employees of government enterprises, unpaid family workers, and the self-employed.....	0	0	-2	-3
5. Equals: Wages and salaries per hour of employees in the private nonfarm economy (percent change at annual rate).....	5.4	5.8	6.5	5.8
6. Less: Contribution of nonproduction workers in manufacturing.....	-3	-6	-4	-5
7. Less: Contribution of non-BLS data, detailed weighting, and seasonal adjustment.....	.4	3.0	2.8	3.3
8. Equals: Average hourly earnings, production and nonsupervisory workers in the private nonfarm economy (percent change at annual rate).....	5.2	3.4	4.2	3.0

^a Revised

^a Preliminary

1. BLS estimates of changes in hourly compensation in the nonfarm business sector for the four quarters are 4.2, 5.7, 5.2, and 5.7 percent.

Table 3.—Cyclically Adjusted Federal Receipts, Expenditures, and Surplus or Deficit (-) Based on 6-Percent Unemployment Rate Trend GNP

[Billions of dollars; quarters at seasonally adjusted annual rates]

	1987	1988	1987				1988				1989	
			I	II	III	IV	I	II	III	IV	I	
Receipts:												
Level.....	920.2	959.0	886.6	927.9	931.6	934.5	936.8	966.2	958.4	974.7	999.1	
Percentage of trend GNP.....	20.3	20.0	19.9	20.6	20.4	20.2	20.0	20.3	19.8	19.7	19.9	
Expenditures:												
Level.....	1,073.9	1,119.9	1,056.9	1,063.3	1,069.2	1,106.0	1,107.6	1,118.6	1,101.2	1,152.0	1,186.6	
Percentage of trend GNP.....	23.7	23.3	23.8	23.6	23.4	23.9	23.7	23.5	22.7	23.3	23.7	
Surplus or deficit (-):												
Level.....	-153.7	-160.8	-170.3	-135.4	-137.6	-171.5	-170.8	-152.4	-142.8	-177.3	-187.5	
Percentage of trend GNP.....	-3.4	-3.3	-3.8	-3.0	-3.0	-3.7	-3.7	-3.2	-2.9	-3.6	-3.7	
Addenda:												
6-percent unemployment rate trend GNP:												
Current dollars.....	4,540.3	4,804.5	4,448.5	4,512.5	4,573.3	4,626.8	4,672.8	4,762.7	4,845.4	4,936.9	5,013.4	
1982 dollars.....	3,858.1	3,947.5	3,825.0	3,847.0	3,869.1	3,891.3	3,913.6	3,936.1	3,958.7	3,981.4	4,004.3	

Table 4.—Gross National Product in 1987 Dollars

	1988	Seasonally adjusted at annual rates			
		1988			1989
		II	III	IV	I
GNP	4,683.7	4,671.4	4,701.8	4,735.8	4,777.6
Personal consumption expenditures	3,096.7	3,081.1	3,110.8	3,136.6	3,147.4
Durable goods.....	440.8	441.8	441.4	448.3	441.6
Nondurable goods.....	1,006.9	1,000.4	1,012.5	1,015.0	1,021.0
Services.....	1,649.0	1,638.9	1,656.8	1,673.3	1,684.8
Gross private domestic investment	747.6	741.2	750.8	750.3	758.8
Fixed investment.....	704.0	702.4	709.4	715.8	720.8
Nonresidential.....	481.1	482.1	486.8	487.3	495.5
Structures.....	138.8	138.9	139.4	139.5	141.3
Producers' durable equipment.....	342.3	343.2	347.4	347.8	354.2
Residential.....	222.9	220.3	222.6	228.4	225.3
Change in business inventories.....	43.6	38.8	41.3	34.5	38.0
Net exports of goods and services	-92.7	-84.5	-84.2	-97.0	-75.2
Exports.....	497.2	489.1	506.7	515.4	537.8
Imports.....	589.9	573.6	590.9	612.4	613.0
Government purchases of goods and services	932.1	933.7	924.5	945.9	946.7
Federal.....	374.6	377.7	367.1	380.8	378.6
National defense.....	290.8	292.6	286.3	291.0	284.9
Nondefense.....	83.7	85.1	80.8	89.8	93.7
State and local.....	557.6	555.9	557.4	565.1	568.1
Addenda:					
Gross domestic purchases.....	4,776.4	4,755.9	4,786.1	4,832.8	4,852.9
Final sales.....	4,640.1	4,632.6	4,660.5	4,701.3	4,739.6
GNP price index (fixed weighted), 1987=100.....	103.8	103.3	104.5	105.5	106.8

Table 5.—Gross National Product in 1982 and 1987 Dollars: Annual and Quarterly Percent Changes

	1988	Seasonally adjusted at annual rates			
		1988			1989
		II	III	IV	I
GNP:					
1987 dollars.....	3.5	4.0	2.6	2.9	3.6
1982 dollars.....	3.9	3.0	2.5	2.4	4.3
Personal consumption expenditures:					
1987 dollars.....	2.8	3.0	3.9	3.4	1.4
1982 dollars.....	2.8	3.0	3.9	3.5	1.1
Durable goods:					
1987 dollars.....	4.5	9.6	-4	6.4	-5.8
1982 dollars.....	4.8	9.8	-2	6.1	-4.3
Nondurable goods:					
1987 dollars.....	.9	.4	4.9	1.0	2.4
1982 dollars.....	1.0	.4	5.0	1.3	1.8
Services:					
1987 dollars.....	3.6	2.9	4.4	4.0	2.8
1982 dollars.....	3.5	2.8	4.5	4.2	2.5
Gross private domestic investment:					
1987 dollars.....	4.9	-3.6	5.3	-3	4.6
1982 dollars.....	7.0	-7.4	6.3	-4.9	8.8
Fixed investment:					
1987 dollars.....	4.5	8.5	4.0	3.7	2.8
1982 dollars.....	6.1	10.5	4.1	.8	3.8
Nonresidential:					
1987 dollars.....	7.7	12.7	4.0	.4	6.9
1982 dollars.....	9.5	15.0	4.0	-2.9	7.6
Structures:					
1987 dollars.....	-5	5.0	1.4	.3	5.3
1982 dollars.....	-3	3.3	2.6	-1.0	2.6
Producers' durable equipment:					
1987 dollars.....	11.4	16.0	5.0	.5	7.6
1982 dollars.....	13.4	19.2	4.6	-3.5	9.4
Residential:					
1987 dollars.....	-1.8	0	4.2	10.8	-5.3
1982 dollars.....	-1.7	.2	4.3	10.9	-5.4
Change in business inventories:					
1987 dollars.....					
1982 dollars.....					
Net exports of goods and services:					
1987 dollars.....					
1982 dollars.....					
Exports:					
1987 dollars.....	16.2	9.8	15.2	7.0	18.6
1982 dollars.....	18.0	9.1	14.5	6.5	15.3
Imports:					
1987 dollars.....	7.0	-6.2	12.6	15.4	.4
1982 dollars.....	8.7	-3.7	13.1	13.5	.9
Government purchases of goods and services:					
1987 dollars.....	.8	4.1	-3.9	9.6	.3
1982 dollars.....	.3	3.9	-5.2	11.9	1.4
Federal:					
1987 dollars.....	-1.9	5.6	-10.8	15.8	-2.3
1982 dollars.....	-3.0	4.7	-13.2	20.7	.4
National defense:					
1987 dollars.....	-1.5	-1.1	-8.3	6.7	-8.1
1982 dollars.....	-1.2	-1.5	-10.5	9.9	-8.5
Nondefense:					
1987 dollars.....	-3.5	33.3	-18.7	52.6	18.5
1982 dollars.....	-9.7	33.2	-22.5	71.5	39.3
State and local:					
1987 dollars.....	2.7	3.1	1.1	5.6	2.1
1982 dollars.....	2.8	3.2	1.1	6.0	2.1
Addenda:					
Gross domestic purchases:					
1987 dollars.....	2.7	2.1	2.6	4.0	1.7
1982 dollars.....	3.0	1.3	2.5	3.5	2.5
Final sales:					
1987 dollars.....	3.4	6.0	2.4	3.5	3.3
1982 dollars.....	3.7	6.3	2.0	3.5	3.5
GNP price index (fixed weighted):					
1987=100.....	3.8	4.8	4.8	4.2	5.0
1982=100.....	4.2	5.0	5.3	4.2	5.0
Real GNP, chain output measure.....	3.6	3.7	2.5	3.3	3.7

NOTE.—For background information about tables 4 and 5, see "Alternate Measures of Real GNP", SURVEY OF CURRENT BUSINESS 69 (April 1989): 27-34.

Composite Indexes of Leading, Coincident, and Lagging Indicators

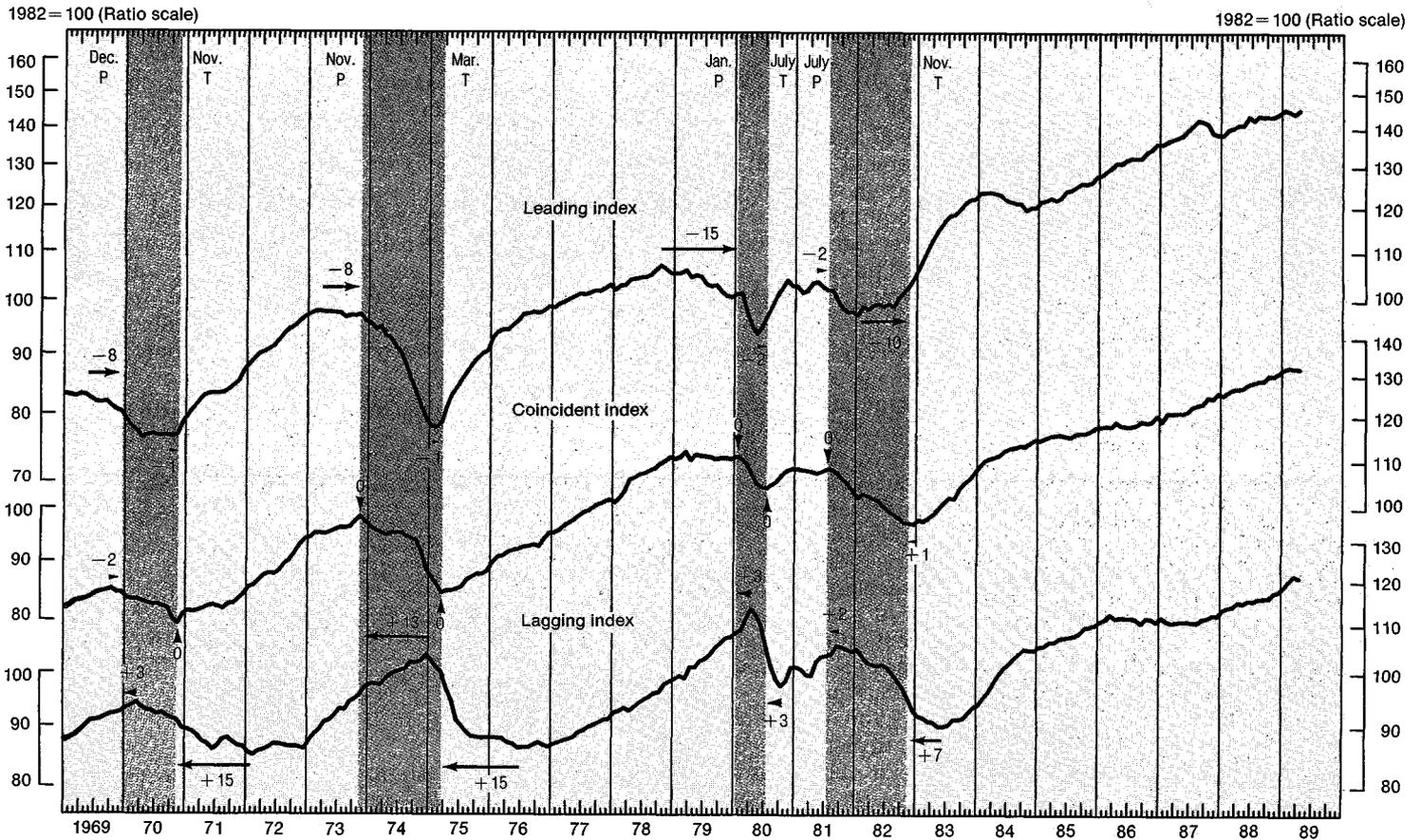
Recent Data and Percent Changes

Index	1988								1989				1988			1989
	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr. ^P	II	III	IV	I
Index (1982=100)																
Leading index.....	141.5	143.9	142.7	144.1	143.7	143.9	* 144.0	144.8	145.9	145.4	* 144.6	145.7	142.3	143.5	* 144.2	* 145.3
Coincident index.....	127.6	128.5	128.9	129.3	129.3	130.6	130.6	131.4	132.4	132.7	* 132.4	132.3	127.8	129.2	130.9	* 132.5
Lagging index.....	115.3	116.0	115.8	116.4	116.4	116.5	* 117.8	* 118.1	* 119.3	* 120.7	* 121.9	121.3	115.6	116.2	* 117.5	* 120.6
Percent change from preceding month (quarter)																
Leading index.....	0	1.7	- .8	1.0	- .3	.1	.1	* .6	.8	- .3	* - .6	.8	1.7	.8	* .5	* .8
Coincident index.....	.2	.7	.3	.3	0	1.0	0	.6	.8	.2	* - .2	- .1	1.0	1.1	1.3	* 1.2
Lagging index.....	- .3	.6	- .2	.5	0	.1	* 1.1	.3	* 1.0	* 1.2	* 1.0	- .5	1.0	.5	* 1.1	* 2.6

^P Preliminary.
* Revised.

NOTE.—Quarterly data are averages of monthly figures. Quarterly percent changes are computed from quarterly data.

Long -Term Perspective: January 1969 to April 1989



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 are designated by the National Bureau of Economic

Research, Inc. The numbers entered on the chart indicate the length of leads (-) and lags (+) in months from the business cycle turning dates.

U.S. Business Enterprises Acquired or Established by Foreign Direct Investors in 1988

OUTLAYS by foreign direct investors to acquire or establish U.S. business enterprises increased sharply to \$65.0 billion in 1988 from \$40.3 billion in 1987 (table 1).¹ Both the record level of outlays and the sharp increase in them are attributable to a number of very sizable investments made in 1988.

During the past 5 years, outlays have risen at an average rate of 55 percent per year, while the overall number of investments has increased at an average rate of only 7 percent. This disparity reflects a sharp increase in the average size of investments. In 1988 alone, the number of investments of \$1 billion or more doubled from 6 in 1987

NOTE.—James Bomkamp, Chief, Direct Investment in the United States Branch, International Investment Division, supervised the survey from which these data are drawn. Joseph F. Cherry III was project leader for editing and processing the forms. D. Richard Mauery designed the computer programs for data retrieval and analysis.

1. These data are from a BEA survey of new foreign direct investments in the United States, which covers (1) existing U.S. business enterprises in which foreign investors acquired, directly or through their U.S. affiliates, at least a 10-percent voting interest and (2) new U.S. business enterprises established by foreign investors or their U.S. affiliates. Acquisitions of additional equity or voting interests in existing U.S. affiliates are not covered.

The data presented in the article are limited to acquired or established U.S. enterprises that had total assets of over \$1 million or that owned at least 200 acres of U.S. land. Although partial reports, primarily for identification purposes, were required to be filed for investments not meeting these criteria, the data from them are not included in the accompanying tables. For 1988, 732 partial reports were filed; total assets of the U.S. business enterprises that filed partial reports were \$167.0 million.

In addition to the data on new foreign direct investments presented here, BEA also publishes quarterly balance of payments flows and the annual direct investment position for both new and existing investments. The position estimates first appear in the June issue of the SURVEY OF CURRENT BUSINESS; more detailed estimates follow in the August issue. Estimates covering the operations of U.S. affiliates of foreign companies are normally available from BEA's annual sample survey of foreign direct investment in the United States; for 1987, however, the annual survey was superseded by the benchmark survey of foreign direct investment in the United States. Results of the benchmark survey will appear in the July SURVEY.

Table 1.—Investment Outlays, Investments, and Investors, 1982–88

	Outlays (millions of dollars)							Number						
	1982	1983	1984	1985	1986	1987 ^a	1988 ^a	1982	1983	1984	1985	1986	1987 ^a	1988 ^a
Investments, total	10,817	8,091	15,197	23,106	39,177	40,310	65,019	1,108	775	764	753	1,040	978	1,012
Acquisitions	6,563	4,848	11,836	20,083	31,450	33,933	60,003	395	299	315	390	555	543	646
Establishments	4,254	3,244	3,361	3,023	7,728	6,377	5,016	713	476	449	363	485	435	366
Investors, total	10,817	8,091	15,197	23,106	39,177	40,310	65,019	1,218	850	831	817	1,121	1,051	1,090
Foreign direct investors	3,954	2,528	4,181	4,225	8,602	11,773	16,400	720	460	434	320	476	480	416
U.S. affiliates	6,863	5,564	11,016	18,881	30,575	28,536	48,619	498	390	397	497	645	571	674

^a Revised.
^b Preliminary.

to 12 (table 2A); 5 of these investments in 1988 were \$2 billion or more, compared with only 1 in 1987. Investments of \$1 billion or more accounted for 45 percent of total outlays in 1988, compared with 23 percent in 1987; they accounted for most—four-fifths—of the increase in 1988 outlays (table 2B).

The ongoing strategy of several large foreign multinational companies to expand and diversify beyond their home markets has contributed to the increase in large investments and the average size of these investments. Foreign multinationals are generally seeking to acquire U.S. companies that can round out their global market position, add manufacturing capability, provide access to new technology, or furnish a well-known brand name. The increasing number of large U.S. companies purchased by foreigners also reflects the availability, in several developed countries, of substantial funds for investment.

Probably contributing to the increase in investment outlays in 1988 was concern about possible U.S. measures to restrict foreign merger and acquisition activity. Concern was exacerbated by passage of the Omnibus Trade and Competitiveness Act of 1988, which included an amendment giving the President power to block foreign mergers and acquisitions on grounds of national security.

Several factors that have contributed to the increase in foreign direct invest-

ment in the United States in recent years continued to encourage investment in 1988. The brisk pace of U.S. economic growth has made U.S. companies attractive to foreigners by increasing the potential profitability of the acquired company. Also, growth in other developed countries, particularly in the United Kingdom, Japan, and Canada, has encouraged investment here by raising foreign companies' profitability and providing them with the

Table 2A.—Number of Investments by Size of Outlays, 1982–88

	1982	1983	1984	1985	1986	1987 ^a	1988 ^a
Total	1,108	775	764	753	1,040	978	1,012
\$2 billion or more	0	0	0	1	2	1	5
\$1 billion–\$1.9 billion	0	0	0	1	3	5	7
\$100 million–\$999 million	18	11	31	33	63	70	83
\$10 million–\$99 million	191	156	176	228	324	291	312
Less than \$10 million	899	608	557	490	648	611	605

^a Revised.
^b Preliminary.

Table 2B.—Percent Change in Investment Outlays and Number of Investments, 1983–88

	1983	1984	1985	1986	1987 ^a	1988 ^a
Investment outlays	-25	88	52	69	3	61
Number of investments	-30	-1	-1	38	-6	3
Addendum: Percent of total outlays accounted for by investments of \$1 billion or more	0	0	17	27	23	45

^a Revised.
^b Preliminary.

funds needed for investment. A large homogeneous consumer market, political stability, and an advanced technological base in the United States have also continued to give foreigners incentives to invest here. In addition, corporate restructuring in the United States, which has led many companies to shed units that were unprofitable or unrelated to their main lines of business, has continued to provide investment opportunities for foreigners.

The cumulative effect of dollar depreciation against several major currencies probably induced some foreign firms to shift operations to the United States. Dollar depreciation lowers both the cost of acquiring or establishing U.S. enterprises and the foreign-currency value of income from investments in the United States. Because these effects are offsetting, small fluctuations in the value of the dollar may have little impact on direct investment. However, because the dollar has depreciated sharply since 1985, foreign firms may have had an incentive to shift more of their operations to the United States so that their expenses, as well as their sales, would be denominated in dollars—a strategy that would help them to avoid increasing prices to U.S. consumers.

The first part of this article discusses investment transactions by industry and by country, and the second part presents selected data on the operations of the U.S. businesses acquired or established. In the analysis, information from outside sources, mainly press reports, has been used to supplement BEA's survey data.

Revisions.—Each year, preliminary data for the previous year are revised up to include survey reports received since publication of these data the year before. Typically, the revisions to investment outlays (the cost to investors of the ownership interests acquired or established) are considerably smaller than those to numbers of investments because every effort is made to include large transactions in the preliminary data. The revisions in the data on new investments have been large in past years, reflecting the large number, and total value, of investments for which reports were received too late for inclusion in preliminary totals. The 1987 revisions are particularly large—outlays were revised to \$40.3 billion from \$30.5 billion and the number of

The article presenting the latest results of BEA's annual survey on the operations of nonbank U.S. affiliates of foreign companies, which normally appears in the May issue of the SURVEY, is not in this issue because a benchmark survey, rather than the regular annual survey, was conducted for 1987. An article describing the benchmark survey is scheduled to appear in the July SURVEY. It will highlight the preliminary results of the survey and discuss major changes in U.S. affiliate operations in 1987. The next regular annual survey will cover 1988, and results will be published in the May 1990 SURVEY.

investments to 978 from 557—because the 1987 benchmark survey of foreign direct investment in the United States brought to light investments, mainly small ones, that had not been previously reported to BEA.

Investment Transactions

By type of investment, most outlays in 1988, as in past years, were for acquiring existing U.S. businesses (\$60.0 billion) rather than for establishing new U.S. businesses (\$5.0 billion) (table 3). By type of investor, \$48.6 billion of total outlays were by existing U.S. affiliates of foreign direct investors, rather than by the foreign direct investors themselves.

Industry

The 1988 increase in outlays was widespread among industries of the U.S. businesses acquired or established (table 4). Substantial increases occurred in all major industry groups except services, real estate, and finance (except banking). In services and real estate, outlays remained sizable, at \$4.7 billion and \$2.8 billion, respectively, despite the decrease from 1987 levels. Outlays in manufacturing were \$31.6 billion; more than one-half of these outlays were in "other manufacturing," mainly in publishing and rubber products. Other sizable outlays in manufacturing were in machinery and in primary and fabricated metals; one or two large transactions accounted for more than one-half of the outlays in each of these industries. Outside manufacturing, outlays

were largest in retail trade, at \$8.0 billion, and in insurance, at \$5.8 billion. Sizable outlays also occurred in petroleum, "other industries," wholesale trade, and banking. One or two large transactions accounted for more than one-half of the outlays in each industry except petroleum.

In "other manufacturing," outlays were \$16.6 billion, almost one-half of which were attributable to three large investments. The acquisition of a Pennsylvania-based magazine publisher by a U.S. affiliate of a large Australian communications concern represented the largest acquisition ever in the U.S. publishing industry and made the Australian company the largest U.S. magazine publisher in terms of circulation. In another large transaction, a British printing, publishing, and communications concern acquired a New York-based publishing and information services concern. This acquisition is the largest in a series of acquisitions of U.S. publishers that reflect the British company's strategy to build a worldwide communications business. The third large transaction in "other manufacturing" was the acquisition of an Ohio-based tire manufacturer by a Japanese tire manufacturer. This acquisition, which represents the largest single investment to date by a Japanese investor, was made to enable the Japanese manufacturer to expand in the U.S. tire market. The acquired company will sell tires to large U.S. automobile manufacturers as well as to Japanese auto manufacturers producing in the United States.

In machinery, outlays were \$6.9 billion, more than one-half of which were attributable to two large Japanese investments. In one transaction, a New York-based record company was acquired by a U.S. affiliate of a Japanese manufacturer of electronic products, which made the acquisition in order to diversify beyond the highly competitive consumer electronics market. In the other transaction, an Illinois-based manufacturer of computers and electrical products was acquired by a U.S. affiliate of a Japanese metal, petroleum refining, and petrochemical concern. The Federal Government approved the acquisition on condition that the U.S. company's defense operations be put into a trust to be run by the company's current management. The Japanese company made the acquisition in order to obtain access to the U.S. company's

Table 3.—Outlays by Type of Investment and Investor, by Industry of U.S. Business Enterprise, 1987-88

[Millions of dollars]

	1987 ^a					1988 ^a				
	Total	By type of investment		By type of investor		Total	By type of investment		By type of investor	
		Acquisitions	Establishments	Foreign direct investors	U.S. affiliates		Acquisitions	Establishments	Foreign direct investors	U.S. affiliates
All industries.....	40,310	33,933	6,377	11,773	28,536	65,019	60,003	5,016	16,400	48,619
Petroleum.....	1,107	499	609	614	493	3,956	3,927	30	200	3,756
Petroleum and coal products manufacturing.....	191	191	0	0	191	714	714	0	8	706
Other.....	917	308	609	614	303	3,242	3,212	30	192	3,050
Manufacturing.....	19,751	18,896	855	4,552	15,200	31,580	29,743	1,837	11,054	20,526
Food and kindred products.....	4,177	4,160	18	941	3,236	2,935	2,916	18	599	2,335
Beverages.....	3,084	3,072	12	12	3,072	24	19	4	15	9
Other.....	1,094	1,088	6	930	164	2,911	2,897	14	585	2,326
Chemicals and allied products.....	4,041	3,935	106	64	3,977	1,788	1,370	418	439	1,349
Industrial chemicals and synthetics.....	3,024	2,966	58	27	2,997	299	280	19	10	289
Drugs.....	85	85	0	34	51	802	440	362	362	440
Soap, cleaners, and toilet goods.....	4	4	0	0	4	(^b)	(^b)	0	(^b)	(^b)
Other.....	928	880	48	3	926	(^b)	(^b)	37	(^b)	(^b)
Primary and fabricated metals.....	1,091	923	168	515	576	3,313	3,100	212	1,573	1,740
Primary metal industries.....	199	153	46	34	165	477	319	158	198	278
Ferrous.....	24	4	21	8	17	258	252	6	66	192
Nonferrous.....	175	149	26	27	148	219	68	151	133	86
Fabricated metal products.....	892	770	122	481	411	2,836	2,781	55	1,374	1,462
Machinery.....	2,834	2,609	225	1,372	1,463	6,927	6,654	273	983	5,943
Machinery, except electrical.....	1,021	838	182	523	498	2,618	2,532	86	546	2,072
Computer and office equipment.....	429	255	174	402	27	986	950	37	30	956
Other.....	592	583	9	121	471	1,631	1,582	49	516	1,116
Electric and electronic equipment.....	1,814	1,771	43	849	965	4,309	4,122	187	437	3,872
Household audio and video, and communications equipment.....	(^b)	(^b)	(^b)	(^b)	(^b)	1,463	1,462	2	1	1,462
Electronic components and accessories.....	933	916	17	112	822	2,070	1,952	119	244	1,826
Other.....	(^b)	(^b)	(^b)	(^b)	(^b)	775	709	67	192	583
Other manufacturing.....	7,608	7,270	338	1,659	5,949	16,617	15,702	915	7,459	9,158
Textile products and apparel.....	559	544	14	16	543	540	537	3	196	344
Lumber, wood, furniture, and fixtures.....	9	9	1	1	9	(^b)	(^b)	8	6	(^b)
Paper and allied products.....	(^b)	(^b)	(^b)	(^b)	(^b)	(^b)	(^b)	0	0	(^b)
Printing and publishing.....	631	631	0	130	501	8,730	8,278	452	3,392	5,338
Newspapers.....	(^b)	(^b)	0	0	(^b)	75	72	3	0	75
Other.....	(^b)	(^b)	0	130	(^b)	8,655	8,206	449	3,392	5,263
Rubber products.....	(^b)	(^b)	(^b)	(^b)	(^b)	2,977	2,975	2	2,767	210
Miscellaneous plastics products.....	504	492	12	11	493	517	499	18	39	478
Stone, clay, and glass products.....	867	616	251	643	224	1,343	1,343	(^b)	402	941
Transportation equipment.....	631	601	30	69	563	474	141	334	347	127
Motor vehicles and equipment.....	75	45	30	69	6	(^b)	(^b)	334	(^b)	(^b)
Other transportation equipment, nec.....	556	556	0	0	556	(^b)	(^b)	0	(^b)	(^b)
Instruments and related products.....	1,247	1,236	11	58	1,189	1,749	1,650	99	308	1,441
Other.....	2,432	2,425	7	674	1,758	107	107	0	3	104
Wholesale trade.....	1,271	1,245	26	104	1,166	2,299	2,184	114	143	2,156
Motor vehicles and equipment.....	0	0	0	0	0	68	35	32	39	29
Professional and commercial equipment and supplies.....	32	28	4	9	23	251	248	4	10	241
Metals and minerals, except petroleum.....	(^b)	(^b)	(^b)	6	(^b)	36	19	18	2	34
Electrical goods.....	101	100	1	2	99	(^b)	(^b)	1	1	(^b)
Machinery, equipment, and supplies.....	(^b)	(^b)	(^b)	(^b)	(^b)	65	65	0	5	60
Other durable goods.....	171	171	0	58	113	(^b)	(^b)	5	5	(^b)
Groceries and related products.....	66	66	0	0	66	1,424	1,424	0	0	1,424
Farm product raw materials.....	23	23	0	0	23	65	46	19	19	46
Other nondurable goods.....	708	699	9	28	680	121	86	35	62	59
Retail trade.....	1,212	1,210	2	738	474	7,985	7,655	330	354	7,630
General merchandise stores.....	(^b)	(^b)	0	0	(^b)	7,143	7,143	0	21	7,122
Food stores.....	72	72	1	51	21	238	238	0	0	238
Apparel and accessory stores.....	(^b)	(^b)	0	3	(^b)	397	68	329	329	68
Other.....	983	982	1	684	299	207	206	1	4	202
Banking.....	924	774	150	149	775	1,771	1,764	7	447	1,324
Finance, except banking.....	1,604	1,333	270	959	645	648	446	202	403	245
Insurance.....	165	138	28	37	128	5,793	5,791	2	335	5,458
Real estate.....	4,765	1,544	3,220	936	3,829	2,788	808	1,980	1,326	1,462
Services.....	7,630	6,771	859	2,811	4,819	4,687	4,371	316	1,160	3,527
Hotels and other lodging places.....	2,682	2,019	663	1,796	886	2,304	2,091	214	865	1,439
Business services.....	4,485	4,394	92	689	3,796	627	610	17	52	575
Computer and data processing services.....	483	474	9	469	14	359	357	2	17	341
Other business services.....	4,002	3,920	82	220	3,782	268	253	15	35	234
Motion pictures, including television tape and film.....	95	67	27	80	14	1,097	1,083	14	16	1,082
Engineering, architectural, and surveying services.....	(^b)	(^b)	0	(^b)	(^b)	78	78	0	8	70
Accounting, research, management, and related services.....	283	215	68	218	65	(^b)	(^b)	30	9	(^b)
Health services.....	3	3	0	3	0	(^b)	(^b)	0	0	(^b)
Other.....	(^b)	(^b)	9	(^b)	(^b)	474	433	41	211	264
Other industries.....	1,881	1,522	359	875	1,007	3,513	3,314	199	979	2,533
Agriculture, forestry, and fishing.....	284	137	148	155	130	93	69	24	13	80
Mining.....	854	745	109	502	352	298	213	85	212	86
Coal.....	38	14	24	2	36	(^b)	(^b)	(^b)	(^b)	(^b)
Other.....	817	731	85	500	316	(^b)	(^b)	(^b)	(^b)	(^b)
Construction.....	227	126	101	107	120	2,087	2,027	60	39	2,048
Transportation.....	(^b)	(^b)	1	(^b)	(^b)	950	943	6	685	265
Communication and public utilities.....	(^b)	(^b)	0	(^b)	(^b)	85	62	23	31	54

^a Revised.^b Preliminary.^c Suppressed to avoid disclosure of data of individual companies.^d Less than \$500,000.

NOTE.—The industry stub has been revised to conform to the revised 1987 Standard Industrial Classification.

research and development expertise in electronic parts manufacturing—particularly in the manufacture of copper foil, a material used in printed circuit boards.

Outlays in primary and fabricated metals were \$3.3 billion. Again, two investments accounted for more than one-half of the total. In one transaction, an Illinois-based manufacturer of metal cans was acquired by a U.S. affiliate of a French Government-owned aluminum manufacturer, which has acquired two other U.S. packaging concerns in recent years. The French company has now become one of the largest packaging concerns in the world. In the other transaction, a New York-based manufacturer of water heaters and air conditioners was acquired by a Japanese manufacturer of similar products as a means of extending its business to the U.S. market, where it had previously had no presence.

Outlays in food products were \$2.9 billion. In the largest transaction, a Florida-based producer of orange juice was acquired by a Canadian producer of alcoholic beverages. The Canadian company made the acquisition in order to diversify its product line in the face of declining alcoholic beverage consumption in the United States.

Outside manufacturing, outlays in retail trade, at \$8.0 billion, were mostly accounted for by the largest single transaction in 1988, in which a U.S. affiliate of a Canadian real estate developer and retailer acquired a large, Ohio-based department store chain. Parts of the acquired company were later divested to help finance the purchase. With this acquisition and another made in 1986, the Canadian developer is now the largest department store retailer in the United States in terms of sales.

Outlays in insurance were \$5.8 billion and were mostly for the acquisition of a California-based automobile and home insurer by a U.S. affiliate of a British tobacco, retailing, and financial services concern. The acquisition, which was made to fulfill the British company's long-term strategy of diversifying away from its tobacco products business, followed a lengthy takeover effort.

Outlays in petroleum were \$4.0 billion. The largest investment was by a Saudi Arabian Government-owned oil company, which acquired a 50-percent interest in a large U.S. oil company's refining assets and distribution system in the Eastern United States. As a result of the transaction, the Saudi Arabian company obtained a sizable market for its oil and the U.S. company obtained a reliable supply of crude oil for its extensive distribution system.

Outlays in "other industries," at \$3.5 billion, were mostly in construction. In the largest transaction, a Pennsylvania-based construction company was acquired by a U.S. affiliate of a British road builder.

In wholesale trade, outlays were \$2.3 billion and were mostly accounted for by the acquisition of an Illinois-based food wholesaler and corn sweetener manufacturer by a U.S. affiliate of a British sugar refiner. The British company intends to sell the food business in order to concentrate on the corn sweetener business.

Outlays in banking were \$1.8 billion. The two largest investments were by British investors. A New Jersey-based bank was acquired by a U.S. affiliate of a British bank to help build a large regional bank in the Northeast, and a Rhode Island-based regional bank was acquired by a British bank. Other investments include the acquisition of a New Hampshire-based bank by a U.S. affiliate of an Irish bank seeking to reduce its dependence on the highly regulated Irish banking industry and the acquisition of an Illinois-based bank by a U.S. affiliate of a Netherlands bank.

Unlike other nonmanufacturing industries, outlays in services, real estate, and finance (except banking) decreased from 1987 levels. In services, outlays were \$4.7 billion, down from \$7.6 billion in 1987. Almost one-half of the outlays were for hotels. The two largest investments were by Japanese investors. A U.S. affiliate of

Table 4.—Investment Outlays by Industry of U.S. Business Enterprise and by Country of Ultimate Beneficial Owner, 1982–88

	[Millions of dollars]						
	1982	1983	1984	1985	1986	1987 ^a	1988 ^a
Total	10,817	8,091	15,197	23,106	39,177	40,310	65,019
By industry:							
Petroleum.....	819	394	3,263	2,970	1,035	1,107	3,956
Manufacturing.....	2,379	3,113	3,106	12,140	16,772	19,751	31,580
Food and kindred products.....	376	691	340	3,556	1,007	4,177	2,935
Chemicals and allied products.....	363	653	378	3,280	7,063	4,041	1,788
Primary and fabricated metals.....	104	177	558	1,015	776	1,091	3,313
Machinery.....	979	470	535	1,556	2,426	2,834	6,927
Other manufacturing.....	557	1,121	1,295	2,733	5,500	7,608	16,617
Wholesale trade.....	462	198	840	804	1,640	1,271	2,299
Retail trade.....	684	95	1,154	1,217	5,249	1,212	7,985
Banking.....	427	173	910	257	288	924	1,771
Finance, except banking.....	499	457	802	489	1,781	1,604	648
Insurance.....	759	121	152	908	1,668	165	5,793
Real estate.....	3,289	2,659	2,227	1,921	5,171	4,765	2,788
Services.....	662	585	1,008	1,350	4,276	7,630	4,687
Other industries.....	837	298	1,735	1,050	1,298	1,881	3,513
By country:							
Canada.....	1,196	1,072	2,587	2,914	6,503	1,276	10,405
Europe.....	6,418	4,908	6,463	15,382	21,126	25,517	34,157
France.....	455	295	330	754	2,491	2,044	3,753
Germany.....	601	584	685	2,270	1,351	4,664	1,375
Netherlands.....	330	492	562	771	4,700	391	1,937
United Kingdom.....	3,128	2,366	3,714	6,732	8,572	15,142	21,520
Other Europe.....	1,904	1,171	1,172	4,855	4,012	3,276	5,572
Latin America.....	965	437	(^c)	589	771	1,483	106
South and Central America.....	430	291	196	88	397	355	14
Other Western Hemisphere.....	535	147	(^c)	501	375	1,128	91
Africa.....	85	180	(^c)	57	(^c)	(^c)	28
Middle East.....	864	715	919	986	680	925	1,004
Asia and Pacific.....	1,279	765	(^c)	3,138	9,450	10,928	19,278
Australia.....	75	54	(^c)	1,630	3,194	2,691	4,211
Japan.....	587	392	1,806	1,152	5,416	7,006	14,166
Other Asia and Pacific.....	617	319	251	356	840	1,231	901
United States ^b	9	14	(^c)	40	(^c)	(^c)	41
Addenda:							
European Communities (12) ³					19,034	22,895	31,175
OPEC ⁴	775	723	855	910	878	1,077	1,322

^a Revised.

^b Preliminary.

^c Suppressed to avoid disclosure of data of individual companies.

1. Where more than one investor participated in a given investment, each investor and each investor's outlays are classified by country of each ultimate beneficial owner.

2. See footnote 2 in text for explanation.

3. European Communities (12) comprises Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, Netherlands, United Kingdom, Portugal, and Spain.

4. OPEC is the Organization of Petroleum Exporting Countries. Its members are Algeria, Ecuador, Gabon, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, the United Arab Emirates, and Venezuela.

NOTE.—The level of detail shown by industry of U.S. affiliate and by country of UBO in this table is less than has been shown in earlier years because, for 1987 forward, new industry and country stubs are being used. These stubs are not completely comparable to those used in prior years. The industry stubs have been revised to conform to the revised 1987 Standard Industrial Classification; country stubs have been revised to reflect geographical, rather than political or economic, groupings of countries. This table gives historical data for the major industry and country groups in the new stubs. For more detailed industry and country information for years prior to 1987, see the May 1988 SURVEY OF CURRENT BUSINESS.

a Japanese construction company acquired a hotel in Washington State and a Japanese railroad company acquired a hotel in Hawaii. Outlays in the motion picture industry were also sizable. The largest investments were by British investors in the motion picture industry, who acquired two studios—one in Texas and one in California.

Outlays in real estate were \$2.8 billion, down from \$4.8 billion in 1987. The outlays were for many small investments rather than for a few large ones. Of the five largest investments, four were by Japanese investors. The fifth was the acquisition of an office building in Texas by an Australian investor. The Japanese investments are

discussed in more detail in the next section of this article.

In finance (except banking), outlays were \$0.6 billion, down from \$1.6 billion in 1987. The largest investment was the acquisition of a Connecticut-based government securities dealer by a Japanese bank.

Table 5A.—Investment Outlays, Country of Ultimate Beneficial Owner by Industry of U.S. Business Enterprise, 1987

[Millions of dollars]

	All industries	Petroleum	Manufacturing						Wholesale trade	Retail trade	Banking	Finance, except banking	Insurance	Real estate	Services	Other industries
			Total	Food and kindred products	Chemicals and allied products	Primary and fabricated metals	Machinery	Other manufacturing								
All countries.....	40,310	1,107	19,751	4,177	4,041	1,091	2,834	7,608	1,271	1,212	924	1,604	165	4,765	7,630	1,881
Canada.....	1,276	2	735	7	(¹)	(¹)	23	373	13	0	(¹)	3	(¹)	81	(¹)	43
Europe.....	25,517	401	15,665	2,880	3,466	563	2,603	6,153	1,197	858	340	290	57	532	5,203	975
Austria.....	14	0	(¹)	0	0	0	0	(¹)	0	0	5	0	0	0	0	(¹)
Belgium.....	182	(¹)	50	(¹)	3	0	0	(¹)	0	0	0	0	0	24	5	(¹)
Denmark.....	11	0	8	0	0	0	0	8	(¹)	2	0	0	0	0	0	1
Finland.....	27	0	19	0	0	(¹)	0	7	0	0	0	0	0	0	0	1
France.....	2,044	(¹)	1,714	(¹)	116	(¹)	1,014	49	(¹)	3	0	(¹)	0	4	(¹)	67
Germany.....	4,664	(¹)	4,450	41	(¹)	5	(¹)	(¹)	9	0	0	(¹)	0	52	6	41
Ireland.....	42	0	42	3	0	0	0	39	0	0	0	0	0	3	0	0
Italy.....	268	(¹)	231	(¹)	0	0	0	(¹)	0	(¹)	0	2	0	3	8	0
Liechtenstein.....	110	0	(¹)	(¹)	0	0	0	0	(¹)	0	0	3	0	26	0	(¹)
Luxembourg.....	110	0	(¹)	0	0	0	0	0	(¹)	0	0	0	0	0	0	5
Netherlands.....	391	2	90	0	(¹)	0	49	(¹)	6	(¹)	0	(¹)	0	154	(¹)	27
Norway.....	(¹)	0	(¹)	0	0	0	0	0	0	0	0	0	0	0	0	(¹)
Spain.....	(¹)	0	(¹)	0	0	0	0	(¹)	0	0	0	0	0	0	0	0
Sweden.....	333	0	259	0	0	(¹)	187	(¹)	0	0	0	0	0	(¹)	(¹)	0
Switzerland.....	2,085	2	950	(¹)	(¹)	(¹)	2	(¹)	91	(¹)	0	11	0	41	746	(¹)
United Kingdom.....	15,142	66	7,611	(¹)	(¹)	284	751	5,153	1,015	815	335	221	57	224	4,261	536
Other.....	(¹)	0	(¹)	0	0	0	(¹)	0	(¹)	0	0	0	0	0	0	0
Latin America.....	1,483	(¹)	(¹)	0	0	0	2	(¹)	(¹)	(¹)	(¹)	(¹)	0	172	745	37
South and Central America.....	355	(¹)	2	0	0	0	2	0	4	0	(¹)	(¹)	0	111	3	13
Brazil.....	(¹)	(¹)	2	0	0	0	2	0	0	0	(¹)	(¹)	0	0	0	(¹)
Mexico.....	12	0	0	0	0	0	0	0	3	0	0	1	0	5	0	3
Panama.....	108	0	0	0	0	0	0	0	0	0	0	0	0	(¹)	1	(¹)
Venezuela.....	(¹)	(¹)	0	0	0	0	0	0	1	0	0	(¹)	0	0	2	0
Other.....	(¹)	0	0	0	0	0	0	0	0	0	0	0	0	(¹)	0	0
Other Western Hemisphere.....	1,128	0	(¹)	0	0	0	0	(¹)	(¹)	(¹)	0	1	0	61	742	23
Bahamas.....	8	0	0	0	0	0	0	0	0	0	0	0	0	6	0	2
Bermuda.....	804	0	0	0	0	0	0	0	(¹)	(¹)	0	0	0	0	742	4
Netherlands Antilles.....	(¹)	0	(¹)	0	0	0	0	(¹)	0	0	0	0	0	(¹)	0	0
United Kingdom Islands, Caribbean.....	(¹)	0	(¹)	0	0	0	0	(¹)	0	0	0	1	0	(¹)	0	0
Other.....	18	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Africa.....	(¹)	(¹)	(¹)	0	0	(¹)	(¹)	(¹)	0	0	0	(¹)	0	(¹)	0	0
South Africa.....	(¹)	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0
Other.....	(¹)	(¹)	(¹)	0	0	0	0	(¹)	0	0	0	0	0	(¹)	0	0
Middle East.....	925	(¹)	(¹)	0	0	0	0	(¹)	(¹)	(¹)	227	(¹)	0	68	(¹)	5
Israel.....	(¹)	0	0	0	0	0	0	(¹)	0	0	0	0	0	0	0	0
Kuwait.....	845	(¹)	0	0	0	0	0	0	(¹)	(¹)	227	(¹)	0	0	0	0
Lebanon.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Saudi Arabia.....	74	0	0	0	0	0	0	0	0	0	0	0	0	65	(¹)	(¹)
United Arab Emirates.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other.....	6	0	0	0	0	0	0	0	0	(¹)	0	0	0	2	0	(¹)
Asia and Pacific.....	10,928	(¹)	3,048	1,290	(¹)	206	157	(¹)	38	182	159	1,237	(¹)	3,892	1,407	822
Australia.....	2,691	0	1,752	1,200	(¹)	0	0	(¹)	0	(¹)	0	0	0	(¹)	(¹)	668
Hong Kong.....	0	0	0	0	0	0	0	0	8	(¹)	0	0	0	2	3	2
Japan.....	7,006	100	1,071	90	(¹)	(¹)	188	(¹)	28	(¹)	156	855	(¹)	3,571	1,052	133
Malaysia.....	(¹)	0	0	0	0	0	0	0	0	0	0	0	0	3	0	(¹)
New Zealand.....	552	0	(¹)	0	0	0	0	(¹)	0	4	0	0	0	0	0	(¹)
Philippines.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Singapore.....	0	0	1	0	0	0	0	1	0	0	3	0	0	0	0	0
South Korea.....	26	0	(¹)	0	0	0	0	(¹)	0	0	0	0	0	0	3	3
Taiwan.....	31	0	(¹)	0	0	0	0	(¹)	1	0	0	0	0	0	0	0
Other.....	(¹)	0	0	0	0	0	0	0	1	0	0	0	0	0	(¹)	0
United States ¹	(¹)	0	(¹)	0	0	4	(¹)	0	0	0	0	0	0	(¹)	0	0
Addenda:																
European Communities (12) ²	22,895	399	14,340	2,085	3,459	347	2,378	6,071	1,093	852	335	276	57	461	4,387	694
OPEC ³	1,077	(¹)	0	0	0	0	0	0	(¹)	(¹)	227	66	0	65	(¹)	2

¹ Suppressed to avoid disclosure of data of individual companies.

* Less than \$500,000.

1. See footnote 2 in text for further explanation.

2. See footnote 3, table 4.

3. See footnote 4, table 4.

NOTE.—Data for 1987 are revised. Where more than one investor participated in a given investment, each investor and each investor's outlays are classified by the country of each individual ultimate beneficial owner.

The country stub has been revised to reflect geographical, rather than political or economic, groupings of countries.

Country

Outlays are classified by country of ultimate beneficial owner (UBO) in tables 4, 5A, and 5B.² In 1988, as in past

2. Investment outlays can be classified by country of foreign parent as well as by country of UBO. The foreign parent is the first foreign person in the ownership chain of the acquired or established U.S. business; the UBO is the person in the ownership chain, beginning with

years, British UBO's were the largest investors. They accounted for \$21.5 billion, or 33 percent, of total outlays. Of the 12 investments of \$1 billion or

the foreign parent, that is not owned more than 50 percent by another person. The country of UBO is often the same as that of the foreign parent, but it may be a different foreign country or the United States. Data classified by country of foreign parent are available in a set of supplementary tables (see box, page 28).

more, 4 were by British UBO's; these 4 accounted for 51 percent of total British outlays. The four investments were in four industries: In insurance (the purchase of the California-based insurer by the U.S. affiliate of a British tobacco, retail, and financial services concern), in publishing (the purchase of the New York-based

Table 5B.—Investment Outlays, Country of Ultimate Beneficial Owner by Industry of U.S. Business Enterprise, 1988

[Millions of dollars]

	All industries	Petroleum	Manufacturing						Wholesale trade	Retail trade	Banking	Finance, except banking	Insurance	Real estate	Services	Other industries
			Total	Food and kindred products	Chemicals and allied products	Primary and fabricated metals	Machinery	Other manufacturing								
All countries.....	65,019	3,956	31,580	2,935	1,788	3,313	6,927	16,617	2,299	7,985	1,771	648	5,793	2,788	4,687	3,513
Canada.....	10,405	(P)	2,375	1,487	0	(P)	574	(P)	(P)	7,016	0	(P)	(P)	187	98	359
Europe.....	34,157	2,672	15,440	980	1,285	1,604	3,237	8,333	2,078	566	1,743	65	5,600	808	2,385	2,801
Austria.....	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Belgium.....	1,204	(P)	446	(P)	0	0	0	(P)	0	0	(P)	0	(P)	(P)	(*)	4
Denmark.....	(P)	0	(P)	0	0	0	0	(P)	1	0	0	0	0	0	0	0
Finland.....	264	(P)	244	(P)	(P)	0	1	(P)	0	0	0	0	0	0	0	5
France.....	3,753	(P)	3,080	63	103	(P)	(P)	1,616	(P)	0	0	0	0	23	(P)	63
Germany.....	1,375	0	752	5	126	1	276	345	237	(P)	0	(P)	2	61	0	28
Ireland.....	567	0	(P)	(P)	0	0	(P)	(P)	0	0	(P)	0	(P)	0	(*)	0
Italy.....	313	0	(P)	0	4	0	(P)	(P)	0	0	0	0	0	7	0	0
Liechtenstein.....	37	0	0	0	0	0	0	0	(*)	0	0	0	0	37	0	0
Luxembourg.....	(P)	0	(P)	0	0	0	0	(P)	0	0	0	0	(P)	(P)	0	1
Netherlands.....	1,937	(P)	1,117	(P)	(P)	0	934	2	(P)	(P)	(P)	0	0	130	3	(P)
Norway.....	(P)	0	(P)	0	0	0	0	(P)	0	0	0	0	0	4	0	0
Spain.....	(P)	0	(P)	0	0	0	0	(P)	0	0	0	0	0	0	0	0
Sweden.....	586	0	458	(P)	0	0	419	(P)	0	0	0	(P)	0	18	(P)	0
Switzerland.....	2,017	2	1,423	0	428	(P)	(P)	(P)	35	0	0	9	(P)	51	260	(P)
United Kingdom.....	21,520	1,185	7,257	244	572	211	1,496	4,733	1,733	(P)	(P)	0	5,204	355	2,000	2,368
Other.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Latin America.....	106	2	0	0	0	0	0	0	(*)	0	0	2	0	21	(P)	(P)
South and Central America.....	14	0	0	0	0	0	0	0	(*)	0	0	2	0	12	0	(*)
Brazil.....	5	0	0	0	0	0	0	0	0	0	0	2	0	3	0	(*)
Mexico.....	4	0	0	0	0	0	0	0	(*)	0	0	0	0	4	0	0
Panama.....	2	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0
Venezuela.....	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Other.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Western Hemisphere.....	91	2	0	0	0	0	0	0	0	0	0	0	0	9	(P)	(P)
Bahamas.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bermuda.....	15	0	0	0	0	0	0	0	0	0	0	0	0	(P)	(P)	0
Netherlands Antilles.....	(P)	0	0	0	0	0	0	0	0	0	0	0	0	(P)	0	0
United Kingdom Islands, Caribbean.....	(P)	0	0	0	0	0	0	0	0	0	0	0	0	(P)	0	(P)
Other.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Africa.....	28	0	(P)	0	0	0	17	(P)	0	0	0	0	0	(P)	0	0
South Africa.....	(P)	0	(P)	0	0	0	(P)	(P)	0	0	0	0	0	3	0	0
Other.....	(P)	0	(P)	0	0	0	(P)	0	0	0	0	0	0	(P)	0	0
Middle East.....	1,004	(P)	(P)	0	0	(P)	0	0	(P)	0	0	0	0	(P)	(P)	3
Israel.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kuwait.....	(P)	0	(P)	0	0	(P)	0	0	0	0	0	0	0	2	0	0
Lebanon.....	(P)	0	0	0	0	0	0	0	0	0	0	0	0	(P)	0	0
Saudi Arabia.....	(P)	0	0	0	0	0	0	0	(P)	0	0	0	0	8	(P)	0
United Arab Emirates.....	(P)	0	0	0	0	0	0	0	0	0	0	0	0	(P)	0	0
Other.....	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Asia and Pacific.....	19,278	(P)	13,700	445	498	1,685	3,088	7,984	164	403	29	564	(P)	1,724	2,063	(P)
Australia.....	4,211	(P)	(P)	5	0	0	0	(P)	(P)	(P)	0	0	0	(P)	24	(P)
Hong Kong.....	173	0	(P)	0	0	0	0	(P)	6	0	0	(*)	0	41	(P)	0
Japan.....	14,166	0	9,764	101	494	1,631	3,009	4,529	119	(P)	29	564	0	1,376	1,914	(P)
Malaysia.....	(P)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
New Zealand.....	125	0	0	0	0	0	0	0	(P)	0	0	0	(P)	0	0	80
Philippines.....	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Singapore.....	10	0	(P)	0	0	0	0	(P)	(P)	0	0	0	0	0	(P)	0
South Korea.....	101	(P)	0	0	0	0	0	0	0	0	0	0	0	0	0	(P)
Taiwan.....	(P)	0	0	0	0	0	0	0	0	0	0	0	0	(P)	0	0
Other.....	450	0	(P)	(P)	0	54	0	1	5	0	0	0	0	(P)	0	0
United States ¹	41	0	37	22	5	0	10	0	(P)	0	0	(P)	0	0	0	0
Addenda:																
European Communities (12) ²	31,175	2,660	13,243	(P)	848	(P)	2,806	7,269	2,037	566	1,743	(P)	(P)	697	2,019	2,625
OPEC ³	1,322	(P)	(P)	(P)	0	5	0	0	(P)	0	0	0	0	44	(P)	0

^P Suppressed to avoid disclosure of data of individual companies.

* Less than \$500,000.

1. See footnote 2 in text for further explanation.

2. See footnote 3, table 4.

3. See footnote 4, table 4.

NOTE.—Data for 1988 are preliminary. Where more than one investor participated in a given investment, each investor and each investor's outlays are classified by the country of each individual ultimate beneficial owner.

The country stub has been revised to reflect geographical, rather than political or economic, groupings of countries.

publisher by a British printing, publishing, and communications concern), in construction (the purchase of the Pennsylvania-based construction company by the U.S. affiliate of a British road builder), and in wholesale trade (the purchase of the Illinois-based food wholesaler by the U.S. affiliate of a British sugar refiner). All transactions were discussed in more detail in the previous section of this article.

Japanese UBO's were the second largest investors in 1988, with \$14.2 billion in outlays. Like the British, the Japanese made 4 of the 12 investments of \$1 billion or more; these investments accounted for 42 percent of their total outlays. Three of these investments, all mentioned earlier, were in manufacturing; they were the acquisition of the New York-based record company by the U.S. affiliate of a Japanese consumer electronics manufacturer, the acquisition of the Illinois-based manufacturer of computers and electrical products by the U.S. affiliate of a Japanese metal, petroleum refining, and petrochemical company, and the acquisition of the Ohio-based tire manufacturer by a Japanese tire company. The other investment—the acquisition of the Washington State hotel by a Japanese construction company, also mentioned earlier—was in services. Outlays in real estate were also sizable, at \$1.4 billion, but these outlays reflected many small investments rather than one or two large ones. Two of the largest investments were by Japanese real estate developers; one purchased an office building in California and the other purchased land in Hawaii. Two other sizable outlays involved establishments of U.S. real estate companies—one in Hawaii and one in California. Japanese outlays in U.S. real estate have been strong for several years, reflecting, in addition to the factors mentioned earlier, the scarcity of purchasable land in Japan.

Canadian UBO's were the third largest investors, with outlays of \$10.4 billion. Two of the twelve investments of \$1 billion or more were by Canadian investors; these accounted for 77 percent of total Canadian outlays. Both acquisitions, the Ohio-based department store chain by a Canadian real estate developer and the Florida-based orange juice producer by a Canadian

alcoholic beverage manufacturer, were mentioned earlier.

Australian UBO's were the fourth largest investors, with outlays of \$4.2 billion. The outlays were mostly attributable to one investment of \$1 billion or more—specifically the acquisition, mentioned earlier, of the Pennsylvania-based publisher by the U.S. affiliate of an Australian communications concern.

French and Swiss UBO's also made sizable outlays—\$3.8 billion and \$2.0 billion, respectively. Outlays by French UBO's were mostly in primary and fabricated metals and in "other manufacturing." The outlays in primary and fabricated metals were largely attributable to one investment of \$1 billion or more—specifically the previously mentioned acquisition of the Illinois metal can manufacturer by the French Government-owned packaging company. The outlays in "other manufacturing" reflected the acquisition of a Connecticut-based encyclopedia publisher and a New York-based magazine publisher by a large French publishing concern. Outlays by Swiss UBO's were largest in "other manufacturing," reflecting the acquisition of a Texas-based medical equipment manufacturer by a Swiss manufacturer of similar products. Other large outlays were in chemicals—for the acquisition of a pharmaceutical company by a Swiss chemicals manufacturer—and in services—partly for the acquisition of a New York-based computer services concern by a Swiss investor.

Selected Operating Data

Total assets of the U.S. businesses acquired or established in 1988 were \$126.8 billion, down slightly from \$131.1 billion in 1987 (tables 6A and

6B). The decrease largely reflected an unusually large 1987 increase in assets resulting from two investments in U.S. securities firms.

U.S. businesses acquired in 1988 had assets of \$116.7 billion; almost one-third of the assets were in manufacturing. Three acquisitions—the Ohio-based manufacturer of metal cans by a French packaging company and the two magazine publishers, one by a British and one by an Australian communications company—accounted for almost one-half of the total. Assets were second largest in "other industries" and third largest in insurance. In "other industries," the acquisition of a Pennsylvania-based construction company by the U.S. affiliate of a British road builder accounted for almost one-fourth of the assets acquired. In insurance, the acquisition of a Connecticut-based fire insurance company by an insurance company in Luxembourg and the acquisition of the California-based automobile and homeowner insurer by a British tobacco company accounted for most of the assets acquired.

Acquired businesses employed 643,106 workers. The acquired company with the largest number of employees was the department store chain that was purchased by a Canadian retailer and developer. Acquired businesses owned nearly 4 million acres of land. The largest acreage obtained in a single transaction that accounted for most of the total was by a Canadian real estate concern that acquired a stake in an Illinois-based railroad company.

U.S. businesses established in 1988 had assets of \$10.1 billion, employed 33,871 workers, and owned 354,130 acres of U.S. land. Most of the acreage was owned by businesses in real estate, agriculture, and forestry.

Data Availability

Only summary data are published in this article. A set of 21 supplementary tables containing additional detail for 1987 and 1988 on the number of investments and investors, investment outlays, and selected operating data for the U.S. business enterprises acquired or established is available for \$10.00 from Economic and Statistical Analysis/BEA, U.S. Department of Commerce, Citizens and Southern National Bank, 222 Mitchell St., P.O. Box 100606, Atlanta, Georgia 30384. When ordering, refer to the "BE-13 Supplementary Tables for the May 1989 SURVEY Article," Accession No. BEA IID 89-105, and make checks payable to Economic and Statistical Analysis/BEA. Comparable tables for 1980-86 (see note to table 4 of this article) are also available from the same address: Accession No. II-275, price \$10.00.

Table 6A.—Total Assets, Sales, Net Income, Employment, and Acres of Land Owned by U.S. Business Enterprise Acquired or Established, by Industry of U.S. Business Enterprise, 1987

(Millions of dollars or number)

	Total assets of all U.S. business enterprises acquired or established	U.S. business enterprises acquired					U.S. business enterprises established				
		Total assets	Sales ¹	Net income	Number of employees	Number of acres of land owned	Total assets	Sales	Net income	Number of employees	Number of acres of land owned
All industries.....	131,122	117,219	45,235	907	374,238	282,028	13,903	3,005	-56	19,867	213,663
Petroleum.....	1,316	684	1,825	-34	1,626	1,181	632	322	-59	277	(^o)
Petroleum and coal products manufacturing.....	(^o)	(^o)	(^o)	(^o)	1,133	(^o)	0	0	0	0	0
Other.....	(^o)	(^o)	(^o)	(^o)	493	(^o)	632	322	-59	277	(^o)
Manufacturing.....	24,934	23,161	22,596	98	217,338	154,372	1,773	1,326	-4	13,319	4,048
Food and kindred products.....	3,485	3,156	4,285	129	25,144	3,382	329	(^o)	-1	(^o)	(^o)
Beverages.....	2,460	2,447	2,512	84	15,544	(^o)	13	(*)	-1	(^o)	(^o)
Other.....	1,025	709	1,772	44	9,600	(^o)	316	(^o)	-1	(^o)	0
Chemicals and allied products.....	5,237	4,976	3,367	221	20,146	17,177	260	171	-5	(^o)	(^o)
Industrial chemicals and synthetics.....	4,210	4,155	2,412	214	14,573	14,597	55	(^o)	-1	(^o)	(^o)
Drugs.....	69	69	(^o)	-10	(^o)	(^o)	0	0	0	0	0
Soap, cleaners, and toilet goods.....	(^o)	(^o)	(^o)	1	(^o)	(^o)	0	0	0	0	0
Other.....	(^o)	(^o)	843	17	4,230	(^o)	205	(^o)	-4	(^o)	(^o)
Primary and fabricated metals.....	1,903	1,605	1,795	-127	17,336	66,396	297	126	-5	757	1,252
Primary metal industries.....	931	772	1,013	(^o)	7,921	(^o)	159	7	-4	(^o)	(^o)
Ferrous.....	684	551	(^o)	(^o)	(^o)	(^o)	153	7	-4	(^o)	(^o)
Nonferrous.....	247	222	(^o)	-17	(^o)	(^o)	26	0	0	(^o)	0
Fabricated metal products.....	972	833	782	(^o)	9,415	(^o)	139	119	-1	(^o)	(^o)
Machinery.....	4,750	4,430	5,710	-35	46,449	1,519	320	249	-6	3,491	662
Machinery, except electrical.....	2,182	1,949	1,955	33	19,652	692	233	(^o)	3	(^o)	(^o)
Computer and office equipment.....	1,379	1,211	(^o)	3	(^o)	(^o)	168	(^o)	3	(^o)	(^o)
Other.....	803	738	(^o)	30	(^o)	(^o)	65	(^o)	(*)	(^o)	80
Electric and electronic equipment.....	2,568	2,481	3,755	-67	26,797	827	86	(^o)	-8	(^o)	(^o)
Household audio and video, and communications equipment.....	1,372	1,371	(^o)	-61	13,999	(^o)	1	(*)	(*)	(^o)	(^o)
Electronic components and accessories.....	1,088	1,058	774	-8	(^o)	(^o)	30	6	-3	(^o)	0
Other.....	107	52	(^o)	2	(^o)	0	55	(^o)	-6	(^o)	(^o)
Other manufacturing.....	9,559	8,993	7,441	-90	108,263	65,898	567	(^o)	13	7,730	1,525
Textile products and apparel.....	823	738	441	14	6,000	(^o)	85	(^o)	2	1,550	(^o)
Lumber, wood, furniture, and fixtures.....	23	10	(^o)	(*)	(^o)	(^o)	12	(^o)	0	(^o)	(^o)
Paper and allied products.....	(^o)	(^o)	145	(*)	1,073	522	(^o)	(*)	0	(^o)	(^o)
Printing and publishing.....	515	515	383	(^o)	4,084	20	0	0	0	0	0
Newspapers.....	(^o)	(^o)	20	1	(^o)	(^o)	0	0	0	0	0
Other.....	(^o)	(^o)	363	(^o)	(^o)	(^o)	0	0	0	0	0
Rubber products.....	(^o)	(^o)	(^o)	(^o)	(^o)	(^o)	(^o)	(^o)	(*)	(^o)	(^o)
Miscellaneous plastics products.....	431	407	463	17	4,060	407	24	(^o)	-1	220	(^o)
Stone, clay, and glass products.....	1,802	1,456	1,154	91	7,827	53,831	346	(^o)	(^o)	(^o)	(^o)
Transportation equipment.....	888	844	850	24	8,363	659	44	23	-1	326	258
Motor vehicles and equipment.....	89	45	73	3	773	(^o)	44	23	-1	326	258
Other transportation equipment, nec.....	799	799	778	22	7,590	(^o)	0	0	0	0	0
Instruments and related products.....	941	927	1,190	38	13,645	881	15	3	(^o)	(^o)	(^o)
Other.....	3,286	3,267	1,669	9	53,665	4,442	19	8	(^o)	(^o)	(^o)
Wholesale trade.....	1,650	1,555	2,648	48	12,014	1,682	95	166	(*)	228	18
Motor vehicles and equipment.....	0	0	0	0	0	0	0	0	0	0	0
Professional and commercial equipment and supplies.....	37	26	49	2	372	0	12	(*)	(*)	(^o)	0
Metals and minerals, except petroleum.....	(^o)	0	0	0	0	(^o)	(^o)	(^o)	(*)	(^o)	(^o)
Electrical goods.....	88	61	269	2	1,414	(^o)	27	(^o)	(*)	(^o)	0
Machinery, equipment, and supplies.....	157	(^o)	(^o)	(^o)	(^o)	(^o)	(^o)	21	1	74	(^o)
Other durable goods.....	232	232	617	6	2,460	20	0	0	0	0	0
Groceries and related products.....	102	102	437	4	1,500	(^o)	0	0	0	0	0
Farm product raw materials.....	(^o)	(^o)	151	(*)	836	64	0	0	0	0	0
Other nondurable goods.....	975	962	(^o)	(^o)	(^o)	(^o)	12	(^o)	-1	46	(^o)
Retail trade.....	1,887	1,877	2,659	30	25,120	682	10	8	(*)	(^o)	(^o)
General merchandise stores.....	(^o)	(^o)	(^o)	(^o)	0	0	0	0	0	0	0
Food stores.....	137	135	(^o)	(*)	4,874	(^o)	2	(^o)	(*)	(^o)	(^o)
Apparel and accessory stores.....	(^o)	(^o)	244	(^o)	(^o)	(^o)	0	0	0	0	0
Other.....	1,161	1,153	2,002	46	13,392	655	8	(^o)	(*)	(^o)	0
Banking.....	12,649	9,475	787	65	3,994	(^o)	3,174	77	-2	482	0
Finance, except banking.....	70,747	68,828	6,913	433	40,516	(^o)	1,918	55	10	87	0
Insurance.....	591	547	257	25	1,546	(^o)	44	5	(*)	(^o)	(^o)
Real estate.....	6,777	2,209	347	39	881	26,184	4,568	231	2	287	46,672
Services.....	5,991	4,925	3,881	160	38,781	1,923	1,066	290	-12	3,498	270
Hotels and other lodging places.....	2,087	1,243	240	-8	6,518	(^o)	844	149	18	1,908	54
Business services.....	3,554	3,452	3,377	165	28,382	76	102	(^o)	-22	1,418	(^o)
Computer and data processing services.....	819	804	570	45	3,929	0	15	8	(^o)	(^o)	(^o)
Other business services.....	2,735	2,648	2,806	120	24,453	76	87	(^o)	(^o)	(^o)	(^o)
Motion pictures, including television tape and film.....	112	84	44	5	92	0	27	5	0	0	0
Engineering, architectural, and surveying services.....	(^o)	(^o)	(^o)	-3	(^o)	(^o)	0	0	0	0	0
Accounting, research, management, and related services.....	147	63	122	4	1,268	0	84	2	-8	120	7
Health services.....	5	5	3	(*)	(^o)	0	0	0	0	0	0
Other.....	(^o)	(^o)	(^o)	-1	1,998	10	9	(^o)	(*)	(^o)	(^o)
Other industries.....	4,580	3,958	3,322	44	32,422	94,453	622	524	8	1,223	132,665
Agriculture, forestry, and fishing.....	357	175	154	1	1,644	(^o)	182	34	7	199	93,994
Mining.....	1,511	1,399	404	20	3,688	60,895	111	(^o)	1	8	(^o)
Coal.....	693	669	(^o)	(^o)	(^o)	(^o)	24	(^o)	2	(^o)	(^o)
Other.....	818	731	(^o)	(^o)	(^o)	(^o)	87	(^o)	-1	(^o)	(^o)
Construction.....	888	573	1,202	8	7,095	1,220	315	(^o)	(*)	1,016	(^o)
Transportation.....	(^o)	(^o)	1,339	19	18,573	(^o)	14	(^o)	(*)	0	0
Communication and public utilities.....	(^o)	(^o)	223	-4	1,422	(^o)	0	0	0	0	0

^o Suppressed to avoid disclosure of data of individual companies.

* Less than \$500,000 (±).

1. Sales, or gross operating revenue, excluding sales taxes.

NOTE.—Data for 1987 are revised. For acquired businesses, data are for, or as of the end of, the fiscal year preceding the year of acquisition; for newly established businesses, data are projections for, or as of the end of, the first full year of operation.

Table 6B.—Total Assets, Sales, Net Income, Employment, and Acres of Land Owned by U.S. Business Enterprise Acquired or Established, by Industry of U.S. Business Enterprise, 1988

[Millions of dollars or number]

	Total assets of all U.S. business enterprises acquired or established	U.S. business enterprises acquired					U.S. business enterprises established				
		Total assets	Sales ¹	Net income	Number of employees	Number of acres of land owned	Total assets	Sales	Net income	Number of employees	Number of acres of land owned
All industries.....	126,761	116,676	81,049	2,811	643,106	3,950,810	10,084	4,299	-132	33,871	354,130
Petroleum.....	6,123	6,069	9,295	394	9,470	(^o)	54	(^o)	(*)	(^o)	(^o)
Petroleum and coal products manufacturing.....	821	821	1,392	42	1,676	2,130	0	0	0	0	0
Other.....	5,302	5,248	7,902	351	7,794	(^o)	54	(^o)	(*)	(^o)	(^o)
Manufacturing.....	38,983	35,351	29,995	601	256,996	68,716	3,632	2,990	-136	25,803	11,252
Food and kindred products.....	2,363	2,337	4,038	117	25,029	16,777	26	(^o)	-1	(^o)	(^o)
Beverages.....	26	22	15	(*)	150	436	4	1	(^o)	(^o)	(^o)
Other.....	2,338	2,316	4,023	117	24,879	16,341	22	(^o)	-2	(^o)	(^o)
Chemicals and allied products.....	2,448	909	1,174	41	6,554	634	1,540	(^o)	(^o)	(^o)	(^o)
Industrial chemicals and synthetics.....	460	418	482	4	2,376	267	42	(^o)	-3	0	0
Drugs.....	1,580	145	188	19	1,260	42	1,435	(^o)	(^o)	(^o)	(^o)
Soap, cleaners, and toilet goods.....	(^o)	(^o)	(^o)	8	(^o)	(^o)	0	0	0	0	0
Other.....	(^o)	(^o)	(^o)	10	(^o)	(^o)	62	(^o)	3	(^o)	(^o)
Primary and fabricated metals.....	9,524	9,256	6,411	119	41,789	8,203	268	194	(^o)	(^o)	506
Primary metal industries.....	493	310	369	28	3,617	1,022	184	(^o)	(^o)	(^o)	(^o)
Ferrous.....	243	237	(^o)	25	(^o)	(^o)	7	(^o)	(^o)	(^o)	(^o)
Nonferrous.....	250	73	(^o)	2	(^o)	(^o)	177	(^o)	(^o)	(^o)	(^o)
Fabricated metal products.....	9,031	8,946	6,042	92	38,172	7,181	84	(^o)	-5	459	(^o)
Machinery.....	8,003	7,597	6,829	-302	62,598	2,903	406	315	-35	1,578	363
Machinery, except electrical.....	3,470	3,281	3,201	-1	26,592	2,006	189	234	-32	753	197
Computer and office equipment.....	1,498	1,435	917	1	8,365	100	63	(^o)	(^o)	539	(^o)
Other.....	1,973	1,846	2,284	-3	18,227	1,906	127	(^o)	(^o)	214	(^o)
Electric and electronic equipment.....	4,533	4,316	3,629	-301	36,006	897	216	82	-3	825	166
Household audio and video, and communications equipment.....	1,713	1,712	1,019	-239	6,161	256	2	(^o)	(^o)	(^o)	(^o)
Electronic components and accessories.....	2,130	1,989	1,903	-83	20,366	540	140	(^o)	-2	(^o)	(^o)
Other.....	690	615	707	22	9,479	101	74	(^o)	(^o)	(^o)	(^o)
Other manufacturing.....	16,644	15,251	11,542	625	121,026	40,199	1,394	759	-89	10,106	(^o)
Textile products and apparel.....	447	444	587	19	6,744	1,906	3	2	(^o)	(^o)	(^o)
Lumber, wood, furniture, and fixtures.....	(^o)	(^o)	(^o)	(^o)	(^o)	(^o)	64	0	0	0	0
Paper and allied products.....	(^o)	(^o)	(^o)	(^o)	(^o)	(^o)	0	0	0	0	0
Printing and publishing.....	6,757	6,308	2,762	234	22,149	570	449	(^o)	(^o)	(^o)	(^o)
Newspapers.....	43	40	25	1	764	19	3	(*)	(*)	(^o)	(^o)
Other.....	6,713	6,267	2,737	233	21,385	551	446	(^o)	(^o)	(^o)	(^o)
Rubber products.....	3,182	3,180	4,330	158	56,580	722	2	1	-1	(^o)	(^o)
Miscellaneous plastics products.....	574	528	481	36	4,539	381	46	(^o)	-1	(^o)	(^o)
Stone, clay, and glass products.....	2,900	2,890	1,898	106	16,524	35,180	10	2	0	0	0
Transportation equipment.....	915	192	164	18	2,014	115	723	215	-115	1,852	(^o)
Motor vehicles and equipment.....	(^o)	(^o)	(^o)	(^o)	(^o)	(^o)	723	215	-115	1,852	(^o)
Other transportation equipment, nec.....	(^o)	(^o)	(^o)	(^o)	(^o)	(^o)	0	0	0	0	0
Instruments and related products.....	1,491	1,394	912	44	8,922	505	97	(^o)	(^o)	(^o)	(^o)
Other.....	124	124	164	3	2,369	(^o)	0	0	0	0	0
Wholesale trade.....	3,491	3,173	5,236	80	20,084	12,114	318	354	-11	717	397
Motor vehicles and equipment.....	345	169	230	-2	2,652	(^o)	176	(^o)	-1	(^o)	(^o)
Professional and commercial equipment and supplies.....	281	278	407	1	1,817	(^o)	4	(*)	(*)	0	0
Metals and minerals, except petroleum.....	61	26	85	6	(^o)	0	34	(^o)	2	0	0
Electrical goods.....	39	38	(^o)	3	(^o)	(^o)	1	0	0	0	(^o)
Machinery, equipment, and supplies.....	79	79	111	5	519	(^o)	0	0	0	0	0
Other durable goods.....	227	207	(^o)	-6	1,180	(^o)	20	(^o)	(^o)	(^o)	(^o)
Groceries and related products.....	2,192	2,192	3,580	49	10,306	2,021	0	0	0	0	0
Farm product raw materials.....	60	41	70	3	219	(^o)	19	0	0	0	0
Other nondurable goods.....	207	143	289	22	2,693	(^o)	64	(^o)	(^o)	(^o)	(^o)
Retail trade.....	9,596	9,264	14,700	282	171,619	3,950	333	(^o)	-4	(^o)	(^o)
General merchandise stores.....	7,882	7,882	11,563	326	141,524	3,592	0	0	0	0	0
Food stores.....	511	511	2,378	(^o)	22,630	(^o)	0	0	0	0	0
Apparel and accessory stores.....	655	325	243	9	3,525	(^o)	330	(^o)	-4	(^o)	(^o)
Other.....	549	546	515	(^o)	3,940	93	3	(^o)	(*)	(^o)	(^o)
Banking.....	13,784	11,544	1,067	109	7,547	435	2,241	108	-4	65	0
Finance, except banking.....	9,415	8,884	255	(*)	651	0	531	24	-3	74	(^o)
Insurance.....	16,522	16,520	6,706	617	29,412	1,641	2	(*)	(*)	0	0
Real estate.....	3,070	825	226	29	1,443	(^o)	2,244	224	41	829	197,487
Services.....	8,319	7,925	4,322	237	73,960	10,504	394	74	-2	1,963	1,291
Hotels and other lodging places.....	2,578	2,326	731	40	27,043	9,096	252	36	-3	1,096	(^o)
Business services.....	1,298	1,263	1,156	119	10,563	82	34	12	1	86	(^o)
Computer and data processing services.....	1,003	1,001	869	104	5,910	(^o)	2	3	(*)	(^o)	(^o)
Other business services.....	295	262	287	15	4,653	(^o)	33	9	(*)	(^o)	(^o)
Motion pictures, including television tape and film.....	1,120	1,114	513	28	(^o)	120	6	0	0	0	0
Engineering, architectural, and surveying services.....	46	46	59	(*)	885	(^o)	0	0	0	0	0
Accounting, research, management, and related services.....	(^o)	(^o)	(^o)	-2	402	(^o)	30	(^o)	(*)	(^o)	(^o)
Health services.....	(^o)	(^o)	(^o)	(*)	(^o)	(^o)	0	0	0	0	0
Other.....	3,187	3,116	1,781	51	33,164	1,175	71	1	1	631	(^o)
Other industries.....	17,458	17,123	9,247	463	71,924	3,797,368	335	42	-12	352	123,458
Agriculture, forestry, and fishing.....	241	197	76	(*)	950	257,739	44	22	2	211	(^o)
Mining.....	419	199	87	-1	(^o)	(^o)	220	(^o)	(^o)	(^o)	(^o)
Coal.....	(^o)	0	0	0	0	0	(^o)	(^o)	(^o)	(^o)	(^o)
Other.....	(^o)	199	87	-1	(^o)	8,348	(^o)	1	(^o)	(^o)	(^o)
Construction.....	4,288	4,246	2,039	32	12,423	155,011	41	(*)	-1	(^o)	(^o)
Transportation.....	12,407	12,401	6,932	439	57,236	3,376,245	6	(*)	(*)	(^o)	(^o)
Communication and public utilities.....	103	80	114	-7	(^o)	25	23	(^o)	(^o)	(^o)	0

^o Suppressed to avoid disclosure of data of individual companies.

* Less than \$500,000 (\$).

1. Sales, or gross operating revenue, excluding sales taxes.

NOTE.—Data for 1988 are preliminary. For acquired businesses, data are for, or as of the end of, the fiscal year preceding the year of acquisition; for newly established businesses, data are projections for, or as of the end of, the first full year of operation.

Papers from the Conference on Research in Income and Wealth

This issue of the *SURVEY OF CURRENT BUSINESS* presents the final group of papers from the "New Horizons in Data Sets" sessions from the fiftieth anniversary meeting of the Conference on Research in Income and Wealth. These two papers report statistical innovations from Statistics Canada. Other papers from the "New Horizons" sessions appeared in the November 1988 and March 1989 issues.

The paper by Peter Koumanakos reports a major potential improvement in measuring capital stock. The traditional method for obtaining an economy's stock of productive capital in Canada, as well as in the United States and in other countries, is termed the "perpetual inventory" method. The perpetual inventory method cumulates past investment flows in producers' durable equipment and in structures; adjustments are applied to allow for the decline in value or in productiveness of equipment as it ages (both these adjustments are often termed "depreciation") and for the retirement of older equipment, the accidental loss of equipment, and so forth. Depreciation and retirement adjustments are applied for each class of equipment and of structures and for each age of the existing investment.

The perpetual inventory method makes possible the integration of capital stock estimates with investment estimates from the national income and product accounts. However, the stock estimates also depend on information on depreciation and retirements, which is often not available in the required detail. What is lacking is a survey of the capital stock actually in place at a moment in time to which the estimates from the perpetual inventory method could be benchmarked. The Koumanakos paper reports the results of such a benchmark survey. The author concludes that a capital stock survey is a feasible and produces useful results.

The paper by Wolfson et al. describes a project to combine existing statistical surveys to make the information more useful for analytical purposes. Most existing statistical surveys are special, or limited, purpose collections. One survey may collect information on household consumption, for example, while another collects information on household labor force participation. Analysts, however, may need to use the information from both surveys.

One method for combining surveys is termed the "exact match" method. If a subsample of households are found that appear in two or more surveys, their records can be combined. An example of exact matching appears in the article "Enhanced Demographic-Economic Data Sets" in the November 1988 *SURVEY OF CURRENT BUSINESS*. Wolfson et al. report an alternative approach, the "synthetic" or "statistical match." In a statistical match, households of similar characteristics, as determined by a statistical analysis, are combined to create a "statistical household" that does not, of course, actually exist, but whose records can be used in an analysis. Wolfson's is one of the more ambitious "statistical match" undertakings.

One problem with using data created by statistical matches arises because the statistical model employed to make the match must, if the match is to be useful, rest on an economic or behavioral model. In Wolfson's project, for example, welfare reciprocity was underreported in one survey and was imputed on the basis of household characteristics that should be associated with welfare reciprocity. However, the data sets this statistical model creates cannot be used to determine whether the families whom the model predicts to be receiving welfare payments are in fact receiving them. This creates a dilemma: If a policy-relevant behavioral or economic model is not used to form the statistical match, the data will not be useful for policy analysis; but if such a model is used for the statistical match, it will not be possible to carry out an analysis of the accuracy or correctness of that behavioral or economic model, because the predictions of the model have been built into the data. The more ambitious the undertaking, the larger the number of economic or behavioral models that will be used to construct the statistically matched data set, so it may be increasingly difficult for users to determine whether the matched data set can be employed for a particular use.

The Wolfson project is, nevertheless, an imaginative and ambitious attempt to make existing data collections of a statistical agency more useful for economic policy analysis.

Jack E. Triplett

The Capital Stock Survey Project

By Peter Koumanakos

Introduction

ACCURATE capital data are critically important in the measurement of productivity. Accurate capital data are also important for measuring capacity utilization and interindustry and international competitiveness both at the aggregate and the individual industry levels. The evaluation of proposed tax policies also depends on accurate data for capital stocks; without this data, it is difficult to determine, for example, the tax liability of one industry compared with that of another industry or the impact that a change in tax laws would have on a particular industry. Accurate measures of capital stocks are important in evaluating macroeconomic policy; for example, the responsiveness of industry to changes in interest rates or in govern-

ment spending critically depends on the level of capacity utilization.

In this paper, capital is defined as a factor input that consists of commodities produced by the economic system for use in the production of other commodities. Capital stocks therefore consist of reproducible tangible assets and exclude tangible assets such as land, mineral deposits, and natural forests.

Reproducible tangible assets vary in age, in their degree of obsolescence, and in the intensity of their utilization. Consequently, although there is a substantial theoretical and technical literature about the measurement of capital, the diverse nature of capital goods and their technological evolution make the measurement of capital a difficult task.

Although there are a number of methods—such as surveys of physical assets, of book values, and of insured values—for measuring capital stocks, the "perpetual inventory" method is the one that is the most often used, primarily because of its flexibility in creating time series of capital stocks. This method requires an investment series, the relevant price indexes, service life information, and a method

NOTE.—Peter Koumanakos is the Director of the Science, Technology, and Capital Stock Division, Statistics Canada.

of depreciation. The reliability of the capital stock time series generated using this method depends on the quality of the investment data that are cumulated, the accuracy of the price indexes that are used, the realism of the service life assumptions that are made, and the method that is used to depreciate the capital assets over their service lives.

The investment series for various vintages must be combined into overall capital stock estimates that are relevant for a particular analysis. The information needed to aggregate vintages can be summarized in terms of an "efficiency function" that gives the relative efficiency of capital stocks of different ages and that is based, for example, on the data for prices from transactions in used assets. Given the efficiency functions for existing assets and the discard rates for assets by age, it is possible to employ the perpetual inventory method to obtain annual, or more frequent, time series estimates of capital stocks.

Because the perpetual inventory method requires so many assumptions and so much data, not all of which are equal to the uses made of them, it would be useful to have periodic benchmark surveys of assets actually in place at a particular time. This paper discusses the development of such a survey.

The Feasibility Study

Because of concern about the accuracy and the adequacy of the existing data for capital stocks, Statistics Canada, the Bank of Canada, the Economic Council of Canada, and the Department of Finance established the Capital Stock Survey Project in early 1982. In 1983, 125 companies were interviewed about the availability of information on economic lives of fixed assets, sales of used assets, levels of assets, and retirement policies for assets.

In these interviews, five aspects of capital data in which information was said to be unavailable or incomplete were identified. These five aspects are (1) economic service life of fixed capital assets, (2) transactions in used assets, (3) premature retirement, or discarding, of fixed capital assets in response to changes in relative factor prices or changes in technology, (4) leased fixed capital assets, and (5) the investment in fixed capital assets for pollution abatement and control. As the final phase of the feasibility study, a pilot study was sent.

The Pilot Survey of Fixed Assets

The Pilot Survey of Fixed Assets was sent to more than 1,000 establishments. The survey questionnaire asked these establishments to report information about existing capital stocks and the flow of new investment.

The questions about capital stocks requested the following information:

- The value of fixed capital assets—specifically, the total original cost for assets still in use, the total estimated current (or replacement) value of assets, the average age of assets, the estimated remaining useful life of fixed assets, and the percentage of assets leased to others;
- The percentage of structures and of machinery and equipment acquired for pollution abatement and control; and

- A disaggregation of assets into categories of building and engineering structures and into categories of machinery and equipment.

The questions about the flow of new investment requested the following information:

- The expected useful life of new assets;
- The expenditures on renovation, retrofit, refurbishing, overhaul, or rehabilitation of existing assets;
- The floor space of buildings and the number of units of machinery;
- The purpose of capital expenditures;
- The expenditures on assets for lease to and from others;
- The reasons for discards; and
- The purchases and sales of used assets.

The Results of the Pilot Survey¹

Capital stock questions

The overall rate of response to the questions about capital stocks was 77 percent, and most industries had response rates near the average. The rates of response were particularly high from the petroleum and natural gas industries, petroleum and coal products manufacturers, retail trade, and services. The rates of response were somewhat lower from the electric power utilities, primary metal and nonmetallic mineral manufacturers, and finance, insurance, and real estate industries. In general, most of the companies took the time to complete the survey.

Nearly all of the respondents to the survey reported the value of fixed capital assets in terms of total original cost for assets still in use. This response is consistent with the responses of the companies during the earlier interviews. Although some companies had expressed reservations in the interviews about the availability of the data for the total original cost of fully depreciated assets still in use, their availability does not appear to have been a serious problem for the survey respondents.

Approximately 90 percent of the respondents reported the average age of assets. This high rate of response is particularly gratifying; in the earlier interviews, the initial industry response indicated that the average age of assets would be very difficult to report.

About 75 percent of the respondents reported estimates for the remaining useful life of fixed assets. However, this question was clearly somewhat difficult for companies to answer; there was considerable interindustry variation in the rates of response to this question. The rates of response were higher from the manufacturers of paper and allied

1. For additional information, see the "Evaluation Report for the Capital Stock Survey Project, June 1986," which is available from the author.

The author would like to thank the discussant, Mr. Jacques Mairesse, Ecole Nationale de la Statistique et de l'Administration Economique, Paris, France, for his comments at the meeting of the Conference on Research in Income and Wealth.

The author would also like to thank Brian O'Reilly, Bank of Canada, Keith Patterson, Economic Council of Canada, Paul-Henri Lapointe, Department of Finance, and Richard Landry, Statistics Canada, for their contributions, which made this project possible.

products, of primary metal, and of electrical products than from the manufacturers of transportation equipment and of chemical products. It would be worthwhile to investigate the reasons for this variation in responses among industries. This overall rate of response rate should be considered positive because the initial industry response indicated that projected service lives would be very difficult to report. But these estimates must be checked to ensure that industries have not simply used tax lives to make this calculation.

Flow questions

The overall rate of response to the flow questions was nearly 100 percent. About 82 percent of the respondents reported estimates for the expected useful service life of new assets. This rate of response should be considered high, because this question asks companies to predict the future and is, therefore, inherently speculative. Moreover, although it may be relatively easy to make this estimate for well-known types of capital assets, it is more difficult to make it for new types of capital assets. For example, the rate of response from retail trade was 54 percent; this low rate was, perhaps, partly attributable to the difficulty in estimating the service life of new automated machinery, such as the integrated point-of-sale systems that are designed to facilitate inventory control.

It is clear from the survey responses that firms can report the reasons for discards and the purchases and sales of used assets, though it is difficult to assess the validity of these data. The data for discards are particularly interesting because these data from the survey may be used to cross-check the estimated level of discards in each industry with comparable data from the perpetual inventory. Virtually all of the respondents who reported data for discards also gave some reason for the discards; this response is interpreted as a positive result for the feasibility of capital stock surveys. The data for discards should be especially useful when they are regularly available. In particular, the data provided in response to this question would provide direct evidence that indicates when assets are discarded prematurely in response to changes in relative factor prices.

The expenditures on assets for lease were reported by two-thirds of the respondents in services and by one-third of the respondents in finance, insurance and real estate; additionally, a significant number of respondents in retail trade reported some leasing activity. These results suggest that assets for lease are an important part of the capital stock owned by the services industry. Moreover, the survey responses clearly indicate that companies are capable of reporting this information.

The Capital and Repair Expenditures Survey

Based on the results of the Pilot Survey of Fixed Assets, Statistics Canada revised and expanded the capital and repair expenditures survey. The revised survey collected data for the following:

- Capital expenditures—specifically, the acquisition of new assets and the renovation, retrofit, refurbishing, overhauling, and rehabilitation of existing assets;
- Expected useful service life of new assets;

- Original cost and age of assets that are discarded, retired, or destroyed;
- Sales and purchases of used assets;
- Reasons for capital expenditures and for discards;
- Expenditures for automation—for example, for robots, automated material-handling equipment, automated production machinery and equipment, and computerized, numerically controlled machine tool equipment;
- Value of work in progress at yearend; and
- Value of fixed assets—that is, the cost of accumulated capital (gross book value) and accumulated depreciation, beginning with 1987 data.

The revised survey provides detail that has not been available; for example, 30 different types of equipment have been reported and classified according to the 45 industries that buy the equipment. (See table 1.) Moreover, an analysis of the data from this survey will now yield the amount that an industry invests, the kind of machinery being purchased, and the technological and structural changes taking place.

Studies Using the Survey Data

The data from the expanded capital and repair expenditures survey will help us to improve our understanding of the nature of investment expenditures. The survey provides new information on modernization, on overhauls, and on types of equipment. Using the survey data, researchers can study various topics, such as the importance of the investment in fixed capital assets for pollution abatement and control.

For example, based on the information gathered during the pilot survey, the weighted, average age estimates for capital equipment used in some manufacturing and non-manufacturing industries were calculated. Of the industries tabulated, the oldest equipment, on average, was found in the electrical products industry, the newest in the chemicals industry. Similar estimates can be made for subsequent years from data collected from the ongoing survey.

Based on the data from the 1985 and 1986 Capital and Repair Expenditures Surveys, the new estimates of the service lives of equipment can now be compared with the existing estimates of service lives that have been used in the perpetual inventory method. The existing estimates of service lives rely primarily on the estimates made from a variety of sources, such as corporation tax returns, the relationship between capital cost allowances and investment expenditures, and tables from *Bulletin "F"*.² In most cases, the new estimates of service lives are shorter than the existing ones.³

Using the new estimates of service lives collected in the new investment survey, a number of simulations have been performed to show the impact of these data on capital stock estimates. The difference between the new and the existing estimates of the service lives of gross capital stock lies in how the new estimates are introduced; that is, the earlier the new estimates are introduced and the faster one moves

2. U.S. Department of the Treasury, Bureau of Internal Revenue, *Bulletin "F" (Revised January 1942)—Income Tax, Depreciation, Obsolescence, Estimated Useful Lives, and Depreciation Rates*, (Washington, DC: GPO, 1942).

3. Tabulations of the existing and of the new estimates of service lives by industry and by type of equipment are available from the author.

from the existing estimates to the new ones, the sooner the differences will show up in the capital stock estimates. Consequently, this difference will affect the growth rate of the gross stock estimates, but the differences in the annual growth rates will be small.

In our paper,⁴ J.C. Hwang and I used the price-age profiles of used assets that were reported in the revised capital expenditures survey to estimate the form and the rates of

economic depreciation. We concluded that the patterns of depreciation are close to the geometric form for the manufacturing sector and are accelerated (vis-a-vis straight line) for the nonmanufacturing sector.

Other studies using the survey data are under way. One study is comparing the new estimates of service lives from Canada with those from other Organization for Economic Cooperation and Development countries. Another study is comparing the estimates of fixed assets from the survey with those from administrative data.

4. "The Forms and Rates of Economic Depreciation, Canadian Experience" is available by contacting Peter Koumanakos.

Table 1.—Capital Expenditures on Machinery and

[Thousands of

Line	Industry/sector	Office furniture	Office computers	Nonoffice furniture	Scientific and medical	Heating/air conditioning	Pollution abatement	Safety and security	Sanitation equipment	Motors and generators	Heavy construction equipment	Tractors, all types	Capitalized tooling	Drilling rigs	Salvage equipment
1	Forestry.....	212	1,283	321		220	34	132		1,714	21,371	15,269	(*)		
2	Mining.....	366	351		29		(*)	3	3		1,858	285	(*)	64,206	(*)
3	Manufacturing.....	161,219	318,113	36,841	64,013	50,136	84,219	8,223	1,091	97,083	18,996	11,004	123,103	(*)	(*)
4	Food and beverage.....	14,078	28,605	16,847	4,326	27,052	2,287	1,723	612	18,864	165	2,949	1,433		
5	Rubber and plastics.....	7,447	15,021	278	3,635	614	354	403	82	238			15,767		
6	Textiles.....	19,957	4,414		875	1,461	(*)	(*)		313	1,604		3,310		
7	Wood.....	665	1,431	63	31	2,316	120	380	10	1,013	8,136	758	2,505		
8	Paper and allied industries.....	4,000	19,866	(*)	2,821	5,292	20,414	1,534	222	36,426	1,079	1,747	1,271		(*)
9	Printing and publishing.....	8,207	19,562	6,660		371		22	33	255			222		
10	Primary metal.....	1,651	10,155	(*)	8,327	1,084	45,222	494		(*)	4,457	(*)	2,348		
11	Metal fabricating.....	(*)	8,206	63	99	849	2,098	34		4,947	362		3,462		
12	Machinery.....	9,085	33,590	9,424	2,898	862	4,270	12	15	500	198		26,193	(*)	
13	Transportation equipment.....	(*)	40,390	869	2,702	4,270	1,308	954	(*)	1,884	(*)		39,817		
14	Electrical products.....	22,061	68,549	814	17,137	3,023	41	206		314	63	(*)	19,576		
15	Nonmetallic minerals.....	1,731	1,209		696	267	1,928	130		(*)	1,121	3,022	1,069		
16	Petroleum and coal products.....	9,932	8,317		2,255	(*)	300	136	(*)	5,466	(*)		55		
17	Chemicals.....	10,460	34,658	1,789	17,338	2,533	9,133	2,179	105	16,960	1,504	1,227	1,956		
18	Miscellaneous manufacturing.....	21,350	20,202	16	448		434						2,138		
19	Other manufacturing industries.....	1,599	3,938		425	(*)	(*)	(*)		22			1,981		
20	Capital charged to operating.....														
21	Utilities.....	65,924	298,606	1,376	11,752	41,250	(*)	1,973	910	22,146	8,425	1,441	28,556		
22	Air transport.....	2,791	42,471	(*)		27				(*)		(*)	6,006		
23	Rail transport.....	1,679	29,458							(*)	(*)		(*)		
24	Water transport and services.....	530	2,268	89	27	68	(*)	1,615	(*)	(*)	1,354		655		
25	Motor transport.....	5,956	12,558	628		333	(*)	207		(*)	(*)		1,224		
26	Urban transit systems.....	1,333	6,470	(*)	(*)	237			(*)	(*)			5,216		
27	Grain elevators.....	5,779	8,204		(*)		(*)			(*)					
28	Broadcasting.....	6,732	9,674	29	431	154		151					(*)		
29	Telephone and telegraph.....	35,415	164,787	(*)	(*)					(*)			7,152		
30	Gas distribution.....	4,948	21,336	(*)	11,149	40,431				(*)	1,802		7,204		
31	Other utilities.....	761	1,380							(*)	1,574	(*)	(*)		
32	Capital charged to operating.....														
33	Trade, finance, commercial.....	1,444,351	1,311,903	1,187,825	220,454	42,743	1,843	12,239	825	140,999	138,450	55,157	15,925	(*)	
34	Wholesale.....	76,673	99,982	111,614	(*)	2,882	31	(*)	134	8,022	(*)	(*)	8,826		
35	Department stores.....	11,925	14,360	69,413		157									
36	Chain stores.....	13,696	10,957	98,520		419		136							
37	Automotive trade.....	9,703	4,769	(*)	(*)	37	1,812	1,048		127,835		(*)	2,605		
38	Combination food stores.....	621	2,596	126,200		22,873				(*)					
39	Capital charged to operating.....														
40	Banks.....	96,791	186,058	(*)				5,325							
41	Insurance, trust, and loan.....	54,390	139,411	1,610											
42	Other finance.....	92,087	88,143	352,076		15,847			183	(*)	(*)	(*)			
43	Motion picture theaters.....	309	259	10,104											
44	Hotels and motels.....	858	5,747	147,526					97						
45	Other commercial.....	1,086,938	759,362	166,059	216,518	303		5,633	411	2,227	(*)	(*)	4,494	(*)	
46	Other trade, finance, commercial.....	360	259	101,720		225		(*)		264					
47	Institutions.....	107,387	114,501	158,732	358,099	4,948		1,423	667	(*)			(*)		
48	Private schools.....	14,660	3,509	3,486	(*)	(*)		(*)		(*)					
49	Universities.....	69,868	64,992	5,635	89,749	1,108		(*)		(*)			(*)		
50	Hospitals.....	21,135	45,617	113,944	266,033	3,347		1,289	645						
51	Special care institutions.....	656	261	25,359	(*)	(*)									
52	Churches.....	1,068	122	10,308		147									
53	Government departments.....	112,602	218,894	25,462	158,183	13,017	4,305	26,557	1,679	(*)	61,879	4,570	7,131		
54	Federal Government departments.....	63,813	149,160	14,484	142,708	10,929	(*)	22,795	1,330	(*)	2,089	524	5,871		
55	Provincial government departments.....	48,788	69,733	10,978	15,475	2,088	(*)	3,762	349	(*)	59,790	4,045	1,260		
56	Total.....	1,992,060	2,263,651	1,410,557	812,530	152,314	91,036	50,550	5,176	265,812	250,979	87,725	174,970	70,173	612

* Suppressed to avoid the disclosure of confidential data.

Plans

Based on the work that we have done on the capital stock survey project, we are planning to use the capital and repair expenditures survey and the data collected from it to produce an integrated system for measuring capital stocks and flows in 1989. Producing this system will require the following activities:

- Tabulating new industry benchmarks for construction and for machinery and equipment;

- Incorporating the new estimates of service lives into our calculation of fixed assets;
- Introducing new forms and new rates of depreciation that were suggested by our research; and
- Introducing the normal distribution model as our new mortality function.

We hope that this system will provide the accurate data that are needed for economic analysis.

Equipment in Canada, by Type of Asset by Industry, 1985

Canadian dollars

Autos and parts	Buses, all types	Trucks and trailers	All-terrain vehicles	Locomotives, etc.	Ships and boats	Aircraft and helicopters	Other transportation	Robotized/computerized machinery and equipment				Conventional machinery and equipment				Total	Line
								Material handling	Production process	Communication, all types	Other	Material handling	Production process	Communication, all types	Other		
1,651	(*)	18,354	3,243	374	(*)	461		(*)		(*)		6,530	21,793	(*)	1,145	95,828	1
665		3,840	(*)		(*)		(*)			26		208	46,905	(*)	1,166	122,603	2
59,874	(*)	87,266	59	(*)	1,745	2,412	3,396	18,544	810,707	10,639	2,136	99,943	5,457,649	11,173	1,342,353	8,950,025	3
30,657		47,796			870		1,507	114	42,853	560	67	19,322	510,342	1,701	11,906	786,636	4
5,599		1,315					135	(*)	41,513	(*)	(*)	2,651	138,169	747	2,908	237,232	5
(*)		352						3,329	11,295	562		419	142,236	(*)	58	179,436	6
765		8,134	59		23		806	11,295	9,455			10,696	214,321	147	1,639	265,313	7
4,547		3,489		(*)	(*)	(*)	(*)	117	341,549	79	75	10,654	1,310,038	633	3,044	1,771,963	8
1,101		8,107							9,455	131		3,589	177,932	265	2,774	237,514	9
1,664	(*)	5,577		(*)			(*)	(*)	40,620	(*)	(*)	22,524	860,895	142	4,011	1,018,898	10
491		2,034						47	21,072	(*)	207	2,261	371,327	18	998	438,693	11
826		182		(*)				22,361	57			2,561	113,305	375	7,370	232,102	12
667		1,223		(*)	(*)	1,473	32	2,295	55,773	2,960	843	5,677	596,069	648	3,781	837,492	13
184		1,333						5	73,944	4,443	(*)	2,603	176,729	3,944	6,057	401,586	14
4,878		2,356		(*)	220			14,728	20,935		26	4,565	129,034	146	2,626	193,360	15
(*)		1,078				(*)			(*)	(*)		59	58,443	(*)	(*)	87,346	16
1,157		3,616		(*)	(*)			816	108,948	195	31	9,979	454,554	1,702	(*)	687,338	17
6,944		654						73	630	276	352	2,099	90,347	316	3,676	149,955	18
242		20					8		16,430			284	113,908	70	486	139,861	19
															1,285,300	1,285,300	20
56,985	142,940	414,466	(*)	554,247	75,068	318,160	3,151	(*)		166,055	(*)	31,025	77,308	1,570,561	174,066	4,067,164	21
(*)	(*)	2,000				(*)	732			13,307	(*)		6,700	(*)	192	394,214	22
7,051	(*)	(*)		(*)								10,294	(*)	(*)	(*)	526,195	23
821		685		(*)	75,068		10	(*)				4,125		370	848	95,303	24
4,260	47,937	321,520					264			229		4,125		903	(*)	403,458	25
1,268	94,345	(*)		(*)			2,126			(*)		(*)		648	1,891	237,913	26
216		188										(*)	40,888		173	59,484	27
2,475		866					19			58,349		4,741	44,641	(*)	(*)	129,332	28
32,878		10,821	(*)			(*)				93,352		(*)	(*)	1,510,825	(*)	1,871,403	29
7,914		2,848	(*)			(*)				(*)			(*)	(*)	383	137,141	30
(*)		41,061										11,029	2,271	(*)	646	59,721	31
															153,000	153,000	32
2,113,003	6,919	663,935	532	(*)	58,621	543,736	875	21,180	8,465	14,429	1,928	128,888	145,148	38,107	233,044	8,735,443	33
34,461		67,916		(*)			202		(*)			43,862	8,489		17,613	666,978	34
(*)		6,391													(*)	102,503	35
2,263		3,183						213	(*)			4,181			(*)	136,916	36
239,639		15,667				(*)						61,722	(*)		3,520	473,281	37
2,979		(*)										(*)		(*)	400	159,182	38
															159,900	159,900	39
608						(*)				3,283		(*)		(*)	(*)	324,910	40
5,255		(*)		(*)	56,323	(*)			(*)	1,217			1,125	1,740	389,331	41	
7,717		1,890	89					563		819			30,119	15,124	608,148	42	
(*)													(*)	1,424		15,345	43
467										6,588					1,398	162,681	44
1,819,113	6,919	566,420	443	(*)	2,298	490,852	673	20,404	4,176	2,522	1,928	15,670	121,579	3,431	29,519	5,420,136	45
241		476										91	11,726	399	333	116,132	46
1,615	1,750	825	(*)							16,813		289		7,206	12,622	788,000	47
310	1,639	153												(*)	392	24,627	48
626	111	363	(*)							12,720				(*)	7,460	254,046	49
258		309								4,093		289		7,027	3,121	467,108	50
76															1,036	29,616	51
345															613	12,603	52
97,650	21,275	44,827	859	(*)	279,084	79,988	6,406	1,078	377	36,410	9,435	4,640	5,292	182,926	96,896	1,504,377	53
46,715	430	(*)	96	(*)	276,297	(*)	(*)	(*)		31,483	6,826	2,945	5,292	172,478	80,275	1,129,125	54
50,935	20,845	(*)	763	(*)	2,787	(*)	(*)	(*)	377	4,927	2,609	1,695		10,448	16,622	375,251	55
2,331,444	173,581	1,233,513	5,131	800,285	417,003	944,757	13,849	40,908	819,549	244,372	13,812	271,523	5,754,095	1,810,180	1,861,292	24,263,440	56

The Social Policy Simulation Database and Model: An Example of Survey and Administrative Data Integration

By Michael Wolfson, Stephen Gribble, Michael Bordt, Brian Murphy, and Geoff Rowe

Introduction

WHENEVER governments propose a change in the personal income tax laws or whenever special task forces or (in Canada) Royal Commissions propose changes in the structure of major transfer programs, the technique of microsimulation modeling is typically used to assess the impact of the proposals. For example, to assess the distributional impact of a change in income tax exemptions on different types of families, the Canadian Department of Finance uses a microsimulation model that recomputes the income tax liabilities for a sample of about 400,000 tax returns for a recent year; for each of these returns, the model calculates the tax liability under the proposed policy. Similarly, the Canadian Ministry of Employment and Immigration has a microsimulation model for the unemployment insurance system that is based on a sample of their internal administrative data files.

However, in Canada, microsimulation models have been available in only a few large institutions because of the relatively high cost of developing and maintaining this analytical capability. These models are located in the Federal Departments of Finance, of Employment and Immigration, and of Health and Welfare. Interested groups outside these Departments (even other Federal Departments and Provincial governments) generally do not have access to these models; consequently, they have no way to assess the published estimates of the distributional impacts of policy proposals, no way to explore the impacts in greater detail, and no way to develop comparable figures for their own proposals.

This situation is unlike that in the United States where various independent agencies—such as the Congressional Budget Office, nongovernmental research institutions, and private consulting firms—have sophisticated microsimulation capabilities. These agencies regularly provide independent analyses and forecasts of proposed changes in microeconomic policy.

The first release of the Social Policy Simulation Database and Model (SPSD/M) from Statistics Canada in the fall of 1988 has changed this situation. Using the SPSD/M, anyone can perform microsimulation impact analyses of tax and transfer program changes on a personal computer. Moreover, the level of sophistication of the SPSM approaches, or in some cases exceeds, that of the current models used by the Federal Departments.

The SPSD/M represents a product different from the traditional products—typically publications with many tables of numbers—of a national statistical agency. The SPSD/M consists of a specially designed database integrated with a

retrieval and analytical software package. The database was explicitly tailored to the intended analytical applications, unlike the more common situation in which the analysis is constrained by the data already available.

To meet the objective of public accessibility, the designers of the SPSD/M had to ensure that no individual respondents on the file are identifiable pursuant to the Statistics Act and that the database and software package are usable in a range of computing environments, especially personal computers. This paper describes the construction of the Social Policy Simulation Database and the uses of the associated Social Policy Simulation Model.

The Data Sets in the Social Policy Simulation Database (SPSD)

To provide realistic, albeit synthetic, data on individuals in household contexts, the SPSD was constructed from four major sources of microdata. The sources of these data sets are (1) the Survey of Consumer Finances, (2) personal income tax returns, (3) unemployment insurance claim histories, and (4) the Family Expenditure Survey.

The Survey of Consumer Finances (SCF)

The “host” data set is derived from Statistics Canada’s 1984 Survey of Consumer Finances. This survey is Statistics Canada’s main source of data on the distribution of income for individuals and families. (Its content is similar to that of the U.S. Census Bureau’s March supplement to the Current Population Survey.) The data collected from each household consists of demographic information, such as the family structure of the household, the labor force status and the previous year’s income by source for each household member who is 15 years of age or older, and specific characteristics of the dwelling. The 1984 survey collected data from about 98,000 individuals in approximately 36,000 households. Although this survey is rich in data on family structure and income sources, it lacks detailed information on unemployment histories, tax deductions, and consumer expenditures.

Personal income tax returns

This data set is from the 3-percent sample of personal income tax returns used in Revenue Canada’s annual *Taxation Statistics* (the “Green Book”) and by the Department of Finance’s personal income tax model. This sample consists of about 400,000 records. (It contains information comparable to that published in the U.S. *Statistics of Income*.)

Unemployment insurance claim histories

Unemployment insurance (UI) is a complex insurance and temporary income maintenance program. The administra-

NOTE.—Michael Wolfson is Associate Director General, Analytical Studies Branch, Statistics Canada. Stephen Gribble, Michael Bordt, Brian Murphy, and Geoff Rowe are Senior Research Analysts, Social and Economic Studies Division, Statistics Canada. This paper benefited from a number of helpful comments, especially those from Fritz Scheuren.

tive data collected from the program serves to track the weekly benefits and claim activities of UI recipients and to establish eligibility and entitlements by monitoring previous employment patterns and program participation of repeat, or reentrant, claims. The UI claim histories imputed to the SPSD were based on a 1-percent sample of administrative records from the population with some UI claim activity in 1984. The sample consists of about 30,000 records of individuals and represents about 40,000 claims.

The Family Expenditure Survey (FAMEX)

This survey is Statistics Canada's periodic survey that provides detailed data on household expenditure patterns. This data set contains about 10,000 household records. (It is similar to the U.S. Consumer Expenditure Survey.)

The microdata from these sources are confidential. Until now, the data from these microdata sets have been disseminated either as separate public use samples in the cases of the SCF and the FAMEX (in both of which some records and a fair number of variables are suppressed) or as summary tables of income tax data from *Taxation Statistics* and of UI claim histories. In the SPSD, the data sets from these four sources have been transformed into a single public use microdata set that retains the full household "hierarchical" structure. At the same time, the SPSD also maintains the confidentiality of the individual records since all the constituent microdata sets contain nonidentifiable records and exact matching is not used to merge these data sets.

Techniques Used to Construct the SPSD

Several key techniques were used to join the four microdata sets in constructing the SPSD.

Controlled blurring

The SPSD is much richer than the already released SCF because it is a fully hierarchical file: Each individual has a complete family and household context. "Controlled blurring," or selective randomization, of portions of the data is used to protect the identities of the individual microdata records, so the data can be released to the public.

If randomization is suitably structured, it does not adversely affect the usefulness of the database for the policy simulations for which it has been designed. Moreover, precise information about households is not generally required for the anticipated uses of the SPSD/M. For example, the precise age and sex composition and the geographic location of a household greatly increases the identifiability of a microrecord. As a result, the sex of children and the ages of household members within 5-year age-groups have been randomized (subject to some constraints to ensure "plausible" results). Similarly, by randomly reassigning the province and urban-size class codes, the geographical location of "unusual" household types (e.g., large size or multifamily) has been blurred.

Integrated weighting

This technique is used to reduce bias by forcing agreement between the sample data and the known control totals. The SCF (host survey) weights are adjusted to ensure that the population by age, sex, and Province represented by the sur-

vey corresponds to the "known" population by age, sex, and Province from the census. In addition, the survey weights are adjusted to be consistent with the control totals at the family level, such as the number of families by size and the labor force participation status of the adult family members. The procedure is a generalization of iterative proportional adjustment, or "raking" (see Deming and Stephan 1940 and Lemaitre and Dufour 1987).

Categorical matching

This technique is used to merge two data sets. A variety of methods can be used for the synthetic matching of the information from a record of the donor data set to any given record of the host data set; all of these methods are based on determining which records of both host and donor data sets are the most closely similar according to the policy relevant criteria common to both data sets (e.g., dwelling tenure, employment status, and income class). In the SPSD, the similarity of host and donor records was determined by dividing records from each data set into very fine categories—hence the term "categorical matching." The information from the donor records may then be attributed synthetically to the records of the host data set that have the most closely similar characteristics without increasing the identifiability of the donor or of the host records. There is a substantial literature on the methods and the experiences of synthetic matching, or linking, of two files; for example, see Rodgers 1984, Rubin 1986, Paass 1986 and 1988, and Singh, Armstrong, and Lemaitre 1988. (Exact matches, though sometimes technically feasible, have been avoided for confidentiality reasons.)

Specifically, categorical matching is used to add FAMEX data, UI data, and Green Book income data for high-income recipients to the SPSD. Two data sets are partitioned into identically defined "bins" of records—for example, into province, income range, and tenure. Within each corresponding pair of donor and host bins, the individual records are sorted, based on one of the continuous variables common to the two data sets (e.g., income). According to their rank order, records in a given bin are then matched one-for-one across the two data sets. Because the number of records for the two data sets in a given bin is usually not equal and because record weights are present on one or both data sets, selectively duplicating records from one or both data sets is usually necessary. Research by the staff of the Methodology Branch of Statistics Canada indicates that exactly matched files can be used to analyze and to improve the quality of public use SPSD synthetic matches (Armstrong 1989).

Conversion

This technique is being used to adjust for the underreporting of UI and welfare benefits. Research has suggested that the underreporting of UI and welfare income is probably due to item nonresponse. Selected records are identified as probable item nonrespondents, using a statistical analysis (i.e., logistic regression) to predict the probability of those reporting income from UI or welfare. These records are "converted" from zero receipts to some positive amount of UI or welfare income, and then the appropriate amount of income is imputed (Dufour 1988).

Microrecord aggregation

This technique is used to improve the representation of high-income recipients by adding tax return information on incomes by source to the SCF, or host data set, so the patterns of income composition by source at the individual microdata level are retained in the SPSD. The SCF has reporting and sampling biases that result in a lower number of high-income individuals and in a lower level of income per high-income individual than indicated by personal income tax records. These underreporting biases are corrected by synthetically matching specially adapted income tax return data to completely replace the income components on these host SCF records. The technique of microrecord aggregation provides plausible, but unidentifiable, sets of income items from the Green Book.

The Green Book file contains about 25,000 high-income tax records, which are drawn from about 135,000 high-income tax returns. With the process of microrecord aggregation, these records are clustered into sets of at least five similar records. Then weighted average values of income for each source are computed for the individual records in each cluster. Specifically, one record is randomly selected from each cluster and is given a weight of 80 percent; the remaining records in the cluster are averaged with a total weight of 20 percent. These cluster-weighted averages are considered to be nonidentifiable, just as a table of statistics based on at least five observations per cell is considered nonidentifiable; however, these cluster averages also retain many of the essential characteristics of the actual microrecords on which they are based. Microrecord aggregation simply treats these averages as if they were actual microdata records. The microrecord aggregation of these records results in a file of about 5,000 synthetic microdata records of high-income tax returns.

To match these 5,000 synthetic Green Book records to the 300 high-income SCF records, the 300 SCF records are duplicated until there are 5,000 host SCF records. Then each of these SCF high-income records is categorically matched to a similar synthetic, aggregated Green Book high-income record. In this way, detailed information on income composition by source is fully absorbed and retained in the host data set.

Stochastic imputation

This technique is used to generate synthetic data values for individual records in one data set by randomly drawing from the distributions or the density functions derived from a second data set. Specifically, it is used to add personal income tax information about various itemized deductions, exemptions, and tax credits that is required for the calculation of income tax liability to the SPSD. In adding this information, one priority is to ensure that the distribution of each of these deductions—including the numbers of tax filers reporting the deduction (or exemption or credit), the average amount claimed, and the univariate size distribution of the amounts claimed—agrees with the published results. This technique is used to assign, for example, a charitable donation that is based on the distribution of itemized donations on income tax returns within a given Province and by age, sex, and income group to each individual in the SCF. The other priority is to maintain the confidentiality of the underlying income tax information.

The source data for stochastic imputation were derived from the Green Book sample, using all 400,000 records. To join the Green Book income tax data with the host SCF sample, a set of common classifications was defined for the following variables: Province, age, sex, marital tax status, total income range, employment income range, and number of children claimed for the child care expense deduction. These variables were chosen because of their policy relevance and the feasibility of defining them similarly for both data sets. A model of the personal income tax system (the same one subsequently used for policy analysis) was applied to identify the probable tax filers and to impute marital tax status (Canada does not have joint filing) for the host SCF data set.

Using a complex set of distributional statistics generated from the Green Book file of income tax returns, it is possible to recreate the same distribution of values on the host SCF data set. For each individual record in the host data set, random numbers based on the characteristics for each of the itemized deductions and tax credits are drawn to determine which of the items were claimed. If some of the items were claimed, a synthetic value is drawn from each distribution that represents the tax returns of a similar group of people.

Special Problems and Procedures

Categorical matching of unemployment insurance (UI) data

Each of the 30,000 UI claimants' records was categorically matched to the SCF records that had some reported or "converted" UI income during the year. The UI claim history variables—which include the type of claim (e.g., regular, retirement, maternity, or fishing) and the amount of UI benefits received—and the administrative data on the claimant's age, Province, and sex were used for constructing the matching categories. After duplication to ensure that there were an equal number of records for the corresponding cells of the UI and for the host data sets, the records were matched, based on their rank order of UI benefits within the cell. The cell match and the duplication increased the number of SCF records representing the UI claimant population from 10,000 to 30,000.

The content of this data set was specially designed. Because the SPSD needed benefit payments on a calendar year, rather than on a claim, basis for consistent analysis and for input to the income tax module, constructing this component of the database required simultaneously the development of a UI simulation module and the identification of a limited set of program relevant UI variables that could serve as input to the UI simulation module. Moreover, this data set had to be rich enough to capture the weekly labor force history relevant to the application of UI program regulations, but it also had to be nonidentifiable. These objectives were accomplished by thinking in terms of an event history; therefore, the durations of various activities, rather than the weekly activity records, became the focus. The staffs of the Department of Employment and Immigration and of the Forget Royal Commission on Unemployment Insurance (Canada 1986) were very helpful in designing this data set.

Family Expenditure Survey (FAMEX) data imputations

The match using FAMEX data is principally designed to support the modeling of commodity tax incidence at the household level. The selection and the grouping of FAMEX income and expenditure variables were based on the requirements of the commodity tax model and, thus, on the structure and composition of personal expenditures in the Canadian medium-level aggregation input-output tables. Expenditures that include some indirect taxes and duties were placed in the corresponding input-output personal expenditure category. Expenditures that did not include an indirect tax or that included an indeterminate indirect tax were placed in a residual category (e.g., real estate commissions).

Additional variables (e.g., income, taxes, and savings) were also matched to complete the basic household accounting identity in which income plus other money receipts equals expenditure plus saving. Completing the household accounting identity allowed various simulation options—for example, the allocation of a change in disposable income between saving and consumption. Although a number of conceptual differences still remain between FAMEX and the system of national accounts on which the input-output tables are based, the SPSM and the national accounts household sector aggregate expenditure estimates for 1984 are reasonably close (see Adler and Wolfson 1988).

Suppression of data

Public use versions of the host SCF data set already exist. The data for all households that are, in whole or in part, already suppressed in any of the public use SCF files have also been suppressed in the SPSM.

Household duplication

Duplicates, or "clones," of individual SCF records have been created because of the categorical matching of synthetic high-income tax records and of UI claims records. If the record for at least one individual in a household has been duplicated, duplication of the records for all the other members of the household (with a corresponding reduction in the sample weight) is required. This duplication ensures that the records for all the members of the household continue to have the same weight.

The Social Policy Simulation Model (SPSM)

The SPSM is the primary input to the SPSM, and a personal computer with a hard disk is the minimal hardware required for the SPSM. The SPSM also requires a set of commodity tax rates, a set of parameters for all modeled tax and transfer programs (e.g., benefit levels, takeup rates, and tax brackets), and a set of parameters to control the flow of execution of the model.

The commodity tax rate parameters are supplied as default values. In addition, a separate, but concordant, input-output model (which includes a complete set of input-output tables) is provided as part of the SPSM/M package. Using this model, users can alter the retail sales tax rates and various "hidden" taxes—such as duties and intermediate-level commodity tax rates—and then they can derive (under alternative shifting assumptions) the equivalent retail

sales tax rates. This capability is very important in Canada where the Federal intermediate-level commodity tax generates more revenue than the corporate income tax.

The flexibility of the SPSM makes it possible, in one "run," to do one simulation, to do two simulations—comparing a base case with a variant, or reform, scenario—or, in effect, to do four simulations—comparing effective marginal tax rates (change in taxes minus transfers divided by change in income) of a base scenario with those of variant scenarios. (Note that a family's effective marginal tax rate depends not only on which particular source of income is varied but also on which member of the family receives an increment in that source of income. The SPSM can fully analyze such questions.)

The capability to do simulations of effective marginal tax rates partly addresses one major source of uncertainty in the model results—behavioral response to significant changes in tax provisions or transfer programs. According to economic theory, effective marginal tax rates are a major determinant of behavioral responses to changes in policy. Although the SPSM does not attempt to model such responses, it allows the user greater flexibility to display the individuals and households that are most likely to alter their behavioral responses, as these responses are indicated by significant changes in these rates.

The SPSM provides four kinds of outputs at the individual, at the family, or at the household level. First, the SPSM has its own cross-tabulation facility; alternatively, microdata files containing any outputs or intermediate variables that are used by the model can be written out. Second, these files can be in a compressed format ("results files") for subsequent use in other SPSM runs. Third, the files can be in a form readily usable by the personal computer SAS statistical software package. Fourth, standard format ASCII files can also be an output. This flexibility in output formats allows the convenient use of other standard packages. For example, a spreadsheet interface that can convert tabular output from the SPSM into a Lotus 1-2-3 or Symphony worksheet is provided.

Additionally, the SPSM software has been designed so that the user can modify it. Most users will want to run the model in the "black box" mode in which the range of parameters and simulation capacities is given. However, we fully expect that new policy options that we have not anticipated in the model will inevitably arise. Therefore, we have provided the facilities for modifying or adding routines to the model so that sophisticated users can customize the SPSM for a "glass box" mode of use.

Conclusions

The SPSM/M continues to be a work in progress. The first commercial release of a 1984 version of the SPSM/M was in December 1988. A 1986 version will be available in the spring of 1989.

The process of developing the SPSM/M has already had some valuable spinoffs. For example, the experience has contributed to a revision in the weighting system for Statistics Canada's monthly labor force survey; this revision is based on similar integrated weighting techniques that are being implemented. In the national accounting context, the SPSM has provided a microfoundation for the household sector (Ruggles and Ruggles 1986 and Adler and Wolfson 1988).

Moreover, the SPSM has already produced results that have been useful for policy analyses, such as the Forget Royal Commission's examination of the unemployment insurance system (Canada 1986), an Ontario special task force's review of social assistance (Ontario 1988), an analysis of the impact of Federal personal income tax reform (Maslove 1988), and the projections of the impact of Canada's aging population on the fiscal structure of the Federal Government (Fellegi 1988).

In developing the SPSM, many methodological refinements have been implemented to adjust for gaps and inaccuracies in the source data. Further improvements are possible and will continue to be made as work continues on the SPSM.

References

- Adler, H.J., and M.C. Wolfson (1988), "A Prototype Micro-Macro Link for the Canadian Household Sector," *The Review of Income and Wealth*, Series No. 34 (December 1988).
- Armstrong, J. (1989), "An Evaluation of Statistical Matching and Imputation Techniques," Paper presented at the annual meeting of the Statistical Society of Canada, Ottawa, May 1989.
- Canada, Forget Royal Commission on Unemployment Insurance (1986), *Report of the Commission of Inquiry on Unemployment Insurance*, Ottawa: Queen's Printer.
- Deming, W.E., and F.F. Stephan (1940), "On a Least Squares Adjustment of a Sampled Frequency Table When the Expected Marginal Totals Are Known," *Annals of Mathematical Statistics* 11 (1940): 427-44.
- Dufour, J. (1988), "Quelques Methodes Palliatives au Probleme de Non-Reportage," Mimeo, Social Survey Methods Division, Ottawa: Statistics Canada.
- Fellegi, I. (1988), "Can We Afford An Aging Society," *Canadian Economic Observer*, Ottawa: Statistics Canada (October 1988).
- Lemaitre, G., and J. Dufour (1987), "An Integrated Method for Weighting Persons and Families," *Survey Methodology* 13 (1987): 199-207.
- Maslove, A.M. (1988), "Distributional Impacts of Personal Income Tax Reform, 1984 to 1988," Institute for Research on Public Policy Discussion Paper No. 88.C.1, Ottawa.
- Ontario (1988), *Report of the Special Inquiry on Social Assistance*, Toronto: Queen's Park.
- Paass, G. (1986), "Statistical Match: Evaluation of Existing Procedures and Improvements By Using Additional Information," *Microanalytic Simulation Models to Support Social and Financial Policy*, Edited by G.H. Orcutt, J. Merz, and H. Quinke, Amsterdam: Elsevier Science Publishers.
- Paass, G. (1989), "Stochastic Generation of a Synthetic Sample from Marginal Information," *Journal of Business and Economic Statistics*. Forthcoming.
- Rodgers, W.L. (1984), "An Evaluation of Statistical Matching," *Journal of Business and Economic Statistics* 2 (January 1984).
- Rubin, D.B. (1986), "Statistical Matching Using File Concatenation With Adjusted Weights and Multiple Imputations," *Journal of Business and Economic Statistics* 4 (January 1986).
- Ruggles, R., and N. Ruggles (1986), "The Integration of Micro and Macro Data for the Household Sector," *The Review of Income and Wealth*, Series No. 32 (September 1986).
- Singh, A.C., J.B. Armstrong, and G.E. Lemaitre (1988), "Log-Linear Imputation and Its Application to File Merging," Paper presented at the annual meeting of the American Statistical Association, New Orleans, August 1988.

A Comment

on

"The Social Policy Simulation Database and Model: An Example of Survey and Administrative Data Integration"

By Fritz Scheuren

IN developing a complete, static microsimulation database and model for the personal computer (PC) environment, Michael Wolfson and his colleagues are to be commended for having achieved a major breakthrough. Heretofore, such policy simulation models had to be supported by complex and expensive mainframe computer hardware and software. Consequently, the availability of the Social Policy Simulation Database and Model (SPSD/M) in the PC "medium"

makes microsimulation modeling more accessible to academics and private researchers at far lower costs; this accessibility may allow what has been a small field of economic research to explode. However, the "medium" is *not* the "message" (or, at least, not *all* of it). There is still a great deal more to do to move microsimulation from what may (charitably?) be described as an underdeveloped art towards a well-instrumented science.

Therefore, it is worth expanding on the points made, at least in part, by the authors with regard to (1) the data sets used for microsimulation modeling, (2) the techniques used

NOTE.—Fritz Scheuren is the Director of the Statistics of Income Division, Internal Revenue Service, U.S. Department of the Treasury.

to integrate the data sets, and (3) modeling and projection errors.

Data sets available.—Apparently in Canada and certainly in the United States, the data sets employed for microsimulation modeling were developed primarily for other purposes. Consequently, certain limitations are imposed on the microsimulation models by the data sets that are available for use. For example, the lack of economic stratification in the household surveys used imposes limits on tax policy simulations, since the top 1 percent of households pay between 20 and 30 percent of all income taxes. The concerns about the confidentiality of the data sets also limit the availability of the data sets in Canada even more, it seems, than in the United States. In fact, in Canada, unlike in the United States, there are no public-use data sets based on tax returns (e.g., see Strudler, Oh, and Scheuren 1986).

Data handling techniques.—There continues to be widespread criticism of the way in which disparate data sets are merged into microsimulation models (e.g., see Sims 1978 and Alvey and Kilss 1988b). Although the methods used for the SPSPD/M are better than average, these methods are fairly typical of the “kickapoo-joy-juice” approach to merging data sets that is often taken by researchers. For the SPSPD/M, all kinds of imputations are made and statistical matching techniques are used repeatedly. These techniques are used, not because they are known to work well, but because feasible alternative techniques do not appear to exist. The strong “brew” that is produced by this blending of various techniques, however, is very hard to justify on any grounds other than those of expediency. The work of Rubin and, more recently, of Paass may help lead us to a more statistically principled approach to the integration of data (e.g., see Rubin 1986 and 1987 and Paass 1989). Additionally, as a design issue, it appears obvious that efforts at better data integration could have major impacts (e.g., see Alvey and Kilss 1988a); there is a need to conduct more record linkage studies like those that I have had some involvement with in the 1970's (e.g., see Kilss and Scheuren 1978).

Modeling and projection errors.—The nature of most static microsimulation models is such that well-developed behavioral feedbacks are not readily available, but the SPSPD/M is a welcome exception—to the extent that the data sets brought together allow it to be. The dynamic models of Orcutt and his collaborators show promise in this regard (e.g., see Caldwell 1988). Additionally, the projection errors that are made in exogenous macro variables need to be measured and evaluated to determine the validity of the estimates produced by the model. Backcasting models to earlier years and rerunning models after time passes clearly can provide essential insights that may lead to better results.

Limited resources are usually cited as the reason that some of these problems are tackled so infrequently. With the computer revolution, which is exemplified by the SPSPD/M, however, we may begin to examine these chronic

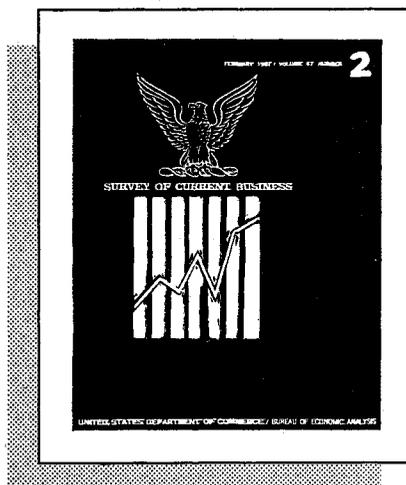
difficulties—perhaps using, for example, the multiple imputation ideas of Rubin (1986 and 1987) to do sensitivity analyses—at a much lower cost. The formation of a panel to study microsimulation modeling by the National Academy of Science's Committee on National Statistics is an encouraging sign.

Given the current stage of development of microsimulation modeling, the definition of a good model may not necessarily be the model that fits the data perfectly; a good model may be the model that does not fit the data, but where the lack of fit suggests a better model. In this field, the iteration from model to data and then from data to model has been very slow, and the result has often been that the models and the data seem almost disconnected; in that sense, the basic scientific paradigm has failed to work as it should. However, the SPSPD/M developed by Wolfson et al. obviously exploits advanced computing techniques; their work has clearly moved us from the S.O.S. (same-old-stuff) stage of microsimulation modeling. It is hoped that their example will be contagious.

References

- Alvey, Wendy, and Kilss, Beth, eds. (1988a), *Afterthoughts and Future Directions*, Vol. 2, Prepared for the Workshop on Microsimulation Modeling, Department of the Treasury, Washington, May 10, 1988.
- Alvey, Wendy, and Kilss, Beth, eds. (1988b), *Selected Statistical Background Papers*, Vol. 1, Prepared for the Workshop on Microsimulation Modeling, Department of the Treasury, Washington, May 10, 1988.
- Caldwell, Steven (1988), “Comments on Dynamic Modeling in the U.S.,” *Afterthoughts and Future Directions*, Vol. 2, Prepared for the Workshop on Microsimulation Modeling, Department of the Treasury, Washington, May 10, 1988.
- Kilss, Beth, and Scheuren, Fritz (1978), “The 1973 CPS-IRS-SSA Exact Match Study,” *Social Security Bulletin* 41 (October 1978): 14–22.
- Paass, Gerhard (1989), “Stochastic Generation of a Synthetic Sample from Marginal Information,” *Journal of Business and Economic Statistics*. Forthcoming.
- Rubin, Donald B. (1986), “Statistical Matching Using File Concatenation with Adjusted Weights and Multiple Imputations,” *Journal of Business and Economic Statistics* 4 (January 1986): 86–94.
- Rubin, Donald B. (1987), *Multiple Imputation for Nonresponse in Surveys*, New York: John Wiley and Sons.
- Sims, Christopher A. (1978), “Comment,” *1978 Compendium of Tax Research*, Department of the Treasury, Office of Tax Analysis, Washington, 1978: 172–177.
- Strudler, Michael, Oh, H. Lock, and Scheuren, Fritz (1986), “Protection of Taxpayer Confidentiality with Respect to the Tax Model,” *Proceedings of the American Statistical Association, Section on Survey Research Methods* 1986: 375–381.

Comprehensive Information on the Economy



The SURVEY OF CURRENT BUSINESS is a comprehensive source for estimates and analysis on the U.S. economy. It is the monthly journal of record not only for the headline-making numbers that influence decisionmakers in business and government—GNP, personal income (both regional and national), U.S. merchandise trade, and corporate profits, to name a few—but also for the statistical detail and methodology that underlie those numbers. In addition it carries, from over 100 sources, the latest estimates for 1,900 time series on practically all aspects of the economy. So if you need to know about the state of the Nation's economy, in detail, month by month, the SURVEY OF CURRENT BUSINESS is the source.

Superintendent of Documents Subscriptions Order Form

Order Processing Code:
* 6388

Charge your order.
It's easy!



Please send me the following indicated subscription:

_____ subscription(s) of SURVEY OF CURRENT BUSINESS, SCUB, for \$18.00 per year (second class), \$22.50 (foreign), or \$46.00 (domestic first class).

1. The total cost of my order is \$_____. All prices include regular domestic postage and handling and are subject to change.

Please Type or Print

2. _____
(Company or personal name)

(Additional address/attention line)

(Street address)

(City, State, ZIP Code)
(_____) _____
(Daytime phone including area code)

3. Please choose method of payment:

Check payable to the Superintendent of Documents
 GPO Deposit Account -
 VISA or MasterCard Account

(Credit card expiration date)

Thank you for your order!

(Signature)

6/89

4. Mail To: Superintendent of Documents, Government Printing Office, Washington, D.C. 20402-9371

CURRENT BUSINESS STATISTICS

The statistics here update series published in BUSINESS STATISTICS: 1986, a statistical supplement to the SURVEY OF CURRENT BUSINESS. That volume (available from the Superintendent of Documents for \$16.00, stock no. 003-010-00181-0) provides a description of each series, references to sources of earlier figures, and historical data as follows: For all series, monthly or quarterly, 1983 through 1986, annually, 1961-86; for selected series, monthly or quarterly, 1961-86 (where available).

The sources of the series are given in BUSINESS STATISTICS: 1986; they appear in the main methodological note for each series, and are also listed alphabetically on pages 145-146. Series originating in Government agencies are not copyrighted and may be reprinted freely. Series from private sources are provided through the courtesy of the compilers, and are subject to their copyrights.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
GENERAL BUSINESS INDICATORS																
PERSONAL INCOME BY SOURCE †																
Seasonally adjusted, at annual rates:																
Total personal income.....bil. \$..	3,780.0	4,062.1	3,985.9	4,001.0	4,021.4	4,044.9	4,075.3	4,091.8	4,114.7	4,175.5	4,165.2	4,200.8	*4,272.4	*4,316.6	*4,351.6	4,369.3
Wage and salary disbursements, total.....do.....	2,248.4	2,436.9	2,374.7	2,394.0	2,408.4	2,427.5	2,451.9	2,459.1	2,475.0	2,506.9	2,514.1	2,529.5	2,559.2	*2,571.2	*2,592.4	2,608.2
Commodity-producing industries, total.....do.....	649.8	695.4	685.0	685.1	687.7	694.4	699.3	700.2	704.4	716.4	715.0	714.9	722.1	*725.2	*734.9	731.7
Manufacturing.....do.....	490.3	522.5	516.3	514.3	516.8	521.1	524.4	524.9	528.4	539.2	536.4	535.6	540.5	*543.1	*551.9	546.3
Distributive industries.....do.....	531.7	578.7	560.4	568.5	571.6	576.3	583.9	584.7	588.8	596.1	597.2	602.5	609.6	*611.4	*614.7	621.4
Service industries.....do.....	646.8	716.6	690.2	699.5	706.1	712.0	721.8	725.1	730.6	741.2	746.4	754.6	764.0	*768.6	*774.7	784.7
Govt. and govt. enterprises.....do.....	420.1	446.1	439.0	441.0	443.0	444.8	447.0	449.1	451.2	453.2	455.5	457.6	463.5	466.0	468.1	470.3
Other labor income.....do.....	207.9	218.3	215.2	215.8	216.4	217.4	218.5	219.5	220.5	221.5	222.5	223.5	224.5	225.4	226.4	227.4
Proprietors' income: ‡																
Farm.....do.....	43.0	36.3	56.8	44.8	45.2	40.3	34.1	31.4	27.2	41.5	13.5	23.1	*47.3	*64.7	*59.6	52.0
Nonfarm.....do.....	270.0	288.2	279.9	283.3	285.2	287.5	289.4	290.2	292.6	296.1	297.5	299.5	*300.8	301.2	*300.8	303.2
Rental income of persons with capital consumption adjustment.....bil. \$..	18.4	19.3	20.2	19.3	18.9	19.0	19.3	19.7	20.0	19.0	18.0	17.2	*15.6	*13.9	*12.5	12.0
Dividends.....do.....	88.6	96.3	94.0	94.7	95.0	95.4	96.3	97.5	98.0	98.9	99.4	99.8	101.2	102.1	103.0	103.6
Personal interest income.....do.....	527.0	575.9	554.1	558.8	563.7	568.7	574.9	581.8	589.1	596.4	603.7	611.1	620.9	632.9	645.0	653.0
Transfer payments.....do.....	548.8	586.0	582.2	582.8	582.0	583.6	587.0	589.2	589.7	594.7	596.5	597.9	612.4	*615.2	*623.2	622.2
Less: Personal contributions for social insurance.....do.....	172.0	195.1	191.2	192.4	193.4	194.6	196.2	196.5	197.4	199.5	200.0	200.9	209.4	210.0	*211.3	212.3
Total nonfarm income.....do.....	3,716.0	4,004.8	3,908.7	3,935.4	3,955.1	3,983.3	4,020.2	4,039.3	4,066.3	4,112.8	4,130.4	4,156.4	*4,208.8	*4,230.6	*4,270.6	4,295.8
DISPOSITION OF PERSONAL INCOME †																
Seasonally adjusted, at annual rates:																
Total personal income.....bil. \$..	3,780.0	4,062.1	3,985.9	4,001.0	4,021.4	4,044.9	4,075.3	4,091.8	4,114.7	4,175.5	4,165.2	4,200.8	*4,272.4	*4,316.6	*4,351.6	4,369.3
Less: Personal tax and nontax payments.....do.....	570.3	590.3	579.5	643.5	579.9	579.6	584.2	585.9	589.2	595.5	597.3	601.3	*613.2	*616.1	*623.3	640.6
Equals: Disposable personal income.....do.....	3,209.7	3,471.8	3,406.4	3,357.6	3,441.5	3,465.3	3,491.1	3,505.9	3,525.5	3,580.0	3,567.9	3,599.5	*3,659.2	*3,700.5	*3,728.3	3,728.8
Less: Personal outlays.....do.....	3,105.5	3,327.5	3,247.2	3,259.6	3,289.8	3,331.4	3,342.0	3,372.6	3,371.0	3,409.3	3,427.7	3,449.1	*3,468.6	*3,482.4	*3,493.5	3,530.0
Personal consumption expenditures.....do.....	3,012.1	3,227.5	3,149.0	3,161.3	3,190.9	3,231.5	3,241.7	3,271.7	3,270.2	3,307.7	3,325.4	3,346.0	*3,364.9	*3,375.1	*3,383.8	3,424.5
Durable goods.....do.....	421.9	451.1	438.9	442.6	447.4	453.3	451.6	456.2	450.8	453.2	458.6	450.2	*467.2	*458.5	*452.6	467.1
Nondurable goods.....do.....	997.9	1,046.9	1,027.5	1,025.7	1,038.2	1,046.0	1,053.0	1,064.4	1,065.0	1,071.3	1,080.9	1,069.4	1,088.9	*1,091.9	*1,098.2	1,105.4
Services.....do.....	1,592.3	1,729.6	1,682.6	1,699.1	1,705.3	1,726.1	1,737.1	1,751.1	1,754.4	1,783.2	1,785.9	1,796.4	*1,808.8	*1,827.7	*1,837.7	1,852.1
Interest paid by consumers to business.....do.....	92.1	98.9	97.1	97.5	98.1	99.1	99.4	100.0	100.0	100.4	101.3	102.0	102.6	*103.3	*103.9	104.5
Personal transfer payments to foreigners (net).....do.....	1.3	1.0	1.2	.8	.8	.8	.8	.8	.8	1.1	1.1	1.1	1.1	1.1	1.1	1.1
Equals: personal saving.....do.....	104.2	144.3	159.1	97.9	151.7	133.9	149.1	133.3	154.5	170.8	140.1	150.4	*190.6	*218.1	*234.8	198.7
Personal saving as percentage of disposable personal income \$.....percent..	3.2	4.2	4.1	4.0	3.7	4.2	4.0	4.2	4.3	4.4	4.3	4.4	*5.1	*5.8	5.8	.....
Disposable personal income in constant (1982) dollars.....bil. \$..	2,686.3	2,788.3	2,779.2	2,721.5	2,776.5	2,788.4	2,797.0	2,802.2	2,802.0	2,832.5	2,818.5	2,834.3	*2,862.7	*2,890.7	*2,893.1	2,872.4
Personal consumption expenditures in constant (1982) dollars.....do.....	2,521.0	2,592.2	2,569.2	2,562.5	2,574.3	2,600.3	2,597.3	2,615.0	2,599.1	2,617.1	2,626.9	2,634.6	*2,632.5	*2,638.8	2,629.4	2,638.0
Durable goods.....do.....	890.9	409.7	402.0	405.0	408.7	418.0	410.4	413.2	407.6	408.1	412.7	428.8	*417.1	*411.1	*407.5	419.0
Nondurable goods.....do.....	890.5	899.6	898.3	888.1	893.5	899.1	901.0	909.4	903.0	904.9	914.2	903.2	912.3	*913.9	*907.9	900.0
Services.....do.....	1,239.5	1,283.0	1,269.0	1,269.4	1,272.0	1,283.1	1,285.9	1,292.3	1,288.5	1,304.2	1,300.0	1,302.6	*1,303.0	*1,313.7	*1,314.1	1,319.0
Implicit price deflator for personal consumption expenditures.....index, 1982=100..	119.5	124.5	122.6	123.4	124.0	124.3	124.8	125.1	125.8	126.4	127.0	127.0	*127.8	*128.0	128.9	129.8
INDUSTRIAL PRODUCTION ◇																
<i>Federal Reserve Board Index of Quantity Output</i>																
Not Seasonally Adjusted																
Total index.....1977=100..	129.8	137.2	134.1	133.9	135.0	139.3	136.3	141.7	143.0	142.2	139.3	136.4	*137.1	*140.1	*139.4	*139.7
By industry groupings:																
Mining and utilities.....do.....	104.3	107.5	106.1	103.5	101.3	106.5	108.3	112.6	107.9	105.1	106.6	109.4	110.2	111.2	*106.2	*104.6
Manufacturing.....do.....	134.7	142.7	139.4	139.6	141.3	145.5	141.5	147.2	149.6	149.1	145.4	141.4	*142.2	*145.5	*145.5	146.3
Nondurable manufactures.....do.....	136.8	143.9	139.2	139.8	140.7	146.4	145.1	151.7	152.8	151.2	146.0	141.1	141.6	*145.0	*145.4	146.4
Durable manufactures.....do.....	133.1	141.9	139.5	139.4	141.6	144.8	138.9	144.0	147.3	147.6	145.0	141.6	*142.7	*145.8	*145.5	146.2
Seasonally Adjusted																
Total index.....do.....	129.8	137.2	134.7	135.4	136.1	136.5	138.0	138.5	138.6	139.4	139.9	140.4	*140.8	*140.4	*140.5	*141.1
By market groupings:																
Products, total.....do.....	138.3	145.9	143.6	144.1	145.0	145.3	146.5	147.3	147.4	148.1	148.4	149.4	*150.1	*150.0	*150.0	150.6
Final products.....do.....	136.8	144.3	141.8	142.5	143.5	144.0	145.0	145.8	145.8	146.4	146.8	147.7	*148.2	*148.5	*148.2	149.1
Consumer goods.....do.....	127.8	133.9	131.2	131.9	132.7	133.0	134.2	135.0	134.8	136.4	136.8	138.2	*138.5	*138.6	*137.8	138.6

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
GENERAL BUSINESS INDICATORS—Continued																
INDUSTRIAL PRODUCTION ◊—Continued																
Seasonally Adjusted—Continued																
By market groupings—Continued																
Final products—Continued																
Durable consumer goods..... 1977=100....	120.2	125.3	120.4	123.3	125.6	125.3	125.3	125.7	126.3	129.3	129.2	131.9	*131.5	*131.5	*129.2	*130.3
Automotive products.....do.....	118.5	124.9	120.6	121.9	127.1	127.1	124.4	124.2	126.4	128.9	129.5	134.5	132.5	*131.6	*128.6	*130.8
Autos and trucks, consumer.....do.....	115.1	122.7	116.4	118.0	126.9	125.3	120.8	123.1	124.8	128.3	129.5	138.0	135.6	133.1	*127.9	*131.7
Autos, consumer.....do.....	90.7	93.4	86.3	91.0	98.9	99.0	93.8	93.0	97.7	101.3	101.0	105.1	99.6	96.0	*94.4	*98.8
Trucks, consumer.....do.....	160.5	177.0	172.2	168.2	178.9	174.1	170.8	179.0	175.3	178.4	182.4	199.1	202.3	201.9	*190.0	.....
Home goods.....do.....	121.6	125.6	120.2	124.3	124.4	123.9	125.9	126.8	126.2	129.7	128.9	130.0	*130.7	*131.5	*129.6	*129.9
Nondurable consumer goods.....do.....	130.6	137.1	135.1	135.1	135.4	135.8	137.5	138.5	138.0	139.0	139.7	140.5	141.1	*141.3	*141.0	*141.6
Consumer staples.....do.....	137.4	144.9	142.5	142.5	143.1	143.5	145.3	146.6	145.8	147.0	147.9	148.9	149.4	*149.7	*149.5	*150.1
Consumer foods and tobacco.....do.....	136.3	140.9	139.4	138.3	139.2	139.3	141.1	141.3	141.1	142.4	143.7	144.5	*144.8	*144.7	*143.8	.....
Nonfood staples.....do.....	138.5	149.1	145.7	146.8	147.0	147.9	149.6	152.1	150.7	151.8	152.2	153.6	*154.2	*154.8	*155.5	*156.6
Equipment.....do.....	148.9	158.2	155.9	156.5	157.7	158.5	159.4	160.1	160.4	159.7	159.9	160.4	*161.1	*161.5	*162.1	*162.9
Business and defense equipment.....do.....	153.6	163.3	160.8	161.4	162.7	163.5	164.6	165.2	165.6	165.1	165.5	166.2	*167.1	*167.7	*168.0	*168.8
Business equipment.....do.....	144.5	157.6	153.3	154.6	156.9	158.1	159.3	160.2	160.8	160.2	161.2	162.6	*163.8	*164.7	*165.4	*166.3
Construction, mining, and farm.....do.....	62.2	71.9	68.3	70.8	71.8	72.4	73.6	73.1	74.3	74.2	74.5	74.6	*74.3	*74.7	*75.9	*76.3
Manufacturing.....do.....	117.9	131.3	127.0	127.7	128.3	130.3	132.4	134.0	135.8	136.2	136.2	137.0	*136.3	*137.6	*138.1	*139.2
Power.....do.....	82.6	89.4	87.8	87.0	87.4	88.3	89.8	90.9	92.2	91.5	92.1	91.8	92.8	*92.7	*92.7	*93.2
Commercial.....do.....	226.5	245.2	239.9	241.5	245.7	247.1	248.2	249.8	248.7	245.4	247.0	248.9	*252.4	*254.1	*255.9	*256.1
Transit.....do.....	108.4	115.1	111.1	112.3	115.3	115.7	115.9	115.2	116.8	120.3	123.3	124.9	125.7	*125.2	*123.4	*126.4
Defense and space equipment.....do.....	188.9	185.8	189.9	187.9	185.5	184.6	184.9	184.9	184.5	184.0	182.2	180.5	*180.0	*179.3	*178.5	*178.7
Intermediate products.....do.....	143.4	151.5	149.6	149.6	150.4	150.0	151.6	152.3	152.9	154.0	154.2	155.0	*156.6	*155.2	*156.3	*155.8
Construction supplies.....do.....	131.5	138.6	137.3	137.6	138.8	137.6	138.4	138.1	138.4	140.0	140.7	141.4	142.3	*139.5	*140.7	*140.3
Business supplies.....do.....	153.5	162.5	160.7	159.9	160.3	160.6	162.8	164.4	165.2	165.9	165.7	166.7	*168.8	*168.5	*169.6	.....
Materials.....do.....	118.2	125.2	122.5	123.6	123.9	124.5	126.4	126.5	126.5	127.5	128.3	128.3	*128.1	*127.4	*127.4	*128.2
Durable goods materials.....do.....	125.0	135.4	131.3	132.7	134.8	134.9	136.8	136.6	137.8	138.9	139.8	139.0	*139.4	*138.5	*138.0	*138.4
Nondurable goods materials.....do.....	125.9	132.0	130.1	131.1	130.1	130.1	132.8	133.1	132.6	134.7	135.1	136.3	*137.1	*135.9	*136.7	*137.5
Energy materials.....do.....	99.8	101.5	100.6	101.0	99.5	101.3	102.7	103.2	101.5	101.3	102.3	102.6	*100.5	*100.6	*100.9	*102.2
By industry groupings:																
Mining and utilities.....do.....	104.3	107.5	106.7	107.1	106.0	106.8	108.1	109.0	107.2	107.2	108.1	108.9	*107.2	*106.9	*107.3	*108.1
Mining.....do.....	100.7	103.4	102.7	104.7	102.6	103.0	104.3	103.8	103.7	103.1	104.7	104.9	*103.0	*101.0	*102.1	*103.3
Metal mining.....do.....	77.6	83.2	84.9	86.9	86.0	82.2	94.0	96.6	99.1	101.6	104.6	111.9	*106.9	98.5	.....	.....
Coal.....do.....	131.8	137.9	129.1	136.0	127.8	126.9	141.5	137.2	142.2	138.5	149.7	155.1	144.7	*134.7	*137.7	*141.1
Oil and gas extraction #.....do.....	92.7	92.9	94.3	95.5	94.6	95.8	93.3	93.2	92.0	91.5	90.8	88.9	*88.9	*89.7	*90.1	*90.9
Crude oil.....do.....	106.3	95.5	100.9	101.4	99.4	100.5	98.3	97.7	97.1	95.9	96.8	95.8	*95.6	*95.3	*94.7	.....
Natural gas.....do.....	85.5	86.6	86.1	85.4	87.2	87.7	84.9	86.0	84.1	87.4	89.2	87.0	84.8	.....	.....	.....
Stone and earth minerals.....do.....	128.2	139.9	136.9	141.2	140.1	137.4	140.2	141.3	139.7	142.8	144.0	149.4	*150.8	*142.9	*144.0	.....
Utilities.....do.....	110.3	114.3	113.3	111.0	111.6	113.2	114.4	117.8	113.0	113.9	113.7	115.4	*114.0	*116.5	*115.9	*116.0
Electric.....do.....	126.6	132.0	129.0	127.6	129.7	132.1	134.6	138.8	132.2	132.8	131.6	132.9	*131.0	*135.3	*134.5	.....
Manufacturing.....do.....	134.7	142.7	140.0	140.8	141.8	142.1	143.6	144.0	144.4	145.3	145.8	146.3	*147.2	*146.7	*146.7	*147.3
Nondurable manufactures.....do.....	136.8	143.9	141.7	142.3	142.1	142.6	144.6	145.1	145.3	146.3	146.7	147.1	*148.5	*148.1	*148.3	*148.9
Foods.....do.....	137.8	142.7	141.1	140.3	141.0	141.3	143.3	143.3	143.2	144.0	145.7	145.8	*146.6	*146.4	*145.9	.....
Tobacco products.....do.....	103.5	105.2	107.2	107.2	107.2	104.5	100.6	105.1	105.0	105.4	102.4	107.0	105.6	.....	.....	.....
Textile mill products.....do.....	115.9	116.2	117.0	117.3	114.6	114.3	117.1	116.4	116.2	117.0	117.2	117.9	*120.2	*119.2	*121.3	.....
Apparel products.....do.....	107.4	109.1	108.7	109.2	108.6	109.3	109.4	108.9	109.9	109.5	110.1	108.8	110.2	.....	.....	.....
Paper and products.....do.....	144.4	150.3	149.1	149.2	149.5	148.6	152.3	151.0	150.9	151.8	150.7	151.7	153.8	*151.6	*150.1	.....
Printing and publishing.....do.....	172.1	184.2	180.4	181.8	180.7	182.3	184.9	186.7	188.0	188.1	188.5	188.0	*193.0	*194.5	*196.4	*196.0
Chemicals and products.....do.....	140.2	151.9	146.4	148.9	149.1	150.5	153.4	154.8	155.3	156.7	157.5	158.1	*159.0	*158.1	*159.5	.....
Petroleum products.....do.....	93.5	96.0	98.4	98.5	95.2	94.1	95.0	96.0	93.7	96.3	95.0	98.0	98.0	*96.3	*95.4	*97.1
Rubber and plastics products.....do.....	163.6	174.4	172.2	172.3	173.4	174.4	175.4	175.3	175.3	176.9	177.5	177.5	*175.9	*175.6	*174.8	.....
Leather and products.....do.....	60.0	59.5	59.5	58.0	57.1	58.9	59.1	59.4	59.9	61.0	61.5	60.2	*62.9	*63.1	*62.7	.....
Durable manufactures.....do.....	133.1	141.9	138.8	139.7	141.5	141.7	142.9	143.2	143.8	144.6	145.2	145.7	*146.2	*145.8	*145.5	*146.1
Lumber and products.....do.....	130.3	137.3	137.8	138.0	139.8	136.4	136.6	133.8	133.5	137.5	139.4	143.0	*139.9	*133.4	*136.6	.....
Furniture and fixtures.....do.....	152.8	162.1	159.4	159.2	160.5	161.2	162.9	164.9	164.9	164.5	165.4	165.4	*166.3	*164.2	*164.9	.....
Clay, glass, and stone products.....do.....	119.1	122.6	122.5	121.4	121.5	123.4	122.2	122.6	122.6	123.3	124.7	125.1	*126.6	*125.3	*125.8	.....
Primary metals.....do.....	81.3	89.2	85.1	85.3	89.2	87.5	91.5	90.8	91.1	94.2	92.7	90.0	*93.2	*91.1	*89.3	*88.6
Iron and steel.....do.....	70.6	78.1	74.2	74.5	78.6	74.2	80.2	78.9	81.4	83.1	80.8	77.6	*82.2	*79.1	*76.2	.....
Nonferrous metals.....do.....	101.6	110.2	105.7	105.6	109.1	112.7	112.7	113.3	115.1	115.0	115.2	113.4	*113.9	*113.8	*113.8	.....
Fabricated metal products.....do.....	111.0	120.9	118.8	118.8	119.8	120.4	121.7	122.1	122.5	122.6	124.6	125.1	*124.5	*124.5	*124.2	*124.4
Nonelectrical machinery.....do.....	152.7	170.8	164.6	167.2	170.3	171.2	173.1	174.1	173.8	173.8	175.4	177.8	*178.7	*180.2	*181.5	*182.5
Electrical machinery.....do.....	172.3	180.1	176.6	178.7	179.1	179.5	181.5	182.2	181.8	183.0	182.2	180.9	180.9	*181.5	*180.8	*181.7
Transportation equipment.....do.....	129.2	132.1	130.0	130.4	133.1	132.8	131.9	131.8	132.7	134.8	135.2	136.8	*136.7	*136.4	*134.4	*136.4
Motor vehicles and parts.....do.....	111.8	117.2	113.0	114.8	119.6	119.1	116.6	117.5	118.5	121.7	122.9	125.5	*123.4	*119.9	*122.7	.....
Instruments.....do.....	143.9	154.3	149.7	150.5	151.3	153.0	156.4	156.8	157.8	159.9	160.4	159.1	*161.0	*161.3	*161.2	*161.2
BUSINESS SALES																
Mfg. and trade sales (unadj.), total \$.....mil. \$.	5,394,437	5,829,069	493,543	473,662	485,694	509,034	461,882	495,783	504,380	506,774	501,375	533,442	466,290	*475,439	5	

Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in Business Statistics, 1985

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
GENERAL BUSINESS INDICATORS—Continued																
BUSINESS INVENTORIES																
Mfg. and trade inventories, book value (non-LIFO basis), end of period, (unadjusted), total †.....mil. \$..	690,458	743,191	714,796	720,249	720,318	723,242	725,243	729,557	738,881	753,958	759,019	743,191	*753,035	*763,793	770,299	
Mfg. and trade inventories, book value (non-LIFO basis), end of period, (seas. adj.), total †.....mil. \$..	700,761	753,718	*710,937	714,465	718,995	724,966	729,903	737,562	744,054	743,544	746,756	753,718	759,303	*763,051	765,643	
Manufacturing, total.....do.....	331,132	354,163	336,695	337,936	340,074	341,963	343,788	345,798	347,785	349,412	351,603	354,163	357,458	*359,056	360,914	
Durable goods industries.....do.....	216,598	233,666	220,523	221,405	222,948	224,000	225,467	226,600	228,214	229,735	231,766	233,666	236,810	*238,165	239,142	
Nondurable goods industries.....do.....	114,534	120,497	116,172	116,531	117,126	117,963	118,321	119,198	119,571	119,677	119,837	120,497	120,648	*120,891	121,772	
Retail trade, total.....do.....	206,981	221,242	*205,977	206,564	208,575	210,824	211,534	215,396	219,297	216,724	218,093	221,242	222,584	*224,185	225,028	
Durable goods stores.....do.....	106,271	114,994	*103,543	103,895	105,860	107,064	107,443	110,146	114,303	111,689	112,904	114,994	115,704	*116,169	116,362	
Nondurable goods stores.....do.....	100,710	106,248	*102,429	102,669	102,715	103,760	104,091	105,250	104,994	105,035	105,189	106,248	106,880	*108,016	108,666	
Merchant wholesalers, total.....do.....	162,648	178,313	*168,265	169,965	170,346	172,179	174,581	176,368	176,972	177,408	177,000	178,313	179,761	*179,810	179,701	
Durable goods establishments.....do.....	106,482	115,743	*110,739	111,896	111,162	110,574	112,702	113,727	114,875	115,225	114,975	115,743	117,255	*117,932	117,512	
Nondurable goods establishments.....do.....	56,166	62,570	*57,526	58,069	59,184	61,605	61,879	62,641	62,097	62,183	62,085	62,570	62,506	*61,878	62,189	
Mfg. and trade inventories in constant (1982) dollars, end of period(seas. adj.),total \$...bil. \$..			684.9	686.2	688.0	689.7	689.4	693.3	696.1	698.1	700.5	702.7	*706.5	706.6	707.0	
Manufacturing.....do.....			326.3	326.5	327.2	327.7	327.8	328.6	329.1	329.5	330.4	332.0	*333.8	333.5	333.5	
Retail trade.....do.....			191.7	191.9	193.9	195.1	194.1	196.4	198.1	199.1	201.2	201.3	*202.6	203.4	204.3	
Merchant wholesalers.....do.....			166.9	167.8	166.9	166.9	167.6	168.4	168.9	169.5	168.9	169.5	*170.1	169.7	169.2	
BUSINESS INVENTORY-SALES RATIOS																
Manufacturing and trade, total †.....ratio..	1.50	1.50	1.50	*1.50	*1.50	*1.49	*1.50	1.50	*1.51	*1.49	*1.49	*1.49	1.48	*1.50	1.51	
Manufacturing, total.....do.....	1.61	1.57	1.59	1.59	1.58	1.56	1.59	1.56	1.57	1.57	1.57	1.53	1.54	*1.57	1.58	
Durable goods industries.....do.....	2.00	1.94	1.96	1.97	1.94	1.92	1.99	1.92	1.93	1.94	1.93	1.88	1.92	1.97	1.99	
Materials and supplies.....do.....	.57	.55	.55	.56	.55	.55	.57	.55	.55	.54	.53	.54	.55	.55	.56	
Work in process.....do.....	.91	.90	.90	.91	.90	.89	.92	.88	.88	.89	.87	.88	.91	.93	.93	
Finished goods.....do.....	.51	.49	.50	.50	.49	.48	.50	.49	.50	.50	.48	.50	.51	.50	.50	
Nondurable goods industries.....do.....	1.18	1.15	1.17	1.16	1.16	1.15	1.14	1.15	1.16	1.15	1.14	1.13	1.12	1.13	1.13	
Materials and supplies.....do.....	.46	.45	.46	.45	.45	.45	.45	.45	.46	.46	.45	.44	.44	.44	.43	
Work in process.....do.....	.19	.19	.19	.19	.19	.19	.19	.18	.18	.18	.18	.18	.18	.18	.19	
Finished goods.....do.....	.53	.51	.52	.52	.52	.51	.51	.51	.51	.51	.51	.51	.51	.51	.51	
Retail trade, total.....do.....	1.57	1.58	1.54	*1.55	*1.56	*1.56	*1.56	*1.58	*1.62	*1.57	*1.56	*1.59	1.59	1.61	1.61	
Durable goods stores.....do.....	2.09	2.07	1.98	*2.00	*2.04	*2.05	*2.05	*2.12	*2.22	*2.12	*2.09	*2.12	2.15	2.19	2.21	
Nondurable goods stores.....do.....	1.25	1.27	1.26	*1.26	*1.25	*1.25	*1.25	*1.25	*1.25	*1.23	*1.23	*1.25	1.24	1.25	1.25	
Merchant wholesalers, total.....do.....	1.27	1.30	1.31	1.32	1.32	1.30	1.30	1.31	1.31	1.28	1.29	1.31	1.28	*1.29	1.28	
Durable goods establishments.....do.....	1.70	1.72	1.75	1.75	1.73	1.71	1.72	1.74	1.73	1.70	1.68	1.69	1.67	*1.70	1.70	
Nondurable goods establishments.....do.....	.85	.89	.88	.90	.91	.91	.91	.90	.90	.88	.90	.92	.89	.88	.88	
Manufacturing and trade in constant (1982) dollars, total \$.....do.....			1.50	1.51	1.51	1.51	1.51	1.51	1.52	1.51	1.51	1.51	1.51	1.51	1.53	
Manufacturing.....do.....			1.60	1.60	1.59	1.58	1.60	1.58	1.58	1.58	1.55	1.57	1.59	1.60	1.60	
Retail trade.....do.....			1.56	1.57	1.58	1.59	1.57	1.59	1.62	1.61	1.60	1.61	1.62	1.64	1.66	
Merchant wholesalers.....do.....			1.31	1.32	1.32	1.31	1.32	1.32	1.33	1.31	1.31	1.33	1.31	1.31	1.32	
MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS †																
Shipments (not seas. adj.), total.....mil. \$..	2,390,045	2,611,589	222,888	213,670	216,450	232,773	199,670	217,081	234,386	229,541	222,837	226,032	212,037	*229,134	238,924	
Durable goods industries, total.....do.....	1,263,492	1,388,211	121,221	114,059	116,049	126,159	101,393	112,493	125,058	122,606	118,636	122,482	110,887	*121,870	128,768	
Stone, clay, and glass products.....do.....	62,142	64,044	5,374	5,445	5,505	5,767	4,999	5,653	5,852	5,745	5,507	4,815	4,849	*5,064	5,206	
Primary metals.....do.....	117,092	142,196	12,150	11,772	11,970	12,922	10,728	11,930	12,614	12,614	12,308	11,796	12,181	*12,905	13,067	
Blast furnaces, steel mills.....do.....	50,812	60,950	5,417	5,303	5,256	5,577	4,641	4,978	5,193	5,187	4,945	4,836	5,068	*5,198	5,409	
Fabricated metal products.....do.....	135,005	144,064	12,446	11,951	12,338	13,338	10,832	11,845	12,696	12,736	12,284	11,732	11,771	*13,210	14,005	
Machinery, except electrical.....do.....	216,605	247,152	21,999	19,929	20,147	23,727	18,553	19,565	23,111	20,841	20,124	23,686	18,612	*21,421	24,111	
Electrical machinery.....do.....	210,695	227,136	19,752	17,760	18,309	20,102	16,961	18,845	21,239	19,222	19,642	20,728	17,642	*19,078	20,780	
Transportation equipment.....do.....	323,026	351,927	31,482	29,219	30,383	31,388	22,550	27,100	30,570	32,582	31,394	31,993	29,190	*32,477	32,771	
Motor vehicles and parts.....do.....	197,049	219,257	19,428	18,686	19,646	19,793	12,605	16,616	19,156	21,348	20,049	18,020	20,158	*21,778	20,450	
Instruments and related products.....do.....	66,805	72,456	6,263	5,939	5,894	6,590	5,895	5,900	6,545	6,150	5,901	6,523	5,830	*6,138	6,705	
Nondurable goods industries, total.....do.....	1,126,553	1,223,373	101,667	99,611	100,401	106,614	98,277	104,538	109,328	106,935	104,201	103,550	101,150	*107,264	110,156	
Food and kindred products.....do.....	324,996	356,804	29,178	28,438	29,130	31,036	29,479	29,913	32,455	31,339	30,582	30,719	29,650	*31,572	32,972	
Tobacco products.....do.....	19,935	22,240	2,106	1,444	2,244	2,192	1,275	1,771	2,353	1,696	2,253	2,455	1,218	*1,574	2,394	
Textile mill products.....do.....	57,481	59,774	5,103	4,872	4,888	5,419	4,256	5,186	5,599	5,243	5,221	5,118	4,742	*5,397	5,643	
Paper and allied products.....do.....	110,252	124,187	10,194	10,213	10,201	10,859	10,076	10,639	10,782	10,727	10,373	10,528	10,822	*11,036	11,081	
Chemical and allied products.....do.....	212,705	240,476	20,721	20,419	19,838	20,837	18,748	20,342	21,051	20,269	20,104	20,397	20,853	*21,483	21,977	
Petroleum and coal products.....do.....	124,528	124,218	9,847	10,395	10,556	10,867	10,977	10,966	10,365	10,430	10,120	10,363	10,044	*10,162	10,611	
Rubber and plastics products.....do.....	80,510	91,089	7,668	7,619	7,662	8,066	6,935	7,707	8,159	8,335	7,724	7,518	7,885	*8,200	8,092	
Shipments (seas. adj.), total.....do.....			211,778	213,036	215,777	218,881	216,698	221,715	221,395	222,917	224,632	230,827	231,485	*228,353	228,069	
By industry group:																
Durable goods industries, total #.....do.....	112,744	112,521	114,751	116,522	113,122	117,866	118,030	118,439	119,874	124,175	123,578	120,924	120,924	120,366		
Stone, clay, and glass products.....do.....	5,299	5,184	5,311	5,305	5,115	5,435	5,399	5,442	5,588	5,549	5,575	5,356	5,517	5,117		
Primary metals.....do.....	11,472	11,254	11,576	12,201	11,667	11,990	12,334	12,369	12,709	12,861	12,869	12,553	12,888	12,388		
Blast furnaces, steel mills.....do.....	5,152	5,023	5,061	5,160	5,032	5,091	5,211	5,151	5,206	5,201	5,222	5,080	5,131	5,131		
Fabricated metal products.....do.....	11,779	11,785	12,082	12,398	11,519	11,870	12,049	12,123	12,597	12,865	13,198	13,044	13,146	13,146		
Machinery, except electrical.....do.....	19,692	20,113	20,346	21,003	20,749	21,483	21,224	20,970	20,894	21,642	21,491	21,939	21,939	21,939		
Electrical machinery.....do.....	18,480	18,444	18,888	18,742	19,019	19,										

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	GENERAL BUSINESS INDICATORS—Continued															
MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS—Continued																
Shipments (seas. adj.)—Continued																
By market category:																
Home goods and apparel.....mil. \$..	'164,861	'170,860	13,786	13,890	13,958	14,297	14,270	14,073	14,328	14,386	14,454	15,317	15,108	'14,797	14,725	
Consumer staples.....do.....	'461,025	'501,301	40,507	41,266	41,474	41,598	41,765	42,823	42,458	42,969	43,253	43,518	44,467	'44,556	44,985	
Equipment and defense products, except auto.....do.....	'391,189	'433,296	35,337	35,398	35,651	36,286	36,557	36,507	37,042	36,395	36,537	38,315	37,178	'37,153	37,886	
Automotive equipment.....do.....	'223,069	'248,003	19,854	19,622	20,755	20,793	18,685	21,888	21,188	22,076	22,243	23,527	23,343	'22,154	21,247	
Construction materials, supplies, and intermediate products.....do.....	'192,664	'204,769	16,983	16,976	16,958	17,125	16,646	16,963	17,045	17,113	17,529	18,102	18,390	'17,400	17,283	
Other materials, supplies, and intermediate products.....do.....	'957,237	'1,052,710	85,311	85,884	86,981	88,842	88,775	89,461	89,334	89,978	90,616	92,048	92,999	'92,293	91,943	
Supplementary series:																
Household durables.....do.....	'75,607	'79,219	6,416	6,484	6,567	6,292	6,424	6,571	6,638	6,671	6,949	6,934	6,993	'6,955	6,802	
Capital goods industries.....do.....	'445,633	'486,607	39,906	39,542	40,045	40,543	40,425	41,449	41,353	41,026	41,172	42,772	42,060	'41,858	42,534	
Nondefense.....do.....	'336,190	'380,017	30,593	31,001	31,668	31,822	32,012	32,414	32,523	32,595	32,512	32,675	33,330	'33,455	34,031	
Defense.....do.....	'109,443	'106,590	9,313	8,541	8,377	8,721	8,663	9,035	8,830	8,431	8,660	10,097	8,730	'8,403	8,503	
Inventories, end of year or month:																
Book value (non-LIFO basis), (unadjusted), total.....do.....																
Durable goods industries, total.....do.....	325,695	348,465	337,392	340,312	343,446	342,678	344,304	346,830	346,388	348,699	350,223	348,465	356,430	'360,741	361,848	
Non-durable goods industries, total.....do.....	212,265	229,040	221,136	223,119	225,646	225,046	226,096	227,521	227,815	229,283	230,625	229,040	235,168	'238,967	239,866	
Book value (non-LIFO basis), (seasonally adjusted), total.....do.....	331,132	354,163	336,695	337,936	340,074	341,963	343,788	345,798	347,785	349,412	351,603	354,163	357,458	'359,056	360,914	
By industry group:																
Durable goods industries, total #.....do.....																
Stone, clay, and glass products.....do.....	216,598	233,666	220,523	221,405	222,948	224,000	225,467	226,600	228,214	229,735	231,766	233,666	236,810	'238,165	239,142	
Primary metals.....do.....	7,216	7,505	7,169	7,220	7,297	7,198	7,276	7,293	7,389	7,551	7,464	7,605	7,561	'7,609	7,622	
Blast furnaces, steel mills.....do.....	18,189	20,279	18,845	18,851	18,897	18,730	18,958	19,246	19,544	19,825	19,980	20,279	20,589	'20,785	20,849	
Fabricated metal products.....do.....	8,590	10,119	9,046	9,103	9,067	9,029	9,206	9,351	9,677	9,763	10,119	10,222	10,353	'10,353	10,495	
Machinery, except electrical.....do.....	22,684	23,552	22,900	23,129	23,111	22,881	22,928	23,266	23,496	23,430	23,478	23,552	23,776	'23,771	23,924	
Electrical machinery.....do.....	41,935	46,729	42,846	43,013	43,947	44,391	45,123	45,797	45,992	46,172	46,729	47,407	47,407	'47,532	47,866	
Transportation equipment.....do.....	39,396	40,683	39,525	39,440	39,438	39,495	39,358	39,791	39,797	40,010	40,746	40,683	41,090	'41,371	41,397	
Motor vehicles and parts.....do.....	57,203	63,229	58,739	59,309	59,997	60,932	61,206	60,821	60,933	61,578	62,305	63,229	64,660	'65,368	66,002	
Instruments and related products.....do.....	11,391	11,839	11,485	11,443	11,419	11,574	11,548	11,618	11,568	11,657	11,872	11,839	12,282	'12,246	12,137	
By stage of fabrication:																
Materials and supplies.....do.....	12,669	14,040	12,802	12,907	13,109	13,127	13,275	13,455	13,518	13,578	13,798	14,040	14,125	'14,218	14,358	
Work in process.....do.....	61,255	65,252	62,552	62,541	63,105	63,522	64,138	64,998	65,253	65,324	65,298	65,252	66,273	'66,852	67,194	
Finished goods.....do.....	99,952	108,392	101,709	102,665	103,678	104,112	104,257	103,927	104,440	105,239	106,884	108,392	109,309	'111,895	111,295	
Non-durable goods industries, total #.....do.....	55,891	60,022	56,262	56,199	56,165	56,366	57,072	57,675	58,521	59,172	59,584	60,022	61,228	'61,195	60,553	
Food and kindred products.....do.....																
Tobacco products.....do.....	114,584	120,497	116,172	116,531	117,126	117,963	118,321	119,198	119,571	119,677	119,837	120,497	120,648	'120,891	121,772	
Textile mill products.....do.....	24,744	26,361	24,962	25,069	25,140	25,666	25,548	25,688	25,742	25,791	26,003	26,361	26,286	'26,295	26,295	
Paper and allied products.....do.....	7,458	7,605	7,484	7,552	7,588	7,571	7,742	7,737	7,845	7,820	7,848	7,848	7,848	'7,848	7,848	
Chemicals and allied products.....do.....	11,242	12,065	11,316	11,391	11,390	11,436	11,530	11,647	11,775	11,835	11,939	12,065	12,098	'11,941	11,872	
Petroleum and coal products.....do.....	25,061	27,515	25,922	25,633	25,742	25,954	26,154	26,544	26,882	27,060	27,235	27,515	27,601	'27,880	28,547	
Rubber and plastics products.....do.....	9,951	8,879	9,937	10,055	10,154	10,024	9,839	9,518	9,336	9,092	8,757	8,379	9,376	'9,578	9,822	
By stage of fabrication:																
Materials and supplies.....do.....	9,112	10,326	9,381	9,323	9,383	9,523	9,688	9,847	10,089	10,298	10,394	10,326	10,418	'10,405	10,564	
Work in process.....do.....	44,354	47,294	45,458	45,578	45,790	46,255	46,350	46,931	47,364	47,611	47,664	47,294	46,963	'46,900	46,716	
Finished goods.....do.....	18,752	19,291	18,891	19,061	19,075	19,050	19,218	19,163	19,172	19,071	19,129	19,291	19,532	'19,522	20,030	
By market category:	51,428	53,912	51,823	51,892	52,261	52,658	52,753	53,104	53,097	52,894	53,102	53,912	54,153	'54,469	55,026	
Home goods and apparel.....do.....																
Consumer staples.....do.....	26,772	26,313	26,645	26,492	26,696	26,463	26,544	26,662	26,478	26,328	26,459	26,313	26,177	'26,055	26,029	
Equip. and defense prod., exc. auto.....do.....	42,399	44,900	43,068	43,111	43,010	43,510	43,793	44,157	44,282	44,367	44,485	44,900	44,206	'44,279	44,432	
Automotive equipment.....do.....	96,004	105,287	98,120	98,492	99,582	100,817	100,716	101,110	101,871	102,586	103,320	105,287	106,390	'107,523	108,149	
Construction materials, supplies, and intermediate products.....do.....	14,013	14,611	14,088	14,062	14,068	14,309	14,414	14,411	14,415	14,533	14,717	14,611	15,002	'15,045	14,972	
Other materials, supplies, and intermediate products.....do.....	24,222	25,250	24,618	24,758	24,857	24,762	25,202	25,142	25,184	25,392	25,303	25,250	25,201	'25,059	25,018	
Supplementary series:																
Household durables.....do.....	127,722	137,802	130,156	131,021	131,861	132,102	133,119	134,316	135,555	136,206	137,319	137,802	140,482	'141,092	142,314	
Capital goods industries.....do.....	12,843	12,791	12,801	12,599	12,650	12,609	12,653	12,620	12,614	12,600	12,712	12,791	12,952	'12,927	13,023	
Nondefense.....do.....	110,643	121,064	112,971	113,689	114,338	116,012	116,243	116,653	117,620	118,529	119,518	121,064	122,944	'124,034	124,646	
Defense.....do.....	77,159	85,691	79,026	79,620	80,143	80,684	81,444	82,582	82,781	83,119	84,167	85,691	87,167	'88,241	88,173	
New orders, net (unadj.), total.....do.....	33,504	35,373	33,945	34,069	34,635	35,228	34,739	34,071	34,839	35,410	35,351	35,373	35,777	'35,793	36,468	
Durable goods industries, total.....do.....	2,423,597	2,659,525	225,993	216,330	214,369	239,026	203,370	218,860	234,757	231,583	225,235	235,710	222,407	'235,462	246,248	
Non-durable goods industries, total.....do.....	1,293,236	1,435,605	124,082	116,889	114,133	132,393	104,377	114,410	125,584	125,170	121,294	132,230	120,986	'128,116	135,569	
New orders, net (seas. adj.), total.....do.....	1,130,361	1,223,920	101,911	99,441	100,236	106,633	98,993	104,450	109,173	106,413	103,941	103,480	101,421	'107,346	110,679	
By industry group:																
Durable goods industries, total.....do.....																
Primary metals.....do.....	'1,293,236	'1,435,605	113,063	116,836	115,369	125,442	116,112	122,806	119,321	122,791	123,035	132,149	128,479	'124,107	125,209	
Blast furnaces, steel mills.....do.....	'53,724	'60,273	5,130	4,692	5,654	5,210	5,085	4,788	5,301	4,730	4,950	5,350	5,840	'5,112	4,839	
Nonferrous and other primary metals.....do.....	'136,494	'142,602	11,775	11,640	12,033	11,958	11,471	11,638	12,007	12,026	12,411	12,917	12,983	'13,377	12,885	
Fabricated metal products.....do.....	'221,041	'253,798	20,097	21,051	20,969	22,018	21,408	22,851	21,459	21,181	21,443	21,710	22,384	'21,921	22,150	
Machinery, except electrical.....do.....	'212,442	'227,440	17,839	18,417	18,865	18,461	19,039	19,025	18,629	18,977	20,110	19,922	19,563	'19,573	18,263	
Electrical machinery.....do.....	'337,585	'388,832	29,664	31,435	28,313	37,735	29,239	34,707	31,618	34,898	32,401	39,550	36,133	'33,381	36,744	
Transportation equipment.....do.....	'116,408	'136,560	9,464	11,479	8,555	12,831	10,987	12,638	11,504	12,005	10,763	14,145	13,350	'10,730	15,910	

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	GENERAL BUSINESS INDICATORS—Continued															
MANUFACTURERS' SHIPMENTS, INVENTORIES, AND ORDERS †—Continued																
Unfilled orders, end of period (unadjusted), total.....mil. \$..	415,998	463,934	437,084	439,744	437,663	443,916	447,616	449,445	449,816	451,858	454,256	463,934	474,304	480,632	487,956	
Durable goods industries, total.....do.....	396,563	443,957	416,412	419,242	417,326	423,560	426,544	428,461	428,987	431,551	434,209	443,957	454,056	460,302	467,103	
Nondurable goods industries with unfilled orders ‡.....do.....	19,435	19,977	20,672	20,502	20,337	20,356	21,072	20,984	20,829	20,307	20,047	19,977	20,248	20,330	20,853	
Unfilled orders, end of period (seasonally adjusted) total.....mil. \$..	421,243	468,860	429,534	433,527	434,148	443,357	446,536	451,830	453,103	457,281	460,802	468,860	473,450	476,403	481,249	
By industry group:																
Durable goods industries, total #.....do.....	400,720	447,868	409,309	413,024	414,242	423,162	426,152	431,092	432,382	436,734	439,895	447,868	452,769	455,952	460,795	
Primary metals.....do.....	23,896	25,737	24,224	24,170	24,942	25,012	25,448	25,252	25,414	25,473	25,388	25,737	25,947	25,996	25,633	
Blast furnaces, steel mills.....do.....	11,637	10,903	11,279	10,948	11,541	11,591	11,644	11,341	11,431	11,010	10,754	10,903	11,521	11,553	11,261	
Nonferrous and other primary metals.....do.....	10,265	12,591	10,872	11,136	11,293	11,295	11,626	11,707	11,757	12,219	12,428	12,591	12,121	12,106	12,004	
Fabricated metal products.....do.....	29,970	28,406	29,588	29,443	29,399	28,959	28,911	28,679	28,637	28,540	28,354	28,406	28,191	28,524	28,263	
Machinery, except electrical.....do.....	52,702	59,963	54,303	55,241	55,864	56,879	57,538	58,901	59,136	59,347	59,896	59,963	60,856	60,838	61,091	
Electrical machinery.....do.....	93,696	93,498	93,614	93,587	93,564	93,283	93,303	93,197	92,472	92,518	93,529	93,498	93,267	93,615	92,396	
Transportation equipment.....do.....	173,733	212,120	180,960	184,384	183,537	192,008	193,995	198,019	199,676	203,650	205,091	212,120	216,419	219,102	225,632	
Aircraft, missiles, and parts.....do.....	144,343	174,722	150,744	153,599	153,459	157,516	159,569	162,950	165,376	168,121	169,763	174,722	179,176	181,110	187,804	
Nondurable goods industries with unfilled orders ‡.....do.....	20,523	20,992	20,225	19,903	19,906	20,195	20,384	20,738	20,721	20,547	20,907	20,992	20,681	20,451	20,454	
By market category:																
Home goods and apparel.....do.....	9,075	8,387	8,725	8,630	8,237	8,287	8,024	8,121	8,295	8,173	8,200	8,387	8,736	8,585	8,376	
Consumer staples.....do.....	675	836	792	735	711	705	835	883	881	848	863	836	786	755	727	
Equip. and defense prod., excl. auto.....do.....	252,751	286,731	258,669	260,278	259,242	267,218	269,814	272,590	271,890	274,659	278,513	286,731	290,025	293,375	297,327	
Automotive equipment.....do.....	9,239	8,888	8,866	8,996	9,019	8,882	8,878	8,715	8,727	8,714	8,782	8,888	8,840	8,827	8,641	
Construction materials, supplies, and intermediate products.....do.....	15,060	15,541	15,498	15,304	15,316	15,475	15,435	15,494	15,450	15,527	15,545	15,541	15,314	15,094	14,951	
Other materials, supplies, and intermediate products.....do.....	134,443	148,477	136,984	139,584	141,623	142,790	143,550	146,027	147,860	149,360	148,899	148,477	149,749	149,767	151,227	
Supplementary series:																
Household durables.....do.....	6,480	6,122	6,103	6,080	5,856	5,886	5,720	5,817	5,965	5,884	5,898	6,122	6,395	6,253	6,048	
Capital goods industries.....do.....	301,674	345,037	309,219	313,294	312,936	321,730	324,263	329,659	330,635	334,927	337,971	345,037	350,144	353,634	359,697	
Nondefense.....do.....	139,814	179,640	148,378	151,123	150,977	154,613	158,814	165,208	167,543	169,571	172,584	179,640	186,062	190,396	194,454	
Defense.....do.....	161,860	165,397	160,841	162,171	162,009	167,117	165,449	164,451	163,092	165,356	165,087	165,397	163,482	163,238	165,243	
BUSINESS INCORPORATIONS @																
New incorporations (50 States and Dist. Col.):																
Unadjusted.....number.....	685,572	684,109	67,757	57,144	59,547	58,806	53,439	60,136	53,993	54,521	49,186	58,165	58,037			
Seasonally adjusted.....do.....			59,698	54,841	53,379	54,908	57,277	59,649	56,126	56,557	53,638	58,516	58,505			
INDUSTRIAL AND COMMERCIAL FAILURES @																
Failures, total.....number.....	61,235		5,851	5,118	4,957	4,702	4,511	4,984	4,599	4,146	4,262					
Commercial service.....do.....	24,029		2,439	1,990	1,969	1,847	1,763	2,077	1,958	1,798	1,531					
Construction.....do.....	6,724		666	614	570	574	560	556	563	479	597					
Manufacturing and mining.....do.....	4,939		491	417	415	424	362	436	383	320	350					
Retail trade.....do.....	12,185		1,104	1,024	1,008	929	908	983	905	801	888					
Wholesale trade.....do.....	4,304		432	432	369	390	401	394	317	297	319					
Liabilities (current), total.....mil. \$..	33,024.5		3,292.0	3,065.6	2,316.5	2,453.4	4,565.0	2,248.1	3,533.0	1,825.5	2,047.5					
Commercial service.....do.....	8,088.7		899.2	766.0	612.6	702.1	504.6	624.5	500.0	385.2	343.1					
Construction.....do.....	2,278.6		350.0	87.7	113.6	238.9	140.8	201.1	107.7	113.3	109.5					
Manufacturing and mining.....do.....	4,746.4		347.8	242.1	295.6	354.9	176.6	499.6	133.8	228.9	355.4					
Retail trade.....do.....	3,713.7		279.0	237.0	197.9	177.9	1,637.3	178.0	151.5	245.4	413.9					
Wholesale trade.....do.....	1,336.8		214.5	128.8	110.9	285.1	148.6	104.7	87.3	80.7	91.2					
Failure annual rate.....No. per 10,000 concerns.....	102.0															

COMMODITY PRICES

PRICES RECEIVED AND PAID BY FARMERS †																
Prices received, all farm products.....1910-14=100.....	578	630	593	595	614	631	648	659	659	654	657	663	682	677	679	669
Crops #.....do.....	458	543	478	485	507	557	590	588	584	577	588	590	604	595	590	599
Commercial vegetables.....do.....	718	705	707	661	576	596	622	765	723	642	726	725	891	833	744	894
Cotton.....do.....	503	483	489	506	492	524	502	444	437	458	477	467	455	447	475	498
Feed grains and hay.....do.....	268	378	308	315	329	400	449	437	432	430	421	423	432	431	436	433
Food grains.....do.....	282	378	327	330	343	382	396	404	414	423	429	432	439	441	445	440
Fruit.....do.....	669	669	604	608	730	697	718	673	691	698	717	712	656	653	585	616
Tobacco.....do.....	1,255	1,287	1,227	1,229	1,229	1,227	1,230	1,256	1,363	1,388	1,410	1,412	1,411	1,389	1,389	1,393
Livestock and products #.....do.....	703	722	714	711	726	707	709	731	737	734	728	739	762	762	773	742
Dairy products.....do.....	765	747	728	709	697	691	697	722	759	795	820	826	820	801	777	759
Meat animals.....do.....	921	949	966	971	994	947	917	950	944	933	918	939	983	992	991	955
Poultry and eggs.....do.....	244	269	231	223	241	260	311	313	317	302	294	288	294	292	343	316
Prices paid:																
Production items.....do.....	349	908		895			922			936			943			953
All commodities and services, interest, taxes, and wage rates (parity index).....1910-14=100.....	1,110	1,166		1,155			1,180			1,193			1,207			1,220
Parity ratio \$.....do.....	52	54		52			55			55			57			55
CONSUMER PRICES ◇ (U.S. Department of Labor Indexes)																
Not Seasonally Adjusted																
ALL ITEMS, WAGE EARNERS AND CLERICAL WORKERS (CPI-W).....1982-84=100.....	112.5	117.0	115.1	115.7	116.2	116.7	117.2	117.7	118.5	118.9	119.0	119.2	119.7	120.2	120.8	121.8
ALL ITEMS, ALL URBAN CONSUMERS (CPI-U).....1982-84=100.....	113.6	118.3	116.5	117.1	117.5	118.0	118.5	119.0	119.8	120.2	120.3	120.5	121.1	121.6	122.3	123.1
Special group indexes:																
All items less shelter.....do.....	111.6	115.9	114.0	114.7	115.2	115.7	116.1	116.5	117.5	117.9	118.0	118.1	118.7	119.2	119.9	121.0
All items less food.....do.....	113.6	118.3	116.6	117.2	117.6	118.1	118.4	118.9	119.7	120.2	120.3	120.4	120.8	121.3	122.0	122.9
All items less medical care.....do.....	112.6	117.0	115.3	115.9	116.3	116.8	117.2	117.8	118.6	118.9	119.0	119.1	119.7	120.1	120.8	121.7

See footnotes at end of tables.

Units	Annual		1988												1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.		
COMMODITY PRICES—Continued																		
CONSUMER PRICES †—Continued																		
<i>(U.S. Department of Labor Indexes)—Continued</i>																		
Not Seasonally Adjusted																		
All items (CPI-U)—Continued																		
Commodities.....1982-84=100	107.7	111.5	109.8	110.7	111.1	111.1	111.5	111.9	113.0	113.5	113.5	113.5	113.9	114.3	115.2	116.7		
Nondurables.....do	107.5	111.8	109.8	111.0	111.4	111.4	111.9	112.4	113.7	114.2	114.1	113.9	114.3	114.9	116.2	118.4		
Nondurables less food.....do	101.8	105.8	104.1	105.6	106.0	105.5	105.4	105.9	107.7	108.3	108.2	107.5	107.1	107.6	109.4	112.8		
Durables.....do	108.2	110.4	109.5	109.7	109.9	110.2	110.3	110.6	111.1	111.8	112.2	112.5	112.4	111.9	111.8	111.8		
Commodities less food.....do	104.3	107.7	106.3	107.3	107.6	107.4	107.4	107.7	108.9	109.5	109.7	109.4	109.2	109.5	110.5	112.5		
Services.....do	120.2	125.7	123.8	124.1	124.6	125.5	126.1	126.7	127.3	127.6	127.8	128.1	128.9	129.4	130.0	130.2		
Food #.....do	113.5	118.2	115.9	116.6	117.0	117.6	118.8	119.4	120.2	120.3	120.2	120.7	122.2	122.9	123.5	124.2		
Food at home.....do	111.9	116.6	113.9	114.6	115.1	115.8	117.3	118.1	119.0	119.0	118.7	119.1	121.2	122.0	122.7	123.5		
Housing.....do	114.2	118.5	117.0	117.3	117.7	118.6	119.1	119.5	119.9	119.9	119.9	120.2	120.7	121.1	121.5	121.6		
Shelter #.....do	121.3	127.1	125.6	125.8	126.2	126.6	127.4	128.2	128.4	128.8	129.1	129.3	129.8	130.3	131.2	131.2		
Rent, residential.....do	123.1	127.8	126.4	126.6	126.9	127.3	127.8	128.4	129.1	129.4	129.8	130.1	130.5	130.9	131.1	131.4		
Homeowners' cost.....12/82=100	124.8	131.1	129.2	129.4	129.9	130.4	131.0	131.8	132.6	133.1	133.8	134.0	134.4	134.7	135.0	135.4		
Fuel and utilities #.....1982-84=100	103.0	104.4	102.7	102.8	103.5	105.9	106.0	106.1	106.4	105.4	104.3	105.0	106.0	105.9	105.9	106.2		
Fuel oil, coal, and bottled gas.....do	77.9	78.1	80.5	80.2	80.0	79.1	76.9	76.3	75.9	74.6	75.0	76.8	80.5	81.4	81.5	82.5		
Gas (piped) and electricity.....do	103.8	104.6	101.7	101.6	102.6	107.8	108.1	108.3	108.5	108.7	104.1	105.1	105.1	104.9	104.8	105.0		
Household furnishings and operation.....do	107.1	109.4	108.3	109.1	109.3	109.6	109.8	109.7	110.1	110.3	110.6	110.6	110.9	110.9	110.5	110.7		
Apparel and upkeep.....do	110.6	115.4	114.3	117.0	116.3	114.6	112.7	112.6	117.8	120.7	119.9	118.0	115.3	115.3	119.3	120.9		
Transportation.....do	105.4	108.7	106.5	107.2	108.1	108.5	108.9	109.6	109.7	110.0	110.7	110.8	111.1	111.6	111.9	114.6		
Private.....do	104.2	107.6	105.4	106.0	107.0	107.4	107.8	108.6	108.6	109.0	109.6	109.6	109.8	110.3	110.7	113.6		
New cars.....do	114.6	116.9	116.0	115.9	116.3	116.5	116.5	116.3	116.3	117.7	118.7	119.1	119.5	119.6	119.6	119.4		
Used cars.....do	113.1	118.0	116.1	116.6	117.0	117.6	117.9	119.2	119.4	119.9	119.7	120.2	120.5	120.5	120.7	120.7		
Public.....do	121.1	123.3	121.4	122.4	122.4	123.2	123.7	123.7	124.0	124.2	125.3	126.5	127.5	128.1	128.2	128.4		
Medical care.....do	130.1	138.6	136.3	136.9	137.5	138.2	139.3	139.9	140.4	141.2	141.8	142.3	143.8	145.2	146.1	146.8		
Seasonally Adjusted ‡																		
All items, percent change from previous month.....do																		
Commodities.....1982-84=100			3	4	4	3	4	3	4	4	3	3	6	4	5	7		
Commodities less food.....do			109.9	110.5	111.0	111.3	111.8	112.1	112.7	113.0	113.2	113.4	114.2	114.6	115.3	116.5		
Food.....do			106.6	107.1	107.7	107.7	108.0	108.1	108.6	109.0	109.1	109.2	109.9	110.2	110.8	112.4		
Food at home.....do			118.0	116.6	117.1	117.8	118.9	119.5	120.3	120.6	120.8	121.2	122.1	122.6	123.6	124.2		
Services.....do			113.8	114.4	115.0	115.9	117.2	118.0	119.0	119.2	119.3	119.8	120.9	121.4	122.6	123.3		
Apparel and upkeep.....do			114.1	115.5	116.3	115.9	115.7	113.9	116.0	117.4	117.4	117.7	117.7	117.5	119.1	119.4		
Transportation.....do			107.2	107.5	108.2	108.4	108.7	109.6	109.7	110.1	110.4	110.4	111.2	111.9	112.6	115.0		
Private.....do			106.2	106.4	107.2	107.4	107.7	108.6	108.7	109.3	109.3	109.3	110.0	110.8	111.5	114.1		
New cars.....do			116.1	116.2	116.5	116.6	116.7	117.0	117.7	117.8	117.9	118.1	118.9	119.3	119.7	119.8		
Public.....do			124.1	124.5	125.0	125.4	125.8	126.4	126.8	127.4	128.0	128.6	129.1	129.7	130.3	130.6		
Services.....do																		
PRODUCER PRICES §																		
<i>(U.S. Department of Labor Indexes)</i>																		
Not Seasonally Adjusted																		
All commodities.....1982=100	102.8	106.9	104.9	105.8	106.5	107.2	107.9	108.0	108.1	108.2	108.3	109.0	110.3	110.8	111.5	112.3		
By stage of processing:																		
Crude materials for further processing.....do	93.7	*96.0	94.1	95.6	97.2	97.9	97.3	96.9	96.7	95.9	94.5	*97.3	101.0	101.0	103.1	104.1		
Intermediate materials, supplies, etc.....do	101.5	107.1	104.7	105.6	106.3	107.4	108.2	108.4	108.7	108.6	108.9	*109.4	110.5	110.9	111.6	112.3		
Finished goods #.....do	105.4	108.0	106.3	107.0	107.5	107.7	108.6	108.7	108.6	109.4	109.8	110.0	111.0	111.7	112.2	113.0		
Finished consumer goods.....do	103.6	106.2	104.4	105.1	105.7	105.9	107.0	107.1	107.0	107.6	108.0	108.2	109.3	110.2	110.7	111.8		
Capital equipment.....do	111.7	114.3	113.2	113.6	113.8	113.9	114.2	114.5	114.3	116.0	116.1	*116.4	117.0	117.4	117.5	117.6		
By durability of product:																		
Durable goods.....do	109.9	114.7	113.3	113.8	114.1	114.4	114.8	115.1	115.2	116.4	116.8	*117.2	117.9	118.2	118.7	118.6		
Nondurable goods.....do	97.5	101.1	98.3	99.8	100.8	101.8	102.6	102.6	102.7	102.2	102.0	*102.8	104.6	105.2	106.1	107.4		
Total manufactures.....do	104.4	109.1	107.1	107.9	108.6	109.0	109.8	110.0	110.1	110.5	111.0	*111.4	112.3	112.8	113.5	114.4		
Durable manufactures.....do	109.6	*114.1	112.6	113.2	113.5	113.7	114.1	114.4	114.5	115.6	116.0	*116.4	117.0	117.3	117.8	117.7		
Nondurable manufactures.....do	99.2	104.1	101.7	102.7	103.7	104.3	105.4	105.6	105.6	106.4	106.1	*106.4	107.6	108.3	109.2	110.9		
Farm products, processed foods and feeds.....do	103.7	110.0	105.8	106.4	108.1	111.2	112.9	112.7	114.0	113.5	112.4	112.9	114.8	114.6	116.2	115.1		
Farm products.....do	95.5	*104.9	98.2	99.2	102.2	106.8	109.1	109.3	111.6	110.9	107.9	*108.9	111.4	110.5	113.4	110.5		
Foods and feeds, processed.....do	107.9	*112.7	109.6	110.1	111.2	113.5	115.0	114.5	115.4	115.0	114.8	*115.0	116.7	116.8	117.8	117.5		
Industrial commodities.....do	102.6	106.3	104.7	105.6	106.1	106.4	106.8	107.0	106.8	107.1	107.5	108.1	109.4	110.0	110.6	111.7		
Chemicals and allied products.....do	106.4	*116.3	112.7	113.8	114.6	115.3	117.4	118.2	119.1	119.9	121.1	121.7	123.2	124.4	124.6	125.1		
Fuels and related prod., and power.....do	70.2	*66.7	65.9	67.6	68.4	68.6	68.0	67.6	66.1	64.5	64.4	*65.6	68.2	68.8	69.7	74.1		
Furniture and household durables.....do	109.9	113.1	112.3	112.5	112.8	112.7	113.1	113.4	113.7	113.9	114.3	*114.5	115.0	115.0	115.5	116.0		
Hides, skins, and leather products.....do	120.4	*131.4	132.6	134.2	134.6	131.2	130.1	131.6	132.5	131.9	130.4	*130.1	131.0	133.1	136.6	136.1		
Lumber and wood products.....do	112.8	118.9	118.9	119.2	119.1	119.3	120.0	118.8	118.9	118.7	118.8	*119.0	119.8	121.6	123.1	124.9		
Machinery and equipment.....do	110.4	113.2	112.3	112.5	112.9	112.9	113.2	113.6	113.9	114.2	114.5	114.8	115.6	116.0	116.3	116.6		
Metals and metal products.....do	107.1	118.7	115.4	116.9	117.4	118.0	119.2	119.8	120.2	121.4	122.8	*124.0	124.7	124.8	126.2	125.3		
Nonmetallic mineral products.....do	110.0	111.2	110.9	111.0	111.2	111.3	111.1	111.1	111.3	111.4	111.5	111.7	111.7	111.9	112.0	112.5		
Pulp, paper, and allied products.....do	121.8	130.4	128.0	128.9	129.6	130.0	131.0	131.3	132.1	132.8	133.1	*133.5	134.8	136.3	137.0	137.5		
Rubber and plastics products.....do	103.0	*109.3	107.7	108.2	108.8	109.1	109.8	110.6	111.0	111.1	111.2	*111.3	112.0	112.3	112.7	112.9		
Textile products and apparel.....do	105.1	109.2	108.4	108.7	108.9	109.3	109.5	109.6	109.8	110.0	110.2	110.5	111.0	111.2	111.3	111.7		
Transportation equip. #.....do	112																	

Units	Annual		1988												1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.		
CONSTRUCTION AND REAL ESTATE																		
CONSTRUCTION PUT IN PLACE @																		
New construction (unadjusted), total.....mil. \$.	398,850	403,122	29,132	30,977	34,266	36,206	37,431	38,874	38,388	37,798	35,764	32,203	27,935	27,007	29,937			
Private, total #.....do	323,820	325,111	23,950	25,248	27,560	28,730	29,647	30,788	30,066	30,370	29,087	26,430	22,940	22,212	25,109			
Residential.....do	194,772	195,281	13,957	15,059	16,521	17,568	18,644	19,106	18,623	18,581	17,586	14,943	13,099	12,478	14,303			
New housing units.....do	139,915	139,178	10,233	10,889	11,776	12,560	12,967	13,201	13,154	12,974	12,537	10,608	9,802	9,227	10,529			
Nonresidential buildings, except farm and public utilities, total #.....mil. \$.	91,994	93,186	7,205	7,484	8,051	8,034	7,827	8,310	8,196	8,356	8,171	7,974	7,328	7,171	7,879			
Industrial.....do	13,707	14,239	1,053	1,069	1,168	1,152	1,163	1,222	1,218	1,417	1,426	1,355	1,172	1,096	1,246			
Commercial.....do	55,445	55,588	4,233	4,523	4,891	4,840	4,756	5,104	5,035	4,899	4,726	4,613	4,260	4,215	4,590			
Public utilities:																		
Telephone and telegraph.....do	8,530	8,202	672	542	663	680	693	807	782	725	773	760	537	536				
Public, total #.....do	75,030	78,012	5,181	5,730	6,706	7,476	7,784	8,086	8,323	7,428	6,878	5,773	4,995	4,795	4,828			
Buildings (excl. military) #.....do	25,158	27,105	2,049	2,103	2,291	2,516	2,447	2,700	2,685	2,331	2,242	2,155	2,054	2,123	2,062			
Housing and redevelopment.....do	1,519	1,522	130	123	124	133	129	120	138	133	146	121	124	133	121			
Industrial.....do	1,457	1,434	117	116	108	129	117	132	172	115	115	109	59	94	126			
Military facilities.....do	4,324	3,951	351	323	296	404	363	332	408	227	293	334	287	286	315			
Highways and streets.....do	22,757	25,720	1,283	1,677	2,288	2,737	3,046	3,048	2,887	2,903	2,227	1,633	1,196	984	1,126			
New construction (seasonally adjusted at annual rates), total.....bil. \$.			403.6	396.2	398.5	395.7	404.2	403.2	406.9	407.7	411.5	421.0	418.0	414.8	413.5			
Private, total #.....do			324.3	318.5	320.2	317.7	324.7	326.8	327.2	330.7	332.3	335.6	336.5	333.3	339.4			
Residential.....do			195.6	192.0	190.4	188.1	194.2	195.4	196.9	200.0	200.6	201.7	201.4	199.6	200.7			
New housing units.....do			139.2	138.5	137.7	136.8	136.4	137.1	138.7	140.5	142.7	144.2	145.4	145.3	143.3			
Nonresidential buildings, except farm and public utilities, total #.....bil. \$.			98.7	98.2	94.9	94.2	93.3	93.3	91.7	93.1	93.1	94.7	98.4	97.9	101.9			
Industrial.....do			14.5	13.8	13.9	13.7	13.9	14.0	13.5	15.3	16.0	14.9	15.8	14.9	16.7			
Commercial.....do			54.8	56.2	57.4	56.6	56.7	56.4	55.8	54.5	53.8	55.9	57.5	58.4	59.8			
Public utilities:																		
Telephone and telegraph.....do			8.0	6.7	7.7	7.5	8.3	8.5	8.7	8.2	8.7	9.0	8.4	7.7				
Public, total #.....do			79.3	77.7	78.3	78.0	79.5	76.4	79.7	77.0	79.2	85.4	81.4	81.5	74.1			
Buildings (excl. military) #.....do			26.8	26.4	27.5	28.1	27.0	28.3	28.8	26.6	27.2	28.3	27.8	30.5	27.5			
Housing and redevelopment.....do			1.6	1.5	1.5	1.6	1.5	1.4	1.7	1.6	1.8	1.5	1.5	1.6	1.5			
Industrial.....do			1.4	1.4	1.3	1.5	1.4	1.6	2.1	1.4	1.4	1.2	.7	1.1	1.5			
Military facilities.....do			4.2	3.9	3.5	4.8	4.4	4.0	4.9	2.7	3.5	4.0	3.4	3.4	3.8			
Highways and streets.....do			27.0	26.9	25.3	24.8	27.7	23.5	23.8	26.0	26.4	31.0	27.4	25.9	23.8			
CONSTRUCTION CONTRACTS																		
Construction contracts in 50 States (F.W. Dodge Division, McGraw-Hill):																		
Valuation, total.....mil. \$.	258,090	253,147	22,257	*22,344	23,013	25,461	21,379	23,142	21,174	20,313	18,601	18,027	15,776	15,086	21,080	21,725		
Index (mo. data seas. adj.).....1982=100	164	161	156	158	166	169	160	162	157	164	158	163	155	148	150	163		
Public ownership.....mil. \$.	66,318	66,077	5,801	*5,761	6,468	7,756	5,592	5,496	5,659	5,370	4,257	4,468	3,723	3,998	6,011	6,042		
Private ownership.....do	191,772	187,070	16,456	*16,583	16,545	17,705	15,788	17,645	15,515	14,943	14,345	13,558	12,053	11,089	15,068	15,684		
By type of building:																		
Nonresidential.....do	91,041	86,794	7,333	*6,905	6,826	8,567	7,595	8,391	7,524	6,939	6,592	5,888	6,081	5,183	6,600	6,510		
Residential.....do	121,128	120,867	11,031	*10,679	11,004	11,888	9,912	11,119	10,117	9,996	9,450	8,897	7,515	7,137	10,118	10,999		
Non-building construction.....do	45,921	45,486	3,894	*4,760	5,182	5,006	3,872	3,632	3,533	3,378	2,560	3,242	2,181	2,766	4,361	4,216		
New construction planning (Engineering News-Record) \$.....do	267,823	283,448	31,547	21,094	23,321	20,096	19,566	21,883	20,405	23,176	25,114	20,652	23,659					
HOUSING STARTS AND PERMITS																		
New housing units started:																		
Unadjusted:																		
Total (private and public).....thous.	1,622.7		129.0	153.4	140.3	150.3	137.2	136.8	131.4	135.2	112.2							
Privately owned.....do	1,620.5	1,488.1	128.8	153.2	140.2	150.2	137.0	136.8	131.1	135.1	113.0	94.2	100.1	*85.8	*116.4	131.1		
One-family structures.....do	1,146.4	1,081.3	99.9	106.1	104.0	113.6	100.3	101.4	91.7	97.7	81.2	65.7	69.9	*59.3	*84.0	100.9		
Seasonally adjusted at annual rates: ◊																		
Total privately owned.....do			1,528	1,576	1,392	1,463	1,478	1,459	1,463	1,532	1,567	1,577	1,678	*1,465	*1,399	1,361		
One-family structures.....do			1,169	1,087	1,001	1,088	1,067	1,076	1,039	1,136	1,138	1,141	1,199	*1,029	*986	1,036		
New private housing units authorized by building permits (17,000 permit-issuing places):																		
Monthly data are seas. adj. at annual rates:																		
Total.....thous.	1,535	*1,456	*1,500	*1,431	*1,448	*1,485	*1,425	*1,466	*1,432	*1,526	*1,508	*1,513	*1,486	*1,403	*1,230	1,318		
One-family structures.....do	1,024	*994	*1,025	*954	982	*997	*976	*1,007	*980	*1,029	*1,027	*1,058	*1,052	*989	*870	939		
Manufacturers' shipments of mobile homes:																		
Unadjusted.....thous.	292.8	218.3	18.8	18.8	20.0	21.7	16.7	21.9	20.6	19.8	17.6	14.2	15.3	14.6	18.2			
Seasonally adjusted at annual rates.....do			213	215	221	227	207	223	224	216	227	225	232	212	207			
CONSTRUCTION COST INDEXES																		
Dept. of Commerce composite †.....1982=100	114.3	116.0	116.1	115.1	115.4	115.4	116.2	116.2	116.4	116.6	116.6	116.7	116.4	116.6	116.7			
Boeckh indexes:																		
Average, 20 cities:																		
Apartments, hotels, office buildings.....1982=100	117.3	120.2	119.6		120.0		120.6		121.1		121.5		123.9		124.0			
Commercial and factory buildings.....do	115.1	118.3	117.7		118.3		118.9		119.0		119.6		121.1		121.5			
Residences.....do	119.7	122.3	121.8		122.3		122.9		123.1		123.7		125.6		126.3			
Engineering News-Record:																		
Building.....1967=100	375.6	384.6	382.7	383.5	383.6	384.0	384.6	386.5	386.6	386.6	387.2	387.3	387.7	386.8	387.3	*387.7		
Construction.....do	409.8	420.7	417.2	418.0	418.3	421.3	421.9	422.8	422.2	424.1	425.2	425.2	425.8	425.2	425.2	*425.5		
Federal Highway Adm.—Highway construction: Composite (avg. for year or qtr.).....1977=100	172.0	184.7	201.8			167.4			193.5				184.1			191.7		

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	CONSTRUCTION AND REAL ESTATE—Continued															
REAL ESTATE ◊																
Mortgage applications for new home construction:																
FHA applications.....thous. units..	165.3	104.9	10.8	9.6	10.5	9.5	8.1	9.4	8.3	8.5	7.3	7.2	6.4	7.3	9.9	8.3
Seasonally adjusted annual rates.....do....			103	102	112	109	104	102	96	120	104	104	86	91	92	92
Requests for VA appraisals.....do....	193.4	149.8	15.6	12.5	19.9	15.2	13.7	14.5	9.4	8.3	9.1	7.7	8.0	9.6	13.7	9.1
Seasonally adjusted annual rates.....do....			154	140	216	162	167	153	116	109	201	190	120	116	135	101
Home mortgages insured or guaranteed by:																
Fed. Hous. Adm.: Face amount.....mil. \$.	81,880.51	42,577.16	2,926.84	2,508.44	3,545.40	3,006.04	4,383.24	4,069.62	3,654.99	4,642.41	2,535.11	3,501.38	4,628.42	3,508.80	3,189.10	3,064.37
Vet. Adm.: Face amount \$.....do....	33,322.54	15,773.84	1,381.52	1,038.50	1,163.94	1,209.49	1,287.15	1,451.05	1,504.53	1,388.99	1,334.34	1,368.01	1,239.99	1,222.92	1,363.51	1,127.15
Federal Home Loan Banks, outstanding advances to member institutions, end of period.....mil. \$.	133,054	152,777	129,503	130,238	132,118	134,832	135,759	137,953	141,562	142,260	145,771	152,777	154,014	158,267	163,779	165,630
New mortgage loans of FSLIC-insured institutions, estimated total @.....mil. \$.	253,407	*240,304	18,378	19,078	21,236	25,567	*21,674	*24,655	*23,325	*19,647	*18,320	*21,684	*15,411	*13,836	18,377	.....
By purpose of loan:																
Home construction.....do....	28,411	*29,556	2,569	2,614	2,613	2,893	*2,464	*2,833	*2,867	*2,433	2,256	2,705	*1,970	*1,805	2,261	.....
Home purchase.....do....	190,749	*176,408	12,820	13,791	15,935	18,984	*16,466	*18,810	*17,133	*14,749	*13,634	*15,279	*11,451	*10,394	14,009	.....
All other purposes.....do....	34,247	*34,333	2,988	2,674	2,688	3,689	2,743	3,013	3,325	*2,464	*2,429	*3,700	*1,990	*1,637	2,107	.....
DOMESTIC TRADE																
ADVERTISING																
Magazine advertising (Leading National Advertisers):																
Cost, total.....mil. \$.																
Apparel and accessories.....do....																
Automotive, incl. accessories.....do....																
Building materials.....do....																
Drugs and toiletries.....do....																
Foods, soft drinks, confectionery.....do....																
Beer, wine, liquors.....do....																
Household equip., supplies, furnishings.....do....																
Industrial materials.....do....																
Soaps, cleansers, etc.....do....																
Smoking materials.....do....																
All other.....do....																
Newspaper advertising expenditures (Newspaper Advertising Bureau, Inc.): ††																
Total.....mil. \$.	29,412	31,197			7,982			7,623			8,520					
Classified.....do....	10,691	11,771			3,168			3,014			2,844					
National.....do....	3,494	3,586			920			867			920					
Retail.....do....	15,227	15,840			3,895			3,741			4,756					
WHOLESALE TRADE †																
Merchant wholesalers sales (unadj.), total.....mil. \$.																
Durable goods establishments.....do....	1,482,975	1,588,330	137,528	127,618	131,689	137,210	126,841	138,551	136,994	141,335	138,289	136,599	131,786	*127,414	148,672	.....
Durable goods establishments.....do....	725,683	782,744	67,289	64,491	65,312	68,466	62,555	67,904	68,511	70,825	68,957	67,261	63,265	*62,008	73,155	.....
Nondurable goods establishments.....do....	757,292	805,586	70,239	63,127	66,377	68,744	64,286	70,647	68,483	70,510	69,332	69,338	68,521	*65,411	75,517	.....
Merchant wholesalers inventories, book value (non-LIFO basis), end of period (unadj.), total.....mil. \$.																
Durable goods establishments.....do....	162,964	178,884	169,781	171,003	168,419	171,341	172,497	172,736	175,787	178,969	178,197	178,884	181,054	*181,481	181,250	.....
Durable goods establishments.....do....	105,145	114,176	111,114	112,803	111,410	111,500	113,366	113,470	115,469	115,561	114,648	114,176	115,885	*117,612	117,938	.....
Nondurable goods establishments.....do....	57,819	64,708	58,667	58,200	57,009	59,841	59,131	59,266	60,318	63,408	63,549	64,708	65,169	*63,869	63,312	.....
RETAIL TRADE †																
All retail stores:																
Estimated sales (unadj.), total.....mil. \$.	1,521,417	1,629,150	133,127	132,374	137,555	139,051	135,371	140,201	133,000	135,898	140,249	170,811	122,467	*118,891	*139,691	*136,221
Durable goods stores #.....do....	572,489	628,543	52,995	52,897	55,300	57,196	53,020	55,153	51,076	51,113	51,683	59,847	46,036	*45,146	*53,531	*52,357
Building materials, hardware, garden supply, and mobile home dealers.....mil. \$.	81,549	88,894	6,986	7,884	8,678	8,476	7,814	8,150	7,811	7,876	7,318	7,255	5,880	*5,491	*6,854	*7,615
Automotive dealers.....do....	334,429	369,028	33,137	32,188	33,327	34,712	31,845	32,963	29,748	29,660	28,766	28,613	27,233	*27,201	*32,958	*31,754
Furniture, home furnishings, and equipment.....do....	84,562	92,952	7,259	7,148	7,312	7,725	7,490	7,837	7,543	7,713	8,643	11,130	7,505	*7,054	*7,864	*7,408
Nondurable goods stores.....do....	948,928	1,000,607	80,132	79,477	82,255	81,855	82,351	85,048	81,924	84,785	88,566	110,964	76,431	*73,745	*86,160	*83,864
General merch. group stores.....do....	176,023	183,783	13,747	13,818	14,714	14,343	13,309	14,791	13,972	15,357	18,800	29,944	10,954	*11,025	*14,547	*14,710
Food stores.....do....	314,605	331,892	27,022	26,813	27,695	27,941	29,015	28,482	27,875	27,927	27,764	30,888	27,204	*26,125	*29,473	*28,300
Gasoline service stations.....do....	98,680	101,916	8,236	8,338	8,746	8,789	8,955	9,222	8,594	8,724	8,365	8,499	7,985	*7,649	*8,597	*8,924
Apparel and accessory stores.....do....	77,998	82,028	6,527	6,333	6,397	6,181	6,080	7,031	6,735	7,018	7,780	12,026	5,480	*5,103	*7,007	*6,720
Eating and drinking places.....do....	147,717	157,504	12,553	12,893	13,308	13,597	14,128	14,298	13,435	13,681	12,955	13,792	12,497	*11,885	*13,636	*13,609
Drug and proprietary stores.....do....	54,958	58,729	4,883	4,748	4,856	4,801	4,659	4,831	4,707	4,796	4,884	6,498	4,898	*4,778	*5,309	*4,921
Liquor stores.....do....	19,458	19,143	1,457	1,524	1,593	1,624	1,684	1,582	1,512	1,508	1,574	2,303	1,425	*1,335	1,507	.....
Estimated sales (seas. adj.), total.....do....			*133,797	*133,217	134,130	135,010	135,662	136,050	135,751	137,842	139,529	139,189	140,040	*139,428	*139,361	*139,931
Durable goods stores #.....do....			*52,259	*51,993	52,002	52,320	52,284	51,931	51,427	52,725	53,930	54,154	53,815	*53,071	*52,606	*52,635
Bldg. materials, hardware, garden supply, and mobile home dealers #.....mil. \$.			7,382	*7,425	7,468	7,341	7,247	7,357	7,386	7,424	7,640	7,822	7,742	*7,483	*7,292	*7,259
Building materials and supply stores.....do....			*5,213	*5,231	5,312	5,265	5,168	5,216	5,270	5,279	5,508	5,639	5,678	*5,409	5,219	.....
Hardware stores.....do....			*1,136	*1,178	1,157	1,165	1,172	1,170	1,209	1,198	1,201	1,190	1,175	*1,149	1,109	.....
Automotive dealers.....do....			*30,977	*30,433	30,401	30,536	30,790	30,353	29,870	31,262	31,800	31,803	31,194	*30,643	*30,483	*30,810
Motor vehicle and miscellaneous auto dealers.....do....			*28,459	*27,911	27,898	27,942	28,295	27,823	27,380	28,801	29,364	29,350	28,725	*28,174	*27,986	*28,348
Auto and home supply stores.....do....			*2,518	*2,522	2,503	2,594	2,495	2,530	2,490	2,461	2,436	2,453	2,469	*2,469	2,497	.....
Furniture, home furnishings, and equipment #.....do....			*7,572	*7,684	7,720	7,925	7,687	7,712	7,747	7,807	7,983	7,947	8,264	*8,287	*8,223	*8,123
Furniture, home furnishings stores.....do....			*3,778	3,793	3,770	3,893	3,784	3,738	3,791	3,877	3,944	3,986	4,123	*4,031	3,938	.....
Household appliance, radio, and TV stores.....do....			*3,291	*3,369	3,414	3,479	3,345	3,406	3,404	3,361	3,488	3,391	3,555	*3,665	3,704	.....

See footnotes at end of tables.

Units	Annual		1988												1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.		
DOMESTIC TRADE—Continued																		
RETAIL TRADE †—Continued																		
All retail stores—Continued																		
Estimated sales (seas. adj.)—Continued																		
Nondurable goods stores.....mil. \$			'81,538	'81,224	82,128	82,690	83,378	84,119	84,324	85,117	85,599	85,035	86,225	'86,357	'86,755	'87,296		
General merch. group stores.....do			'14,959	'14,803	14,897	15,149	15,149	15,095	15,251	15,573	15,728	15,754	15,985	'15,755	'15,768	'15,933		
Department stores excluding leased departments.....do			'12,495	'12,398	12,445	12,682	12,692	12,628	12,816	13,095	13,204	13,298	13,353	'13,238	'13,254	'13,386		
Variety stores.....do			665	643	647	661	697	682	676	700	704	695	683	'654	'654			
Food stores.....do			'27,027	'27,021	27,469	27,466	27,733	28,106	28,014	28,204	28,410	28,026	28,730	'29,016	'29,021	'29,228		
Grocery stores.....do			25,339	25,295	25,690	25,663	25,897	26,326	26,233	26,437	26,619	26,263	26,928	'27,193	'27,164	'27,399		
Gasoline service stations.....do			8,447	'8,371	8,483	8,467	8,456	8,659	8,584	8,629	8,484	8,457	8,477	'8,633	'8,836	'9,032		
Apparel and accessory stores #.....do			'6,609	'6,530	6,625	6,686	6,817	6,837	6,971	7,059	7,026	7,101	7,189	'6,978	6,942	'7,195		
Men's and boys' clothing and furnishings stores.....do			'774	'761	748	765	778	763	785	792	742	774	808	'776	764			
Women's clothing, specialty stores, and furriers.....do			'2,565	'2,569	2,610	2,627	2,628	2,626	2,670	2,698	2,761	2,750	2,812	'2,707	2,728			
Shoe stores.....do			'1,177	'1,159	1,181	1,178	1,232	1,224	1,226	1,224	1,223	1,275	1,280	'1,209	1,215			
Eating and drinking places.....do			12,693	'12,715	12,796	12,950	13,118	13,276	13,408	13,519	13,666	13,696	13,778	'13,677	'13,663	'13,541		
Drug and proprietary stores.....do			4,864	4,875	4,880	4,869	4,853	4,915	4,960	4,955	5,020	4,875	5,129	'5,199	'5,251	'5,169		
Liquor stores.....do			1,589	1,614	1,627	1,616	1,592	1,574	1,559	1,547	1,571	1,590	1,623	'1,614	1,627			
Estimated inventories, end of period:																		
Book value (non-LIFO basis), (unadjusted), total.....mil. \$																		
Durable goods stores #.....do	201,799	215,842	207,673	208,934	208,453	209,223	208,442	209,991	216,706	226,290	230,599	215,842	'215,551	221,622				
Bldg. materials, hardware, garden supply, and mobile home dealers.....do	105,716	114,461	106,531	106,854	107,824	108,434	106,236	104,564	107,559	111,742	115,396	114,461	'114,898	117,312				
Automotive dealers.....do	14,126	14,861	15,613	15,559	15,345	15,282	15,063	14,983	14,800	14,674	14,728	14,861	'14,971	15,615				
Furniture, home furnishings, and equipment.....do	56,596	60,719	55,133	54,692	55,274	56,040	53,585	50,738	52,460	54,915	57,727	60,719	'61,450	63,524				
Nondurable goods stores #.....do	16,231	18,030	16,617	16,975	17,047	17,141	16,998	17,568	18,468	19,127	19,337	18,030	'17,609	17,563				
General merch. group stores.....do	96,083	101,331	101,142	102,080	100,629	100,789	102,206	105,427	109,147	114,548	115,203	101,331	'100,653	104,310				
Department stores excluding leased departments.....do	33,478	35,222	37,147	38,064	36,659	36,311	36,746	38,214	40,278	43,637	44,025	35,222	'34,682	36,975				
Food stores.....do	26,510	28,298	29,514	30,406	29,188	28,701	28,768	30,039	31,735	34,723	35,361	28,298	'27,726	29,596				
Apparel and accessory stores.....do	20,521	21,852	20,843	20,727	20,735	21,023	21,072	21,241	21,384	22,002	22,157	21,852	'21,715	21,859				
Book value (non-LIFO basis), (seas. adj.), total.....do	206,981	221,242	205,816	206,564	208,575	210,824	211,534	215,396	219,297	216,724	218,093	221,242	'222,584	224,271				
Durable goods stores #.....do	106,271	114,994	103,254	103,895	105,860	107,064	107,448	110,146	114,303	111,689	112,904	114,994	'115,704	116,001				
Bldg. materials, hardware, garden supply, and mobile home dealers.....do	14,823	15,610	15,144	15,004	14,826	14,982	14,914	14,908	14,919	14,897	15,137	15,610	'15,514	15,662				
Automotive dealers.....do	55,500	59,421	51,352	51,913	53,435	54,235	54,333	56,404	60,078	57,660	58,183	59,421	'60,123	60,360				
Furniture, home furn., and equip.....do	16,280	18,084	16,956	17,112	17,237	17,314	17,398	17,728	18,213	18,027	18,106	18,084	'18,151	18,298				
Nondurable goods stores #.....do	100,710	106,248	102,562	102,669	102,715	103,760	104,091	105,250	104,994	105,035	105,189	106,248	'106,880	108,270				
General merch. group stores.....do	36,856	38,766	37,932	37,843	37,445	37,835	37,741	37,976	37,997	38,231	38,405	38,766	'38,578	39,144				
Department stores excluding leased departments.....do	29,036	30,989	30,055	30,045	29,963	29,991	29,806	30,039	30,109	30,459	30,669	30,989	'30,875	31,352				
Food stores.....do	20,362	21,706	20,375	20,914	20,949	21,080	21,310	21,700	21,475	21,475	21,228	21,706	'21,845	22,096				
Apparel and accessory stores.....do	17,022	17,522	17,019	16,976	17,235	17,341	17,640	17,789	17,803	17,813	17,656	17,522	'17,759	18,132				
Firms with 11 or more stores:																		
Estimated sales (unadj.), total.....mil. \$																		
Durable goods stores.....do	67,830	74,492	5,889	5,842	6,094	6,221	6,022	6,126	5,960	6,149	6,743	10,333	'5,206	4,930				
Auto and home supply stores.....do	7,274	7,624	639	653	663	682	664	690	682	652	652	634	'538	503				
Nondurable goods stores #.....do	499,673	524,131	41,857	41,360	42,592	42,253	41,735	43,590	42,107	44,059	47,928	64,498	'38,536	37,395				
General merchandise group stores.....do	162,306	170,529	12,716	12,730	13,606	13,298	12,271	13,741	12,986	14,270	17,565	27,994	'10,123	10,244				
Food stores.....do	179,202	187,687	15,514	15,369	15,474	15,689	16,175	15,745	15,569	15,694	15,595	16,175	'15,636	14,821				
Grocery stores.....do	176,420	184,820	15,279	15,128	15,248	15,465	15,951	15,520	15,354	15,479	15,363	17,233	'15,423	14,596				
Apparel and accessory stores.....do	41,866	43,888	3,552	3,362	3,429	3,309	3,220	3,314	3,585	3,708	4,263	6,678	'2,734	2,623				
Eating places.....do	37,793	39,302	3,198	3,257	3,298	3,333	3,497	3,517	3,314	3,411	3,224	3,386	'3,147	2,989				
Drug stores and proprietary stores.....do	32,255	34,515	2,869	2,746	2,846	2,793	2,690	2,798	2,714	2,748	2,860	4,146	'2,924	2,869				
Estimated sales(seas. adj.), total #																		
Auto and home supply stores.....do			48,727	48,790	49,004	49,525	49,705	49,814	50,151	50,842	50,997	50,802	'52,494	52,078				
Department stores excluding leased departments.....do			643	636	636	645	635	642	635	641	618	622	'645	646				
Variety stores.....do			12,075	12,001	12,043	12,268	12,271	12,220	12,401	12,688	12,793	12,834	'12,952	12,828				
Grocery stores.....do			526	501	504	523	556	557	551	566	547	557	'543	539				
Apparel and accessory stores.....do			15,113	15,158	15,279	15,373	15,426	15,582	15,478	15,667	15,645	15,400	'16,099	16,128				
Women's clothing, specialty stores, and furriers.....do			3,540	3,521	3,597	3,609	3,679	3,626	3,712	3,773	3,778	3,716	'3,884	3,784				
Shoe stores.....do			1,367	1,380	1,397	1,415	1,412	1,398	1,421	1,453	1,483	1,480	'1,545	1,477				
Drug stores and proprietary stores.....do			752	724	756	749	787	766	781	771	761	760	'782	752				
			2,875	2,854	2,881	2,859	2,841	2,876	2,893	2,902	2,948	2,846	'3,071	3,195				

LABOR FORCE, EMPLOYMENT, AND EARNINGS

LABOR FORCE AND POPULATION																
Not Seasonally Adjusted																
Noninstitutional population, persons 16 years of age and over.....thous.	184,490	186,322	185,847	185,964	186,088	186,247	186,402	186,522	186,666	186,801	186,949	187,098	187,340	187,461	187,581	187,708
Labor force @.....do	121,602	123,378	121,693	121,996	122,489	124,713	125,561	125,088	123,546	124,119	124,344	123,816	123,791	123,590	123,907	124,260
Resident Armed Forces.....do	1,737	1,709	1,736	1,732	1,714	1,685	1,673	1,692	1,704	1,687	1,705	1,696	1,696	1,684	1,684	1,684
Civilian noninstitutional population.....do	182,753	184,613	184,111	184,232	184,374	184,562	184,729	184,830	184,962	185,114	185,244	185,402	185,644	185,777	185,897	186,024
Civilian labor force, total.....do	119,865	121,669	119,957	120,264	120,775	123,028	123,888	123,396	121,842	122,432	122,639	122,120	122,095	121,906	122,223	122,576
Employed.....do	112,440	114,963	112,867	113,905	114,222	116,209	117,066	116,737	115,474	116,250	116,314	115,978	114,786	115,023	115,844	116,347
Unemployed.....do	7,425	6,701	7,090	6,359	6,553	6,819	6,823	6,659	6,368	6,182	6,325	6,142	7,309	6,883	6,378	6,229
Seasonally Adjusted ◊																
Civilian labor force, total.....do			120,936	121,328	121,203	121,524	121,658	122,000	121,984	122,091	122,510	122,563	123,428	123,181	123,264	123,659
Participation rate †.....percent	65.6	65.9	65.7	65.9	65.7	65.8	65.9	66.0	66.0	66.0	66.1	66.1	66.5	66.3	66.3	66.5
Employed, total.....thous.			1													

Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in BUSINESS STATISTICS: 1986

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
LABOR FORCE, EMPLOYMENT, AND EARNINGS—Continued																
LABOR FORCE—Continued																
Seasonally Adjusted ◊																
Civilian labor force—Continued																
Unemployed—Continued																
Rates/unemployed in each group as percent of civilian labor force in the group:																
All civilian workers.....	6.2	5.5	5.6	5.5	5.6	5.4	5.4	5.6	5.4	5.3	5.4	5.3	5.4	5.1	5.0	5.3
Men, 20 years and over.....	5.4	4.8	4.9	4.7	4.9	4.6	4.5	4.9	4.6	4.6	4.8	4.7	4.6	4.5	4.2	4.6
Women, 20 years and over.....	5.4	4.9	4.9	4.9	4.9	4.9	5.0	4.8	4.8	4.7	4.7	4.7	4.7	4.5	4.6	4.7
Both sexes, 16-19 years.....	16.9	15.3	16.4	15.8	15.6	14.1	15.1	15.4	15.5	15.0	14.1	14.8	16.4	14.8	13.7	14.4
White.....	5.3	4.7	4.7	4.6	4.7	4.6	4.7	4.9	4.7	4.6	4.6	4.6	4.6	4.3	4.2	4.6
Black.....	13.0	11.7	12.5	12.0	12.1	11.7	11.5	11.4	10.9	11.2	11.2	11.6	12.0	11.9	10.9	10.8
Hispanic origin.....	8.8	8.2	8.3	9.0	8.8	8.7	8.1	8.4	7.5	7.8	8.0	7.6	8.4	6.8	6.5	8.3
Married men, spouse present.....	3.9	3.3	3.4	3.1	3.3	3.2	3.1	3.4	3.1	3.1	3.3	3.1	3.1	3.1	2.9	3.2
Married women, spouse present.....	4.3	3.9	4.0	3.8	3.9	3.9	3.9	4.0	4.0	3.8	3.7	3.8	3.7	3.6	3.4	4.0
Women who maintain families.....	9.2	8.1	7.5	8.5	8.4	7.9	8.5	7.5	8.1	7.9	7.7	8.2	8.0	8.0	7.9	7.6
Industry of last job:																
Private nonagricultural wage and salary workers.....																
Construction.....	11.6	10.6	10.6	10.6	10.5	10.3	10.4	10.7	9.6	10.0	10.6	10.4	10.4	10.0	9.4	9.7
Manufacturing.....	6.0	5.3	5.2	5.3	5.3	4.9	5.2	5.5	5.4	5.3	5.1	5.2	5.3	4.9	4.8	4.9
Durable goods.....	5.8	5.0	5.1	4.8	4.9	4.5	4.9	5.0	5.2	5.0	4.9	5.0	5.0	4.4	4.7	4.7
Agricultural wage and salary workers.....	10.5	10.6	11.0	11.0	12.4	10.0	11.0	11.0	10.8	10.2	9.3	8.8	9.5	8.9	8.9	10.5
Not Seasonally Adjusted																
Occupation:																
Managerial and professional specialty, technical, sales, and administrative support.....																
Service occupations.....	7.7	6.9	7.0	6.4	6.1	7.0	7.0	6.6	6.5	6.8	6.8	6.2	7.0	6.3	5.9	7.0
Precision production, craft, and repair.....	6.1	5.4	6.8	5.3	5.1	4.8	4.6	4.2	4.3	5.0	5.2	5.3	6.7	6.2	6.1	5.6
Operators, fabricators, and laborers.....	9.4	8.4	9.8	8.6	8.3	7.2	7.3	7.6	7.7	7.0	7.8	8.2	10.0	9.2	8.3	7.8
Farming, forestry, and fishing.....	7.1	7.2	8.6	6.3	6.1	5.0	6.0	6.1	6.7	6.3	7.5	7.5	9.2	8.5	7.9	6.3
EMPLOYMENT §																
Employees on payrolls of nonagricultural estab.:																
Total, not adjusted for seas. variation.....thous.	102,310	106,039	104,161	105,159	105,956	106,920	106,069	106,241	107,138	107,850	108,313	108,491	106,531	*106,987	*107,606	*108,496
Private sector (excl. government).....do	85,295	88,653	86,490	87,505	88,268	89,478	89,619	89,933	89,989	90,124	90,386	88,979	*89,041	*89,635	*90,544	
Seasonally Adjusted																
Total employees, nonagricultural payrolls.....do																
Private sector (excl. government).....do	85,295	88,653	87,700	87,973	88,139	88,678	88,941	89,066	89,205	89,481	89,555	90,100	90,506	*90,725	*90,898	*91,029
Nonmanufacturing industries.....do	66,230	69,114	63,295	63,513	68,649	69,134	69,348	69,506	69,656	69,833	70,141	70,360	70,713	*70,944	*71,111	*71,251
Goods-producing.....do	24,784	25,565	25,330	25,455	25,466	25,592	25,663	25,639	25,648	25,743	25,849	25,889	26,048	*26,011	*25,986	*25,991
Mining.....do	721	733	733	737	739	740	740	739	734	729	722	719	718	*716	*720	*728
Construction.....do	4,988	5,293	5,192	5,238	5,237	5,308	5,330	5,340	5,365	5,366	5,413	5,430	5,537	*5,514	*5,479	*5,485
Manufacturing.....do	19,065	19,539	19,405	19,460	19,490	19,544	19,593	19,560	19,549	19,648	19,714	19,740	19,793	*19,781	*19,787	*19,778
Durable goods.....do	11,218	11,516	11,411	11,459	11,477	11,515	11,566	11,547	11,537	11,695	11,637	11,661	11,686	11,667	*11,653	*11,646
Lumber and wood products.....do	740	758	755	758	757	757	756	753	753	760	767	771	775	*769	*765	*759
Furniture and fixtures.....do	518	538	534	535	537	537	541	537	538	540	541	540	540	542	544	*545
Stone, clay and glass products.....do	582	587	585	587	585	587	589	586	585	588	590	592	593	593	591	*590
Primary metal industries.....do	749	782	772	773	776	781	789	785	787	794	796	794	796	794	*795	*796
Fabricated metal products.....do	1,407	1,455	1,439	1,444	1,448	1,457	1,464	1,458	1,460	1,467	1,474	1,479	1,487	*1,482	*1,485	*1,482
Machinery, except electrical.....do	2,023	2,138	2,099	2,111	2,121	2,134	2,151	2,156	2,159	2,173	2,185	2,190	2,198	2,204	*2,204	*2,206
Electric and electronic equip.....do	2,084	2,120	2,115	2,117	2,115	2,120	2,122	2,126	2,124	2,126	2,130	2,123	2,118	2,114	*2,109	*2,104
Transportation equipment.....do	2,048	2,042	2,025	2,045	2,043	2,047	2,052	2,044	2,032	2,045	2,050	2,051	2,066	*2,048	*2,042	*2,046
Instruments and related products.....do	696	713	705	706	709	713	718	716	716	719	721	726	727	728	*731	*731
Miscellaneous manufacturing.....do	370	383	382	383	381	382	387	384	383	381	383	385	386	*388	*387	*387
Nondurable goods.....do	7,847	8,023	7,994	8,001	8,013	8,029	8,027	8,013	8,012	8,053	8,077	8,089	8,107	*8,114	*8,134	*8,132
Food and kindred products.....do	1,624	1,645	1,641	1,648	1,645	1,649	1,631	1,630	1,632	1,654	1,661	1,666	1,663	*1,663	*1,666	*1,666
Tobacco manufactures.....do	54	53	54	54	52	53	52	52	51	52	53	53	52	53	53	*51
Textile mill products.....do	725	726	729	727	728	727	726	729	722	722	723	722	727	*726	*726	*726
Apparel and other textile products.....do	1,100	1,097	1,106	1,100	1,100	1,097	1,096	1,089	1,087	1,086	1,093	1,096	1,097	*1,103	*1,108	*1,103
Paper and allied products.....do	679	689	687	687	689	691	692	691	688	691	691	692	692	*691	*692	*692
Printing and publishing.....do	1,507	1,565	1,548	1,554	1,559	1,565	1,567	1,572	1,575	1,581	1,583	1,592	1,598	*1,596	*1,601	*1,603
Chemicals and allied products.....do	1,026	1,063	1,052	1,056	1,060	1,065	1,067	1,070	1,069	1,071	1,073	1,076	1,080	1,082	*1,083	*1,086
Petroleum and coal products.....do	165	167	164	165	166	167	167	167	168	169	169	168	166	167	167	*168
Rubber and plastics products, nec.....do	823	873	860	864	870	873	882	878	874	882	887	890	887	*891	*895	*898
Leather and leather products.....do	144	146	147	146	146	146	147	145	146	145	144	144	145	*145	*146	*144
Service-producing.....do	77,525	80,475	79,690	79,846	80,023	80,465	80,608	80,786	81,089	81,230	81,570	81,752	82,017	*82,330	*82,526	*82,638
Transportation and public utilities.....do	5,385	5,584	5,530	5,543	5,556	5,582	5,598	5,605	5,613	5,631	5,658	5,670	5,692	*5,705	*5,701	*5,718
Wholesale trade.....do	5,872	6,156	6,061	6,089	6,115	6,148	6,174	6,192	6,219	6,241	6,275	6,301	6,332	*6,361	*6,388	*6,399
Retail trade.....do	18,509	19,206	19,050	19,093	19,130	19,205	19,261	19,279	19,291	19,327	19,401	19,429	19,556	*19,619	*19,689	*19,694
Finance, insurance, and real estate.....do	6,549	6,679	6,651	6,650	6,656	6,679	6,684	6,689	6,692	6,708	6,725	6,741	6,733	*6,757	*6,761	*6,755
Services.....do	24,196	25,464	25,078	25,163	25,216	25,472	25,561	25,662	25,737	25,826	25,947	26,070	26,145	*26,272	*26,373	*26,472
Government.....do	17,015	17,387	17,320	17,308	17,350	17,379	17,380	17,359	17,532	17,492	17,564	17,541	17,559	*17,616	*17,614	*17,600
Federal.....do	2,943	2,971	2,970	2,963	2,957	2,951	2,951	2,956	2,989	2,989	2,989	2,990	2,981	*2,987	*2,979	*2,974
State.....do	3,963	4,051	4,031	4,041	4,051	4,049	4,059	4,070	4,086	4,074	4,071	4,063	4,079	*4,084	*4,087	*4,087
Local.....do	10,109	10,365	10,319	10,304	10,343	10,379	10,320	10,333	10,457	10,433	10,501	10,480	10,515	*10,550	*10,551	*10,539
Production or nonsupervisory workers on private nonagric. payrolls, not seas. adjusted.....thous.																
Manufacturing.....do	69,039	71,692	69,797	70,717	71,379	72,446	72,533	72,831	72,799	72,963	73,181	73,393	71,741	*71,772	*72,306	*73,104
Manufacturing.....do	12,995	13,338	13,165	13,213	13,271	13,424	13,268	13,407	13,498	13,522	13,549	13,507	13,396	*13,398	*13,425	*13,431
Seasonally Adjusted																
Production or nonsupervisory workers on private nonagricultural payrolls.....thous.																
Goods-producing.....do	17,412	18,000	17,839	17,909	17,925	18,025	18,085	18,058	18,049	18,124	18,210	18,240	18,363	*18,326	*18,300	*18,288
Mining.....do	515	529	529	533	535	535	535	536	530	527	519	517	516	*515	*520	*526
Construction.....do	3,902	4,133	4,059	4,096	4,088	4,149	4,168	4,170	4,187	4,185	4,226	4,242	4,329	*4,301	*4,268	*4,261

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in Business Statistics: 1986															
LABOR FORCE, EMPLOYMENT, AND EARNINGS—Continued																
EMPLOYMENT §—Continued																
Seasonally Adjusted																
Production or nonsupervisory workers—Continued																
Nondurable goods.....thous.	5,543	5,662	5,653	5,648	5,653	5,665	5,662	5,647	5,643	5,679	5,700	5,705	5,719	5,729	'5,746	'5,741
Food and kindred products.....do	1,149	1,166	1,168	1,169	1,164	1,168	1,153	1,151	1,153	1,174	1,181	1,176	1,184	1,185	'1,188	'1,190
Tobacco manufactures.....do	41	40	41	40	39	40	39	38	37	38	40	38	39	40	'38	'38
Textile mill products.....do	629	630	634	632	632	630	632	622	626	626	626	625	630	629	'628	'629
Apparel and other textile products.....do	924	923	930	926	925	923	922	916	915	916	922	924	927	931	'931	'931
Paper and allied products.....do	516	522	521	520	521	523	524	524	524	521	522	522	521	520	'522	'522
Printing and publishing.....do	842	876	870	871	872	875	876	879	880	883	885	889	890	890	'893	'891
Chemicals and allied products.....do	576	598	592	593	596	599	600	603	601	603	603	605	608	609	'609	'612
Petroleum and coal products.....do	108	108	107	107	108	108	108	109	109	110	110	110	108	108	'108	'109
Rubber and plastics products, nec.....do	639	679	669	670	676	679	687	685	682	688	692	695	693	697	'700	'699
Leather and leather products.....do	120	120	121	120	120	120	121	120	120	120	119	119	120	121	'121	'120
Service-producing.....do	51,628	53,692	53,122	53,261	53,355	53,711	53,868	54,005	54,060	54,204	54,417	54,594	54,837	'55,038	'55,210	'55,282
Transportation and public utilities.....do	4,464	4,635	4,587	4,600	4,611	4,632	4,648	4,661	4,656	4,672	4,701	4,718	4,733	'4,744	'4,741	'4,743
Wholesale trade.....do	4,704	4,955	4,881	4,902	4,924	4,956	4,975	4,990	5,011	5,030	5,054	5,071	5,096	'5,120	'5,140	'5,147
Retail trade.....do	16,454	17,019	16,897	16,949	16,949	17,028	17,070	17,087	17,078	17,109	17,163	17,187	17,309	'17,355	'17,422	'17,422
Finance, insurance, and real estate.....do	4,807	4,843	4,825	4,823	4,828	4,842	4,844	4,851	4,847	4,855	4,865	4,865	4,871	4,878	'4,873	'4,871
Services.....do	21,198	22,239	21,932	21,987	22,023	22,253	22,326	22,416	22,468	22,538	22,634	22,753	22,828	'22,941	'23,034	'23,099
AVERAGE HOURS PER WEEK §																
Seasonally Adjusted																
Avg. weekly hours per worker on private nonag. payrolls: ◇																
Not seasonally adjusted.....hours	34.8	34.8	34.4	34.7	34.6	34.9	35.1	35.0	34.8	34.9	34.7	34.9	34.5	34.3	34.4	'34.8
Seasonally adjusted.....do	34.8	34.8	34.6	34.9	34.7	34.7	34.9	34.6	34.7	34.9	34.8	34.7	34.8	34.6	34.6	'34.8
Mining.....do	42.4	42.3	41.9	42.8	42.2	42.5	42.3	42.0	42.2	42.7	41.9	42.7	42.1	41.7	'41.9	'43.0
Construction.....do	37.8	37.9	37.4	37.9	38.2	38.7	38.5	38.6	38.4	39.0	37.7	37.2	36.4	36.1	'37.3	'37.7
Manufacturing.....do	41.0	41.1	40.9	41.0	40.9	41.2	40.7	40.8	41.3	41.3	41.5	41.6	41.0	40.8	40.9	'41.0
Not seasonally adjusted.....do	41.0	41.1	40.9	41.0	40.9	41.2	40.7	40.8	41.3	41.3	41.5	41.6	41.0	40.8	40.9	'41.0
Seasonally adjusted.....do	41.0	41.1	40.9	41.0	40.9	41.1	41.0	41.0	41.2	41.2	41.2	40.8	41.1	41.1	'41.0	'41.3
Overtime hours.....do	3.7	3.9	3.7	3.9	3.9	3.9	3.9	3.9	3.9	4.0	3.9	3.9	3.9	3.9	3.9	'4.0
Durable goods.....do	41.5	41.8	41.5	42.0	41.8	41.8	41.8	41.6	41.9	41.9	41.9	41.5	41.8	41.7	41.6	'42.0
Overtime hours.....do	3.8	4.1	3.8	4.2	4.2	4.1	4.0	4.1	4.0	4.2	4.2	4.1	4.1	4.1	4.0	'4.1
Lumber and wood products.....do	40.6	40.3	40.1	40.6	40.1	40.2	40.5	40.0	39.9	40.7	40.3	40.3	40.3	39.5	40.0	'40.3
Furniture and fixtures.....do	40.0	39.4	39.3	39.5	39.5	39.4	39.7	39.0	39.6	39.4	39.4	39.2	40.1	39.7	'39.9	'39.8
Stone, clay, and glass products.....do	42.3	42.3	42.3	42.5	42.3	42.4	42.1	42.1	42.3	42.5	42.6	42.4	42.6	42.1	42.3	'42.8
Primary metal industries.....do	43.1	43.6	43.3	43.5	43.6	43.6	43.4	43.5	44.0	43.8	43.7	43.4	43.6	43.3	43.4	'43.4
Fabricated metal products.....do	41.5	41.8	41.6	42.0	41.9	42.0	41.7	41.8	42.0	41.9	42.2	41.7	41.9	41.8	41.6	'41.9
Machinery, except electrical.....do	42.2	42.6	42.5	42.8	42.6	42.5	43.0	42.4	42.7	42.6	42.5	42.3	42.5	42.5	42.3	'42.6
Electric and electronic equip.....do	40.9	41.0	40.9	41.2	41.0	41.1	41.0	40.8	41.0	41.0	41.0	40.7	40.8	40.9	40.5	'41.2
Transportation equipment.....do	42.0	42.7	42.1	43.0	43.0	43.0	42.6	42.7	43.3	43.3	43.3	42.4	42.6	43.0	42.9	'43.3
Instruments and related products.....do	41.4	41.5	41.4	41.8	41.4	41.3	41.8	41.5	41.6	41.9	41.6	41.0	41.6	41.6	40.9	'41.4
Miscellaneous manufacturing.....do	39.4	39.2	39.2	39.4	39.2	39.3	39.2	39.2	39.1	39.2	39.1	39.2	38.9	39.4	39.3	'39.8
Nondurable goods.....do	40.2	40.2	40.1	40.3	40.0	40.1	40.2	40.1	40.2	40.2	40.2	39.9	40.1	40.2	40.1	'40.3
Overtime hours.....do	3.6	3.7	3.6	3.6	3.6	3.6	3.7	3.6	3.7	3.8	3.6	3.6	3.6	3.7	3.8	'3.8
Food and kindred products.....do	40.2	40.4	40.1	40.1	40.1	40.3	40.5	40.4	40.3	40.6	40.6	40.3	40.1	40.3	40.4	'40.5
Tobacco manufactures.....do	39.0	39.8	39.3	38.5	39.5	39.8	39.2	40.1	41.2	41.3	40.3	39.9	38.0	37.8	'38.3	'39.1
Textile mill products.....do	41.8	41.1	41.2	41.6	40.8	40.7	41.1	41.1	41.1	41.0	41.0	40.5	40.9	40.7	41.2	'41.6
Apparel and other textile products.....do	37.0	36.9	37.0	37.4	36.8	36.9	36.9	36.8	37.1	36.8	37.0	36.6	37.0	37.1	'36.9	'37.5
Paper and allied products.....do	43.4	43.2	43.2	43.3	43.3	43.2	43.2	43.2	43.3	43.2	43.1	43.1	43.1	43.2	43.3	'43.3
Printing and publishing.....do	38.0	38.0	38.1	38.2	37.7	38.0	38.0	38.0	38.1	38.0	37.8	37.7	38.0	38.0	'37.9	'37.9
Chemicals and allied products.....do	42.3	42.3	42.5	42.1	42.0	42.4	42.3	42.1	42.1	42.5	42.4	42.3	42.4	42.5	42.3	'42.4
Petroleum and coal products.....do	44.0	44.4	43.7	44.4	44.1	45.1	45.3	44.6	44.7	44.7	44.2	44.3	43.5	44.0	43.0	'43.5
Rubber and plastics products, nec.....do	41.6	41.6	41.7	42.0	41.7	41.6	41.6	41.5	41.6	41.5	41.7	41.2	41.7	41.7	41.5	'41.6
Leather and leather products.....do	38.2	37.5	37.9	37.3	37.3	36.9	37.0	37.6	37.5	37.9	37.3	37.7	38.3	38.3	37.9	'38.0
Transportation and public utilities.....do	39.2	39.3	38.8	39.5	39.4	39.3	39.5	39.3	39.4	39.4	39.2	39.4	39.7	39.3	'39.5	'39.8
Wholesale trade.....do	38.1	38.1	38.1	38.3	38.0	37.9	38.2	37.8	38.1	38.1	38.0	38.0	38.1	38.0	38.0	'38.2
Retail trade.....do	29.2	29.1	29.0	29.2	29.0	29.1	29.3	29.0	28.9	29.2	29.0	29.2	29.1	28.9	28.9	'29.2
Finance, insurance, and real estate.....do	36.3	35.9	35.8	36.2	35.8	35.8	36.2	35.7	35.8	36.0	35.7	35.8	36.1	35.8	35.8	'36.4
Services.....do	32.5	32.6	32.4	32.7	32.5	32.5	32.7	32.4	32.6	32.8	32.6	32.6	32.8	32.5	32.5	'32.9
AGGREGATE EMPLOYEE-HOURS §																
Seasonally Adjusted																
Employee-hours, wage & salary workers in non-agric. establish, for 1 week in the month, seas adj. at annual rate.....bil. hours																
Total private sector.....do	190.09	197.30	194.92	196.33	196.09	197.14	198.25	197.60	198.21	199.95	198.94	200.11	201.38	'201.42	'201.80	'202.86
Mining.....do	1.59	1.61	1.59	1.64	1.63	1.64	1.63	1.62	1.62	1.62	1.57	1.57	1.55	1.53	1.57	'1.63
Construction.....do	9.82	10.43	10.24	10.31	10.26	10.37	10.44	10.50	10.45	10.75	10.95	10.65	10.77	10.72	10.77	'10.73
Manufacturing.....do	40.59	41.64	41.29	41.50	41.49	41.66	41.77	41.62	41.74	42.00	42.14	41.99	42.16	42.18	42.10	'42.20
Transportation and public utilities.....do	10.99	11.43	11.17	11.36	11.37	11.43	11.55	11.49	11.49	11.57	11.58	11.63	11.73	11.70	11.71	'11.81
Wholesale trade.....do	11.65	12.20	12.01	12.13	12.06	12.13	12.26	12.19	12.31	12.39	12.38	12.47	12.53	12.59	12.61	'12.72
Retail trade.....do	28.10	29.06	28.72	28.88	28.81	28.98	29.35	29.10	29.01	29.39	29.23	29.51	29.67	29.51	29.58	'29.78
Finance, insurance, and real estate.....do	12.37	12.51	12.38	12.54	12.40	12.47	12.59	12.43	12.49	12.59	12.50	12.58	12.68	12.59	12.59	'12.80
Services.....do	41.35	43.62	42.76	43.20	43.15	43.54	43.97	43.70	43.95	44.41	44.29	44.60	44.92	44.85	45.02	'45.82
Government.....do	33.62	34.81	34.77	34.77	34.93	34.73	34.69	34.95	35.16	35.23	34.39	35.18	35.38	35.76	35.35	'35.38
Indexes of employee-hours (aggregate weekly): ◇																
Private nonagric. payrolls, total.....1977=100	120.9	125.4	123.6	125.1	124.4	125.4										

Units	Annual		1988												1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.		
LABOR FORCE, EMPLOYMENT, AND EARNINGS—Continued																		
HOURLY AND WEEKLY EARNINGS \$																		
Average hourly earnings per worker: ◊																		
Not seasonally adjusted:																		
Private nonagric. payrolls.....dollars..	8.98	9.29	9.18	9.23	9.26	9.23	9.25	9.24	9.40	9.45	9.46	9.46	9.54	9.54	*9.55	*9.60		
Mining.....do	12.52	12.69	12.59	12.60	12.54	12.55	12.66	12.62	12.75	12.72	12.88	12.97	13.14	*13.16	*13.09	*13.05		
Construction.....do	12.69	12.97	12.87	12.88	12.87	12.85	12.91	12.95	13.13	13.13	13.04	13.16	13.22	13.17	*13.22	*13.29		
Manufacturing.....do	9.91	10.17	10.07	10.12	10.14	10.16	10.16	10.12	10.25	10.24	10.30	10.37	10.37	10.37	*10.39	*10.40		
Excluding overtime.....do	9.48	9.71	9.64	9.68	9.70	9.70	9.72	9.66	9.75	9.76	9.82	9.87	9.91	*9.92	*9.93	*9.95		
Durable goods.....do	10.43	10.70	10.59	10.65	10.67	10.69	10.67	10.64	10.78	10.78	10.85	10.90	10.89	10.90	*10.92	*10.94		
Excluding overtime.....do	9.98	10.21	10.13	10.17	10.19	10.19	10.20	10.16	10.25	10.26	10.32	10.35	10.39	*10.41	*10.42	*10.44		
Lumber and wood products.....do	8.40	8.60	8.45	8.50	8.54	8.60	8.65	8.58	8.67	8.76	8.68	8.75	8.70	*8.68	*8.66	*8.76		
Furniture and fixtures.....do	7.67	7.92	7.76	7.81	7.87	7.91	7.97	8.00	8.07	8.04	8.00	8.04	8.08	8.06	*8.10	*8.09		
Stone, clay, and glass products.....do	10.25	10.48	10.36	10.41	10.45	10.48	10.54	10.46	10.55	10.58	10.61	10.58	10.60	10.63	*10.62	*10.72		
Primary metal industries.....do	11.94	12.15	12.07	12.11	12.18	12.15	12.22	12.11	12.25	12.20	12.29	12.27	12.25	12.28	*12.28	*12.37		
Fabricated metal products.....do	10.00	10.24	10.14	10.22	10.23	10.26	10.18	10.20	10.32	10.32	10.35	10.43	10.44	10.44	*10.45	*10.49		
Machinery, except electrical.....do	10.70	10.97	10.84	10.88	10.90	10.93	10.94	10.93	11.05	11.07	11.17	11.20	11.16	*11.19	11.21	*11.21		
Electric and electronic equip.....do	9.88	10.13	10.04	10.09	10.12	10.15	10.13	10.15	10.19	10.16	10.24	10.29	10.27	10.25	*10.29	*10.29		
Transportation equipment.....do	12.95	13.36	13.20	13.28	13.31	13.35	13.23	13.26	13.49	13.49	13.60	13.65	13.62	*13.64	*13.69	*13.63		
Instruments and related products.....do	9.71	9.95	9.88	9.89	9.87	9.88	9.93	9.91	9.97	10.05	10.05	10.10	10.09	10.11	*10.15	*10.23		
Miscellaneous manufacturing.....do	7.75	7.98	7.91	7.92	7.94	7.93	7.94	7.93	7.99	8.07	8.09	8.17	8.19	8.20	*8.19	*8.19		
Nondurable goods.....do	9.18	9.42	9.33	9.37	9.38	9.39	9.45	9.40	9.50	9.48	9.53	9.60	9.61	9.62	*9.65	*9.64		
Excluding overtime.....do	8.78	9.01	8.95	8.98	8.99	8.99	9.05	8.98	9.04	9.05	9.10	9.13	9.21	9.21	*9.23	*9.24		
Food and kindred products.....do	8.94	9.11	9.07	9.14	9.15	9.12	9.13	9.04	9.12	9.04	9.16	9.26	9.28	*9.27	*9.34	*9.31		
Tobacco manufactures.....do	14.03	14.56	14.42	14.98	15.24	15.78	15.66	14.84	13.98	13.92	14.43	14.18	14.28	14.62	*15.18	*15.56		
Textile mill products.....do	7.17	7.37	7.31	7.35	7.31	7.33	7.31	7.37	7.43	7.45	7.47	7.52	7.60	*7.59	*7.59	*7.62		
Apparel and other textile products.....do	5.93	6.10	6.03	6.04	6.05	6.08	6.02	6.07	6.19	6.20	6.23	6.27	6.29	*6.29	6.31	*6.31		
Paper and allied products.....do	11.43	11.64	11.52	11.60	11.64	11.65	11.71	11.63	11.70	11.67	11.72	11.79	11.77	*11.79	*11.82	*11.78		
Printing and publishing.....do	10.28	10.53	10.45	10.40	10.43	10.43	10.49	10.55	10.70	10.68	10.68	10.71	10.73	10.75	*10.80	*10.76		
Chemicals and allied products.....do	12.37	12.67	12.53	12.57	12.59	12.60	12.70	12.63	12.76	12.79	12.87	12.91	12.86	12.89	*12.92	*12.87		
Petroleum and coal products.....do	14.59	15.05	14.98	15.00	14.93	15.04	14.99	14.91	15.08	15.22	15.25	15.28	15.31	*15.52	*15.54	*15.49		
Rubber and plastics products, nec.....do	8.91	9.11	9.00	9.04	9.04	9.07	9.11	9.14	9.18	9.20	9.22	9.27	9.28	*9.27	*9.29	*9.32		
Leather and leather products.....do	6.08	6.28	6.23	6.29	6.27	6.27	6.20	6.23	6.31	6.34	6.42	6.45	6.49	6.51	*6.55	*6.54		
Transportation and public utilities.....do	12.03	12.32	12.19	12.27	12.28	12.27	12.33	12.35	12.41	12.43	12.46	12.43	12.47	*12.51	12.48	*12.56		
Wholesale trade.....do	9.59	9.92	9.78	9.88	9.87	9.85	9.98	9.88	10.01	10.08	10.05	10.12	10.21	10.21	*10.19	*10.32		
Retail trade.....do	6.11	6.31	6.24	6.26	6.28	6.26	6.28	6.32	6.38	6.43	6.42	6.42	6.47	6.46	6.46	*6.48		
Finance, insurance, and real estate.....do	8.73	9.10	8.97	9.03	9.09	8.98	9.08	9.04	9.14	9.29	9.27	9.32	9.46	*9.47	*9.43	*9.55		
Services.....do	8.48	8.90	8.80	8.82	8.84	8.78	8.79	8.79	8.98	9.07	9.10	9.15	9.24	*9.26	*9.26	*9.30		
Seasonally adjusted:																		
Private nonagricultural payrolls.....dollars..	8.98	9.29	9.16	9.23	9.27	9.27	9.32	9.32	9.37	9.43	9.42	9.45	9.49	9.50	*9.52	*9.59		
Mining.....do	12.52	12.69	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)		
Construction.....do	12.69	12.97	12.90	12.93	12.91	12.93	13.03	12.99	13.04	13.03	13.01	13.09	13.14	13.18	*13.25	*13.34		
Manufacturing.....do	9.91	10.17	10.05	10.11	10.15	10.18	10.17	10.20	10.26	10.28	10.29	10.31	10.32	10.35	*10.37	*10.39		
Transportation and public utilities.....do	12.03	12.32	12.21	12.29	12.35	12.33	12.37	12.39	12.37	12.43	12.37	12.36	12.46	12.46	12.51	*12.59		
Wholesale trade.....do	9.59	9.92	9.76	9.88	9.88	9.86	9.97	9.93	10.01	10.13	10.04	10.08	10.18	10.15	*10.17	*10.32		
Retail trade.....do	6.11	6.31	6.22	6.25	6.28	6.29	6.33	6.32	6.34	6.37	6.42	6.42	6.43	6.43	6.44	*6.47		
Finance, insurance, and real estate.....do	8.73	9.10	8.90	8.99	9.08	9.00	9.10	9.09	9.18	9.36	9.26	9.37	9.41	*9.35	*9.36	*9.50		
Services.....do	8.48	8.90	8.75	8.81	8.88	8.86	8.92	8.93	8.99	9.06	9.04	9.09	9.14	*9.17	*9.20	*9.29		
Indexes of avg. hourly earnings, seas. adj.: ◊																		
Private nonfarm economy:																		
Current dollars.....1977=100	173.5	179.0	177.0	178.0	178.7	178.6	179.3	179.5	180.3	181.5	181.4	181.7	(2)	(2)	(2)	(2)		
1977 dollars \$	94.0	93.3	93.5	93.6	93.6	93.2	93.2	92.9	93.0	93.1	92.9	92.7	(2)	(2)	(2)	(2)		
Mining.....do	182.2	185.5	183.6	184.6	184.2	184.6	185.8	185.6	186.6	186.5	187.1	187.3	(2)	(2)	(2)	(2)		
Construction.....do	154.9	158.3	157.5	157.8	157.5	157.8	158.8	158.6	159.3	159.2	159.3	159.9	(2)	(2)	(2)	(2)		
Manufacturing.....do	174.9	178.8	177.3	177.9	178.4	178.8	178.8	179.3	180.0	180.5	180.7	180.9	(2)	(2)	(2)	(2)		
Transportation and public utilities.....do	176.1	181.1	179.4	180.6	181.6	181.0	181.5	181.9	182.0	183.1	182.9	182.8	(2)	(2)	(2)	(2)		
Wholesale trade \$	177.1	182.7	180.4	182.3	182.2	181.7	183.0	182.1	184.5	186.0	185.1	186.6	(2)	(2)	(2)	(2)		
Retail trade.....do	160.9	165.9	163.8	164.8	165.4	165.7	166.8	166.7	167.1	168.4	168.9	168.2	(2)	(2)	(2)	(2)		
Finance, insurance, and real estate \$	187.5	195.7	193.4	194.8	195.9	194.0	194.8	195.2	197.0	200.2	199.5	200.2	(2)	(2)	(2)	(2)		
Services.....do	181.1	189.8	186.9	188.3	189.9	189.4	190.8	190.9	191.9	194.0	193.3	193.9	(2)	(2)	(2)	(2)		
Hourly wages, not seasonally adjusted:																		
Construction wages, 20 cities (ENR): \$\$																		
Common labor.....\$ per hr.	16.86	17.33	17.11	17.11	17.20	17.36	17.40	17.41	17.42	17.55	17.60	17.62	17.63	17.64	17.64	17.64		
Skilled labor.....do	22.12	22.67	22.54	22.54	22.58	22.54	22.61	22.71	22.80	22.89	22.94	22.99	22.99	23.02	23.05	23.05		
Railroad wages (average, class D).....do	14.25	15.00	14.75	15.00	15.11	15.06	15.04	14.87	15.08	14.91	15.11	15.28	15.30	*15.59	*15.30	.....	
Avg. weekly earnings per worker, private nonfarm: ◊																		
Current dollars, seasonally adjusted.....	312.50	323.29	316.94	322.13	321.67	321.67	325.27	322.47	325.14	329.11	327.82	327.92	330.25	328.70	*329.39	*335.65		
1977 dollars, seasonally adjusted \$	169.28	168.29	167.25	169.36	168.41	167.89	169.06	166.82	167.68	169.03	167.77	167.39	167.55	166.09	*165.61	*167.66		
Current dollars, not seasonally adjusted:																		
Private nonfarm, total.....dollars..	312.50	323.29	315.79	320.28	320.40	322.13	324.68	323.40	327.12	329.81	328.26	330.15	329.13	327.22	*328.52	*334.08		
Mining.....do	580.85	536.79	527.52	539.28	529.19	533.38	535.52	530.04	538.05	543.14	537.58	553.82	553.19	*548.77	*548.47	*561.15		
Construction.....do	479.68	491.56	481.34	488.15	491.63	497.30	497.04	499.87	504.19	512.07	491.61	489.55	481.21	475.44	*493.11	*501.03		
Manufacturing.....do	406.31	417.99	411.86	414.92	414.73	418.59	413.51	412.90	423.33	422.91	427.45	431.39	425.17	423.10	*424.95	*426.40		
Durable goods.....do	432.85	447.28	440.54	444.11	444.94	448.98	439.60	439.43	452.76	452.76								

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in Business Statistics, 1986															

LABOR FORCE, EMPLOYMENT, AND EARNINGS—Continued

WORK STOPPAGES																
Work stoppages involving 1,000 or more workers:																
Number of stoppages:																
Beginning in month or year.....number..	46	40	3	0	5	7	4	7	2	3	1	0	3	0	2	3
Workers involved in stoppages:																
Beginning in month or year.....thous.....	174	114	18	0	14	14	21	12	4	9	2	0	7	0	30	37
Days idle during month or year.....do.....	4,481	4,381	505	332	344	490	726	713	510	293	78	52	153	138	950	1,045
UNEMPLOYMENT INSURANCE *																
State programs:																
Initial claims.....thous.....	17,054	15,904	1,301	1,153	1,085	1,200	1,465	1,189	1,081	1,107	1,277	1,633				
Average weekly insured unem- ployment.....do.....	2,286	2,047	2,597	2,173	1,974	1,902	1,890	1,955	1,655	1,602	1,686	1,824				
Rate of insured unemployment @percent.....	2.4	2.1	2.5	2.2	1.9	1.9	2.0	1.9	1.7	1.6	1.8	2.1				
Total benefits paid.....mil. \$..	14,262	13,195	1,546	1,141	1,017	1,020	925	1,075	876	784	943	1,085				
Weeks of unemployment com- pensated.....thous.....	105,226	94,267	10,860	8,114	7,289	7,339	6,738	7,731	6,313	5,710	6,748	7,638				
Average weekly benefit.....dollars..	140.62	144.22	147.17	145.74	145.04	143.72	141.75	143.35	143.84	144.26	136.07	147.19				
Federal civilian employees unemployment insurance (UCFE):																
Initial claims.....thous.....	118.5	120.6	8.5	8.4	8.6	11.3	12.5	11.0	8.9	10.9	9.5	9.5				
Average weekly insured unem- ployment.....do.....	21.1	22.1	23.4	20.1	19.2	19.8	20.7	24.3	21.6	22.8	23.3	22.5				
Total benefits paid.....mil. \$..	132.2	143.4	14.0	10.6	9.9	10.7	10.5	13.5	11.3	11.5	13.4	13.1				
Weeks of unemployment com- pensated.....thous.....	1,009.5	1,047.6	100.0	75.4	70.6	79.5	76.2	99.8	84.9	86.1	97.8	95.2				
Average weekly benefit.....dollars..	130.97	136.93	140.04	140.02	139.96	134.64	137.19	135.22	133.07	133.95	137.35	137.94				
Veterans unemployment insurance (UCX):																
Initial claims.....thous.....	141.3	141.2	14.9	17.4	16.3	13.1	10.3	9.7	8.3	8.5	9.4	9.9				
Average weekly insured unem- ployment.....do.....	17.8	18.1	18.8	19.1	22.6	25.6	23.0	20.3	14.3	12.5	12.3	12.8				
Total benefits paid.....mil. \$..	122.1	124.3	11.2	9.8	11.9	15.5	13.1	13.4	8.3	6.7	7.0	7.5				
Weeks of unemployment com- pensated.....thous.....	813.2	792.9	72.1	63.4	75.7	97.5	86.3	81.9	53.2	42.8	44.1	47.6				
Average weekly benefit.....dollars..	151.97	156.63	154.78	155.20	156.69	158.90	151.64	163.58	155.64	156.83	159.26	158.32				

FINANCE

BANKING																
Open market paper outstanding, end of period:																
Bankers' acceptances.....mil. \$..	70,565	66,678	63,454	64,111	63,381	64,359	63,240	64,036	63,452	62,253	65,961	66,631	62,212	62,812	62,458	
Commercial and financial company paper, total.....do.....																
Financial companies.....do.....	2,973,586	452,090	387,633	408,662	415,492	415,125	419,008	422,090	425,104	429,549	442,396	452,090	469,063	487,007	486,784	
Dealer placed.....do.....	2,987,274	354,285	301,896	315,226	324,985	324,953	327,959	331,754	332,530	352,513	344,544	354,285	362,737	377,749	377,095	
Directly placed.....do.....	2,115,034	161,693	129,698	135,673	139,339	143,026	143,725	145,427	151,039	147,759	151,581	161,693	164,016	174,807	173,465	
Nonfinancial companies.....do.....	2,172,240	192,592	172,198	179,553	185,646	181,927	184,234	186,327	181,591	184,754	192,963	192,592	198,751	202,942	203,630	
Loans of the Farm Credit System: **																
Total, end of period.....mil. \$..	52,498	51,428	52,814		53,110				52,583			51,428				
Federal land banks and Federal land bank associations.....do.....																
Federal intermediate credit banks and production credit associations.....do.....	34,346	(*)	33,566		33,048				(*)			(*)				
Banks for cooperatives.....do.....	9,927	(*)	9,479		10,127				(*)			(*)				
Federal Reserve banks, condition, end of period:																
Assets, total #.....mil. \$..	275,566	293,674	265,072	283,979	269,989	277,442	275,408	274,592	285,185	279,331	285,638	293,674	286,771	284,582	281,635	303,807
Reserve bank credit outstand- ing, total #.....do.....	236,046	250,945	227,504	244,006	233,866	239,867	236,075	233,882	243,607	238,370	243,803	250,945	241,413	230,795	238,435	257,498
Loans.....do.....	8,815	2,170	2,311	2,590	3,304	2,464	3,650	3,237	2,154	2,275	2,328	2,170	863	1,602	2,454	1,952
U.S. Government securities.....do.....	222,551	238,422	217,496	203,971	223,192	227,636	224,450	222,795	229,181	225,638	232,702	238,422	232,933	229,499	228,643	232,150
Gold certificate account.....do.....	11,078	11,060	11,063	11,063	11,063	11,063	11,063	11,061	11,062	11,062	11,059	11,060	11,056	11,061	11,061	11,061
Liabilities, total #.....do.....	275,566	293,674	265,072	283,979	269,989	277,442	275,408	274,592	285,185	279,331	285,638	293,674	286,771	284,582	281,635	303,807
Deposits, total.....do.....	48,368	48,898	42,150	58,481	42,354	46,176	44,464	42,881	52,757	46,547	45,859	48,898	48,245	44,126	42,587	61,753
Member-bank reserve balances.....do.....	41,784	39,347	38,777	41,720	38,758	35,681	39,994	37,868	39,038	39,741	40,012	39,347	35,810	36,985	37,394	37,968
Federal Reserve notes in cir- culation.....do.....	212,890	229,640	209,719	210,842	215,168	217,812	217,240	218,068	217,676	219,232	224,535	229,640	221,619	222,769	224,857	225,336
All member banks of Federal Reserve System, averages of daily figures:																
Reserves held, total.....mil. \$..	62,123	63,739	60,076	62,064	60,681	61,991	62,756	61,965	62,153	61,915	62,407	63,739	63,468	60,693	60,212	61,295
Required.....do.....	61,094	62,699	59,147	61,205	59,641	61,103	61,749	61,012	61,181	60,853	61,287	62,639	62,323	59,539	59,255	60,516
Excess.....do.....	1,029	1,040	929	859	1,040	888	1,007	953	972	1,062	1,119	1,040	1,145	1,154	957	779
Borrowings from Federal Reserve banks.....do.....	777	1,716	1,752	2,993	2,578	3,083	3,440	3,241	2,839	2,299	2,861	1,716	1,662	1,487	1,813	2,289
Free reserves †.....do.....	735	568	655	490	569	359	105	365	192	544	530	568	529	717	478	197
Large commercial banks reporting to Federal Reserve System, last Wed. of mo.: ‡																
Deposits:																
Demand, total #.....mil. \$..	247,359	247,292	223,226	225,053	215,417	233,070	226,623	229,814	221,621	215,612	240,926	247,292	219,344	228,937	217,181	220,021
Individuals, partnerships, and corporations.....do.....	190,558	195,477	175,045	176,868	170,851	182,936	177,802	184,300	174,338	172,675	191,827	195,477	175,018	180,983	173,678	174,718
States and political subdivisions.....do.....	6,744	6,993	5,882	6,317	5,629	5,979	6,156	6,157	5,788	5,575	6,456	6,993	6,770	5,868	5,209	6,247
U.S. Government.....do.....	3,238	2,706	3,069	4,010	2,121	3,008	2,899	1,656	2,083	2,510	2,950	2,706	2,531	1,709	2,933	4,649
Depository institutions in U.S.....do.....	27,448	24,194	21,954	21,590	21,035	22,360	22,710	21,829	20,696	20,272	22,105	24,194	19,438	23,360	18,950	18,566
Transaction balances other than demand deposits ††.....do.....																
Nontransaction balances, total ††.....do.....	67,094	75,369	70,977	72,244	70,507	70,702	71,614	73,511	70,240	71,308	73,593	75,369	75,237	75,988	75,405	77,623
Individuals, partnerships, and corporations.....do.....	565,046	624,122	590,904	589,401	594,842	599,611	608,936	609,987	611,896	616,569	622,679	624,122	651,078	657,457	667,647	667,325
Loans and leases (adjusted), total \$.....do.....	524,423	585,340	550,777	549,652	553,766	559,581	564,529	569,683	572,104	576,524	583,032	585,340	609,592	615,019	625,488	626,052
Commercial and industrial.....do.....	846,807	918,742	871,882	881,326	882,613	893,086	891,898	898,166	894,711	897,345	911,557	918,742	930,811	942,133	948,923	948,203
For purchasing and carrying securities.....do.....	287,232	302,544	293,278	297,918	299,004	300,160	299,456	296,817	296,542	297,205	301,245	302,544	305,191	310,049	311,341	314,405
To nonbank depository and other financial.....do.....	12,490	13,930	14,216	13,081	11,704	13,712	11,994	13,667	12,530	12,651	15,271	13,930	12,455	13,480	15,134	14,102
Real estate loans.....do.....	23,925	22,685	22,274	22,031	22,350	22,717	22,302	22,479	22,158	21,195	21,953	22,685	21,472	20,728	19,728	20,090
To States and political subdivisions.....do.....	260,308	299,180	271,581	273,834	276,959	280,873	283,672	288,289	290,991	293,242	296,023	299,180	310,552	312,665	317,554	321,923
Other loans.....do.....	32,448	28,608	31,632	31,258	30,993	30,759	30,352	30,036	29,754	29,351	28,873	28,608	28,204	28,099	27,913	27,790
Investments, total.....do.....	230,404	251,795	238,901	243,204	241,603	244,865	244,122	246,878	242,736	243,701	248,192	251,795	252,937	257,112	257,253	249,893
U.S. Treasury and Govt. agency securities, total.....do.....	196,268	200,900	202,529	202,133	205,463	203,455	203,860	203,630	203,339	207,287	209,162	200,900	208,049	206,933	209,095	205,873
Investment account.....do.....	122,902	128,626	129													

Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in BUSINESS STATISTICS: 1986

Units	Annual		1988												1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.		
FINANCE—Continued																		
BANKING—Continued																		
Commercial bank credit, seas. adj.: \$																		
Total loans and securities, ad. j. \$	2,237.4	2,408.0	2,284.3	2,303.5	2,325.5	2,343.5	2,358.5	2,371.4	2,373.5	2,392.6	2,400.6	2,408.0	2,412.8	2,441.8	2,454.9			
U.S. Government securities	335.5	362.4	341.3	348.9	346.4	348.8	349.3	350.9	353.2	356.0	358.5	362.4	361.8	363.4	370.3			
Other securities	195.2	192.9	196.2	196.5	196.4	196.7	196.9	196.7	195.4	196.6	195.8	192.9	198.0	188.5				
Total loans and leases	1,706.8	1,852.7	1,746.8	1,763.1	1,782.7	1,797.9	1,812.3	1,823.8	1,825.0	1,839.9	1,846.8	1,852.7	1,863.0	1,889.9	1,896.8			
Money and interest rates:																		
Prime rate charged by banks on short-term business loans	8.22	9.32	8.50	8.50	8.84	9.00	9.29	9.84	10.00	10.00	10.05	10.50	10.50	10.93	11.50			
Discount rate (New York Federal Reserve Bank) @	5.66	6.20	6.00	6.00	6.00	6.00	6.00	6.37	6.50	6.50	6.50	6.50	6.50	6.59	7.00			
Federal intermediate credit bank loans	8.54	(*)																
Home mortgage rates (conventional 1st mortgages):																		
New home purchase (U.S. avg.)	8.94	8.83	8.77	8.76	8.59	8.90	8.80	8.68	8.90	8.77	9.05	9.04	9.20	9.46	9.63			
Existing home purchase (U.S. avg.)	8.94	9.01	8.84	8.93	8.90	8.98	8.98	9.00	8.98	9.11	9.16	9.31	9.31	9.44	9.62			
Open market rates, New York City:																		
Bankers' acceptances, 90 days	6.75	7.56	6.51	6.79	7.12	7.38	7.77	8.19	8.06	8.15	8.55	8.96	8.93	9.27	9.88			
Commercial paper, 6-month	6.85	7.68	6.64	6.92	7.31	7.53	7.90	8.36	8.23	8.24	8.55	8.97	9.02	9.35	9.97			
Finance co. paper placed directly, 6-mo.	6.37	7.14	6.23	6.51	6.75	7.01	7.19	7.57	7.71	7.80	7.94	8.24	8.44	8.65	9.17			
Yield on U.S. Gov. securities (taxable): 3-month bills (rate on new issue)	5.820	6.690	5.690	5.920	6.270	6.500	6.730	7.020	7.230	7.340	7.680	8.090	8.290	8.480	8.830			
CONSUMER INSTALLMENT CREDIT †																		
Not seasonally adjusted																		
Total outstanding (end of period) #	618,191	671,362	616,581	622,090	626,876	634,511	637,992	647,753	651,759	653,059	659,193	671,362	684,674	682,274	683,740			
By major holder:																		
Commercial banks	287,154	323,931	289,384	293,039	295,400	299,889	301,993	308,114	312,195	312,945	317,589	323,931	318,287	316,898	316,097			
Finance companies	141,120	146,212	141,474	142,378	143,963	144,386	144,856	145,769	146,258	146,490	146,939	146,212	141,194	141,292				
Credit unions	81,007	87,110	81,059	81,521	82,171	83,116	83,719	85,295	85,908	86,462	86,823	87,110	86,980	86,865				
Retailers	45,080	47,863	40,984	40,897	41,013	41,160	41,002	41,304	41,296	41,723	43,042	43,842	42,804	41,071				
Savings institutions	60,226	62,572	60,184	60,701	61,625	62,300	62,582	63,303	62,291	61,712	62,091	62,572	62,792	62,674				
Seasonally adjusted																		
Total outstanding (end of period) #			625,172	628,585	632,431	637,836	639,207	644,666	646,556	649,132	654,413	659,507	682,022	687,397	692,771			
By major holder:																		
Commercial banks			292,519	294,775	297,521	301,104	302,283	307,355	310,132	312,583	316,683	318,925	316,797	318,423	319,550			
Finance companies			144,489	145,141	145,810	145,517	144,774	143,992	143,019	143,012	143,488	145,180	141,796	143,419	143,070			
Credit unions			82,125	82,529	83,086	83,648	83,886	84,647	84,900	85,338	85,740	86,118	87,093	87,813	88,548			
Retailers			41,533	41,617	41,515	41,851	42,023	42,121	42,349	42,614	42,910	43,498	40,986	41,052	41,300			
Savings institutions			60,848	60,779	61,270	62,004	62,537	62,843	62,502	61,926	61,922	62,089	62,867	63,109	63,468			
By major credit type:																		
Automobile			274,065	275,289	276,458	278,058	277,659	279,585	279,243	278,902	279,926	281,174	286,382	288,768	289,721			
Revolving			153,355	160,631	162,105	164,408	165,343	167,125	168,273	170,131	173,030	174,792	178,716	178,570	182,873			
Mobile home			26,418	26,280	26,249	26,174	26,213	26,277	26,185	26,033	26,005	25,744	26,036	25,992	24,326			
Total net change (during period) #			4,787	3,413	3,846	5,405	1,371	5,459	1,890	2,576	5,281	5,094	22,515	5,375	5,374			
By major holder:																		
Commercial banks			2,984	2,256	2,746	3,588	1,179	5,072	2,777	2,456	4,095	2,242	-1,128	1,626	1,127			
Finance companies			1,214	652	1,169	207	-743	-782	-973	-7	476	1,692	-3,384	1,623	-349			
Credit unions			634	404	557	562	238	761	253	438	402	378	975	720	785			
Retailers			203	84	-102	336	172	98	228	265	296	588	-2,512	66	248			
Savings institutions			-263	-69	491	734	533	306	-341	-576	-4	177	768	242	359			
By major credit type:																		
Automobile			2,800	1,224	1,169	1,600	-399	1,926	-342	-341	1,024	1,248	5,208	2,386	953			
Revolving			1,356	1,276	1,474	2,303	985	1,782	1,148	1,858	2,899	1,762	1,924	1,854	4,303			
Mobile home			-137	-138	-31	-75	39	64	-92	-152	-28	-261	292	-44	-1,666			
FEDERAL GOVERNMENT FINANCE																		
Budget receipts and outlays:																		
Receipts (net)	854,143	908,958	65,730	109,323	59,711	99,205	60,690	69,479	97,803	63,646	64,408	93,795	89,369	61,978	68,276			
Outlays (net) \$	1,003,804	1,064,067	95,013	95,554	82,295	90,071	83,608	92,558	87,630	90,655	98,542	105,237	86,563	89,850				
Budget surplus or deficit (-) \$	-149,661	-155,114	-29,283	13,769	-22,583	9,134	-22,918	-23,079	-10,173	-27,009	-29,134	-11,442	2,806	-27,871				
Budget financing, total \$	149,661	155,114	29,283	-13,769	22,583	-9,134	22,918	23,079	10,173	27,009	29,134	11,442	-2,806	27,871				
Borrowing from the public \$	151,717	166,183	17,296	-213	7,680	11,699	5,639	23,367	14,706	10,285	31,636	11,910	7,359	17,190				
Reduction in cash balances	-2,056	-11,069	11,987	-13,556	14,903	-20,883	19,279	-288	-24,879	16,724	-2,502	-468	-10,165	10,681				
Gross amount of debt outstanding \$	2,855,206	2,614,581	2,493,195	2,508,342	2,526,492	2,555,086	2,560,795	2,586,091	2,614,581	2,636,657	2,672,211	2,707,284	2,720,742	2,745,577				
Held by the public \$	1,897,761	2,063,900	2,003,207	2,003,007	2,010,706	2,022,232	2,025,897	2,049,267	2,063,900	2,074,217	2,105,852	2,117,766	2,125,125	2,142,315				
Budget receipts by source and outlays by agency:																		
Receipts (net), total	854,143	908,958	65,730	109,323	59,711	99,205	60,690	69,479	97,803	63,646	64,408	93,795	89,369	61,978				
Individual income taxes (net)	392,557	401,181	20,637	53,334	17,958	46,092	25,791	31,942	41,784	31,287	29,322	39,073	48,027	23,427				
Corporation income taxes (net)	83,926	94,195	12,706	12,026	1,613	18,347	1,499	1,461	20,668	1,794	1,442	22,160	3,151	907				
Social insurance taxes and contributions (net)	303,318	334,335	25,676	37,357	33,896	27,967	26,915	23,373	28,694	23,848	25,075	24,698	31,652	32,086				
Other	74,342	79,241	6,711	6,606	6,745	6,800	6,485	7,703	6,657	6,717	8,069	7,265	5,909	5,559				
Outlays (net), total \$	1,003,804	1,064,067	95,013	95,554	82,295	90,071	83,608	92,558	87,630	90,655	98,542	105,237	86,563	89,850				
Agriculture Department	49,593	44,003	4,358	4,449	3,642	2,552	2,300	2,221	2,764	5,769	5,318	4,917	4,610	4,153				
Defense Department, military	273,938	281,940	25,756	26,102	20,273	24,589	23,566	23,764	21,036	25,189	23,905	28,201	19,281	22,546				
Health and Human Services																		
Treasury Department	351,315	373,169	32,479	32,044	30,025	35,005	29,228	32,162	32,271	29,138	31,956	33,491	31,487	32,227				
National Aeronautics and Space Administration	180,345	202,472	13,900	14,704	16,681	30,071	13,291	14,901	13,045	13,838	16,943	34,643	15,555	16,554				
Veterans Affairs Department	7,591	9,092	804	816	777	863	805	717	530	998	993	884	822	709				
Other	26,952	29,244	2,555	3,748	1,432	2,130	2,355	2,261	3,091	1,854	2,705	3,531	1,182	2,278				
GOLD AND SILVER:																		
Gold:																		
Monetary stock, U.S. (end of period) @	11,078	11,060	11,063	11,063	11,063	11,063	11,063	11,061	11,062	11,062	11,059	11,060	11,056	11,061				
Price at New York †	446.504	436.931	443.607	451.833	450.840	451.332	437.633	431.313	412.790	406.781	420.068	418.488	404.014	387.776				
Silver:																		
Price at New York †	7.009	6.535	6.413	6.478	6.543	7.037	7.146	6.708	6.365	6.285	6.275	6.108	5.972	5.891				

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	FINANCE—Continued															
MONETARY STATISTICS																
Currency in circulation (end of period).....bil. \$..	230.2	247.7	227.1			235.4						235.5				247.7
Money stock measures and components (averages of daily figures): †																
Measures (not seasonally adjusted):																
M1.....bil. \$..	744.2	776.0	752.6	779.1	764.6	779.9	786.9	782.3	781.0	782.1	788.3	*504.4	793.0	772.3	*775.1	791.3
M2.....do	2,863.2	3,009.4	2,962.4	3,001.4	2,990.1	3,015.5	3,031.4	3,050.5	3,028.5	3,038.4	3,057.8	3,077.0	*3,075.9	*3,057.2	*3,072.9	3,082.4
M3.....do	3,591.9	*3,818.0	3,750.3	3,785.8	3,784.4	3,815.9	*3,839.5	*3,851.4	*3,857.7	*3,873.8	*3,902.5	*3,925.0	*3,927.5	*3,917.7	*3,946.8	3,965.7
L (M3 plus other liquid assets).....do	4,246.2	*4,533.5	4,432.8	4,478.7	4,491.7	*4,521.3	*4,556.9	*4,579.6	*4,588.6	*4,611.0	*4,651.1	*4,695.1	*4,703.6	4,699.0	4,736.4	
Components (not seasonally adjusted):																
Currency.....do	188.8	205.3	199.1	201.6	203.6	205.7	208.0	207.9	208.0	209.0	211.3	214.9	211.8	211.9	213.9	215.1
Demand deposits.....do	294.3	289.0	279.9	292.1	283.1	291.3	293.1	289.0	287.4	288.7	290.0	298.8	290.5	275.7	*275.8	283.2
Other checkable deposits ††.....do	254.3	274.4	266.7	278.5	270.8	275.3	277.7	277.2	277.8	276.9	279.9	283.7	283.7	277.6	*278.3	286.0
Overnight RP's and Eurodollars ◊.....do	79.2	78.0	74.5	75.6	80.4	80.8	77.6	79.9	77.3	76.0	75.5	78.2	81.7	79.1	*77.6	74.3
General purpose and broker/dealer money market funds.....do	213.8	232.2	234.8	235.8	231.8	228.9	229.6	230.8	231.0	231.3	237.4	239.4	241.6	*247.4	*256.5	260.2
Money market deposit accounts.....do	552.2	517.5	525.5	524.2	520.5	523.2	522.0	517.7	511.4	507.5	506.7	502.7	*495.2	*485.3	*480.3	471.2
Savings deposits.....do	408.1	426.4	419.2	424.5	427.7	432.3	436.0	433.7	430.9	430.9	430.4	425.9	422.8	*418.7	*418.5	414.0
Small time deposits @.....do	865.7	979.2	955.8	962.2	965.1	970.5	979.4	986.0	996.9	1,010.6	1,019.5	1,026.5	*1,041.6	*1,054.4	*1,065.0	1,081.4
Large time deposits @.....do	461.3	512.5	497.8	496.1	500.5	504.8	509.5	519.2	529.1	535.4	537.3	539.6	545.2	*552.4	*560.1	564.0
Measures (seasonally adjusted):																
M1.....do			763.8	771.2	771.1	776.5	782.5	782.4	783.7	785.4	786.6	*790.3	786.3	787.4	*786.3	783.1
M2.....do			2,969.3	2,990.3	2,999.8	3,013.1	3,023.9	3,029.7	3,035.0	3,042.2	3,059.3	3,069.3	*3,065.6	3,069.7	*3,079.5	3,080.8
M3.....do			3,755.9	3,779.6	3,794.6	*3,815.5	*3,838.0	*3,850.5	*3,859.6	*3,876.1	*3,897.4	*3,915.2	*3,920.1	*3,929.8	*3,952.1	3,960.2
L (M3 plus other liquid assets).....do			4,436.3	4,475.3	4,503.8	*4,520.9	*4,565.0	*4,584.8	*4,593.5	*4,615.1	*4,645.3	*4,681.4	*4,686.9	*4,701.8	4,739.7	
Components (seasonally adjusted):																
Currency.....do			200.7	202.4	203.4	204.7	206.4	207.0	208.6	209.7	210.5	211.8	213.4	214.3	215.6	215.9
Demand deposits.....do			288.4	290.3	288.1	289.8	290.4	289.9	288.8	289.7	288.6	288.6	284.0	284.8	*284.3	281.4
Other checkable deposits ††.....do			267.5	271.2	272.2	274.7	278.5	278.0	279.0	279.4	281.0	282.3	281.3	280.9	*279.1	278.5
Savings deposits.....do			421.5	423.3	425.2	427.6	429.7	430.9	430.5	429.2	431.8	431.3	427.8	*426.9	*420.8	412.8
Small time deposits @.....do			952.8	963.4	971.0	975.7	981.0	988.3	998.7	1,009.7	1,017.8	*1,025.2	*1,035.7	*1,048.3	*1,060.9	1,082.5
Large time deposits @.....do			496.3	499.2	502.4	507.8	514.0	519.4	526.7	532.0	534.4	537.7	*544.4	*551.6	*558.7	567.6
PROFITS AND DIVIDENDS (QTRLY.)																
Manufacturing corps. (Bureau of the Census):																
Net profit after taxes, all manufacturing.....mil. \$..	*115,599	152,313	36,924			41,465						38,230			35,694	
Food and kindred products.....do	*15,627	20,471	4,548			6,093						5,249			4,581	
Textile mill products.....do	*1,891	1,535	388			473						302			372	
Paper and allied products.....do	*5,520	8,077	1,744			2,195						2,227			1,911	
Chemicals and allied products.....do	*16,559	23,735	6,378			6,199						5,483			5,675	
Petroleum and coal products.....do	*10,900	21,145	4,996			4,102						5,956			6,091	
Stone, clay, and glass products.....do	*2,911	2,461	94			1,000						807			560	
Primary nonferrous metal.....do	*1,077	4,044	802			1,125						1,067			1,057	
Primary iron and steel.....do	*1,356	992	369			802						-693			514	
Fabricated metal products.....do	*4,427	5,117	1,481			1,751						1,264			621	
Machinery (except electrical).....do	*10,203	13,280	3,017			2,954						3,844			3,465	
Electrical and electronic equipment.....do	*9,570	12,923	2,734			3,485						3,327			3,377	
Transportation equipment (except motor vehicles and equipment).....mil. \$..	*4,677	5,196	1,274			1,231						1,611			1,080	
Motor vehicles and equipment.....do	*10,647	11,041	3,313			3,877						2,090			1,761	
All other manufacturing industries.....do	*20,234	22,296	5,786			6,178						5,703			4,629	
Dividends paid (cash), all manufacturing.....do	*49,512	56,463	12,234			13,710						14,476			16,043	
SECURITIES ISSUED																
Securities and Exchange Commission:																
Estimated gross proceeds, total.....mil. \$..	275,418	228,387	20,843	18,288	19,636	30,615	19,282	15,977	15,728	12,991	16,436	10,421				
By type of security:																
Bonds and notes, corporate.....do	191,339	172,499	16,532	15,132	14,513	26,114	11,767	11,905	11,443	9,355	12,891	7,627				
Common stock.....do	65,835	45,485	3,420	2,687	3,998	3,700	6,474	3,396	3,795	2,886	3,008	2,088				
Preferred stock.....do	11,735	6,506	625	241	400	501	741	501	291	575	527	475				
By type of issuer:																
Corporate, total #.....mil. \$..	268,909	224,490	20,577	18,040	18,911	30,315	18,982	15,802	15,529	12,816	16,426	10,221				
Manufacturing.....do	46,172	33,327	1,595	3,793	2,286	4,045	3,025	2,510	3,917	2,388	3,136	1,066				
Extractive.....do	8,229	4,742	189	315	221	928	1,150	642	125	30	244	1				
Public utility.....do	19,943	12,793	1,814	1,515	1,535	1,946	245	647	824	1,683	478	185				
Transportation.....do	6,698	3,078	589	250	365	631	0	72	88	258	64	0				
Communication.....do	7,326	4,081	488	243	78	906	1,307	3	457	132	298	59				
Financial and real estate.....do	151,049	147,080	13,754	10,657	13,608	19,579	11,103	10,045	8,923	7,785	9,454	8,454				
State and municipal issues (Bond Buyer): \$																
Long-term.....do	105,523	117,011	10,285	6,413	8,746	15,075	11,206	7,591	10,743	11,200	9,036	11,496	*7,101	*8,424	*9,025	6,464
Short-term.....do	20,271	22,602	489	3,257	1,009	3,391	1,372	5,942	675	1,109	1,765	1,419	*1,338	*1,314	*1,381	4,885
SECURITY MARKETS																
Stock Market Customer Financing																
Margin credit at broker-dealers, end of year or month.....mil. \$..	31,990	32,740	32,660	33,270	33,070	32,300	31,770	31,980	32,770	33,410	33,640	32,740	32,530	31,480	32,130	32,610
Free credit balances at brokers, end of year or month:																
Margin-account.....do	4,750	5,660	4,615	4,395	4,380	4,580	4,485	4,655	4,725	5,065	4,920	5,660	5,790	5,605	5,345	5,450
Cash-account.....do	15,640	16,595	14,355	13,965	14,150	14,460	14,340	14,045	14,175	14,880	15,185	16,595	15,705	16,195	16,045	16,125
Bonds																
Prices:																
Standard & Poor's Corporation, domestic municipal (15 bonds).....dol. per \$100 bond..	62.7	62.0	61.8	61.0	60.4	61.4	61.4	61.4	62.5	63.8	62.6	62.9	65.0	64.3	63.2	64.2
Sales:																
New York Stock Exchange, exclusive of some stopped sales, face value, total.....mil. \$..	9,726.24	7,701.39	668.44	612.76	648.40	675.53	542.87	642.88	581.89	596.74	610.58	640.57	632.13	558.88	591.39	553.49

See footnotes at end of tables.

Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in BUSINESS STATISTICS: 1986

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
FINANCE—Continued																
Bonds—Continued																
Yields:																
Domestic corporate (Moody's).....percent..	9.91	10.18	9.86	10.15	10.37	10.36	10.47	10.58	10.28	9.90	9.91	10.03	10.05	10.05	10.18	10.14
By rating:																
Aaa.....do.....	9.38	9.71	9.39	9.67	9.90	9.86	9.96	10.11	9.82	9.51	9.45	9.57	9.62	9.64	9.80	9.79
Aa.....do.....	9.68	9.94	9.59	9.86	10.10	10.13	10.26	10.37	10.06	9.71	9.72	9.81	9.81	9.83	9.98	9.94
A.....do.....	9.99	10.24	9.89	10.17	10.41	10.42	10.55	10.63	10.34	9.99	9.99	10.11	10.10	10.13	10.26	10.20
Baa.....do.....	10.58	10.83	10.57	10.90	11.04	11.00	11.11	11.21	10.90	10.41	10.48	10.65	10.65	10.61	10.67	10.61
By group:																
Industrials.....do.....	9.83	9.91	9.61	9.76	9.97	9.99	9.98	10.07	10.00	9.88	9.93	10.04	10.08	10.08	10.19	10.13
Public utilities.....do.....	9.98	10.45	10.11	10.53	10.75	10.71	10.96	11.09	10.56	9.92	9.89	10.02	10.02	10.02	10.16	10.14
Railroads.....do.....	9.63	10.03	9.91	10.08	10.03	10.04	10.06	10.10	10.12	10.03	10.00	10.06	10.04	10.05	10.19	10.27
Domestic municipal:																
Bond Buyer (20 bonds).....do.....	7.69	7.66	7.90	7.77	7.87	7.74	7.76	7.76	7.64	7.33	7.66	7.50	7.29	7.56	7.64	7.40
Standard & Poor's Corp. (15 bonds).....do.....	7.73	7.74	7.80	7.91	8.01	7.86	7.87	7.86	7.71	7.54	7.58	7.66	7.41	7.47	7.61	7.49
U.S. Treasury bonds, taxable $\frac{1}{2}$.....do.....	8.64	8.98	8.61	8.91	9.24	9.04	9.20	9.33	9.06	8.89	9.07	9.13	9.07	9.16	9.33	9.18
Stocks																
Prices:																
Dow Jones averages (65 stocks).....	849.46	772.17	766.55	759.10	739.31	784.20	785.26	767.55	780.41	808.29	796.20	817.30	851.45	880.52	866.99	897.32
Industrial (30 stocks).....	2,275.99	2,060.82	2,044.31	2,036.13	1,988.91	2,104.94	2,104.22	2,051.29	2,080.06	2,144.31	2,099.04	2,148.58	2,234.68	2,304.30	2,283.11	2,348.91
Public utility (15 stocks).....	201.70	179.74	177.68	171.40	169.30	180.02	178.71	178.56	179.85	185.01	184.12	185.15	188.88	186.64	182.81	187.98
Transportation (20 stocks).....	929.19	863.83	861.33	853.73	820.24	873.11	881.17	856.14	879.45	923.12	916.21	955.39	1,009.31	1,073.18	1,046.32	1,098.04
Standard & Poor's Corporation: \$																
Combined index (500 Stocks).....1941-43=10..	286.83	265.79	265.74	262.61	256.12	270.68	269.05	263.73	267.97	277.40	271.02	276.51	285.41	294.01	292.71	302.25
Industrial total (400 Stocks) #.....do.....	330.90	306.68	308.04	305.78	297.39	312.78	310.87	303.12	307.40	319.05	311.84	319.07	330.17	339.70	337.74	348.47
Capital goods.....do.....	288.23	252.83	258.47	255.19	246.32	265.21	262.93	247.69	247.60	253.19	247.36	253.87	262.80	273.90	262.31	265.71
Consumer goods.....do.....	323.77	305.95	305.52	301.69	296.71	305.51	302.22	301.27	313.68	327.18	324.78	331.12	339.49	353.53	352.18	368.61
Utilities (40 Stocks).....do.....	112.70	108.74	107.24	104.12	103.11	109.86	108.49	107.89	109.67	113.00	111.70	113.02	114.37	116.88	116.65	119.91
Transportation (20 Stocks).....1982=100..	228.91	209.02	212.88	209.54	197.57	211.33	210.37	203.10	209.71	219.89	216.97	225.63	237.65	251.42	245.69	250.63
Railroads.....1941-43=10..	166.90	158.73	162.44	160.17	148.23	160.44	157.72	152.79	158.59	164.78	164.74	171.25	178.57	187.76	185.35	182.19
Financial (40 Stocks).....1970=10..	28.15	24.09	23.80	22.38	22.28	24.46	24.55	25.00	25.75	26.05	24.85	24.79	25.51	26.68	26.96	28.31
Money center banks.....1941-43=10..	112.03	92.05	84.76	82.50	84.24	97.54	97.37	97.85	102.18	99.61	98.23	98.74	99.73	104.23	104.67	113.23
Major regional banks.....do.....	109.54	103.22	95.74	96.44	99.23	107.94	108.55	110.97	112.82	111.78	107.34	108.82	104.72	109.91	109.29	113.96
Property-Casualty Insurance.....do.....	311.50	271.62	276.33	258.31	256.05	274.56	270.45	270.64	276.57	280.22	268.26	266.65	274.49	288.70	295.79	307.82
N.Y. Stock Exchange common stock indexes:																
Composite.....12/31/65=50..	161.70	149.91	149.88	148.46	144.94	152.72	152.12	149.25	151.47	156.36	152.67	155.35	160.40	165.08	164.60	169.38
Industrial.....do.....	195.31	180.95	181.57	180.88	176.02	184.92	184.09	179.72	182.18	188.58	183.79	187.75	194.62	200.00	199.20	204.81
Transportation.....do.....	140.39	134.12	135.15	133.43	127.63	136.02	136.49	132.53	136.27	141.93	138.60	144.07	153.09	162.66	160.23	164.32
Utility.....do.....	74.30	71.77	71.16	69.40	68.65	72.25	71.50	70.67	71.39	74.19	73.83	74.81	75.87	77.84	77.66	79.69
Finance.....do.....	146.48	127.26	125.27	121.67	120.35	129.04	130.00	130.77	133.15	134.66	129.61	128.83	132.26	137.19	137.91	142.26
NASDAQ over-the-counter price indexes:																
Composite.....2/5/71=100..	402.74	374.43	375.54	377.24	371.88	386.44	391.40	379.61	382.16	385.01	372.89	375.78	389.32	404.08	403.99	417.13
Industrial.....do.....	422.72	379.49	386.34	387.54	382.72	400.91	405.82	385.98	384.00	382.49	365.82	371.11	385.71	399.80	396.74	409.76
Insurance.....do.....	425.25	408.17	404.17	400.42	392.32	398.09	398.52	412.14	429.93	432.45	426.82	425.34	441.91	461.07	469.40	480.35
Bank.....do.....	464.95	444.14	446.07	447.76	441.27	450.95	456.96	457.12	452.91	450.81	440.91	436.45	446.01	458.87	457.58	457.31
NASDAQ/NMS composite.....7/10/84=100..	172.49	161.95	162.34	163.05	160.65	167.16	169.21	164.06	165.30	166.78	161.60	163.15	169.07	175.62	175.67	181.71
Industrial.....do.....	161.06	146.78	149.52	149.52	148.02	155.29	156.97	148.94	148.48	148.10	141.76	144.24	149.98	155.66	154.51	159.95
Yields (Standard & Poor's Corp.):																
Composite (600 stocks).....percent..	3.08	3.64	3.48	3.57	3.80	3.58	3.65	3.75	3.69	3.61	3.70	3.68	3.64	3.59	3.68	.....
Industrials (400 stocks).....do.....	2.62	3.14	2.96	3.02	3.26	3.08	3.14	3.25	3.21	3.13	3.22	3.19	3.14	3.10	3.18	.....
Utilities (40 stocks).....do.....	6.52	7.08	6.99	7.30	7.44	6.96	7.16	7.20	7.09	7.04	6.98	6.99	6.92	7.06	.....	.....
Transportation (20 stocks).....do.....	2.20	2.48	2.34	2.46	2.64	2.43	2.45	2.64	2.55	2.44	2.43	2.34	2.41	2.17	2.24	.....
Financial (40 stocks).....do.....	3.60	4.34	4.51	4.78	4.70	4.24	4.24	4.12	3.96	3.96	4.16	4.26	4.15	4.03	4.07	.....
Preferred stocks, 10 high-grade.....do.....	8.37	9.24	9.07	9.19	9.25	9.32	9.33	9.39	9.28	9.23	9.36	9.38	9.31	9.31	9.43	9.50
Sales:																
Total on all registered exchanges (SEC):																
Market value.....mil. \$..	2,284,166	1,584,106	158,878	141,203	115,481	150,481	134,368	128,481	116,765	138,281	120,360	117,060	122,524	143,957	148,021	.....
Shares sold.....millions..	63,771	52,474	5,471	4,429	3,927	4,857	4,521	4,465	4,014	4,247	3,805	3,922	4,049	4,675	4,507	.....
On New York Stock Exchange:																
Market value.....mil. \$..	1,983,311	1,377,711	144,622	123,459	100,894	131,410	118,972	112,242	100,854	118,416	103,902	100,228	102,736	124,800	126,697	.....
Shares sold (cleared or settled).....millions..	53,088	44,018	4,791	3,714	3,297	4,150	3,819	3,759	3,352	3,528	3,162	3,222	3,264	3,909	3,694	.....
New York Stock Exchange:																
Exclusive of odd-lot stock sales (sales effected).....millions..	47,801	40,850	4,052	3,261	3,232	4,307	3,338	3,327	3,060	3,415	2,823	2,845	3,532	3,217	3,503	3,238
NASDAQ over-the-counter:																
Market value.....mil. \$..	498,301	347,089	38,729	28,887	25,292	33,296	29,054	29,585	26,524	28,698	25,017	25,761	33,475	30,227	33,452	32,232
Shares sold.....millions..	37,890	31,070	3,158	2,381	2,468	3,115	2,614	2,601	2,348	2,522	2,287	2,488	2,716	2,532	2,883	2,666
Shares listed, NYSE, end of period:																
Market value, all listed shares.....bil. \$..	2,216.31	2,457.46	2,346.23	2,369.71	2,359.14	2,456.51	2,439.65	2,353.78	2,440.00	2,489.44	2,443.44	2,457.46	2,609.24	2,545.11	2,591.64	2,709.88
Number of shares listed.....millions..	71,802	76,093	73,517	73,911	74,360	74,688	75,267	75,320	75,498	75,891	76,160	76,093	76,603	76,836	77,521	77,767

FOREIGN TRADE OF THE UNITED STATES

VALUE OF EXPORTS																
Exports (mdse.), incl. reexports, total @.....mil. \$..	254,121.9	321,813.1	29,105.7	26,334.9	28,142.6	26,838.8	25,098.2	26,538.1	27,236.6	28,624.7	27,854.5	28,910.3	27,294.6	27,963.5	33,608.8	.....
Seasonally adjusted \uparrowdo.....	26,877.0	26,028.6	27,478.4	26,288.2	26,515.6	27,493.0	27,988.8	27,816.4	27,542.0	29,061.5	28,746.9	28,664.0	30,781.8
Western Europe *.....do.....	69,717.7	87,994.9	8,635.2	7,542.8	7,640.8	7,319.2	6,475.7	6,706.2	7,216.1	7,752.1	7,244.6	8,302.8	7,330.7	7,688.7	9,606.4	.....
European Economic Community *.....do.....	60,575.0															

Unless otherwise stated in footnotes below, data through 1988 and methodological notes are as shown in BUSINESS STATISTICS: 1986

Units	1988												1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
FOREIGN TRADE OF THE UNITED STATES—Continued																
VALUE OF EXPORTS—Continued																
Exports (mdse.), incl. reexports—Continued																
Western Hemisphere:																
Canada	59,814.3	70,861.9	6,527.4	5,796.1	6,520.8	6,373.4	4,717.4	5,905.2	6,162.9	6,437.0	6,328.7	5,517.8	6,086.0	6,484.8	7,388.1	
Brazil	4,039.9	4,289.2	340.7	368.0	510.7	314.6	387.9	334.3	330.8	314.4	334.4	408.0	386.1	534.8	333.4	
Mexico	14,582.2	20,643.4	1,678.3	1,482.8	1,789.1	1,737.6	1,645.3	1,859.8	1,935.6	2,043.6	1,955.2	1,940.9	1,843.5	2,052.1	2,175.2	
Venezuela	3,586.0	4,610.8	389.1	334.3	350.6	353.0	403.9	408.4	469.4	411.8	409.5	472.5	384.0	368.2	287.7	
Asia:																
China	3,497.3	5,038.8	444.6	416.7	322.2	487.7	486.2	449.0	419.6	402.6	432.7	556.3	385.9	499.2	581.8	
Hong Kong	3,983.1	5,690.8	482.4	443.9	448.1	482.9	612.6	493.8	534.7	523.7	438.0	527.6	379.3	494.2	589.0	
Japan	28,248.6	37,732.1	3,232.3	3,015.9	2,982.1	3,416.8	3,228.7	3,267.2	3,244.5	3,206.1	3,199.6	3,883.7	2,939.2	3,292.1	4,167.5	
Republic of Korea	8,098.7	11,289.5	1,008.3	974.9	860.2	925.3	911.1	1,155.0	961.9	947.6	864.3	1,183.0	932.5	998.9	1,186.4	
Saudi Arabia	3,373.4	3,739.2	386.9	286.4	341.8	259.7	275.9	287.6	377.5	314.7	336.5	335.4	342.5	294.5	334.7	
Singapore	4,052.7	5,770.0	468.7	461.2	462.6	472.8	441.4	590.2	496.4	505.6	519.4	505.6	453.6	507.5	795.6	
Taiwan	7,412.7	12,130.8	1,415.9	1,372.4	1,192.9	1,075.9	1,021.1	865.5	898.3	811.3	820.0	940.0	705.5	833.9	919.0	
Africa:																
Nigeria	295.1	356.2	34.4	32.0	26.6	29.3	22.4	37.9	38.9	32.4	28.9	27.0	34.3	43.5	31.7	
Republic of South Africa	1,231.2	1,690.3	161.8	108.9	148.9	142.3	139.0	164.9	152.5	142.5	171.5	134.4	112.7	105.7	175.9	
Australia	5,494.8	6,980.7	510.7	485.9	544.1	559.3	570.0	640.3	584.9	788.8	628.6	826.5	551.9	608.8	689.2	
OPEC	11,058.1	14,023.8	1,263.5	1,046.4	1,139.3	1,053.0	1,185.0	1,157.6	1,343.0	1,239.8	1,221.8	1,367.6	1,164.5	1,154.0	1,124.5	
Exports of U.S. merchandise, total @	245,115.0	309,441.2	28,138.0	25,311.8	26,979.5	25,756.0	24,161.5	25,547.4	26,132.2	27,548.9	26,839.8	27,614.8	26,320.5	26,881.7	32,166.5	
By commodity groups and principal commodities:																
Agricultural products, total	28,636.2	37,015.2	3,326.9	3,054.0	2,970.6	2,675.8	2,622.7	2,876.4	3,179.5	3,302.0	3,350.0	3,624.3	3,357.0	3,469.7	4,095.4	
Nonagricultural products, total	215,222.7	270,998.3	24,676.8	22,443.3	23,134.7	23,626.2	21,491.7	22,720.5	23,157.0	24,098.9	23,108.3	24,401.9	22,058.6	23,641.3	28,071.1	
Food and live animals #	19,178.8	26,414.7	2,142.0	2,026.3	2,201.5	1,954.6	2,295.6	2,384.0	2,554.1	2,487.8	2,326.3	2,432.8	2,240.0	2,413.1	2,918.2	
Beverages and tobacco	3,666.7	4,543.3	388.4	382.1	389.8	359.9	361.9	343.6	377.0	374.3	417.0	434.7	383.9	469.6	491.4	
Crude materials, inedible, exc. fuels #	20,416.3	25,135.0	2,306.8	2,135.8	2,021.9	2,128.0	1,842.5	1,984.8	1,922.3	1,993.0	2,154.5	2,506.3	2,083.6	2,272.1	2,621.4	
Mineral fuels, lubricants, etc. #	7,713.1	8,185.8	645.2	678.4	728.6	758.3	659.8	727.2	711.4	656.3	658.8	863.9	678.2	673.0	783.0	
Oils and fats, animal and vegetable	981.4	1,458.7	153.7	117.5	106.5	156.1	121.8	85.9	158.2	125.7	106.6	102.0	99.6	115.0	127.8	
Chemicals	26,380.9	32,299.6	2,933.1	2,646.2	2,645.7	2,815.2	2,616.8	2,805.4	3,119.1	2,622.6	2,534.3	2,829.7	2,561.0	2,860.9	3,231.2	
Manufactured goods classified chiefly by material	17,136.1	22,844.8	1,948.9	1,781.2	1,949.1	1,969.0	1,746.9	1,981.4	2,180.6	1,938.5	1,928.3	2,287.0	1,769.6	2,106.4	2,595.8	
Miscellaneous manufactured articles	19,409.0	24,513.9	2,183.9	1,936.5	2,051.8	2,123.3	1,976.4	2,150.1	2,123.2	2,142.4	2,022.8	2,284.8	2,172.2	2,423.3	2,965.9	
Machinery and transport equipment, total	108,596.0	135,134.8	12,743.1	11,182.4	11,814.7	11,327.0	10,112.2	11,136.8	11,275.4	12,011.7	11,513.4	12,468.9	10,102.1	11,231.6	13,788.9	
Machinery, total #	69,637.0	88,432.0	7,993.4	7,079.3	7,380.9	7,353.1	6,952.3	7,430.2	7,567.1	7,923.6	7,473.0	8,331.4				
Transport equipment, total	38,959.0	46,702.8	4,749.7	4,103.1	4,433.8	3,973.9	3,159.9	3,706.6	3,708.2	4,088.0	4,040.4	4,087.5				
Motor vehicles and parts	20,878.8	25,178.0	2,563.8	2,208.8	2,345.2	2,133.7	1,463.2	1,817.0	2,275.1	2,148.1	2,297.8	2,084.8	2,174.0	2,049.2	2,260.2	
VALUE OF IMPORTS																
General imports, total @	406,241.0	441,573.5	37,030.0	35,026.9	36,146.9	38,589.5	35,582.9	37,741.1	36,459.1	38,731.2	38,339.6	39,362.2	36,032.1	36,687.1	39,912.0	
Seasonally adjusted †			36,643.7	34,825.0	35,731.7	37,948.4	34,532.9	38,139.7	37,178.1	36,600.0	38,199.8	40,052.4	37,424.9	38,483.1	39,640.2	
Western Europe *																
European Economic Community	95,496.1	100,515.4	9,134.5	7,982.4	8,465.1	8,839.5	8,378.8	7,739.4	7,749.5	8,521.8	8,862.3	9,508.0	7,284.2	8,319.1	9,209.7	
Belgium and Luxembourg	81,185.0	84,991.0	7,774.7	6,722.0	7,146.3	7,540.1	7,017.1	6,875.1	6,511.4	7,083.5	7,422.7	8,051.9	6,071.8	6,772.5	7,721.1	
France	4,170.9	4,517.5	439.5	348.4	392.5	379.2	253.9	360.5	394.7	383.4	363.7	307.3	379.3	379.3	436.4	
Federal Republic of Germany	10,750.2	12,216.6	1,087.3	895.8	1,149.1	1,231.8	1,056.1	922.0	943.6	990.7	973.5	1,104.3	927.4	1,053.3	1,128.0	
Italy	27,069.3	26,502.8	2,513.2	2,154.6	2,153.8	2,212.5	2,067.1	1,942.6	2,132.4	2,124.8	2,302.0	2,641.8	1,902.1	1,958.3	2,334.5	
Netherlands	11,039.6	11,610.9	1,060.2	893.5	893.7	1,033.1	1,089.9	1,058.6	717.2	978.1	1,023.9	1,032.5	763.2	826.1	1,142.9	
United Kingdom	3,963.6	4,587.1	355.1	347.9	387.0	394.4	399.8	393.0	384.9	410.8	421.1	412.7	356.0	401.2	439.3	
Eastern Europe *	1,922.6	2,157.6	194.9	180.9	211.6	229.8	144.9	188.9	148.9	136.0	177.5	225.7	203.3	159.6	204.2	
Union of Soviet Socialist Republics	424.7	578.0	70.6	28.9	39.2	28.3	24.9	54.5	38.9	34.8	65.3	97.6	73.8	42.4	80.9	
Western Hemisphere:																
Canada	71,085.0	81,496.3	7,272.7	6,880.7	7,241.8	7,470.1	5,790.6	6,301.0	7,017.4	7,332.6	7,145.6	5,928.0	7,891.3	7,295.8	7,636.2	
Brazil	7,865.4	9,323.8	728.6	763.0	746.9	754.4	743.2	934.0	857.0	779.8	740.4	743.9	672.8	731.2	674.7	
Mexico	20,270.8	23,276.9	2,004.9	1,799.2	1,978.8	2,116.6	1,699.9	2,025.8	1,951.6	1,989.5	2,049.4	1,932.9	1,977.9	2,141.5	2,273.8	
Venezuela	5,579.0	5,228.1	403.6	435.1	549.1	429.5	405.8	497.2	437.7	408.1	375.7	430.3	519.5	405.5	546.4	
Asia:																
China	6,293.5	8,512.2	524.8	551.5	618.0	722.5	763.5	812.9	792.4	831.8	793.4	808.9	787.7	823.3	668.6	
Hong Kong	9,854.1	10,242.8	654.3	642.8	774.0	882.5	924.5	1,009.8	959.1	995.0	930.0	905.6	810.7	695.7	622.5	
Japan	84,575.0	89,802.1	7,480.8	7,183.0	6,785.6	7,537.6	7,405.5	7,738.0	7,073.4	8,417.2	8,186.7	8,456.0	6,472.6	7,942.1	8,390.8	
Republic of Korea	16,986.9	20,189.1	1,415.6	1,543.9	1,611.9	1,656.0	1,731.2	1,946.7	1,854.0	1,695.0	1,664.6	1,945.6	1,613.0	1,483.5	1,613.3	
Saudi Arabia	4,433.1	5,593.7	455.8	416.5	418.4	427.3	492.3	502.3	361.7	433.8	361.6	568.1	562.6	563.4	512.5	
Singapore	6,201.0	7,995.7	618.1	615.9	638.2	680.6	660.4	752.0	679.1	738.6	687.4	774.5	619.7	538.3	709.7	
Taiwan	24,621.8	24,803.7	1,823.7	1,882.4	2,026.9	2,181.7	2,079.0	2,411.8	2,194.0	2,072.5	1,943.4	2,104.8	1,831.3	1,822.7	1,708.9	
Africa:																
Nigeria	3,573.4	3,298.3	266.8	278.3	341.2	387.8	301.9	279.4	254.2	264.6	179.0	270.6	359.3	313.3	323.2	
Republic of South Africa	1,345.5	1,529.6	128.7	110.3	128.9	126.0	132.7	136.6	121.0	152.9	136.9	123.0	121.5	145.5	123.6	
Australia	3,007.2	3,531.1	254.6	276.3	287.8	345.8	248.1	302.1	244.7	266.2	311.8	268.9	296.3	271.6	307.8	
OPEC	23,953.1	23,065.7	1,785.9	1,780.4	2,072.1	2,015.0	1,895.8	2,132.2	1,861.4	1,838.4	1,664.2	1,987.8	2,233.9	1,997.6	2,216.4	
By commodity groups and principal commodities:																
Petroleum and products	42,285.4	38,854.2	3,002.4	3,113.3	3,682.1	3,340.3	3,175.0	3,440.6	3,065.9	2,918.0	2,904.9	3,314.9	3,558.0	3,281.3	3,737.7	
Nonpetroleum products	363,615.2															

Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in BUSINESS STATISTICS: 1986

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
FOREIGN TRADE OF THE UNITED STATES—Continued																
Indexes																
Exports (U.S. mdse., excl. military grant-aid):																
Unit value @.....1977=100	158.6	169.6	162.6	165.4	169.6	169.6	173.7	174.6	176.9	175.8	175.8	176.3				
Quantity.....do.....	127.0	149.8	173.0	154.0	153.1	151.9	136.7	145.9	148.6	149.8	145.1	159.0				
Value.....do.....	201.4	254.1	281.2	254.7	259.7	257.7	237.4	254.6	262.9	263.4	255.0	280.4				
General imports:																
Unit value @.....do.....	164.6	172.9	171.5	172.2	176.3	176.9	177.1	174.0	172.5	171.8	172.3	174.4				
Quantity.....do.....	169.2	175.1	178.2	166.4	170.3	179.0	165.4	178.5	174.0	185.4	183.0	182.9				
Value.....do.....	278.5	302.7	305.6	286.6	300.2	316.6	293.0	310.5	300.2	318.6	315.2	318.9				
Shipping Weight and Value																
Waterborne trade:																
Exports (incl. reexports):																
Shipping weight.....thous. sh. tons.....	357,287	398,179	34,890	35,766	35,092	33,834	31,315	32,344	34,794	31,994	32,221	37,772				
Value.....mil. \$.....	99,011	125,775	11,166	10,234	10,374	10,396	10,178	10,422	11,497	10,555	10,690	11,995				
General imports:																
Shipping weight.....thous. sh. tons.....	471,693	512,665	39,456	41,029	44,764	42,086	41,679	45,030	42,938	44,562	43,934	47,952				
Value.....mil. \$.....	245,030	254,753	20,890	20,044	20,718	21,677	21,247	22,468	20,519	22,041	21,453	23,213				

TRANSPORTATION AND COMMUNICATION																
TRANSPORTATION																
Air Carriers																
Certificated route carriers:																
Passenger-miles (revenue).....bil.....	404.47	423.30	36.19	34.02	35.35	38.24	40.88	43.00	33.82	35.45	32.53	33.48	32.18			
Passenger-load factor.....percent.....	62.3	62.5	64.4	62.5	62.5	66.6	68.2	70.9	60.3	61.9	59.8	56.2				
Ton-miles (revenue), total.....mil.....	50,469	53,800	4,585	4,305	4,449	4,780	5,058	5,261	4,364	4,605	4,295	4,413	4,099			
Operating revenues (quarterly) # \$.....mil. \$.....	56,699		14,478			16,088			16,985							
Passenger revenues.....do.....	44,883		11,374			12,850			13,579							
Cargo revenues.....do.....	6,395		1,726			1,894			1,885							
Mail revenues.....do.....	924		244			235			220							
Operating expenses (quarterly) \$.....do.....	54,262		14,246			14,865			15,433							
Net income after taxes (quarterly) \$.....do.....	459		-52			600			1,077							
Domestic operations:																
Passenger-miles (revenue).....bil.....	324.69	329.31	29.47	27.20	27.69	29.05	30.50	32.21	25.22	27.32	25.85	26.22	24.85			
Cargo ton-miles.....mil.....	4,340	4,843	419	391	394	415	407	416	417	437	426	413	363			
Mail ton-miles.....do.....	1,313	1,367	121	111	105	106	103	105	106	111	113	169	112			
Operating revenues (quarterly) \$.....mil. \$.....	45,468		11,616			12,725			12,898							
Operating expenses (quarterly) \$.....do.....	43,756		11,489			11,767			11,972							
Net income after taxes (quarterly) \$.....do.....	1,512		1,127			958			926							
International operations:																
Passenger-miles (revenue).....bil.....	79.83	93.99	6.72	6.82	7.66	9.18	10.38	10.80	8.60	8.12	6.67	7.26	7.33			
Cargo ton-miles.....mil.....	13,921	4,789	388	364	373	399	424	403	423	473	457	423	371			
Mail ton-miles.....do.....	443	470	39	37	36	36	36	36	35	39	46	61	36			
Operating revenues (quarterly) \$.....mil. \$.....	10,907		2,772			3,293			4,024							
Operating expenses (quarterly) \$.....do.....	10,214		2,681			3,046			3,456							
Net income after taxes (quarterly) \$.....do.....	302		91			247			568							
Urban Transit Systems																
Passengers carried, total *.....mil.....	8,766	8,867	835	779	750	758	695	753	740	772	750	727				
Motor Carriers																
Carriers of property, large, class I, qtrly.:																
Number of reporting carriers.....do.....	100		100			100			100							
Operating revenues, total.....mil. \$.....	18,772		4,403			4,710			4,998							
Net income, after extraordinary and prior period charges and credits.....mil. \$.....	263		38			108			179							
Tonnage hauled (revenue), common and contract carrier service.....mil. tons.....	179		42			43			45							
Freight carried—volume indexes, class I and II intercity truck tonnage (ATA):																
Common carriers of general freight, seas. adj.....1967=100	163.8	177.2	175.2	175.5	179.6	184.7	172.7	178.6	178.5	178.3	178.1	178.3	177.6	169.0	167.5	
Class I Railroads †																
Financial operations, quarterly (AAR), excluding Amtrak:																
Operating revenues, total #.....mil. \$.....	26,623		6,868			7,009			6,804							
Freight.....do.....	25,798		6,666			6,804			6,804							
Passenger, excl. Amtrak.....do.....	95		21			21			21							
Operating expenses.....do.....	23,881		6,084			6,649			6,649							
Net railway operating income.....do.....	1,752		569			225			225							
Ordinary income †.....do.....	1,989		529			347			740							
Traffic:																
Revenue ton-miles, qtrly. (AAR).....bil.....	943.7	1,003.5	247.4			251.3			249.9			254.9			230.5	299.7
Price index for railroad freight.....12/84=100	100.1	104.8	103.2	105.2	105.2	104.9	105.2	105.4	105.4	105.4	105.4	105.4	105.9	105.9	105.9	106.1
Travel																
Lodging industry:																
Restaurant sales index...same month 1967=100	223		241	233	276	265	259	218	222	258	222					
Hotels: Average room sale.....dollars.....	82.58		89.27	85.37	84.97	82.70	76.58	80.49	83.65	89.71	88.54					
Rooms occupied.....% of total.....	68		72	70	70	70	68	72	66	72	66					
Motor hotels: Average room sale.....dollars.....	47.79		48.88	46.35	44.48	45.58	51.56	46.61	43.01	44.25	43.62					
Rooms occupied.....% of total.....	62		72	68	64	71	75	74	64	66	56					
Economy hotels: Average room sale.....dollars.....	32.87		36.10	50.30	53.52	50.19	50.44	36.18	34.30	33.42	33.32					
Rooms occupied.....% of total.....	64		71	68	66	74	80	78	65	65	56					
Foreign travel:																
U.S. citizens: Arrivals (quarterly).....thous.....	17,005		4,126			4,840	1,834	2,007	1,411	1,420	1,217					
Departures (quarterly).....do.....	16,425		3,717			4,529	1,887	1,699	1,398	1,302	1,174					
Aliens: Arrivals (quarterly).....do.....	11,639		2,801			3,337	1,634	1,540	1,214	1,140	943					
Departures (quarterly).....do.....	10,239		2,440			2,881	1,181	1,579	1,173	1,098	900					
Passports issued.....do.....	4,872	4,061	467	432	408	421	335	339	263	235	233	223	283	323	424	
National parks, recreation visits #.....do.....	55,782	55,422	2,272	2,925	4,677	7,790	10,359	9,871	6,277	4,737	2,241	1,304	1,516	1,440	2,177	

See footnotes at end of tables.

Units	Annual		1988												1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.		
TRANSPORTATION AND COMMUNICATION—Continued																		
COMMUNICATION																		
Telephone carriers: ◇																		
Operating revenues #.....mil. \$..	74,657																	
Station revenues.....do.....	31,669																	
Tolls, message.....do.....	9,171																	
Operating expenses (excluding taxes).....do.....	50,384																	
Net operating income (after taxes).....do.....	13,370																	
Access lines.....mil.....																		
CHEMICALS AND ALLIED PRODUCTS																		
CHEMICALS																		
Inorganic Chemicals																		
Production:																		
Aluminum sulfate, commercial (17% Al ₂ O ₃) ‡ thous. sh. tons.....	1,264	1,274	107	100	108	118	110	121	108	96	98	105	91	89	109			
Chlorine gas (100% Cl ₂) ‡.....do.....	11,019	11,329	974	953	910	904	922	951	960	987	966	(²)	974	946	976			
Hydrochloric acid (100% HCl) ‡.....do.....	2,869	2,568	226	233	187	183	181	232	232	205	221	233	227	222	238			
Phosphorus, elemental ‡.....do.....	344	352	30	30	30	30	28	27	29	29	29	30	30	26	31			
Sodium hydroxide (100% NaOH) ‡.....do.....	11,486	11,983	1,031	1,022	851	845	872	999	1,033	1,038	1,022	(²)	1,089	997	1,049			
Sodium silicate, anhydrous ‡.....do.....	952	748	63	62	57	74	65	71	76	70	66	(²)	64	88	68			
Sodium sulfate, anhydrous ‡.....do.....	813	789	69	69	70	68	60	68	67	63	65	65	71	64	68			
Sodium tripolyphosphate (100% Na ₃ P ₃ O ₁₀) ‡.....do.....	586	551	54	53	47	49	39	41	36	51	47	45	49	46	49			
Titanium dioxide (composite and pure) ‡.....do.....	968	1,026	86	88	92	84	85	84	88	78	86	91	93	92	87			
Sulfur, native (Frasch) and recovered:																		
Production.....thous. met. tons.....	9,363	9,450	815	777	779	773	769	805	762	836	816	931	935	794	925			
Stocks (producers') end of period.....do.....	2,316	1,112	1,963	1,894	1,750	1,580	1,536	1,490	1,368	1,324	1,210	1,112	1,101	1,122	1,159			
Inorganic Fertilizer Materials																		
Production:																		
Ammonia, synthetic anhydrous ‡ thous. sh. tons.....	16,095	16,937	1,455	1,475	1,513	1,395	1,443	1,388	1,289	1,346	1,400	1,520	1,529	1,342	1,494			
Ammonium nitrate, original so- lution ‡.....do.....	6,547	7,186	652	648	635	560	574	565	515	587	621	658	687	612	670			
Ammonium sulfate ‡.....do.....	2,189	2,337	200	187	210	172	188	190	188	213	207	210	201	188	199			
Nitric acid (100% HNO ₃) ‡.....do.....	7,225	7,887	736	710	690	623	631	630	570	627	654	708	726	660	709			
Nitrogen solutions (100% N) ‡.....do.....	2,385	3,119	253	285	281	227	246	251	240	272	278	304	263	243	254			
Phosphoric acid (100% P ₂ O ₅) ‡.....do.....	10,685	11,729	1,017	1,015	972	902	958	971	945	1,004	961	1,066	1,007	936	1,045			
Sulfuric acid (100% H ₂ SO ₄) ‡.....do.....	39,235	42,775	3,591	3,657	3,590	3,376	3,510	3,549	3,441	3,673	3,675	3,922	3,790	3,496	3,821			
Superphosphate and other phosphatic fertilizers (gross weight):																		
Production.....thous. sh. tons.....	15,674	16,858	1,392	1,385	1,277	1,223	1,339	1,436	1,378	1,588	1,515	1,604	1,592	1,400	1,639			
Stocks, end of period.....do.....	704	879	581	620	780	690	726	728	570	602	749	879	860	989	970			
Potash, sales (K ₂ O).....do.....	6,204	5,703	436	688	536	392	280	467	347	438	447	548	579	344	401			
Imports:																		
Ammonium nitrate.....thous. met. tons.....	279	267	24	32	19	17	17	16	14	16	16	44	40	46	37			
Ammonium sulfate.....do.....	259	337	40	38	22	8	29	14	24	13	40	32	23	6	53			
Potassium chloride.....do.....	6,613	6,796	827	864	534	345	303	512	462	543	586	558	710	396	541			
Sodium nitrate.....do.....	93	181	11	38	17	9	6	15	15	5	(²)	8	11	14	14			
Industrial Gases ‡																		
Production:																		
Acetylene.....mil. cu. ft.....	5,284	5,535	424	483	339	324	354	462	583	628	559	618	565	527				
Hydrogen (high and low purity).....do.....	149,217	143,819	11,824	12,152	13,215	12,724	12,389	11,738	11,077	11,022	11,849	11,209	10,498	10,917				
Nitrogen (high and low purity).....do.....	675,343	719,371	61,298	58,205	60,681	57,286	62,210	60,754	58,901	60,566	58,607	61,382	61,071	57,664				
Oxygen (high and low purity).....do.....	402,644	448,695	37,469	36,474	38,863	36,002	37,856	38,156	36,676	37,603	38,022	39,353	38,522	36,350				
Organic Chemicals §																		
Production:																		
Acetylsalicylic acid (aspirin).....mil. lb.....	24.1	22.4	6.8			6.5			4.8			4.3						
Ethyl acetate.....do.....	214.0	272.2	47.0			48.0			87.2			71.6						
Formaldehyde (37% HCHO).....do.....	5,733.2	6,729.8	1,651.1			1,650.0			1,668.3			1,733.5						
Glycerin, refined, all grades.....do.....	276.4	281.7	24.9	24.2	24.8	22.0	25.5	20.8	21.9	24.8	26.0	19.4	27.7	20.9	24.9			
Methanol, synthetic.....mil. gal.....	1,135.1	1,105.9	272.0			253.2			271.3			315.6						
Phthalic anhydride.....mil. lb.....	1,035.2	1,141.3	270.4			284.4			294.6			291.8						
ALCOHOL																		
Ethyl alcohol and spirits:																		
Production.....mil. tax gal.....	730.3	776.8	64.2	60.7	69.8	61.2	65.9	62.8	61.2	69.7	69.7	67.8						
Stocks, end of period.....do.....	43.4	39.7	36.4	39.5	34.7	31.3	40.5	38.6	28.4	35.9	36.3	39.7						
Denatured alcohol:																		
Production.....mil. wine gal.....	442.5	462.1	44.0	36.9	43.5	40.1	33.4	38.5	36.2	36.1	38.2	42.2						
Consumption (withdrawals).....do.....	460.8	468.7	45.8	40.8	41.6	42.2	35.4	38.6	38.7	38.5	36.9	39.7						
For fuel use.....do.....	208.3	215.7	18.5	19.0	21.0	20.3	17.8	17.3	19.0	18.2	18.1	17.2						
Stocks, end of period.....do.....	9.7	9.2	11.4	7.6	11.1	8.6	7.4	10.9	8.7	7.5	7.4	9.2						

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.

CHEMICALS AND ALLIED PRODUCTS—Continued

PLASTICS AND RESIN MATERIALS																
Production:																
Phenolic resins.....mil. lb.	1,697.1															
Polyethylene and copolymers.....do	17,374.6	18,331.5	4,597.1			4,555.4			4,422.5			4,753.5				
Polypropylene.....do	6,977.3	6,922.9	1,679.3			1,704.6			1,853.1			1,686.1				
Polystyrene and copolymers.....do	8,282.3															
Polyvinyl chloride and copolymers.....do	8,337.8	8,962.4	2,133.1			2,153.4			2,324.2			2,333.5				
PAINTS, VARNISH, AND LACQUER †																
Total shipments.....mil. \$	10,058.4	11,073.6	958.0	970.1	1,084.0	1,067.0	937.5	1,000.0	963.3	940.2	850.2	779.4	851.3	873.6	985.3	
Architectural coatings.....do	4,215.3	4,384.1	385.0	390.7	421.0	457.6	401.4	427.6	383.0	355.8	301.4	282.0	310.3	318.5	388.4	
Product coatings (OEM).....do	3,858.8	4,457.2	387.7	381.7	395.8	392.2	334.2	367.5	388.7	398.4	378.2	345.2	378.0	394.2	405.1	
Special purpose coatings.....do	1,983.8	2,232.3	185.3	197.6	217.1	217.2	202.0	205.0	196.7	186.0	170.7	152.2	163.0	160.9	191.8	

ELECTRIC POWER AND GAS

ELECTRIC POWER																
Production:																
Electric utilities, total.....mil. kw-hr.	2,572,127	2,701,624	213,838	195,809	208,180	232,507	257,235	267,408	220,023	210,377	209,394	232,550	231,343			
By fuels.....do	2,322,432	2,478,686	194,324	176,705	186,942	213,674	240,331	250,961	203,753	195,265	190,923	212,637	211,378			
By waterpower.....do	249,695	222,938	19,514	19,104	21,238	18,833	16,904	16,447	16,270	15,112	18,466	19,913	19,965			
Sales to ultimate customers, total (Edison Electric Institute) ◇.....mil. kw-hr.																
Commercial \$	2,431,192	2,549,208	638,859			591,912			705,136			613,302				
Industrial \$	656,708	696,400	166,780			165,289			197,196			167,135				
Railways and railroads.....do	842,680	873,476	211,402			218,376			228,555			220,144				
Residential or domestic.....do	4,378	5,061	1,304			1,183			1,274			1,299				
Street and highway lighting.....do	845,069	885,075	238,639			187,087			256,101			203,249				
Other public authorities.....do	14,542	14,724	3,755			3,469			3,570			3,930				
Interdepartmental.....do	62,319	65,302	16,098			15,526			17,327			16,352				
Revenue from sales to ultimate customers (Edison Electric Institute) ◇.....mil. \$	155,523	162,468	39,012			37,353			47,539			38,564				
GAS ◇																
Total utility gas, quarterly (American Gas Association):																
Customers, end of period, total @.....thous.	51,802	53,096	52,720			52,431			52,093			53,096				
Residential.....do	47,579	48,756	48,357			48,139			47,871			48,756				
Commercial.....do	3,990	4,108	4,133			4,058			3,992			4,108				
Industrial @.....do	179	179	175			179			177			179				
Other.....do	54	54	54			54			53			54				
Sales to customers, total.....tril. Btu.	10,543	10,691	4,084			1,961			1,628			2,855				
Residential.....do	4,385	4,747	2,192			791			373			1,353				
Commercial.....do	2,156	2,306	982			398			260			639				
Industrial.....do	2,541	2,251	640			480			471			581				
Electric generation.....do	1,306	1,229	211			264			502			285				
Other.....do	155	158	60			28			22			47				
Revenue from sales to customers, total.....mil. \$																
Residential.....do	45,492	46,362	18,238			8,353			6,307			12,858				
Commercial.....do	23,622	25,158	10,779			4,390			2,489			7,278				
Industrial.....do	10,271	10,783	4,510			1,357			1,185			3,014				
Electric generation.....do	7,500	6,739	2,160			1,362			1,284			1,793				
Other.....do	3,569	3,141	581			645			1,291			608				
Other.....do	530	541	208			97			58			166				

FOOD AND KINDRED PRODUCTS; TOBACCO

ALCOHOLIC BEVERAGES																
Beer:																
Production.....mil. bbl.	195.42	197.69	17.12	17.73	18.31	18.58	18.17	17.72	15.45	15.61	14.02	13.92	15.88	15.29		
Taxable withdrawals.....do	177.85	178.05	15.26	15.24	16.48	17.04	16.41	16.22	14.12	14.09	13.21	12.23	14.09	13.20		
Stocks, end of period.....do	12.94	18.23	14.12	15.13	15.25	14.95	14.88	14.32	13.68	14.15	13.47	13.23	13.38	13.84		
Distilled spirits (total):																
Production.....mil. tax gal.	76.51	94.37	7.43	7.87	9.16	7.10	5.70	5.14	9.82	12.96	9.75	8.13				
Consumption, apparent, for beverage purposes.....mil. wine gal.	388.22	378.08	30.67	30.36	30.16	32.77	28.09	29.44	30.08	31.28	38.64	44.38	25.03			
Stocks, end of period.....mil. tax gal.	455.00	420.92	446.43	445.14	895.06	440.21	435.39	431.54	427.33	426.38	423.98	420.92				
Imports.....mil. proof liters.	404.60	363.20	28.50	27.00	28.70	25.80	24.50	29.50	33.50	44.50	42.10	26.50	24.14	28.23	38.89	
Whisky:																
Production.....mil. tax gal.	38.33	47.91	4.06	4.46	4.68	3.45	3.00	2.82	3.91	5.61	6.04	5.56				
Stocks, end of period.....do	393.72	364.56	384.78	384.08	394.27	379.87	377.28	373.78	369.90	367.40	364.88	364.56				
Imports.....mil. proof liters.	263.50	231.90	18.90	16.40	18.40	16.20	14.00	19.20	21.20	30.80	27.60	16.50	15.61	17.15	14.45	
Wines and distilling materials:																
Effervescent wines:																
Production.....mil. wine gal.	27.89	30.69	1.66	2.26	1.36	3.45	2.71	2.66	3.04	3.65	3.02	2.62				
Taxable withdrawals.....do	30.04	29.14	1.51	1.56	1.91	1.96	1.70	1.75	3.43	3.87	4.69	3.54				
Stocks, end of period.....do	14.99	18.65	16.46	17.29	17.37	17.67	18.45	19.00	18.27	17.95	15.48	18.65				
Imports.....mil. liters.	52.50	49.30	3.60	2.70	3.30	3.00	3.30	4.10	4.00	7.50	8.00	4.90	1.91	2.10	2.74	
Still wines:																
Production.....mil. wine gal.	442.33	469.28	5.14	3.84	4.88	3.50	6.72	26.50	192.53	117.01	53.30	45.03				
Taxable withdrawals.....do	451.80	444.32	38.47	40.49	41.65	47.22	38.98	36.40	33.09	32.46	34.33	34.35				
Stocks, end of period.....do	602.97	586.77	501.19	542.89	470.22	454.47	387.52	371.93	569.32	543.27	587.32	586.77				
Imports.....do	312.00	257.40	23.10	20.40	21.50	21.50	20.90	20.20	19.80	27.00	26.50	19.60	14.98	13.55	21.02	
Distilling materials produced at wineries.....do																
	145.90	131.76	2.21	3.10	3.50	2.94	1.96	10.09	40.53	32.88	8.95	7.01				

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	Unless otherwise stated in footnotes below, data through 1988 and methodological notes are as shown in BUSINESS STATISTICS: 1986															
FOOD AND KINDRED PRODUCTS; TOBACCO—Continued																
DAIRY PRODUCTS																
Butter:																
Production (factory).....mil. lb.	1,104.1	*1,207.5	*115.5	*113.8	*108.0	*90.8	*76.3	*74.1	*83.3	*92.3	*95.6	*112.0	129.0	124.7	135.7	.....
Stocks, cold storage, end of period.....do	143.2	214.7	221.1	240.4	280.5	293.4	295.8	294.4	253.4	237.3	226.2	214.7	246.6	314.4	*341.9	*377.3
Producer Price Index.....1982=100	95.3	*90.8	88.8	88.8	88.8	91.4	92.1	92.6	92.6	92.2	92.1	92.1	89.2	88.6	88.5	88.5
Cheese:																
Production (factory), total.....mil. lb.	5,944.2	*5,571.6	*491.6	*475.3	*488.2	*476.7	*454.9	*442.0	*451.9	*470.0	*458.9	*486.5	456.6	419.5	488.4	.....
American, whole milk.....do	2,716.7	*2,756.6	*248.2	*248.9	*253.1	*241.2	*282.5	*208.8	*208.5	*220.9	*214.5	*235.0	225.6	208.7	231.9	.....
Stocks, cold storage, end of period.....do	457.1	388.1	443.8	451.9	460.1	480.9	496.1	460.8	421.3	400.7	366.7	383.1	395.3	402.3	*394.7	409.3
American, whole milk.....do	367.4	283.4	354.1	359.2	366.7	381.9	388.4	351.1	314.8	298.2	260.8	283.4	283.8	290.9	*283.8	290.4
Imports.....thous. met. tons	120.2	114.6	7.7	7.5	7.6	9.1	10.8	11.0	8.8	10.6	12.6	12.2	11.7	6.9	8.7	.....
Price, wholesale, cheddar, single daisies (Chicago).....\$ per lb.	(*)															
Condensed and evaporated milk:																
Production, case goods.....mil. lb.	579.7	*588.7	*53.5	*55.8	*55.0	*57.4	*50.2	*49.5	*49.0	*42.8	*42.2	*45.6	44.5	41.5	49.0	.....
Stocks, manufacturers', case goods, end of period.....do	31.8	44.1	59.7	71.3	85.1	94.3	103.5	105.3	92.3	89.4	51.5	44.1	59.4	75.1	38.4	.....
Exports.....thous. met. tons	2.4	3.5	.1	.1	.4	.3	.3	.2	.6	.1	1.0	.1	1.2	2.5	1.9	.....
Fluid milk:																
Production on farms †.....mil. lb.	121,294	123,896	10,693	10,605	11,064	10,562	10,514	10,282	9,967	10,125	9,790	10,251	10,465	9,830	10,864	10,780
Utilization in manufactured dairy products.....do	*84,720	*85,093	*7,693	*7,555	*7,723	*7,598	*7,067	*6,890	*6,678	*6,693	*6,425	*6,948	7,189	6,878	7,866	.....
Price, wholesale, U.S. average.....\$ per 100 lb.	*12.53	*12.22	11.90	11.60	11.40	11.30	11.40	11.80	12.40	13.00	13.40	13.50	13.40	13.10	*12.70	*12.40
Dry milk:																
Production:																
Dry whole milk.....mil. lb.	145.9	*172.3	*12.7	*15.8	*17.2	14.1	*15.8	*14.0	14.7	*14.2	*12.9	*14.2	15.3	13.9	13.5	.....
Nonfat dry milk (human food).....do	*1,056.8	*978.5	*95.3	*106.1	*106.6	*104.3	*80.1	*68.1	*59.2	*56.8	*54.3	*75.8	87.1	85.6	95.7	.....
Stocks, manufacturers', end of period:																
Dry whole milk.....do	8.0	12.8	6.6	8.4	9.3	10.6	11.4	11.4	11.2	10.6	10.8	12.8	12.9	10.9	11.3	.....
Nonfat dry milk (human food).....do	65.1	45.1	56.2	70.8	74.1	67.7	71.3	53.3	44.4	49.9	39.1	45.1	60.4	79.8	84.6	.....
Exports, whole and nonfat (human food).....thous. met. tons	175.9	153.1	12.7	6.9	13.4	18.2	14.8	15.8	16.0	12.0	13.3	14.6	11.6	8.0	16.2	.....
Price, manufacturers' average selling, nonfat dry milk (human food).....\$ per lb.	.793	.773	.734	.734	.735	.740	.753	.770	.807	.826	.841	.849	.853	.841	.816	.....
GRAIN AND GRAIN PRODUCTS																
Exports (barley, corn, oats, rye, wheat).....mil. bu.	2,920.4	3,448.3	327.7	328.9	332.8	274.1	250.2	266.7	289.2	273.4	246.6	295.4	(12)			
Barley:																
Production (crop estimate).....mil. met. tons	*11,529	*6,325														
Stocks (domestic), end of period, total.....do	*7,307	*8,108			*6,993				*9,813			8,108			*6,099	
On farms.....do	*4,222	*3,980			*4,204			*5,208			3,980				*2,687	
Off farms.....do	*3,085	*4,128			*2,789			*4,605			4,128				*3,412	
Exports, including malt \$.....thous. met. tons	3,114.5	2,244.4	343.1	196.6	108.4	269.4	255.8	54.1	192.2	48.5	68.4	336.1	11.6	6.9	47.9	
Producer Price Index, No. 2 feed, Minneapolis.....1982=100	*85.7	*110.4	97.7	106.6	102.4	125.4	122.8	104.5	138.7	120.2	117.5	110.2	114.9	118.6	130.1	132.2
Corn:																
Production (crop estimate, grain only).....mil. met. tons	*179.44	*125.01														
Stocks (domestic), end of period, total.....do	*248.20	*179.63			*148.23			*108.19			179.63				*132.20	
On farms.....do	*154.95	*108.72			*82.33			*50.87			108.72				*76.74	
Off farms.....do	*93.25	*70.91			*65.90			*57.31			70.91				*55.47	
Exports, including meal and flour.....do	40.81	46.32	4.16	4.22	4.56	3.38	3.11	3.86	3.90	4.42	3.79	4.38	11.4	3.94	5.17	
Producer Price Index, No. 2, Chicago.....1982=100	67.7	*97.1	80.2	80.1	81.3	102.4	115.5	113.4	112.8	114.4	104.2	106.4	113.0	108.7	111.6	106.9
Oats:																
Production (crop estimate).....mil. met. tons	*5,429	*3,176														
Stocks (domestic), end of period, total.....do	*1,926	*1,626			*1,626											
On farms.....do	*1,499	*1,116			*1,116											
Off farms.....do	*427	*509			*509											
Exports, including oatmeal.....metric tons	30,213	29,989	871	2,269	4,261	5,443	1,818	3,439	2,057	1,119	2,420	994	11,321	2,676	14,769	
Producer Price Index, No. 2, Minneapolis.....1982=100	*92.5	*135.4	103.0	94.3	116.0	162.5	158.8	165.6	163.8	156.1	143.2	142.6	155.3	133.4	131.8	118.1
Rice:																
Production (crop estimate).....mil. met. tons	*5,879	*7,235														
Southern States mills (Ark., La., Tenn., Tex.):																
Receipts, rough, from producers.....mil. lb.	9,533	8,985	420	278	258	277	163	457	2,567	2,063	640	614	784	957	997	
Shipments from mills, milled rice.....do	7,791	6,722	491	400	525	465	428	476	700	677	633	775	609	656	855	
Stocks, domestic, rough and cleaned (cleaned basis), end of period.....mil. lb.	2,689	2,011	2,310	2,145	1,826	1,577	1,283	1,108	1,870	2,529	2,397	2,011	2,059	2,056	1,884	
Exports.....thous. met. tons	2,380	2,199	186	151	220	126	169	113	163	235	238	274	11,231	212	308	
Producer Price Index, medium grain, milled.....1982=100	83.3	*112.6	117.7	116.6	120.6	117.5	114.9	114.6	111.9	106.7	104.4	*103.9	104.5	104.5	104.0	105.9
Rye:																
Production (crop estimate).....mil. met. tons	*2,500	*2,380														
Producer Price Index, No. 2, Minneapolis.....1982=100	54.7	*69.1	50.5	46.9	53.5	93.8	82.1	78.4	81.3	71.8	77.9	82.8	79.1	79.1	76.2	79.1
Wheat:																
Production (crop estimate), total.....mil. met. tons	*57.37	*49.29														
Spring wheat.....do	*14.75	*6.80														
Winter wheat.....do	*42.59	*42.48														
Distribution, quarterly @.....do	62.71	*71.36			18.13			22.51			14.94					
Stocks (domestic), end of period, total.....do	*68.06	*46.54			*34.31			61.33			46.54				*33.21	
On farms.....do	*26.29	*16.71			*14.29			21.72			16.71				*12.44	
Off farms.....do	*41.77	*29.83			*20.03			39.62			29.83				*20.77	
Exports, total, including flour.....do	31.79	41.33	4.03	4.17	4.03	3.49	3.15	3.05	3.44	2.63	2.56	2.91	11.324	3.59	4.00	
Wheat only.....do	1,106.7	1,469.2	147.3	151.6	146.1	121.5	110.0	106.5	124.8	91.2	90.7	99.8	(12)			

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	FOOD AND KINDRED PRODUCTS, TOBACCO—Continued															
GRAIN AND GRAIN PRODUCTS—Continued																
Wheat—Continued																
Producer Price Indexes:																
Hard red winter, No. 1, ord. protein (K.C.) 1982=100..	70.6	*90.8	75.1	79.1	76.8	98.6	93.9	93.8	101.7	105.3	103.6	105.2	110.1	108.0	114.6	108.3
Hard red spring, No. 1, ord. protein (Minn.) 1982=100..	68.8	*93.1	75.5	79.6	81.6	104.0	97.9	102.6	104.0	106.2	102.7	103.3	111.5	108.9	113.4	109.4
Wheat flour:																
Production:																
Flour.....thous. sacks (100 lb.)..	338,484	339,453	26,498	25,660	28,944	28,173	28,251	31,167	29,133	31,058	30,853	27,916	28,538	*26,600	26,593	.....
Millfeed.....thous. sh. tons..	6,135	6,130	476	453	515	500	502	556	530	552	561	552	516	*477	479	.....
Grindings of wheat.....thous. bu..	760,459	759,833	60,371	57,583	64,858	62,961	63,002	69,182	65,226	69,172	68,846	62,209	63,338	*59,242	59,180	.....
Stocks held by mills, end of period thous. sacks (100 lb.)..	5,858	5,137	5,719	5,205	5,205	5,205	5,205	5,640	5,640	5,640	5,137	5,137	5,137	4,737	4,737	.....
Exports.....thous. met. tons..	1,196.00	960.80	12.40	35.50	37.70	133.40	112.90	108.20	31.30	109.40	65.60	135.70	*81.70	129.32	134.88	.....
Producer Price Index.....6/83=100..	89.7	*102.0	90.6	93.5	93.9	107.0	107.0	107.7	110.0	110.5	109.0	109.1	110.8	110.2	112.0	109.6
POULTRY AND EGGS																
Poultry:																
Slaughter.....mil. lb.																
Stocks, cold storage (frozen), end of period, total.....mil. lb.	19,886	20,520	1,779	1,648	1,759	1,831	1,600	1,847	1,792	1,750	1,672	1,607	1,694	*1,574	1,821	.....
Turkeys.....do.....	501	451	580	615	631	668	712	735	761	781	510	451	462	455	*458	489
Price, in Georgia producing area, live broilers.....\$ per lb.	282	250	339	371	410	457	496	552	573	583	304	250	263	263	*269	299
Eggs:	265	*315	250	*260	*320	*355	*400	*420	390	*335	*330	335	340	330	330	375
Production on farms.....mil. cases \$.	193.2	193.0	16.8	16.0	16.2	15.5	15.9	16.0	15.5	16.2	15.8	16.2	15.9	14.4	16.0	15.4
Stocks, cold storage, end of period:	43	9	33	14	21	30	28	25	23	24	26	9	12	7	16	18
Shell.....thous. cases \$.	17	20	14	17	20	25	23	25	22	20	18	20	20	19	15	15
Frozen.....mil. lb.	579	583	536	479	471	528	698	654	714	631	622	661	678	666	910	716
Price, wholesale, large (delivered; Chicago) \$ per doz.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
LIVESTOCK																
Cattle and calves:																
Slaughter (federally inspected):																
Calves.....thous. animals..	2,679	2,411	216	169	171	204	207	227	207	197	202	203	196	175	194	152
Cattle.....do.....	34,468	34,048	2,812	2,707	2,830	2,983	2,898	3,120	2,927	2,871	2,698	2,685	2,711	2,500	2,744	2,576
Prices, wholesale:	64.60	69.58	71.53	72.71	75.15	70.58	65.96	67.08	67.71	69.13	70.07	71.21	72.35	72.92	75.81	75.31
Beef steers (Omaha).....\$ per 100 lb.	71.32	80.50	83.12	82.61	78.99	70.77	74.14	79.45	79.89	82.99	81.31	80.99	82.02	82.91	80.98	78.58
Steers, stocker and feeder (Kansas City).....do.....	78.92	*227.67	87.50	96.41	97.66	100.88	77.50	87.50	*202.44	213.75	230.88	225.63	230.25	225.06	257.50	266.25
Calves, vealers (So. St. Paul).....dollars \$.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hogs:	78,913	85,516	7,505	6,929	6,713	6,715	6,199	7,101	7,534	7,887	7,908	7,703	7,116	6,619	7,569	7,199
Slaughter (federally inspected).....thous. animals..	47.11	43.25	43.19	42.23	47.75	48.26	45.60	45.98	41.28	38.92	36.52	40.58	41.64	41.11	39.88	37.22
Prices:	33.6	19.3	22.7	22.3	23.7	19.5	16.2	16.9	15.7	15.0	14.4	15.7	15.7	15.7	15.2	14.3
Wholesale, average, all weights (Sioux City) \$ per 100 lb.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hog-corn price ratio (bu. of corn equal in value to 100 lb. live hog).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sheep and lambs:	5,042	5,122	535	388	414	413	387	442	452	437	418	447	418	415	505	393
Slaughter (federally inspected).....thous. animals..	75.77	60.71	79.50	(1)	75.17	58.80	57.55	54.90	58.35	60.44	61.90	64.75	66.25	66.83	69.50	74.50
Price, wholesale, lambs, average (Omaha) \$ per 100 lb.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MEATS																
Total meats (excluding lard):																
Production, total.....mil. lb.	38,442	39,763	3,356	3,158	3,206	3,318	3,171	3,507	3,462	3,511	3,399	3,358	3,265	3,003	3,326	3,130
Stocks, cold storage, end of period.....do.....	623	716	717	759	721	671	671	634	644	664	701	716	745	762	749	766
Exports (meats and meat preparations) thous. met. tons..	915	1,081	75	81	87	90	93	105	99	102	103	105	*84	91	108	.....
Imports (meats and meat prep- arations).....do.....	1,250	1,263	127	112	104	125	99	114	91	88	89	74	*114	86	96	.....
Beef and veal:	23,821	23,811	1,958	1,869	1,948	2,059	2,013	2,197	2,074	2,041	1,909	1,904	1,923	1,772	1,920	1,784
Production, total.....mil. lb.	293	323	318	310	280	253	274	298	311	300	305	323	322	321	*305	282
Stocks, cold storage, end of period.....do.....	394	443	31	33	33	34	37	45	44	45	46	40	*36	37	49	.....
Exports.....thous. met. tons..	725	753	76	70	61	81	58	72	53	48	50	34	*72	50	56	.....
Imports.....do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Price, wholesale, beef, fresh steer carcasses, choice (600-700 lbs.) (Central U.S.).....\$ per lb.	972	1,031	1,035	1,052	1,117	1,064	971	1,010	1,032	1,044	1,047	1,062	1,073	1,080	1,124	1,138
Lamb and mutton:	310	329	35	26	27	27	24	28	28	28	27	29	27	27	33	26
Production, total.....mil. lb.	8	6	7	8	8	9	9	7	7	6	6	6	7	6	7	7
Stocks, cold storage, end of period.....do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pork (excluding lard):	14,312	15,623	1,362	1,263	1,231	1,233	1,133	1,282	1,360	1,443	1,463	1,425	1,310	1,204	1,373	1,321
Production, total.....do.....	285	358	346	397	389	363	337	287	288	321	361	358	381	397	*394	485
Stocks, cold storage, end of period.....do.....	70	147	7	10	12	17	15	17	12	15	15	14	*11	10	11	.....
Exports.....thous. met. tons..	461	439	44	37	37	39	36	37	33	34	32	34	*36	31	34	.....
Imports.....do.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Prices:	104.2	*96.2	99.6	93.4	91.8	92.0	91.4	92.4	94.5	98.4	99.1	100.2	(5)	.....	.....	.....
Producer Price Index, Hams, smoked 1982=100..	1,265	1,188	1,098	1,142	1,298	1,315	1,259	1,277	1,215	1,071	996	1,132	(5)	.....	.....	.....
Fresh loins, 8-14 lb. average, wholesale (N.Y.).....\$ per lb.	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
MISCELLANEOUS FOOD PRODUCTS																
Cocoa (cacao) beans, imports (including shells).....thous. met. tons..																
262.6	236.7	27.1	18.6	14.9	21.3	14.6	19.8	8.9	8.7	13.7	31.0	*44.2	24.0	30.4	.....	.....
Coffee:																
Imports, total.....metric tons..																
1,194,360	920,040	85,560	70,740	68,460	49,920	92,580	97,260	74,280	76,320	71,700	61,620	*98,070	77,714	82,072	.....	.....
From Brazil.....do.....	235,680	252,780	16,560	18,900	13,980	15,000	22,500	30,720	26,280	38,520	14,400	*24,616	20,282	24,413	.....	.....
U.S. Import Price Index †.....1985=100..	81.6	91.0	*92.8	.....	.....	92.2	.....	88.7	.....	.....	.....	.....	.....	89.5	.....	.....
Fish:																
Stocks, cold storage, end of period.....mil. lb.																
421	415	372	381	367	384	376	407	406	421	404	415	392	353	330	*330	.....

See footnotes at end of tables.

Units	Annual		1988												1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.		
	Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in BUSINESS STATISTICS: 1986																	

FOOD AND KINDRED PRODUCTS; TOBACCO—Cont.

MISCELLANEOUS FOOD PRODUCTS—Cont.																
Sugar:																
Exports, raw and refined.....metric tons..	560,592	877,365	12,995	22,422	8,957	41,624	35,989	28,278	23,016	38,223	16,816	615,552	*24,230	36,168	27,170	
Imports, raw and refined.....thous. met. tons..	1,157	1,213	71	76	96	62	112	144	99	164	90	134	*104	112	152	
Producer Price Indexes:																
Raw (cane).....1982=100..	110.3	*111.9	111.4	111.9	111.8	112.7	118.0	111.8	111.6	110.7	110.2	112.0	111.0	111.9	112.3	112.3
Refined.....do..	106.4	*108.9	106.7	107.2	106.6	106.9	108.2	110.0	109.9	112.3	112.2	*113.7	113.2	114.4	116.1	116.1
Tea, imports.....metric tons..	77,390	90,143	8,060	9,055	8,435	8,793	7,987	7,873	5,860	5,642	6,792	7,959	*6,610	5,966	8,290	
TOBACCO																
Leaf:																
Production (crop estimate).....mil. lb..	*1,191	*1,371														
Stocks, dealers' and manufacturers', end of period.....do..	4,471	4,020	4,176			3,792			3,925			4,020				
Exports, incl. scrap and stems.....metric tons..	193,178	216,481	21,258	25,737	15,845	10,332	11,805	11,181	14,279	14,806	20,886	20,588	*25,916	25,398	22,177	
Imports, incl. scrap and stems.....do..	222,197	196,429	18,321	19,944	18,199	18,762	19,665	19,297	20,404	16,088	12,218	5,248	*14,603	11,507	12,411	
Manufactured products:																
Consumption (withdrawals):																
Cigarettes (small):																
Tax-exempt.....millions..	111,199	132,953	10,195	9,286	10,316	12,526	9,164	11,664	11,682	11,338	15,585	12,158	10,947			
Taxable.....do..	577,008	543,378	55,291	44,825	51,609	52,699	31,416	34,373	51,941	46,871	56,264	39,548	46,915			
Cigars (large), taxable.....do..	2,676	2,430	214	188	216	251	173	224	237	208	200	189	164			
Exports, cigarettes.....do..	100,246	118,499	9,478	9,058	10,110	10,271	10,167	9,914	10,557	10,501	10,214	11,146	*8,661	2,187	1,731	

LEATHER AND PRODUCTS

LEATHER																
Exports:																
Upper and lining leather.....thous. sq. ft..	194,152	215,358	18,430	14,647	19,273	17,623	15,023	13,967	21,022	22,556	15,835	22,519				
Producer Price Index, leather.....1982=100..	140.9	*167.5	171.1	175.1	176.4	165.0	165.7	168.2	168.8	170.7	166.0	*164.9	165.5	170.5	170.2	169.2
LEATHER MANUFACTURES																
Footwear:																
Production, total.....thous. pairs..	225,888	*217,636	20,158	17,870	18,630	18,263	13,887	19,531	19,451	19,403	19,611	15,778	*18,070	18,384		
Shoes, sandals, and play shoes, except athletic.....thous. pairs..	162,223		(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	11,421	*12,428	(*)		
Slippers.....do..	55,548	*57,781	5,477	4,807	5,283	5,436	4,055	5,348	4,909	5,181	6,156	3,429	*4,752	5,248		
Athletic.....do..	8,017		(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	928	*885	(*)		
Other footwear.....do..	2,360	2,464	190	194	208	189	117	313	306	204	210	165	*253	260		
Exports.....do..	14,713	18,894	1,903	1,495	1,369	1,443	1,661	1,432	1,635	1,483	1,652	1,438				
Producer Price Indexes:																
Men's leather upper, dress and casual 1982=100..																
	111.4	*121.3	119.7	119.7	120.1	120.1	121.9	122.8	123.2	123.1	123.5	*124.6	125.2	125.8	126.0	126.8
Women's leather upper.....do..	107.2	*112.5	111.8	111.5	111.5	111.9	113.0	113.6	113.3	113.5	114.0	*114.0	114.3	115.0	116.0	115.1
Women's plastic upper.....do..	104.9	*107.5	107.2	107.2	107.3	107.2	107.2	107.3	107.7	105.9	108.4	109.4	109.6	110.0	110.1	110.0

LUMBER AND PRODUCTS

LUMBER—ALL TYPES #																
National Forest Products Association:																
Production, total.....mil. bd. ft..	*49,395	*48,350	4,389	4,247	4,245	4,187	3,671	4,056	4,180	4,040	3,715	3,641	3,820			
Hardwoods.....do..	*11,160	*11,446	1,093	1,013	1,090	1,099	958	1,158	1,003	778	747	690	768			
Softwoods.....do..	*38,235	*36,904	3,296	3,234	3,215	3,038	2,713	2,898	3,177	3,262	2,968	2,951	3,052			
Shipments, total.....do..	*49,761	*47,962	4,320	4,257	4,261	4,309	3,688	3,929	4,038	3,871	3,656	3,649	3,885			
Hardwoods.....do..	*11,460	*11,163	1,068	967	1,001	1,037	898	1,117	921	737	716	665	781			
Softwoods.....do..	*38,301	*36,799	3,252	3,290	3,260	3,272	2,790	2,812	3,117	3,134	2,940	2,984	3,104			
Stocks (gross), mill, end of period, total.....do..	6,183		6,341	6,302	6,257											
Hardwoods.....do..	1,412		1,347	1,363	1,363											
Softwoods.....do..	4,771		4,994	4,939	4,894	4,685	4,677	4,765	4,823	4,951	4,979	4,945	4,896			
Exports, total sawmill products.....do..																
Imports, total sawmill products.....thous. m ³ ..	35,912	33,547	3,158	2,739	2,971	3,318	2,884	2,799	2,846	2,872	2,695	2,190	*6,026	5,086		
SOFTWOODS																
Douglas fir:																
Orders, new.....mil. bd. ft..	10,325	9,412	898	786	817	844	599	721	896	795	651	897	869	569		
Orders, unfilled, end of period.....do..	548	636	683	620	619	626	541	553	622	611	553	636	691	619		
Production.....do..	10,354	9,390	839	818	834	734	668	751	840	840	732	783	781	581		
Shipments.....do..	10,445	9,324	788	849	818	837	684	709	827	806	709	814	641	619		
Stocks (gross), mill, end of period.....do..	790	856	909	878	894	791	775	817	830	864	887	856	823	763		
Exports, total sawmill products.....thous. m ³ ..	1,614		153	215	182	179	215	205	198	196			*206	196		
Sawed timber.....do..	326		19	59	28	26	33	31	24	26			*50	23		
Boards, planks, scantlings, etc.....do..	1,289		135	156	153	153	179	177	175	170			*156	173		
Producer Price Index, Douglas fir, dressed 1982=100..	125.1	135.7	131.6	134.2	132.0	135.7	140.6	138.6	142.7	140.5	138.7	*133.6	135.9	140.9	142.6	154.3

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	LUMBER AND PRODUCTS—Continued															
SOFTWOODS—Continued																
Southern pine:																
Orders, new.....mil. bd. ft.	'12,614	'12,552	1,090	1,063	1,155	1,116	867	1,042	1,109	1,133	1,151	913	1,040			
Orders, unfilled, end of period.....do	837	836	789	576	832	799	658	694	717	772	852	836	803			
Production.....do	'12,473	'12,622	1,124	1,085	1,081	1,127	1,033	1,042	1,056	1,089	1,028	971	1,040			
Shipments.....do	'12,487	'12,553	1,113	1,073	1,101	1,149	1,012	999	1,087	1,078	1,069	933	1,071			
Stocks (gross), mill and concentration yards, end of period.....mil. bd. ft.	1,996	2,065	2,056	2,068	2,049	2,024	2,045	2,086	2,057	2,068	2,028	2,065	2,036			
Exports, total sawmill products.....cu. meters.	621,072	1,237,638	79,067	79,697	88,380	90,858	75,716	105,112	123,175	124,101	161,908	171,664	108,674	109,939		
Producer Price Index, southern pine, dressed.....1982=100	114.1	112.4	118.4	118.6	115.7	115.2	114.9	106.3	101.6	102.9	108.5	109.5	110.1	109.7	107.9	106.1
Western pine:																
Orders, new.....mil. bd. ft.	11,427	10,976	1,026	987	1,032	901	705	790	897	925	819	955	987	724		
Orders, unfilled, end of period.....do	524	537	621	577	598	564	500	504	507	521	487	537	624	533		
Production.....do	11,407	10,898	1,011	999	968	839	714	787	940	982	887	885	885	779		
Shipments.....do	11,354	10,963	1,012	1,031	1,011	985	769	786	894	911	853	905	900	815		
Stocks (gross), mill, end of period.....do	1,365	1,300	1,393	1,361	1,318	1,222	1,167	1,168	1,214	1,285	1,319	1,300	1,285	1,249		
Producer Price Index, other softwood, dressed.....1982=100	119.0	120.1	120.0	120.9	121.3	124.2	126.4	123.1	119.9	118.0	117.3	116.5	117.8	121.7	124.1	128.1
HARDWOOD FLOORING																
Oak:																
Orders, unfilled, end of period.....mil. bd. ft.	11.0	8.9	12.3	13.4	11.8	10.2	10.1	8.6	8.6	10.3	10.2	8.9	9.6	12.2		
Shipments.....do	173.8	193.0	18.1	15.9	16.9	19.2	13.0	16.8	16.4	16.3	14.9	15.3	16.1	14.5		
Stocks (gross), mill, end of period.....do	8.7	10.9	8.9	9.6	10.0	10.1	10.4	10.5	10.5	10.9	11.3	10.9	10.6	12.0		

METALS AND MANUFACTURES																
IRON AND STEEL																
Exports:																
Steel mill products.....thous. sh. tons	1,129	2,069	114	116	124	126	128	139	207	244	243	437	257	237	606	
Scrap.....do	10,367	10,098	724	903	1,006	1,288	815	799	935	579	806	964	1,887	768	1,106	
Pig iron.....do	50	71	3	18	10	(³)	2	2	17	2	1	1	(³)	(³)	(³)	
Imports:																
Steel mill products.....do	20,414	'20,891	1,844	1,533	1,936	1,979	1,614	1,783	1,648	1,553	1,846	1,420	1,784	1,336	1,216	
Scrap.....do	843	1,038	69	102	39	65	66	90	136	94	124	77	129	91	78	
Pig iron.....do	355	700	11	77	67	84	12	45	25	99	74	16	18	36	11	
Iron and Steel Scrap																
Production.....thous. sh. tons	24,730	'27,601	2,422	2,247	2,328	2,219	2,177	2,252	2,296	2,353	2,294	2,221	2,273			
Receipts, net.....do	46,105	'49,946	4,404	4,210	4,431	4,169	3,987	4,254	4,256	4,390	4,085	3,743	4,051			
Consumption.....do	69,615	'76,904	6,660	6,407	6,627	6,277	6,102	6,379	6,553	6,606	6,336	6,044	6,579			
Stocks, end of period.....do	4,821	'4,552	4,731	4,653	4,708	4,691	4,549	4,657	4,640	4,779	4,828	4,552	4,595			
Composite price, No. 1 heavy melting scrap: American Metal Market \$ per long ton	85.76	108.98	113.93	109.60	104.63	102.52	111.67	113.26	110.67	110.81	109.17	107.28	113.90	116.07	112.52	
Ore																
Iron ore (operations in all U.S. districts):																
Mine production.....thous. lg. tons	46,894	'56,444	4,243	4,718	4,941	4,273	5,015	5,071	4,745	4,833	4,631	4,718	4,890	4,228		
Shipments from mines.....do	47,257	'55,801	1,153	5,282	5,826	5,723	6,329	5,704	5,440	5,463	4,813	5,569	2,155	1,158		
Imports.....do	16,601	19,809	900	1,646	1,588	1,974	2,305	1,837	2,497	1,409	1,419	1,782				
U.S. and foreign ores and ore agglomerates:																
Receipts at iron and steel plants.....do	58,596	'72,063	2,952	6,053	6,673	6,678	7,115	7,129	6,798	6,568	6,248	7,053	4,096	3,243	3,842	
Consumption at iron and steel plants.....do	60,087	'70,731	5,903	5,707	6,118	5,641	5,998	5,549	5,729	5,915	5,606	5,871	6,582	5,887	6,557	
Exports (domestic).....do	6,121	5,649	84	548	363	677	674	423	358	564	476	785				
Stocks, total, end of period.....do	20,944	23,120	20,363	20,442	20,107	19,652	20,153	21,135	22,567	22,495	22,846	23,120	22,919	23,029		
At mines.....do	2,616	3,244	10,898	9,834	8,949	7,496	6,226	5,593	4,287	4,105	3,244	6,029	9,099			
At furnace yards.....do	16,304	17,720	9,239	9,585	10,136	11,119	12,265	13,843	15,211	15,920	16,620	17,720	15,192	12,543	9,894	
At U.S. docks.....do	2,024	2,156	726	1,023	1,022	1,037	1,662	1,699	2,068	2,288	2,121	2,156	1,638	1,382	562	
Manganese (manganese content), general imports.....do	801	1,110	96	128	63	118	95	74	82	77	110	117				
Pig Iron and Iron Products																
Pig iron:																
Production (including production of ferroalloys).....thous. sh. tons	'48,410	'55,745	4,842	4,699	4,932	4,497	4,762	4,584	4,612	4,646	4,455	4,712	4,964	4,654	5,112	4,990
Consumption.....do	'49,875	'57,353	4,939	4,706	4,996	4,712	4,854	4,687	4,759	4,766	4,611	4,874	4,870			
Stocks, end of period.....do	281	'206	228	250	222	236	229	247	241	242	236	241				
Castings, gray and ductile iron:																
Shipments, total.....thous. sh. tons	8,606	8,514	771	731	788	765	605	748	744	805	701	605	7682	623		
For sale.....do	6,002	5,717	497	493	543	516	443	533	504	516	500	412	7448	436		
Castings, malleable iron:																
Shipments, total.....do	318	364	42	34	32	34	21	27	31	31	23	28	28	25		
For sale.....do	168	192	23	19	17	18	10	15	16	15	10	13	13	13		

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	METALS AND MANUFACTURES—Continued															
Steel, Raw and Semifinished																
Steel (raw):																
Production.....thous. sh. tons..	'89,151	'99,924	8,768	8,398	8,832	8,031	8,313	8,181	8,237	8,332	7,883	7,954	8,729	8,022	8,997	8,738
Rate of capability utilization.....percent..	79.5	89.2	92.2	91.4	93.1	87.4	88.0	86.6	90.1	87.7	85.8	83.8	88.2	89.8	90.9	92.2
Steel castings:																
Shipments, total.....thous. sh. tons..	830	1,013	86	77	85	82	77	92	99	94	92	95	'94	87		
For sale, total.....do.....	797	997	84	75	83	81	76	90	98	93	91	94	'93	86		
Steel Mill Products																
Steel products, net shipments:																
Total (all grades).....thous. sh. tons..	76,654	'83,840	7,693	7,082	7,187	7,422	6,325	7,035	6,922	6,912	6,712	6,738	7,278	6,832	7,824	
By product:																
Semifinished products.....do.....	'5,456	'5,975	512	497	502	497	441	521	486	490	453	468	550	507	535	
Structural shapes (heavy), steel piling.....do.....	5,120	'5,209	486	443	475	433	381	432	453	422	411	508	504	451	494	
Plates.....do.....	4,048	'7,328	689	620	632	686	600	625	627	577	543	367	601	570	631	
Rails and accessories.....do.....	515	'615	43	45	45	43	41	47	45	39	42	36	44	49	60	
Bars and tool steel, total.....do.....	'18,575	'14,489	1,246	1,183	1,235	1,248	1,143	1,304	1,167	1,203	1,185	1,121	1,326	1,177	1,294	
Bars: Hot rolled (including light shapes).....do.....	7,238	'7,834	714	650	691	711	616	745	637	657	664	593	736	626	689	
Bars: Reinforcing.....do.....	'4,918	'5,092	390	395	418	410	418	432	411	424	404	418	443	421	461	
Bars: Cold finished.....do.....	1,361	1,499	136	133	120	121	104	122	113	116	111	105	142	125	137	
Pipe and tubing.....do.....	3,570	4,443	457	439	411	417	350	336	319	321	291	302	302	280	362	
Wire and wire products.....do.....	1,105	1,073	103	106	93	109	94	92	87	92	83	67	87	86	97	
Tin mill products.....do.....	3,988	4,069	334	353	342	376	321	355	322	323	321	489	288	278	356	
Sheets and strip (including electrical), total.....do.....	39,279	40,639	3,823	3,395	3,452	3,614	2,955	3,322	3,416	3,445	3,384	3,360	3,577	3,433	3,965	
Sheets: Hot rolled.....do.....	13,048	12,589	1,234	1,056	1,065	1,110	947	983	1,044	1,032	1,042	1,099	1,025	1,087	1,265	
Sheets: Cold rolled.....do.....	13,859	13,871	1,396	1,181	1,190	1,243	1,013	1,117	1,149	1,159	1,129	1,072	1,217	1,137	1,326	
By market (quarterly):																
Service centers and distributors.....do.....	'18,629	18,980	5,185			5,080			4,537			4,197	'21,528	'21,509	'21,738	
Construction, incl. maintenance.....do.....	5,619	6,014	1,493			1,559			1,460			1,398	'2,485	'2,453	'2,583	
Contractors' products.....do.....	2,701	2,815	740			714			691			681	'2,232	'2,207	'2,238	
Automotive.....do.....	'11,135	12,078	2,910			3,193			2,901			3,046	'21,153	'21,033	'21,103	
Rail transportation.....do.....	734	1,116	287			346			176			270	'2102	'2102	'2102	
Machinery, industrial equip., tools.....do.....	2,096	2,537	656			648			598			601	'2218	'2201	'2210	
Containers, packaging, ship. materials.....do.....	4,371	4,423	990			1,146			1,121			1,163	'2320	'2311	'2389	
Other.....do.....	'31,337	'36,011	8,745			9,003			8,790			8,944	'23,242	'23,036	'23,455	
Producing steel mills, inventory, end of period:																
Total.....mil. sh. tons.....	11.3	'13.1	'11.9	'12.2	'12.7	'12.1	12.9	'12.7	'12.9	'13.0	'13.1	'13.1				
Steel in process.....do.....	6.7	'7.9	6.9	'7.1	'7.5	'7.2	7.7	'7.6	'7.7	'7.8	'7.8	'7.9				
Finished steel.....do.....	4.6	'5.2	'5.0	'5.1	'5.2	'4.9	5.2	5.1	'5.2	5.2	'5.3	'5.2				
Service centers (warehouses), inventory, end of period.....mil. sh. tons..																
	6.4	6.5	6.8	6.9	7.0	7.1	7.1	7.2	6.9	6.7	6.6	6.5				
NONFERROUS METALS AND PRODUCTS																
Aluminum:																
Production, primary (dom. and foreign ores) thous. met. tons..																
	3,343	3,946	330	324	336	323	334	333	327	339	332	344	346	312		
Recovery from scrap †.....do.....	'1,986	1,953	175	166	157	158	160	170	167	177	163	156	'167	157		
Imports (general):																
Metal and alloys, crude.....do.....	1,378.0	1,136.0	115.6	98.1	101.5	88.8	87.7	88.2	101.3	90.3	90.4	60.6				
Plates, sheets, bars, etc.....do.....	452.3	428.2	49.7	34.4	32.9	35.9	44.8	31.4	32.9	32.7	31.4	29.6				
Exports:																
Metal and alloys, crude.....do.....	309.9	441.0	21.8	23.0	38.0	47.8	45.9	48.8	43.0	28.3	52.4	56.6				
Plates, sheets, bars, etc.....do.....	284.5	377.5	35.1	28.9	36.7	32.0	27.2	35.6	35.3	34.2	26.5	34.7				
Price, U.S. market, 99.7% purity, monthly average.....\$ per lb..																
	7.230	1.1009	1.0709	1.0712	1.1448	1.2627	1.2225	1.2439	1.1138	1.0472	1.0735	1.1000	1.0772			
Aluminum products:																
Shipments:																
Ingot and mill prod. (net ship.).....mil. lb..	15,584	15,484	1,398	1,246	1,313	1,425	1,271	1,354	1,365	1,311	1,316	1,157	'1,273	1,260		
Mill products, total.....do.....	12,234	12,303	1,135	1,033	1,056	1,123	1,003	1,095	1,070	1,006	976	917	'1,003	1,014		
Sheet and plate.....do.....	7,379	7,408	685	608	637	679	633	673	647	591	580	575	'681	711		
Castings.....do.....	2,232	2,429	229	206	221	225	146	193	209	221	220	186	231	219		
Inventories, total (ingot, mill products, and scrap), end of period.....mil. lb..	4,175	4,199	4,388	4,423	4,388	4,258	4,272	4,213	4,221	4,175	4,160	4,199	'4,189	4,160		
Copper:																
Production:																
Mine, recoverable copper.....thous. met. tons..	1,255.9	1,487.1	122.0	112.9	121.2	116.5	116.5	129.1	121.6	125.5	123.8	130.2	'127.2	121.3		
Refined from primary materials.....do.....	1,146.1	1,448.2	124.0	122.2	120.6	120.1	121.3	123.9	113.8	120.9	128.4	128.6	'123.0	119.0		
Electrolytically refined:																
From domestic ores @.....do.....	988.1	1,220.2	105.7	104.7	102.0	101.8	102.9	103.8	93.5	99.5	107.4	106.8	'101.4	99.2		
From foreign ores.....do.....																
Electrowon.....do.....	158.0	228.0	18.3	17.5	18.6	18.3	18.4	20.1	20.3	21.4	21.0	21.7	'21.6	19.9		
Refined from scrap ◊.....do.....	414.7	'442.3	48.2	36.9	37.2	36.9	29.7	37.1	39.3	36.0	36.8	40.0	36.5	39.8		
Imports, unmanufactured (general):																
Refined, unrefined, scrap (copper cont.).....do.....	657.3	626.1	63.6	51.0	48.0	43.4	33.4	46.4	42.4	62.1	59.4	44.0				
Refined.....do.....	515.6	390.4	39.0	33.7	25.9	25.1	22.3	27.7	25.7	44.2	39.2	20.2				
Exports:																
Refined and scrap.....do.....	454.8	707.7	56.6	51.4	67.1	77.6	44.7	54.1	111.3	48.6	56.1	54.5				
Refined.....do.....	17.9	66.5	3.8	5.7	7.7	9.5	3.5	4.4	14.3	2.3	4.0	4.5				
Consumption, refined (reported by mills, etc.) ◊.....do.....																
	2,152	2,263	210	183	195	194	153	199	192	201	196	183	194			
Stocks, refined, end of period ◊.....do.....																
	113	98	137	135	115	92	105	102	91	83	84	98	98			
Price, avg. U.S. producer cathode, delivered \$ per lb..																
	.8249	1.2051	1.0972	1.0364	1.0437	1.1428	1.1485	1.0145	1.1612	1.3805	1.5232	1.6127	1.5777			

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
METALS AND MANUFACTURES—Continued																
NONFERROUS METALS AND PRODUCTS—Continued																
Copper-base mill and foundry products, shipments (quarterly total):																
Brass mill products.....mil. lb.	2,624															
Copper wire mill products (copper content).....do.	1,922															
Brass and bronze foundry products.....do.	528															
Lead:																
Production:																
Mine, recoverable lead.....thous. met. tons.	311.3	384.6	36.0	32.7	30.3	32.5	30.4	36.3	33.1	34.4	31.1	31.8	33.3	31.0		
Recovered from scrap (lead cont.).....do.	1,710.2	697.9	60.1	55.9	52.2	59.4	55.3	56.3	60.7	61.8	61.6	59.7	62.1	58.6		
Imports (general), ore (lead content), metal.....do.	240.3	256.6	26.4	22.2	20.8	8.7	25.3	21.7	23.3	21.3	23.5	19.1				
Consumption, total.....do.	1,230.4	1,223.0	115.4	98.8	104.3	103.1	91.6	100.9	101.7	109.3	103.0	94.6	104.7	97.4		
Stocks, end of period:																
Producers', ore, base bullion, and in process (lead content), ABMS.....thous. met. tons.	59.2	66.9	53.9	59.0	57.8	60.8	58.9	73.0	79.9	70.8	68.7	66.9	60.1	55.2	57.8	
Refiners' (primary), refined and antimonial (lead content).....thous. met. tons.	21.6	15.4	25.8	26.7	24.1	15.0	14.7	6.0	4.6	10.6	11.9	15.4	26.0	33.0		
Consumers' (lead content).....do.	88.6	65.2	58.9	59.3	55.6	59.4	63.3	58.6	62.2	59.4	60.7	67.6	68.4	68.8		
Scrap (lead-base, purchased), all smelters (gross weight).....thous. met. tons.	24.0	21.4	17.7	17.3	16.2	16.3	16.4	19.9	23.7	21.8	19.6	19.9	17.7	17.0		
Price, common grade, delivered @ @.....\$ per lb.	.3594	.3714	.3400	.3400	.3457	.3630	.3650	.3652	.3841	.3915	.4138	.4202	.4017	.3701		
Tin:																
Imports (for consumption):																
Ore (tin content).....metric tons.	2,967	2,837	121	335					1,105	443		130				
Metal, unwrought, unalloyed.....do.	41,151	43,493	3,153	3,011	3,419	4,042	4,379	4,602	3,249	4,372	4,328	3,695				
Recovery from scrap, total (tin cont.).....do.	15,793	17,053	941	793	919	984	771	693	712	821	703	561	598	611		
As metal.....do.	1,151	1,174	92	88	96	98	113	96	96	96	96	96	11	12		
Consumption, total.....do.	53,100	61,100	4,800	4,700	5,300	5,600	5,300	5,300	5,500	5,600	4,900	4,900	4,800	4,800		
Primary.....do.	39,800	4,840	3,800	3,700	4,200	4,500	4,200	4,200	4,400	4,500	3,800	3,800	3,700	3,700		
Exports, incl. reexports (metal).....do.	1,701	1,573	171	96	108	126	89	204	171	197	94	45				
Stocks, pig (industrial), end of period.....do.	4,428	5,480	5,631	5,868	6,128	6,456	5,665	4,350	4,171	4,371	4,781	4,943	4,242	3,767		
Price, Straits quality (delivered).....\$ per lb.	4.1873	4.4142	4.2407	4.2295	4.2500	4.3984	4.4611	4.5770	4.6305	4.5462	4.5767	4.6029	4.6435	4.9165		
Zinc:																
Mine prod., recoverable zinc.....thous. met. tons.	1,217.0	242.1	22.3	21.9	22.0	22.4	18.8	21.5	19.9	19.9	19.9	19.3	22.2	20.8		
Imports (general):																
Ores (zinc content).....do.	425.5	405.7	32.6	38.9	37.9	24.6	48.9	35.2	35.1	30.8	32.3	27.9				
Metal (slab, blocks).....do.	705.9	740.8	71.7	66.4	84.5	57.3	55.8	4.6	61.2	63.9	64.2	47.4				
Consumption (recoverable zinc content):																
Ores.....do.	12.5	2.4	2	2	2	2	2	2	2	2	2	2	2	2		
Scrap, all types.....do.	1,303.5	270.6	22.5	22.8	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0		
Slab zinc @																
Production, total.....thous. met. tons.	220.5	194.4	17.5	16.4	16.3	16.3	16.8	16.6	15.1	15.9	17.6	14.7	17.8	16.3	17.6	16.8
Consumption, fabricators.....do.	1,052.0	1,104.0	110.3	97.9	110.7	84.6	73.9	111.8	86.9	97.5	87.2	88.1	90.0	84.0		
Exports.....do.	1.1	.5			(?)	(?)	(?)	1	2	1	(?)	(?)				
Stocks, end of period:																
Producers', at smelter (ABMS).....do.	7.0	5.6	4.5	3.4	4.3	4.5	6.0	7.5	9.4	6.3	5.4	5.6	5.0	4.0	3.3	3.8
Consumers'.....do.	57.1	49.0	45.0	41.5	41.8	46.3	53.2	48.4	49.4	48.8	49.0	50.5	54.1			
Price, high grade.....\$ per lb.	4.192	6.020	4.790	5.150	5.604	6.255	6.564	6.646	6.826	6.945	7.125	7.344	7.927	8.770	9.371	
MACHINERY AND EQUIPMENT																
Heating, combustion, atmosphere equipment, new orders (domestic), net, qtrly #.....mil. \$.	1,226.0		43.8			50.5										
Electric processing heating equipment.....do.	54.9		18.2			15.7										
Fuel-fired processing heating equip.....do.	1,171.1		25.7			34.8										
Materials handling equipment, dollar value bookings index *.....1982=100	207.1		172.0	204.9	203.1	243.7	210.6	188.2	211.3							
Industrial supplies, machinery and equipment: New orders index, seas. adjusted.....1977=100	128.7	138.2	135.5	134.5	138.2	133.4	133.5	135.4	134.9	141.0	142.7	146.5				
Industrial suppliers distribution:																
Sales index, seas. adjusted.....1977=100	149.1	164.0	162.0	161.3	155.5	159.1	162.4	176.2	179.7	170.1	166.7	167.6	177.2	176.2	160.0	
Inflation index, not seas. adj. (tools, material handling equip., valves, fittings, abrasives, fasteners, metal products, etc.).....1977=100	166.6	172.2	170.2	171.3	171.9	172.1	172.3	173.4	173.9	174.2	174.8	176.0	177.6	178.3	179.5	
Fluid power products shipments indexes:																
Hydraulic products \$.....1985=100	107	129	136	134	127	137	116	134	132	134	125	132	140	141	160	
Pneumatic products \$.....do.	105	120	136	118	117	122	112	125	124	125	118	114	130	128	153	
Machine tools:																
Metal cutting type tools:																
Orders, new (net), total.....mil. \$.	1,451.45	2,707.90	191.90	195.30	242.85	238.35	187.00	261.50	266.50	215.40	188.35	246.40	167.00	214.95	220.10	
Domestic.....do.	1,294.45	2,315.75	174.15	146.45	205.65	210.65	167.55	179.30	252.95	199.25	164.60	191.50	145.40	191.30	199.70	
Shipments, total.....do.	1,676.50	1,574.55	137.75	95.30	111.25	132.80	137.70	105.40	151.20	145.90	170.80	209.35	102.85	151.25	226.90	
Domestic.....do.	1,498.85	1,400.10	123.95	82.20	100.25	116.00	126.15	93.00	133.50	123.35	156.70	186.40	89.50	133.90	206.40	
Order backlog, end of period.....do.	672.2	1,805.5	1,020.6	1,120.6	1,252.2	1,357.8	1,410.0	1,566.2	1,681.4	1,751.0	1,768.5	1,805.5	1,869.7	1,933.4	1,926.6	
Metal forming type tools:																
Orders, new (net), total.....do.	667.35	882.95	62.55	57.70	81.85	144.45	67.95	78.00	61.70	46.85	90.65	70.05	63.85	67.00	69.90	
Domestic.....do.	536.05	749.35	47.90	47.00	73.25	134.60	53.80	73.50	51.65	40.00	66.25	60.20	56.60	57.05	58.20	
Shipments, total.....do.	647.15	824.55	68.95	62.10	68.45	81.25	53.00	48.55	76.35	66.25	86.75	83.20	49.35	77.55	79.20	
Domestic.....do.	537.90	702.20	61.80	51.70	57.35	69.25	43.75	40.75	65.70	55.30	80.15	64.30	42.20	66.40	67.00	
Order backlog, end of period.....do.	327.3	385.7	312.4	308.0	321.4	384.6	399.6	429.0	414.4	395.0	398.8	385.7	400.2	389.6	380.4	

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
METALS AND MANUFACTURES—Continued																
MACHINERY AND EQUIPMENT—Continued																
Tractors used in construction, shipments, qtrly:																
Tracklaying (ex. shovel loaders).....units..	9,668	12,240	2,809				3,150				2,835			3,446		
mil. \$	973.8	1,178.9	283.6				323.1				282.6			289.6		
Wheel (contractors' off-highway)....units..	5,482	5,134	1,242				1,320				1,376			1,196		
mil. \$	415.5	418.1	98.9				106.5				115.2			97.5		
Shovel loaders †.....units..	62,825	63,733	15,390				17,060				14,944			16,339		
mil. \$	1,819.5	2,113.4	508.9				554.3				503.1			547.1		
ELECTRICAL EQUIPMENT																
Batteries (auto-type replacement), shipments.....thous..	59,878	63,487	4,606	4,031	4,122	4,988	4,733	5,783	6,757	6,463	6,041	6,245	4,674	4,203	4,754	
Radio sets, production, total market ††.....thous..	28,110	23,623	1,421	1,551	1,572	2,124	2,075	2,120	2,493	2,670	2,834	1,940	1,688	1,518	1,752	
Television sets (incl. combination models), production, total market ††.....thous..	23,497	20,170	1,909	1,710	1,582	1,931	1,485	1,853	2,567	1,953	1,838	2,329				
Household major appliances (electrical), factory shipments (domestic and export) #.....thous..	49,981	47,070	3,947	3,907	3,949	4,463	3,824	3,150	3,963	3,975	3,933	3,679	3,947	3,916	4,444	3,868
Air conditioners (room).....do..	3,798	4,637	682	686	647	835	405	198	111	129	126	215	352	546	846	718
Dishwashers.....do..	4,032	3,907	308	334	326	330	312	349	335	336	353	318	326	293	324	275
Disposers (food waste).....do..	4,438	4,233	361	302	324	336	345	364	369	387	381	343	391	380	414	335
Microwave ovens/ranges @.....do..	12,610	10,988	761	778	697	789	746	770	1,031	1,123	1,224	1,161	1,054	963	906	824
Ranges.....do..	3,346	3,202	251	259	244	260	252	287	270	302	287	262	245	225	273	226
Refrigerators.....do..	6,972	7,227	512	533	616	753	778	781	686	625	537	467	466	460	564	536
Freezers.....do..	1,260	1,349	82	108	112	126	156	152	128	110	99	94	93	94	90	93
Washers.....do..	5,998	6,190	498	471	515	546	460	539	584	533	508	440	553	510	539	457
Dryers (incl. gas).....do..	4,637	4,601	359	328	353	383	328	429	437	413	401	363	436	394	385	323
Vacuum cleaners (qtrly).....do..	10,417	10,652	2,733			2,487			2,882			2,550			2,952	
GAS EQUIPMENT (RESIDENTIAL)																
Furnaces, warm air, shipments.....thous..	2,073	2,092	148	125	118	138	164	201	254	252	223	177	178	148		
Ranges, total, shipments.....do..	2,143	2,167	175	171	168	176	162	193	182	203	203	191	158	156	194	163
Water heaters (storage), automatic, shipments.....do..	3,951	3,956	334	329	317	333	287	290	321	381	307	383	337	328		
PETROLEUM, COAL, AND PRODUCTS																
COAL																
Anthracite:																
Production †.....thous. sh. tons..	3,560	3,458	279	265	296	282	246	360	315	377	302	253	233	234	279	270
Exports.....thous. met. tons..	1,071	817	39	53	49	47	71	88	177	94	50	87	459	11	50	
Producer Price Index.....1982=100..	100.1	101.2	101.9	106.2	100.2	100.1	100.3	100.3	100.8	100.9	102.3	103.2	103.3	103.3	103.5	103.1
Bituminous:																
Production †.....thous. sh. tons..	915,202	946,304	83,943	75,324	73,981	76,443	69,176	88,175	83,196	80,799	82,925	80,260	81,717	74,890	88,745	77,213
Consumption, total †.....do..	834,337	868,994	68,994	63,811	66,131	74,714	81,301	84,922	71,196	75,006	61,461	59,446	59,192			
Electric power utilities.....do..	716,922	58,518	53,928	56,256	65,094	71,190	75,006	61,461	59,446	59,192						
Industrial, total.....do..	111,696	10,080	9,352	9,561	9,235	9,506	9,330	9,389								
Coke plants (oven and beehive).....do..	36,920	3,336	3,515	3,692	3,359	3,601	3,414	3,457								
Residential and commercial.....do..	5,719	396	532	313	385	604	586	345								
Stocks, end of period, total †.....do..	178,485	166,825	170,632	171,298	166,504	153,490	146,341	147,706	140,330	143,151						
Electric power utilities.....do..	163,837	154,423	158,342	159,114	154,427	141,613	134,664	136,229								
Industrial, total.....do..	14,628	12,397	12,291	12,184	12,078	11,877	11,677	11,478								
Oven-coke plants.....do..	3,879	3,868	3,831	3,794	3,757	3,460	3,164	2,868								
Exports.....thous. met. tons..	70,438	85,282	6,440	8,090	7,091	7,256	7,461	8,367	8,948	8,072	7,476	8,089	6,659	6,106	7,542	
Producer Price Index.....1982=100..	97.1	95.3	95.8	95.4	95.1	95.1	95.6	95.0	95.4	95.5	94.6	94.6	94.0	93.7	93.6	94.1
COKE																
Production:																
Beehive and oven (byproduct).....thous. sh. tons..	28,037	32,405	7,846			8,112			8,195			8,251				
Petroleum coke §.....do..	37,380	39,766	3,414	3,159	3,357	3,274	3,326	3,343	3,179	3,276	3,338	3,471	3,505	2,931		
Stocks, end of period:																
Oven-coke plants, total.....do..	1,064	1,583	902			1,140			1,271			1,583				
At furnace plants.....do..	846	1,420	714			942			1,107			1,420				
At merchant plants.....do..	218	163	188			198			164			163				
Petroleum coke ††.....do..	1,350	1,558	1,441	1,490	1,497	1,636	1,694	1,512	1,427	1,612	1,660	1,558	1,588	1,669		
Exports.....thous. met. tons..	590	1,011	27	22	217	69	56	60	84	41	131	167	452	30	76	
PETROLEUM AND PRODUCTS																
Crude petroleum:																
Producer Price Index.....1982=100..	55.5	46.2	47.2	49.1	51.5	50.6	45.7	45.0	42.6	39.3	39.2	44.3	49.6	50.2	53.6	58.6
Gross input to crude oil distillation units †.....mil. bbl.	4,746.1	4,920.6	410.5	399.9	422.5	411.1	427.9	432.2	400.7	412.8	400.2	420.2	418.8	364.3		
Refinery operating ratio ††.....% of capacity..	83	84	84	84	86	86	86	87	84	84	84	85	86	83		
All oils, supply, demand, and stocks: ††																
New supply, total ◊.....mil. bbl.	6,089.6	6,214.6	519.8	509.5	530.0	501.0	518.3	524.8	504.1	538.4	517.5	538.1	547.7	486.4		
Production:																
Crude petroleum.....do..	3,047.4	2,975.0	258.8	248.0	254.3	244.7	249.8	250.0	237.0	247.3	239.6	247.2	245.9	219.2		
Natural gas plant liquids.....do..	605.6	615.4	52.6	50.0	52.0	49.7	51.8	52.5	50.6	53.6	51.8	52.9	53.5	45.9		
Imports:																
Crude and unfinished oils.....do..	1,837.3	1,995.9	158.8	167.4	177.2	165.5	169.9	168.0	166.6	183.6	165.0	171.9	182.8	161.1		
Refined products.....do..	599.4	628.3	49.6	44.0	46.5	41.0	46.9	54.3	50.0	54.0	61.2	66.1	66.1	60.2		
Change in stocks, all oils.....do..	14.9	-7.9	-16.6	19.3	33.8	-1.0	16.1	-5.9	6.7	2.7	4.2	-34.8	19.9	-17.9		
Product demand, total.....do..	6,360.8	6,583.1	569.4	513.5	524.9	539.8	538.9	563.9	524.7	564.7	544.3	602.6	556.8	521.7		
Exports:																
Crude petroleum.....do..	55.0	58.1	6.7	3.5	4.4	4.2	5.9	4.8	3.7	5.3	4.5	4.1	4.2	5.8		
Refined products.....do..	223.0	241.0	19.2	16.8	20.9	23.9	19.8	20.4	16.5	17.5	17.0	27.2	19.0	18.5		

See footnotes at end of tables.

Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in BUSINESS STATISTICS: 1986

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
PETROLEUM, COAL, AND PRODUCTS—Continued																
PETROLEUM AND PRODUCTS +—Continued																
All oils, supply, demand, and stocks—Continued																
Domestic product demand, total #.....mil. bbl.	6,082.7	6,284.1	543.4	493.2	499.6	511.6	513.2	538.6	504.5	541.9	522.8	571.3	538.6	497.4		
Gasoline.....do.....	2,639.1	2,686.6	226.0	222.2	226.4	236.1	232.7	233.7	221.3	226.7	221.7	228.3	209.4	199.1		
Kerosene.....do.....	34.5	35.0	3.1	2.1	1.9	1.5	1.8	1.8	2.4	2.7	3.3	4.8	4.4	3.6		
Distillate fuel oil.....do.....	1,086.4	1,136.0	109.9	86.1	85.5	84.6	82.1	88.6	84.2	99.3	94.6	110.3	102.2	95.5		
Residual fuel oil.....do.....	461.5	486.4	44.4	38.2	29.3	33.0	36.5	39.0	38.4	39.1	43.6	54.4	49.5	47.1		
Jet fuel.....do.....	505.5	529.3	43.3	41.6	42.2	43.0	43.4	44.6	42.7	46.0	43.1	48.2	46.2	42.8		
Lubricants.....do.....	58.7	57.1	5.5	4.5	5.5	4.6	4.7	5.0	4.9	4.8	4.8	3.6	4.3	4.3		
Asphalt.....do.....	170.3	170.8	8.6	10.7	17.0	21.6	21.0	25.0	21.1	17.9	11.7	7.0	4.3	5.6		
Liquefied petroleum gases.....do.....	588.3	609.9	53.0	40.2	41.9	40.3	43.9	47.0	51.1	55.4	52.6	62.9	63.6	57.1		
Stocks, end of period, total.....do.....	1,607.5	1,599.6	1,558.5	1,577.8	1,611.6	1,610.6	1,626.7	1,620.7	1,627.4	1,630.1	1,634.4	1,599.6	1,619.5	1,601.6		
Crude petroleum.....do.....	889.6	890.8	898.6	904.4	905.7	909.1	900.7	885.3	883.1	895.6	895.7	890.8	894.8	896.6		
Strategic petroleum reserve.....do.....	540.6	559.5	544.9	547.3	547.9	550.1	551.3	552.1	554.7	556.0	558.7	559.5	561.5	563.9		
Unfinished oils, natural gaso- line, etc.....do.....	138.3	145.9	147.8	148.7	158.6	160.1	159.8	157.7	158.5	156.4	158.5	145.9	151.8	154.8		
Refined products.....do.....	579.5	582.9	512.1	524.8	547.4	541.4	566.2	577.7	585.8	578.2	580.2	562.9	572.9	550.1		
Refined petroleum products:																
Gasoline (incl. aviation):																
Production.....do.....	2,506.2	2,554.4	208.2	207.9	213.2	210.3	222.9	224.3	209.3	214.0	212.3	227.2	215.6	186.7		
Stocks, end of period.....do.....	191.1	191.8	195.9	191.5	190.4	175.6	179.7	184.3	183.8	182.0	185.7	191.8	207.8	205.7		
Prices, regular grade (excl. aviation):																
Producer Price Index.....1982=100.....	59.5	58.2	53.9	58.2	60.9	60.7	63.2	64.4	58.1	56.6	59.6	55.1	55.3	57.5	60.6	74.5
Retail, U.S. city average (BLS):																
Leaded.....\$ per gal.....	.897	.900	.850	.883	.911	.910	.923	.945	.933	.910	.904	.885	.876	.886	.907	1.047
Unleaded.....do.....	.948	.946	.904	.930	.955	.955	.967	.987	.974	.957	.949	.930	.918	.926	.940	1.065
Aviation gasoline:																
Production.....mil. bbl.....	9.1	9.2	.7	.7	.9	.8	1.0	1.0	.8	.8	.6	.8	.6	.6		
Stocks, end of period.....do.....	2.3	2.1	2.0	2.0	2.0	1.8	1.8	1.9	1.9	1.9	2.1	2.0	2.2	2.0		
Kerosene:																
Production.....do.....	28.7	28.7	2.1	1.5	1.5	1.6	2.0	2.5	2.3	2.5	3.0	3.1	3.4	2.0		
Stocks, end of period.....do.....	8.4	7.3	6.4	6.0	5.6	6.0	6.2	7.1	7.5	8.0	8.1	7.3	7.3	5.9		
Producer Price Index (light distillate).....1982=100.....	54.1	51.6	53.7	52.4	53.7	53.0	51.0	50.0	49.2	46.9	48.4	50.4	54.0	54.1	55.6	58.3
Production.....mil. bbl.....	996.6	1,046.9	84.3	86.1	90.9	86.3	86.3	88.2	83.4	87.7	87.1	95.1	92.2	78.4		
Imports.....do.....	93.2	103.2	7.5	6.3	7.1	6.3	6.4	8.4	8.7	10.1	9.2	12.7	10.2	9.0		
Stocks, end of period.....do.....	134.5	123.5	89.3	94.3	104.5	110.7	119.4	125.2	131.0	127.9	128.7	123.5	120.3	107.5		
Producer Price Index (middle distillate).....1982=100.....	55.5	49.5	49.7	53.3	54.3	50.6	46.9	46.8	45.9	42.3	47.2	50.6	54.9	53.3	57.3	61.5
Residual fuel oil:																
Production.....mil. bbl.....	323.2	339.6	29.3	28.5	26.8	26.4	23.3	26.8	25.8	26.7	27.7	33.1	29.4	26.0		
Imports.....do.....	206.1	217.0	13.9	13.9	13.1	10.5	13.5	16.0	17.0	16.2	22.9	29.2	27.2	24.2		
Stocks, end of period.....do.....	47.4	44.5	44.1	43.2	45.7	42.1	41.1	37.8	44.2	42.4	45.1	44.5	47.0	46.0		
Producer Price Index.....1982=100.....	53.1	41.1	41.9	40.5	42.6	43.7	40.4	39.6	40.4	38.8	36.5	40.0	41.9	43.7	43.5	47.3
Jet fuel:																
Production.....mil. bbl.....	490.1	501.3	45.0	33.7	39.9	40.2	42.3	41.7	41.3	42.3	40.1	45.8	46.6	39.4		
Stocks, end of period.....do.....	49.9	43.7	46.7	46.0	46.8	45.7	47.0	46.8	46.8	47.3	46.5	43.7	44.5	43.7		
Lubricants:																
Production.....do.....	60.9	62.5	5.8	5.3	5.6	5.5	5.2	5.3	4.3	5.2	5.0	5.0	5.4	4.6		
Stocks, end of period.....do.....	13.3	13.3	13.9	14.1	13.3	13.9	14.0	13.6	12.5	12.8	12.5	13.3	14.3	14.5		
Asphalt:																
Production.....do.....	158.4	162.1	10.6	11.8	15.3	17.5	18.6	20.1	17.8	15.7	11.0	8.5	8.4	8.2		
Stocks, end of period.....do.....	18.8	20.8	28.6	30.6	30.1	27.0	25.6	21.9	19.6	18.6	18.7	20.8	25.6	29.1		
Liquefied petroleum gases:																
Production, total.....do.....	638.2	662.4	55.9	53.9	56.1	54.1	56.7	57.3	55.1	57.9	54.9	56.1	58.2	50.2		
At gas processing plants																
(L.P.G.).....do.....	474.5	481.2	40.9	39.2	40.9	38.9	40.2	40.4	39.3	42.1	40.9	41.5	41.8	36.4		
At refineries (L.R.G.).....do.....	163.7	181.2	14.9	14.6	15.2	15.2	16.6	16.9	15.8	15.9	14.0	14.6	16.3	13.9		
Stocks (at plants and refineries).....do.....	97.1	98.9	68.8	79.7	90.0	100.0	111.9	120.6	121.6	119.9	115.1	98.9	87.0	77.5		

PULP, PAPER, AND PAPER PRODUCTS

PULPWOOD																
Receipts.....thous. cords (128 cu.ft.).....	'94,312	'95,537	8,345	7,911	7,611	7,766	7,652	8,007	8,080	8,245	7,889	8,370	8,440			
Consumption.....do.....	'93,946	'95,497	8,249	8,137	7,650	7,689	7,901	7,951	7,956	7,908	7,887	8,198	8,358			
Inventories, end of period.....do.....	5,096	4,888	4,942	4,642	4,420	4,507	4,232	4,325	4,484	4,726	4,790	4,888	4,861			
WASTE PAPER																
Consumption.....thous. sh. tons.....	'17,993	'18,827	1,660	1,541	1,611	1,565	1,525	1,626	1,553	1,597	1,565	1,524	1,573			
Inventories, end of period.....do.....	902	847	926	937	897	908	905	971	1,057	1,022	1,058	1,073	1,050			
WOODPULP																
Production:																
Total.....thous. sh. tons.....	'59,552	'61,210	5,222	5,004	5,004	4,949	5,219	5,265	5,007	5,079	4,974	5,282	5,471			
Dissolving pulp.....do.....	1,312	1,387	109	105	113	117	117	119	135	99	112	127	127			
Paper grades chemical pulp.....do.....	48,293	49,543	4,259	4,037	4,011	4,003	4,241	4,272	4,045	4,100	4,007	4,303	4,428			
Groundwood and thermo- mechanical.....do.....	5,702	5,943	495	509	507	480	497	504	473	513	489	484	520			
Semi-chemical.....do.....	4,246	4,357	360	354	373	349	363	371	354	367	366	368	397			
Inventories, end of period:																
At pulp mills:																
Own use woodpulp.....do.....	170	165	169	169	160	175	194	199	198	161	170	172	178			
Market pulp.....do.....	224	290	237	256	243	193	236	247	272	275	301	261	355			
Market pulp at paper and board mills.....do.....	529	508	532	532	513	534	548	634	628	583	591	622	596			
Exports, all grades, total.....thous. met. tons.....	'4,579	'5,016	445	411	393	451	356	451	470	382	381	519	'415	460		
Dissolving and special alpha.....do.....	627	786	72	73	55	92	51	57	73	67	66	81	'50	63		
All other.....do.....	'4,100	'4,374	516	337	337	359	305	395	396	315	315	438	'365	397		
Imports, all grades, total.....do.....	'4,512	'4,481	392	388	376	376	377	417	344	396	386	285	'517	358		
Dissolving and special alpha.....do.....	87	124	13	11	6	12	2	15	10	4	15	16	'23	14		
All other.....do.....	'4,444	'4,381	405	376	370	365										

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.

PULP, PAPER, AND PAPER PRODUCTS—Continued

PAPER AND PAPER PRODUCTS																
Paper and board:																
Production (API):																
Total.....thous. sh. tons..	'74,435	'76,706	6,724	6,313	6,440	6,317	6,271	6,607	6,346	6,466	6,222	6,295	6,580	5,983		
Paper.....do.....	36,996	38,476	3,382	3,197	3,176	3,165	3,090	3,323	3,219	3,264	3,165	3,140	3,299	2,986		
Paperboard.....do.....	37,439	38,230	3,342	3,116	3,264	3,152	3,181	3,284	3,127	3,203	3,056	3,155	3,281	2,996		
Producer Price Indexes:																
Paperboard.....1982=100..	118.1	133.2	130.5	132.6	133.4	134.0	134.3	134.5	136.2	136.4	136.5	137.8	138.7	141.6	143.8	
Building paper and board.....do.....	111.2	'113.3	113.1	113.3	113.4	114.2	113.9	112.7	112.5	112.5	112.7	113.3	112.9	113.8	114.2	115.1
Selected types of paper (API):																
Groundwood paper, uncoated:																
Orders, new.....thous. sh. tons..	'1,529	'1,630	131	121	152	122	131	136	143	145	113	177	140	133		
Orders, unfilled, end of period ..	181	207	196	167	179	188	177	171	173	168	145	207	182	197		
Shipments.....do.....	'1,485	'1,601	139	127	135	120	134	147	141	147	130	125	148	131		
Coated paper:																
Orders, new.....do.....	'7,066	'7,406	646	631	620	612	662	641	584	666	575	570	585	559		
Orders, unfilled, end of period ..	734	722	704	678	678	688	746	756	729	749	729	722	674	692		
Shipments.....do.....	6,860	7,361	653	609	601	617	594	648	606	625	606	573	638	551		
Uncoated free sheet papers:																
Orders, new.....do.....	'11,184	'11,365	1,032	990	921	965	909	953	927	937	880	989	934	875		
Shipments.....do.....	'11,228	'11,554	1,039	967	941	953	920	1,001	973	965	943	948	980	916		
Unbleached kraft packaging and industrial converting papers:																
Shipments.....thous. sh. tons..	'3,081	'3,038	262	255	236	244	240	250	261	248	254	258	269	233		
Tissue paper, production.....do....	'5,301	'5,476	474	445	461	454	452	471	458	476	445	450	466	435		
Newsprint:																
Canada:																
Production.....thous. metric tons..	9,669	9,969	874	826	860	799	827	846	790	865	837	809	850	777		
Shipments from mills.....do.....	9,757	9,867	881	789	856	851	794	847	830	803	845	874	763	731		
Inventory, end of period.....do.....	189	291	321	359	363	311	343	342	301	364	356	291	378	425		
United States:																
Production.....do.....	5,300	5,427	463	451	466	445	436	461	446	461	448	464	460	404		
Shipments from mills.....do.....	5,310	5,415	458	446	463	449	431	459	447	461	456	475	437	412		
Inventory, end of period.....do.....	36	48	55	60	63	59	65	67	67	67	59	48	71	64		
Estimated consumption, all users:																
Publishers' stocks, end of period #	900	932	962	972	952	990	973	1,007	1,004	936	898	932	936	932		
Imports.....thous. metric tons..	8,142	7,794	736	658	695	649	660	663	673	638	641	489	*1,351	568		
Producer Price Index, standard newsprint.....1982=100..	112.3	'127.6	127.9	127.7	127.9	127.9	127.8	127.7	127.8	127.7	127.5	'126.6	126.1	128.8	128.3	128.2
Paper products:																
Shipping containers, corrugated and solid fiber shipments.....mil. sq. ft. surf. area..	297,827	307,457	27,222	26,053	24,986	25,830	24,470	26,878	26,059	27,797	24,876	23,467	26,444	24,086		

RUBBER AND RUBBER PRODUCTS

RUBBER																
Natural rubber:																
Consumption.....thous. metric tons..	775.82	810.77	88.10	53.68	65.73	60.46	49.11	76.59	61.47	70.86	72.48	63.06				
Stocks, end of period.....do.....	72.46	61.74	70.69	74.64	72.94	71.56	68.74	71.18	63.93	57.92	58.43	61.74				
Imports, incl. latex and guayule.....do....	757.60	853.82	87.02	68.59	67.24	64.85	49.49	83.25	59.12	69.31	77.43	74.73	*44.34	23.29		
U.S. Import Price Index †.....1985=100..	115.7	147.7	132.4			175.8			149.9			132.7		135.1		
Synthetic rubber:																
Production.....thous. metric tons..	2,184.12	2,324.86	201.20	193.72	205.40	197.36	187.36	200.36	189.61	193.15	201.86	188.76				
Consumption.....do.....	2,017.31	2,009.64	186.80	163.05	172.08	166.30	160.91	171.10	162.45	170.58	180.53	150.50				
Stocks, end of period.....do.....	229.72	276.62	229.64	237.50	246.18	249.56	261.01	259.87	258.61	259.03	258.21	276.62				
Exports (Bu. of Census).....do.....	429.40	459.98	41.77	41.68	40.43	41.12	29.76	44.03	38.62	37.18	36.25	32.12	*18.93	20.38		
TIRES AND TUBES																
Pneumatic casings:																
Production.....thous.....	'202,978	'211,351	19,305	17,642	17,403	17,941	15,022	18,058	18,115	19,138	17,253	16,603				
Shipments, total.....do.....	255,220	264,808	22,808	21,200	22,539	24,764	20,101	24,002	23,738	24,312	22,622	20,394				
Original equipment.....do.....	60,758	62,932	5,759	5,606	6,010	5,718	3,526	4,844	5,556	5,672	5,529	4,934				
Replacement equipment.....do.....	186,406	189,210	15,740	14,501	15,559	18,055	15,733	18,042	17,118	17,476	16,103	14,706				
Exports.....do.....	8,056	12,666	1,309	1,093	970	992	793	1,116	1,064	1,163	989	993				
Stocks, end of period.....do.....	34,338	34,005	40,737	41,149	40,159	37,976	37,355	36,064	34,771	34,074	33,434	34,005				
Exports (Bu. of Census).....do.....	9,580	16,149	1,477	1,598	1,380	1,157	995	1,348	1,420	1,400	1,322	1,314	*1,908	1,373		
Inner tubes:																
Exports (Bu. of Census).....do.....	1,518	1,712	165	141	161	113	162	130	149	182	144	132	*243	122		

See footnotes at end of tables.

Units	Annual		1988												1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.		
STONE, CLAY, AND GLASS PRODUCTS																		
PORTLAND CEMENT																		
Shipments, finished cement.....thous. bbl.	'480,410	'480,814	36,404	39,926	45,356	50,117	43,803	49,564	47,580	47,250	39,750	32,505	27,176	23,133	33,782			
CLAY CONSTRUCTION PRODUCTS																		
Shipments:																		
Brick, unglazed (common and face)																		
mil. standard brick	7,600.5	7,807.8	709.7	685.4	716.8	777.1	682.1	751.0	714.1	752.6	617.3	516.0	500.4	423.8				
Structural tile, except facing.....thous. sh. tons.	(²)	58.1	4.7	4.7	5.1	5.8	5.3	4.7	4.7	4.7	4.7	4.7	4.7	4.7				
Sewer pipe and fittings, vitrified.....do	316.9	316.3	31.4	24.7	27.5	34.1	31.2	36.6	27.7	26.2	22.2	15.6	18.4	14.3				
Floor and wall tile and accessories, glazed and unglazed.....mi. sq. ft.	478.9	488.2	44.7	40.7	41.3	44.3	36.8	42.2	42.0	41.3	40.5	40.0	39.3	39.5				
Producer Price Index, brick and structural clay tile.....12/84=100	108.2	110.9	110.4	110.7	110.9	111.1	111.1	111.1	111.1	111.0	111.2	111.2	111.3	111.4	111.7	111.9		
GLASS AND GLASS PRODUCTS																		
Flat glass, mfrs.' shipments.....thous. \$	1,457,587	1,484,949	351,793			369,275				380,269			383,612					
Glass containers:																		
Production ↑.....thous. gross.	285,090	280,102	24,506	24,950	25,027	24,789	25,475	25,225	22,586	25,457	20,993	17,009	22,237	22,352	25,482			
Shipments, total ↑.....do	281,636	276,024	22,522	24,327	24,834	25,764	24,387	25,598	23,196	22,882	20,344	19,431	21,944	20,936	24,178			
Narrow-neck containers:																		
Food ↑.....do	27,252	25,137	2,211	2,445	2,532	2,367	2,167	2,828	2,349	1,748	1,511	1,327	1,605	1,668	1,852			
Beverage.....do	62,434	61,325	5,178	5,753	5,617	6,342	5,896	5,968	5,129	4,775	4,216	4,306	4,528	4,304	5,201			
Beer.....do	85,357	86,239	6,032	7,503	8,142	7,546	7,741	7,482	6,943	7,332	6,602	6,403	7,390	6,767	7,767			
Liquor and wine ↑.....do	28,382	26,593	2,423	2,523	2,518	2,718	2,533	2,338	1,846	1,960	1,798	1,715	1,959	1,883	2,113			
Wide-mouth containers:																		
Food and dairy products.....do	62,673	65,885	5,508	5,225	5,091	5,374	5,324	6,121	6,013	6,153	5,294	4,828	5,635	5,402	6,351			
Narrow-neck and wide-mouth containers:																		
Medicinal and toilet.....do	14,167	9,772	1,050	787	879	850	674	786	825	829	814	753	727	796	768			
Chemical, household, and industrial.....do	1,371	1,013	120	91	55	67	52	75	91	85	109	99	100	116	126			
Stocks, end of period ↑.....do	41,926	42,426	44,569	44,953	44,970	43,614	44,466	43,544	42,466	44,335	45,150	42,426	42,807	44,078	49,628			
GYPSUM AND PRODUCTS																		
Production:																		
Crude gypsum (exc. byproduct).....thous. sh. tons.	'15,612	'15,100	1,297	1,272	1,231	1,291	1,203	1,059	1,521	1,429	1,279	1,460	1,090	1,160				
Calcined.....do	'17,592	'16,900	1,402	1,524	1,327	1,277	1,340	1,458	1,444	1,760	1,385	1,330	1,400	1,300				
Imports, crude gypsum.....do	9,717	9,680	512	986	685	878	804	775	760	850	915	875						
Sales of gypsum products:																		
Uncalcined.....do	'6,324	5,313	378	359	415	632	444	417	462	533	460	564	365	380				
Calcined:																		
Industrial plasters.....do	'496	150	11	13	11	11	12	10	11	13	12	13	(⁴)					
Building plasters, total (incl. Keene's cement).....do	'280	235	23	21	20	19	19	22	19	19	18	16	'31	29				
Board products, total.....mil. sq. ft.	'20,507	20,612	1,896	1,687	1,667	1,683	1,698	1,914	1,766	1,897	1,699	1,641	1,700	1,644				
Lath.....do	23	20	2	1	2	2	1	2	1	2	2	1	1	2				
Veneer base.....do	'479	473	44	41	40	39	37	44	40	40	37	40	39	39				
Gypsum sheathing.....do	'313	287	27	24	25	26	23	26	24	26	18	30	20	18				
Regular gypsum board.....do	'13,920	12,420	1,154	1,003	998	992	1,027	1,143	1,057	1,139	1,043	1,005	1,027	1,010				
Type X gypsum board.....do	'4,489	5,797	528	473	462	474	479	549	499	541	468	453	484	460				
Predecorated wallboard.....do	'128	117	10	9	9	11	10	11	10	9	10	10	10	9				
1/2 mobile home board.....do	'598	828	72	80	77	74	69	79	80	80	65	58	61	51				
Water/moisture resistant board.....do	'557	669	59	55	53	66	53	60	56	59	55	53	56	55				

TEXTILE PRODUCTS

FABRIC																
Woven fabric, finishing plants:																
Production (finished fabric).....mil. linear yd.																
Cotton.....do																
Manmade fiber and silk fabrics.....do																
Inventories held at end of period.....do																
Cotton.....do																
Manmade fiber and silk fabrics.....do																
Backlog of finishing orders.....do																
Cotton.....do																
Manmade fiber and silk fabrics.....do																
COTTON AND MANUFACTURES																
Cotton (excluding linters):																
Production:																
Ginnings ◊.....thous. running bales	14,359	14,986					136	804	2,277	6,888	11,698	14,276				
Crop estimate.....thous. net weight bales \$.	14,760	'15,412						14,934	14,709	14,714	14,887	15,197				
Consumption.....thous. running bales	7,446	7,294	'738	556	551	'662	433	563	'676	454	509	'554	554	570	'734	611
Stocks in the United States, total, end of period #.....thous. running bales																
Domestic cotton, total.....do	13,722	16,062	9,711	8,607	7,707	6,567	5,723	18,973	18,122	17,755	17,115	16,062	14,809	13,705	12,349	
On farms and in transit.....do	13,722	16,062	9,711	8,607	7,707	6,567	5,723	18,973	18,122	17,755	17,115	16,062	14,809	13,705	12,349	
Public storage and compresses.....do	2,525	1,957	953	791	968	761	300	13,974	12,487	8,975	4,838	1,957	1,081	1,026	993	
Consuming establishments.....do	10,555	13,524	7,972	7,028	5,987	5,073	4,714	4,348	5,027	8,210	11,722	13,524	13,141	12,048	10,734	
.....do	642	581	786	788	752	733	709	651	608	570	555	581	587	631	622	

See footnotes at end of tables.

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
	TEXTILE PRODUCTS—Continued															
COTTON AND MANUFACTURES—Cont.																
Cotton (excluding linters)—Continued																
Exports, thous. running bales.....	5,683	5,649	735	541	488	523	303	249	249	224	379	632				
Imports, thous. net-weight bales \$.	2	1							(1)	(1)		(1)				
Price(farm), American upland >.....cents per lb.	*64.6	56.5	57.9	59.9	58.3	62.0	59.5	52.6	51.8	54.2	56.5	55.3	53.9	52.9	*56.3	*59.0
Price, Strict Low Middling, Grade 41, staple 34 (1 1/8"), average 10 markets.....cents per lb.	*52.6	64.4	59.6	60.1	61.6	62.9	57.4	55.2	51.3	52.2	53.4	54.8	55.6	55.4	57.6	61.4
Spindle activity (cotton system spindles):																
Active spindles, last working day, total.....mil.	11.6	11.5	11.7	11.7	11.7	11.7	11.7	11.6	11.5	11.4	11.5	11.5	11.3	11.2		
Consuming 100 percent cotton.....do	4.6	4.4	4.7	4.7	4.6	4.6	4.6	4.6	4.4	4.3	4.3	4.4	4.3	4.2	4.3	4.3
Spindle hours operated, all fibers, total.....bil.	82.9	78.1	*8.0	6.7	6.5	*7.8	5.0	6.0	*7.5	6.0	6.0	*6.3	5.8	5.8		
Average per working day.....do	319	302	*321	334	324	313	252	299	301	299	300	251	288	292		
Consuming 100 percent cotton.....do	32.3	28.9	*3.1	2.5	2.4	*2.9	1.8	2.2	*2.7	2.1	2.2	*2.2	2.1	2.2	*2.6	2.2
Cotton cloth:																
Cotton broadwoven goods over 12" in width:																
Production (qtrly.).....mil. sq. yd.	4,772		1,233			1,208				1,049						
Orders, unfilled, end of period, compared with average weekly production																
Inventories, end of period, compared with avg. weekly production.....no. weeks' prod.																
Ratio of stocks to unfilled orders (at cotton mills), end of period.....do																
Exports, raw cotton equivalent																
thous. net-weight bales \$.	260.0	250.4	23.9	20.4	19.3	20.4	16.8	19.3	25.0	20.5	22.8	25.4				
Imports, raw cotton equivalent.....do	1,617.2	1,146.8	107.6	98.6	90.4	87.3	86.0	91.6	87.2	92.9	94.5	109.4				
Producer Price Index, gray cotton broadwovens.....1982=100	105.2	*114.4	114.5	115.9	116.2	116.1	115.9	115.6	114.8	111.9	112.5	*112.3	111.6	111.8	110.7	111.0
MANMADE FIBERS AND MANUFACTURES																
Fiber production, qtrly:																
Acetate filament yarn.....mil. lb.	191.1	213.9	49.1			54.4			54.9			55.5				
Rayon staple, including tow.....do	413.8	399.8	106.6			101.2			99.4			92.6				
Noncellulosic, except textile glass:																
Yarn and monofilaments.....do	4,009.7	4,160.4	1,017.8			1,062.4			1,025.1			1,055.1				
Staple, incl. tow.....do	4,306.2	4,345.6	1,062.0			1,100.8			1,058.3			1,124.5				
Textile glass fiber.....do																
Fiber stocks, producers', end of period:																
Acetate filament yarn.....mil. lb.	14.2	11.4	13.2			12.4			11.5			11.4				
Rayon staple, including tow.....do	20.7	14.0	20.3			13.4			13.3			14.0				
Noncellulosic fiber, except textile glass:																
Yarn and monofilaments.....do	298.4	284.4	302.3			313.1			317.0			284.4				
Staple, incl. tow.....do	319.6	298.4	305.7			342.9			329.0			298.4				
Textile glass fiber.....do																
Manmade fiber and silk broadwoven fabrics:																
Production (qtrly.), total.....mil. sq. yd.																
Filament yarn (100%) fabrics.....do																
Chiefly rayon and/or acetate fabrics.....do																
Chiefly nylon fabrics.....do																
Spun yarn (100%) fabrics.....do																
Rayon and/or acetate fabrics, blends.....do																
Polyester blends with cotton.....do																
Acetate filament and spun yarn fabrics.....do																
Producer Price Index, gray synthetic broadwovens.....1982=100	105.6	*112.7	111.6	111.8	112.2	113.0	113.4	113.8	113.0	113.5	113.9	*114.6	114.2	113.0	112.1	112.3
Manmade fiber textile trade:																
Exports, manmade fiber equivalent.....mil. lbs.	591.87	684.75	64.84	59.83	64.49	56.85	52.04	57.52	59.97	56.74	56.77	59.98				
Yarn, tops, thread, cloth.....do	260.31	282.19	27.87	24.36	22.09	23.10	20.80	23.77	23.95	22.20	23.63	27.32				
Cloth, woven.....do	152.65	169.31	16.66	14.97	13.48	12.89	12.19	14.25	14.86	14.22	14.88	15.64				
Manufactured prods., apparel, furnishings.....do	331.56	402.56	36.97	35.47	39.40	33.75	31.23	33.75	36.02	34.54	33.14	32.66				
Imports, manmade fiber equivalent.....do	1,805.44	1,735.70	125.48	123.22	148.77	171.32	169.91	174.37	146.09	144.23	132.03	123.37				
Yarn, tops, thread, cloth.....do	280.00	258.18	21.23	22.11	23.40	24.73	23.00	22.66	18.73	22.20	20.44	18.60				
Cloth, woven.....do	182.52	179.23	14.93	15.87	16.54	17.95	15.98	16.43	12.64	15.66	13.64	12.47				
Manufactured products, apparel, furnishings.....do	1,525.44	1,477.52	104.25	101.11	125.36	146.58	146.90	151.71	127.30	122.03	111.59	104.77				
Apparel, total.....do	1,033.22	991.03	64.60	63.34	83.24	103.25	104.81	106.93	87.26	81.86	71.62	65.71				
Knit apparel.....do	485.36	443.03	23.63	25.71	38.50	50.58	52.37	53.64	43.30	40.44	32.72	26.73				
WOOL AND MANUFACTURES																
Wool consumption, mill (clean basis):																
Apparel class.....mil. lb.	129.7	128.3	*13.5	10.1	9.6	*13.6	9.8	9.7	*10.6	10.0	9.1	*12.1	*10.6	11.1	13.7	
Carpet class.....do	13.1	15.8	*1.8	1.3	1.3	*1.2	1.1	1.7	*1.7	1.0	1.0	*1.0	.8	1.3	1.6	
Wool imports, clean yield.....do	105.1	96.7	8.8	9.1	8.6	7.4	7.7	5.0	3.3	6.7	8.6	6.7	8.7	11.3	9.0	
Duty-free.....do	31.1	24.4	2.1	1.7	1.9	2.4	2.3	1.9	1.9	2.2	2.0	1.3	2.1	2.9	3.8	
Wool prices, raw, shorn, clean basis, delivered to U.S. mills:																
Domestic—Graded territory, 64's, staple 2 3/4" and up.....dollars per lb.	2.65	4.38	4.35	4.53	4.63	4.60	4.50	4.50	4.50	4.63	4.75	4.50	4.50	4.38	4.10	3.75
Australian, 64's, Type 62, duty-paid.....do	3.24	4.87	4.96	5.64	5.64	5.13	4.89	4.67	4.61	4.88	4.72	4.75	5.11	4.84	4.54	4.29
Wool broadwoven goods, exc. felts:																
Production (qtrly.).....mil. sq. yd.	168.9		50.6			53.0										
FLOOR COVERINGS																
Carpet, rugs, carpeting (woven, tufted, other), shipments, quarterly #.....mil. sq. yds.	1,263.2	1,273.3	300.9			339.0			329.1			304.3				
APPAREL																
Women's, misses', juniors' apparel cuttings: †																
Coats.....thous. units.	23,982	18,845	3,721			5,188			5,279			4,663				
Dresses.....do	174,982	161,116	45,272			42,582			36,124			37,138				
Suits (incl. pant suits, jumpsuits).....do	7,458	8,977	1,919			2,488			2,489			2,081				
Skirts.....do	111,162	96,379	27,416			26,064			22,202			20,697				
Slacks, jeans, dungarees, and jean-cut casual slacks.....do	294,791	278,567	64,099			71,065			72,112			71,291				
Blouses.....thous. dozen	30,595	33,604	9,025			9,010			7,770			7,799				

See footnotes at end of tables.

Unless otherwise stated in footnotes below, data through 1986 and methodological notes are as shown in BUSINESS STATISTICS: 1986

Units	Annual		1988										1989			
	1987	1988	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.
TEXTILE PRODUCTS—Continued																
APPAREL—Continued																
Men's apparel cuttings: ††																
Suits.....thous. units..	12,167	13,392	3,210			3,182			73,463			3,537				
Coats (separate), dress and sport.....do....	18,236	17,392	4,627			4,144			4,478			4,148				
Trousers, slacks, jeans, pants, etc.....do....	7480,350	430,448	109,575			114,658			109,746			96,469				
Shirts, dress and sport.....thous. doz....	86,649	85,328	21,328			22,927			19,421			21,652				
Hosiery, shipments.....thous. doz. pairs..	308,982	322,124	26,184	24,718	24,886	27,084	29,404	27,557	27,006	32,948	27,475	25,120				
TRANSPORTATION EQUIPMENT																
AEROSPACE VEHICLES																
Orders, new (net), qtrly, total.....mil. \$..	\$119,098															
U.S. Government.....do....	\$64,892															
Prime contract.....do....	\$115,298															
Sales (net), receipts, or billings, quarterly,																
total.....do....	\$109,053															
U.S. Government.....do....	\$67,680															
Backlog of orders, end of period #.....do....	\$157,250															
U.S. Government.....do....	\$91,436															
Aircraft (complete) and parts.....do....	\$64,404															
Engines (aircraft) and parts.....do....	\$15,521															
Missiles, space vehicle systems, engines,																
propulsion units, and parts.....mil. \$..	\$30,259															
Other related operations (conversions, modi-																
fications), products, services.....mil. \$..	\$16,527															
Aircraft (complete):																
Shipments.....do....	12,295.0	15,127.2	1,447.5	1,368.1	1,573.1	1,360.2	1,126.5	976.3	1,244.5	1,468.8	1,188.5	1,406.0	774.1	1,016.2	1,596.6	
Exports, commercial.....do....	7,380	9,971	1,056	1,003	1,063	956	725	811	517	949	814	829	*620	810	1,320	
MOTOR VEHICLES (NEW)																
Passenger cars:																
Factory sales (from U.S. plants):																
Total.....thous.....	\$7,085	7,105	665	613	690	726	386	484	618	655	648	584	616	606	654	(?)
Domestic.....do....	\$6,487	6,437	592	552	626	668	347	442	556	589	591	533	570	545	585	
Retail sales, total, not seas. adj.....do....	10,278	10,639	1,006	901	974	1,010	883	886	830	838	796	882	721	754	*857	*912
Domestics \$.....do....	7,081	7,539	734	652	702	722	605	608	579	592	554	617	512	554	642	667
Imports \$.....do....	3,197	3,099	272	250	272	287	258	283	251	246	243	265	209	201	246	*245
Total, seas. adj. at annual rate.....mil.	10.6	10.5	10.4	*11.0	10.7	10.6	10.6	9.8	10.2	11.5	9.8	9.9	9.5	9.5	*10.8	
Domestics \$.....do....	7.5	7.2	7.3	*7.8	7.8	7.4	7.4	6.8	7.2	8.4	7.0	7.1	6.6	6.6	7.5	
Imports \$.....do....	3.1	3.3	3.0	*3.1	3.0	3.2	3.1	3.0	2.9	3.1	2.7	2.8	2.9	2.9	*3.3	
Retail inventories, domestics, end of period: \$																
Not seasonally adjusted.....thous.....	1,680	1,602	1,572	1,571	1,595	1,663	1,431	1,326	1,409	1,506	1,632	1,602	1,738	1,810	1,887	1,836
Seasonally adjusted.....do....	1,702	1,612	1,485	1,503	1,563	*1,588	1,440	1,457	1,516	1,609	1,631	1,612	1,671	1,670	*1,691	1,722
Inventory-retail sales ratio, domestics \$.....	2.9	2.6	2.4	2.5	2.6	*2.4	2.2	2.4	2.4	2.9	2.7	2.3	2.8	2.8	*3.1	2.7
Exports (BuCensus), total.....do....	627.65	765.12	83.71	68.78	74.91	67.93	43.98	46.11	76.56	65.11	68.50	58.24	*55.68	71.74	82.94	
To Canada.....do....	561.88	616.18	70.40	57.38	64.12	52.51	32.61	39.44	65.92	50.11	48.98	40.61	*40.14	55.02	65.69	
Imports (ITC), complete units.....do....	4,589.0	4,450.2	355.2	394.7	378.9	357.9	304.7	336.0	348.8	400.1	409.2	415.7	*324.8			
From Canada, total.....do....	926.9	1,191.4	114.0	117.8	114.9	121.3	58.9	74.2	100.5	101.5	101.0	88.9	*86.0			
Registrations ◊, total new vehicles.....do....	*10,166	*10,480	*930	852	874	981	883	901	937	807	764	896	733	722	833	
Imports, including domestically sponsored.....do....	*3,654	*3,710	*313	284	290	333	303	329	360	297	278	317	258	252	283	
Trucks and buses:																
Factory sales (from U.S. plants):																
Total.....do....	\$3,821	4,121	402	340	366	372	240	337	349	375	351	327	365	373	401	(?)
Domestic.....do....	\$3,509	3,795	364	311	333	343	223	318	324	340	323	303	338	343	366	
Retail sales, domestics:																
Total, not seasonally adjusted.....do....	4,088.4	4,544.5	439.7	382.4	426.0	426.9	385.5	371.1	346.4	371.0	355.0	359.2	326.8	337.7	405.2	398.9
0-10,000 lbs. GVW.....do....	3,786.1	4,195.1	407.4	350.2	395.8	395.8	356.5	343.7	317.3	339.7	328.0	329.0	300.1	313.1	375.6	368.6
10,001 lbs. GVW and over.....do....	302.3	348.7	32.3	32.1	30.2	31.1	29.1	27.4	29.0	31.4	27.0	30.1	26.7	24.6	29.5	30.3
Total, seasonally adjusted.....do....			374.5	377.2	386.4	365.3	396.5	381.7	361.8	386.1	373.6	361.2	376.1	368.0	346.2	396.9
0-10,000 lbs. GVW.....do....			344.6	348.2	357.0	337.5	367.9	354.7	333.3	355.6	341.8	332.7	344.6	338.2	319.3	368.8
10,001 lbs. GVW and over.....do....			29.9	29.0	29.4	27.8	28.6	27.0	28.0	30.5	31.7	28.6	31.4	29.8	26.9	28.1
Retail inventories, domestics, end of period: †																
Not seasonally adjusted.....thous.....	967.9	999.3	1,022.7	1,020.4	992.9	987.6	851.6	854.6	838.4	945.0	998.3	999.3	1,093.7	1,170.5	1,197.1	1,208.9
Seasonally adjusted.....do....	1,015.4	1,041.6	966.7	960.4	941.6	949.6	924.1	924.7	895.2	972.3	1,003.5	1,041.6	1,072.5	1,109.9	1,130.0	1,135.8
Exports (BuCensus).....do....	229.27	246.92	28.01	23.32	24.18	22.14	14.37	17.20	21.53	21.80	15.23	17.91	*19.23	21.60	23.35	
Imports (BuCensus), including separate chassis and bodies.....do....	1,378.19	1,155.66	120.94	109.40	90.81	102.25	78.99	75.16	72.90	109.83	97.20	107.89	*103.34	101.92	103.61	
Registrations ◊, new vehicles, excluding buses not produced on truck chassis.....thous.....	*4,964	*5,211	*449	432	432	437	442	444	470	410	398	445	371	374	428	
Truck trailers and chassis, complete (excludes detachables), shipments.....number.....	180,142	176,158	16,111	13,779	14,619	15,980	12,694	15,347	15,845	15,580	14,500	14,441	14,141	*14,223	16,380	
Van type.....do....	135,380	127,534	11,325	9,553	10,226	11,622	8,714	11,412	11,990	11,494	10,888	10,573	10,137	*10,559	11,921	
Trailer bodies (detachable), sold separately.....do....	438	4,931	76	114	462	619	673	670	922	310	483	526	(11)			
Trailer chassis (detachable), sold separately.....do....	23,014	32,086	2,356	2,785	2,163	2,620	2,668	3,478	3,599	3,209	3,001	1,999	*1,789	*1,857	2,903	
RAILROAD EQUIPMENT																
Freight cars (new), for domestic use; all railroads and private car lines (excludes rebuilt cars and cars for export):																
Shipments.....number.....	13,645	22,524	4,457			4,598			5,605			7,864			7,286	
Equipment manufacturers.....do....	13,645	22,524	4,457			4,598			5,605			7,864			7,286	
New orders.....do....	18,504	28,871	7,209			9,131			4,487			8,044			11,040	
Equipment manufacturers.....do....	18,504	28,871	7,209			9,131			4,487			8,044			11,040	
Unfilled orders, end of period.....do....	6,736	15,953	12,692			17,225			16,107			15,953			19,707	
Equipment manufacturers.....do....	6,736	15,953	12,692			17,225			16,107			15,953			19,707	
Freight cars (revenue), class I railroads(AAR): †																
Number owned, end of period.....thous.....	749	725	743	740	738	735	733	728	726	724	724	725	723	721	721	
Capacity (carrying), total, end of month.....mil. tons.....	63.63	62.46	63.38	63.21	63.10	62.87	62.71	62.36	62.24	62.15	62.27	62.46	62.34	62.19	62.26	
Average per car.....tons.....	85.01	86.17	85.29	85.39	85.48	85.55	85.60	85.69	85.78	85.88	86.05	86.17	86.16	86.24	86.34	

See footnotes at end of tables.

FOOTNOTES FOR PAGES S-1 THROUGH S-32

General Notes for all Pages:

- r Revised.
- p Preliminary.
- e Estimated.
- c Corrected.

Address requests for data to:

Statistical Series Branch
Current Business Analysis Division
Bureau of Economic Analysis
U.S. Department of Commerce
Washington, D.C. 20230

Page S-1

- † Revised series. See Tables 2.6 - 2.9 in the July 1988 SURVEY for revised estimates for 1985-87.
- ‡ Includes inventory valuation and capital consumption adjustments.
- § Monthly estimates equal the centered three-month average of personal saving as a percentage of the centered three-month moving average of disposable personal income.
- ◇ See note "◇" for p. S-2.

Page S-2

- 1. Based on data not seasonally adjusted.
- ◇ Effective Oct. 1987 SURVEY, the industrial production index has been revised back to Jan. 1985. These revisions are available upon request.
- # Includes data not shown separately.
- ‡ Effective Sept. 1988 SURVEY, data have been revised back to January 1982. Revised data appear in the report "Manufacturing and Trade Inventories and Sales" CB-88-146, available from the Bureau of the Census, Washington, DC 20233.
- § Revised series. Data have been revised back to 1985. Revisions are available upon request.

Page S-3

- # Includes data for items not shown separately.
- † Revised series. Data have been revised back to 1982. A detailed description of the changes appear in the report "Manufacturers' Shipments, Inventories, and Orders: 1982-88" M3-1(88), available from the Bureau of the Census, Washington, DC 20233.
- ‡ See note "‡" for p. S-2.
- § See note "§" for p. S-2.

Page S-4

- 1. Based on data not seasonally adjusted.
- # Includes data for items not shown separately.
- ‡ Includes textile mill products, leather and products, paper and allied products, and printing and publishing industries; unfilled orders for other nondurable goods industries are zero.
- ◇ For these industries (food and kindred products, tobacco, apparel and other textile products, petroleum and coal, chemicals and allied products, and rubber and plastics products) sales are considered equal to new orders.
- † See note "†" for p. S-3.

Page S-5

- @ Compiled by Dun & Bradstreet, Inc.
- # Includes data for items not shown separately.
- § Ratio of prices received to prices paid (parity index).
- ‡ See note "‡" for p. S-4.
- † Effective with the Feb. 1988 SURVEY, data (back to 1984, for some commodities) have been revised. Effective with July 1988 SURVEY, data (back to 1982, for some commodities) have been revised. Effective with the Feb. 1989 SURVEY, data (back to 1985, for some commodities) have been revised. These revisions are available upon request.
- ◇ See note "†" for p. S-6.
- †† See note "†" for p. S-3.

Page S-6

- § Effective with the release of the January 1988 index, all producer price indexes previously expressed on a base of 1967=100, or any other base through December 1981, have been rebased to 1982=100. Only indexes with a base later than December 1981 remain unchanged. Selection of the 1982 period was made to coincide with the reference year of the shipment weights, which have been taken primarily from the 1982 Census of Manufactures. The last rebasing of these indexes occurred in February 1971, when the 1967 base was substituted for the 1957-59 base. Historical data on the new base are available upon request. For producer price indexes of individual commodities, see respective commodities in the Industry section beginning p. S-19. All indexes subject to revision four months after original publication.
- # Includes data for items not shown separately.
- † Effective with the release of the January 1988 index, all consumer price indexes previously expressed on a base of 1967=100, or any other base through December 1981, have been rebased to 1982-84=100. Only indexes with a base later than December 1981 remain unchanged. Selection of the 1982-84 period was made to coincide with the updated expenditure weights, which are based upon data tabulated from the Consumer Expenditure Surveys for 1982, 1983, and 1984. The last rebasing of these indexes occurred in February 1971, when the 1967 base was substituted for the 1957-59 base. Historical data on the new base are available upon request. Beginning with January 1987, data are calculated using 1982-84 expenditure patterns and updated population weights. Additional information regarding these changes is available from the Bureau of Labor Statistics, Washington, DC 20212.
- ‡ Effective with the Feb. 1989 SURVEY, data have been revised back to 1984 and are available upon request.

Page S-7

- 1. Computed from cumulative valuation total.
- 2. Index as of May 1, 1989: building, 388.0; construction, 425.7.

- # Includes data for items not shown separately.
- § Data for Mar., June, Sept., and Dec. 1988 are for five weeks; other months four weeks.
- ◇ Effective Feb. 1989 SURVEY, data for seasonally adjusted housing starts have been revised back to 1986. Effective Feb. 1988 SURVEY, data for seasonally adjusted housing starts have been revised back to 1985. These revisions are available upon request.
- † Effective May 1989 SURVEY, data for seasonally adjusted building permits have been revised back to 1987. Effective May 1988 SURVEY, data for seasonally adjusted building permits have been revised back to Jan. 1986. These revisions are available upon request.
- @ Effective July 1988 SURVEY, data have been revised back to Jan. 1985. In addition to the normal revisions to the unadjusted and seasonally adjusted data, the "Improvements" component of private residential buildings has been revised back to 1982 to adjust for a change in estimation of the monthly data. Revised data are available from the Construction Statistics Division at the Bureau of the Census, Washington, DC 20233.
- ‡ Effective July 1988 SURVEY, data have been revised back to 1985 and are available upon request.

Page S-8

- 1. Advance estimate.
- ◇ Home mortgage rates (conventional first mortgages) are under money and interest rates on p. S-14.
- § Data include guaranteed direct loans sold.
- # Includes data for items not shown separately.
- @ Effective Oct. 1987 SURVEY, data are for mortgage loans closed as FSLIC-insured institutions. Historical data back to 1976 are available upon request.
- † Effective April 1989 SURVEY, wholesale trade data have been revised back to Jan. 1983. Revised data and a summary of changes appear in the report *Revised Monthly Wholesale Trade Sales and Inventories BW-13-88S*, available from the Bureau of the Census, Washington, DC 20233.
- ‡ Effective April 1989 SURVEY, retail trade data have been revised. Estimates of retail sales and inventories have been revised back to January 1983. A revision in 1988 revised some series back to 1978. Revised data and a summary of changes appear in the report *Revised Monthly Retail Sales and Inventories BR88-R*, available from the Bureau of the Census, Washington, DC 20233.
- †† Beginning with data for 1988, data will be reported on a quarterly basis only.

Page S-9

- 1. Advance estimate.
- # Includes data for items not shown separately.
- ◇ Effective with the January 1989 SURVEY, the seasonally adjusted labor force series have been revised back to January 1984. The January 1989 issue of *Employment and Earnings* contains the new seasonal adjustment factors, a description of the current methodology, and revised data for the most recent 13 months or calendar quarters. Revised monthly data for the entire 1984-88 revision period are in the February 1989 issue of *Employment and Earnings*.
- † The participation rate is the percent of the civilian noninstitutional population in the civilian labor force. The employment-population ratio is civilian employment as a percent of the civilian noninstitutional population, 16 years and over.
- @ Data include resident armed forces.
- ‡ See note "‡" for p. S-8.

Page S-10

- ◇ See note "◇" for p. S-9.
- § Effective June 1988 SURVEY, data have been revised back to April 1986 (not seasonally adjusted) and January 1983 (seasonally adjusted) to reflect new benchmarks and seasonal adjustment factors. The June 1988 issue of *Employment and Earnings* contains a detailed discussion of the effects of the revisions.

Page S-11

- ‡ This series is not seasonally adjusted because the seasonal component is small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision.
- ◇ Production and nonsupervisory workers.
- § See note "§" for p. S-10.

Page S-12

- 1. This series is not seasonally adjusted because the seasonal component is small relative to the trend-cycle and/or irregular components and consequently cannot be separated with sufficient precision. Use the corresponding unadjusted series.
- 2. The hourly earnings index has been discontinued.
- § See note "§" for p. S-10.
- ◇ Production and nonsupervisory workers.
- ‡ Earnings in 1977 dollars reflect changes in purchasing power since 1977 by dividing by Consumer Price Index. Effective Feb. 1988 SURVEY, this series has been revised back to 1983 to reflect new seasonal factors for the CPI-W. Revised data are available upon request.
- §§ Wages as of May 1, 1989: Common, \$17.64; Skilled, \$23.05.
- † Excludes farm, household, and Federal workers.
- †† See note "†" for p. S-11.

Page S-13

1. Beginning with Jan. 1988 data, the number of respondents in the bankers acceptance survey was reduced from 155 to 111 institutions—those with \$100 million or more in total acceptances. The new reporting group accounts for over 90 percent of total acceptances activity.

2. Effective December 31, 1987, eight brokers and dealers in commercial paper were added to the reporting panel resulting in a series break. End of month figures on the old basis are as follows: All issuers, 352,915; financial companies, 275,907; dealer placed, 103,667; directly placed, 172,240; and nonfinancial companies, 77,008.

3. Average for Dec.

4. Pursuant to the 1987 Agricultural Credit Act, the FICBs merged with the FLBs on July 6, 1988. Third and fourth quarter loans for the combined FLBs, FLBAs, FICBs, and PCAs are \$42,849 million and \$41,438 million respectively.

5. Effective Feb. 28, 1989, there was a break in the series due to the enlargement of the panel of reporting dealers to 17 and of reporting direct issuers to 36. End of month figures on the old basis are as follows: All issuers, 481,734; financial companies, 373,717; dealer placed, 172,330; directly placed, 201,387; and nonfinancial companies, 108,017.

† Effective Aug. 1988 SURVEY, free reserves have been restated to correspond with the Federal Reserve's computation, which is as follows: excess reserves, minus borrowings, plus extended credit. Historical data back to 1961 are available upon request.

‡ Effective Jan. 1988, series revised due to changes in the panel of reporting banks. The new reporting panel of 168 banks accounts for about 52 percent of total assets in U.S. offices of domestically-chartered banks. Back data have been estimated for the years 1984-87.

Includes data for items not shown separately.

"Transaction balances other than demand deposits" consists of ATS, NOW, super NOW, and telephone transfer accounts.

§ Excludes loans and federal funds transactions with domestic commercial banks and includes valuation reserves (individual loan items are shown gross; i.e., before deduction of valuation reserves).

* New series. Source: The Employment and Training Administration. Covers 50 States and the District of Columbia. Only regular benefits are included.

@ Average weekly insured unemployment for 12-month period divided by average monthly covered employment (lagging 4 full quarters for annual figure and 2 full quarters for monthly figure).

** Effective Aug. 1987 SURVEY, data are provided by the Farm Credit Corporation of America on a quarterly basis. Quarterly data are available back to first quarter 1985, with annual data available back to 1961.

Page S-14

1. Data are for fiscal years ending Sept. 30 and include revisions not distributed to the months.

2. Weighted by number of loans.

3. Beginning Feb. 1988, data temporarily suspended by the Farm Credit Administration, which is revising the information it collects and amending the reports it distributes.

§ Effective Apr. 1989 SURVEY, data have been revised to reflect new benchmark and seasonal adjustments. These revisions are available upon request.

† Effective with May 1989 SURVEY, the consumer installment credit series have been revised from 1986 through 1988 to reflect more complete data for most lender groups and new seasonal factors. Effective Apr. 1988 SURVEY, the consumer installment credit series have been revised back to Jan. 1980 to reflect newly available historical information and to incorporate new seasonal factors. These revisions are available upon request.

Includes data for items not shown separately.

◇ Adjusted to exclude domestic commercial interbank loans and federal funds sold to domestic commercial banks.

‡ Rates on the commercial paper placed for firms whose bond rating is Aa or the equivalent.

§§ Effective Sept. 1988 SURVEY, the outlays by month for fiscal year (FY) 1987 have been increased by a net of \$582 million to reflect reclassification of the Thrift Savings Fund receipts of \$736 million and Federal Retirement Thrift Investment Board (FRTIB) administrative expenses of \$154 million to a non-budgetary status. The FRTIB outlays by month for 1988 have been adjusted by a net of \$1,084 million. Data for fiscal years 1987 and 1988 previously reported by Treasury for Federal Savings and Loan Insurance Corporation (FSLIC) and FRTIB have been reclassified in consultation with the Office of Management and Budget resulting in revised totals back to April 1987. Effective Apr. 1988 SURVEY, a total adjustment of \$920 million for FY 1987 and \$1,565 million thru Feb. 1988 has been distributed by month for notes issued by the FSLIC in lieu of cash and not reported as outlays. The previous adjustment, in the Feb. 1988 SURVEY, has been reversed prior to these corrections. Effective Sept. 1987 SURVEY, the outlays for the Federal Deposit Insurance Corporation (FDIC) have been adjusted by \$442 million for 1986 and \$158 million for 1987 to reflect FDIC debentures issued in lieu of cash and not reported previously as outlays.

Courtesy of *Metals Week*.

@@ Average effective rate

@ Revised for periods between October 1986 and February 1987. During this interval, outstanding gold certificates were inadvertently in excess of the gold stock.

Page S-15

1. Beginning in the first quarter 1987, the universe of manufacturing corporations was redefined to exclude corporations with less than \$250,000 in assets at the time of sample selection.

† Effective Feb. 1989 SURVEY, the money stock measures and components have been revised and are available from the Banking Section of the Division of Research and Statistics at the Federal Reserve Board, Washington, D.C. 20551.

Includes ATS and NOW balances at all depository institutions, credit union share draft balances, and demand deposits at thrift institutions.

◇ Overnight (and continuing contract) RPs are those issued by commercial banks to the nonbank public, and overnight Eurodollars are those issued by Caribbean branches of member banks to U.S. nonbank customers.

@ Small time deposits are those issued in amounts of less than \$100,000. Large time deposits are those issued in amounts of \$100,000 or more and are net of the holdings of domestic banks, thrift institutions, the U.S. Government, money market mutual funds, and foreign banks and official institutions.

Includes data for items not shown separately.

§ Effective Apr. 1988 SURVEY, 1987 data have been revised. Revisions for Jan. 1987: long-term, 7,486; short-term, 372.

Page S-16

1. Excludes Luxembourg.

@ Effective with the June 1988 SURVEY, total exports and imports have been revised back to Jan. 1986. These revisions are available upon request. Data may not equal the sum of the geographic regions, or commodity groups and principal commodities, because the revisions to the totals are not reflected in the component items.

† Effective with the June 1988 SURVEY, seasonal adjustment of exports and imports was reintroduced. The monthly data were last adjusted for December 1985. Historical data from Jan. 1986 forward are available upon request.

§ Number of issues represents number currently used; the change in number does not affect the continuity of the series.

‡ For bonds due or callable in 10 years or more.

Includes data for items not shown separately.

* Series added to the S-Pages in May 1989.

Page S-17

1. Beginning with Jan. 1989 data, undocumented exports to Canada are now included, resulting in a break with Dec. 1988 data.

2. Beginning Jan. 1989, buses are excluded from "Motor vehicles and parts" and included in "Other manufactured goods," resulting in a break with Dec. 1988 data.

3. Excludes Luxembourg.

@ See note "@" for p. S-16.

† See note "†" for p. S-16.

Includes data not shown separately.

◇ Data include undocumented exports to Canada, which are based on official Canadian import totals.

* Series added to the S-Pages in May 1989.

Page S-18

1. Reported annual total; quarterly or monthly revisions are not available.

2. For month shown.

Includes data for items not shown separately.

§ Total revenues, expenses, and income for all groups of carriers also reflect nonscheduled service.

* Data have been revised back to 1981. They now include commuter railroads and small transit systems. Revised data are available upon request.

‡ The threshold for Class I railroad status is adjusted annually by the Interstate Commerce Commission to compensate for inflation.

◇ Average daily rent per room occupied, not scheduled rates.

Data represent entries to a national park for recreational use of the park, its services, conveniences, and/or facilities.

† Before extraordinary and prior period items.

@ Changes in these unit value indexes may reflect changes in quality or product mix as well as price changes.

Page S-19

1. Reported annual total; monthly or quarterly revisions are not available.

2. Less than 500 metric tons.

3. Figure is being suppressed because of not meeting Bureau of Census' publication standards.

4. Effective with the Apr. and May 1989 issues of the SURVEY, most foreign trade series in the "S-Pages" have been converted to metric units. Also, beginning with 1989 data, merchandise trade data are based upon two new commodity classification systems; the International Harmonized System and, Revision 3 of the Standard International Trade Classification and, as a result, data may not be directly comparable to 1988 and earlier years.

Includes data for items not shown separately.

§ Data are reported on the basis of 100 percent content of the specified material unless otherwise indicated.

‡ Data for 1985-86 (and 1984, for inorganic chemical production items) have been revised. Effective with the Jan. 1989 SURVEY, series for industrial gases have been revised for 1986 and 1987. Effective with the Feb. 1989 SURVEY, series for inorganic chemicals and fertilizer materials have been revised for 1986 and 1987. These revisions are available upon request.

◇ Beginning January, 1986, data are not directly comparable to earlier periods because the data represent only companies that have annual revenues over \$100 million.

Page S-20

1. Reported annual total; monthly or quarterly revisions are not available.

2. Quarterly data are no longer available.

3. See note 4 for p. S-19.

§ Data are not wholly comparable from year to year because of changes from one classification to another.

◇ Effective with the Jan. 1989 SURVEY, data for 1986 and 1987 have been revised and are available upon request.

@ Includes less than 500 electric generation customers not shown separately.

† Effective with the May 1988 SURVEY, data have been revised back to 1985 and are available upon request.

‡ Effective with the Apr. 1989 SURVEY, data have been revised back to 1983 and are available upon request.

Page S-21

1. Previous year's crop. New crop is not reported until Sept. (crop year: Sept. 1-Aug. 31).

2. Crop estimate for the year. See also note 13 for this page.

3. Stocks as of June 1.

4. Stocks as of June 1 and represents previous year's crop; new crop not reported until June (beginning of new crop year).

5. Beginning with Sept. 1, 1988 data, quarterly stock estimates have been reinstated.

6. Stock estimates are available once a year as June 1 stocks and shown here in the May column and (as previous year's crop) in the annual column. See also note 13 for this page.

7. Stocks as of Dec. 1.

8. See note "§" for p. S-6 regarding a change to a new reference base in 1988.

9. Prices are no longer available.
 10. Based on quotations for fewer than 12 months.
 11. See note 4 for p. S-19.
 12. Series has been discontinued.
 13. Effective with the May 1989 SURVEY, data have been converted to metric units.
 14. May 1 estimate of the 1989 crop. See also note 13 for this page.
- § Excludes pearl barley.
 @ Quarterly data represent the 3-month periods Dec.-Feb., Mar.-May, June-Aug., and Sept.-Nov. Annual data represent Dec.-Nov.
 † Coverage for 21 selected States, representing approximately 85 percent of U.S. production.

Page S-22

1. Monthly quotation not available.
 2. See note "§" for p. S-6 regarding a change to a new reference base in 1988.
 3. See note "†" for this page.
 4. See note "‡" for this page.
 5. Series has been discontinued by the source.
 6. See note 4 for p. S-19.
- ‡ Beginning with Sept. 1988 and annual 1988 data, price represents dollars per head and is not comparable with earlier prices, which represent dollars per 100 pounds.
 † Effective with the release of 1st Qtr. 1988 data, the import price index for coffee has been discontinued by BLS and replaced in the SURVEY with the import price index for coffee and coffee substitutes. The weighting structure used for the import price index reflects U.S. foreign trade flows based on 1985 data. Indexes, beginning with 2nd Qtr. 1975, are available upon request.

Page S-23

1. Crop estimate for the year.
 2. Reported annual total; revisions not distributed to the months.
 3. Data suppressed because they did not meet publication standards of the Bureau of the Census.
 4. See note "§" for p. S-6 regarding a change to a new reference base in 1988.
 5. See note 4 for p. S-19.
- # Totals include data for items not shown separately.
 ◇ Effective Oct. 1988 SURVEY, the footwear production series have been revised for 1986 and 1987. These revisions are available upon request.

Page S-24

1. Reported annual total; monthly revisions are not available.
 2. See note "§" for p. S-6 regarding a change to a new reference base in 1988.
 3. Less than 500 tons.
 4. See note 4 for p. S-19.
- * New series from the American Metal Market. The composite scrap price represents the average of consumers' buying prices, delivered, at the following markets: Chicago, Pittsburgh, and Philadelphia. Annual and monthly composite price data are available back to January 1982.

Page S-25

1. Reported annual total; monthly revisions are not available.
 2. For month shown.
- @ Beginning 1987, includes foreign ores.
 † Beginning January 1982, data represent metallic (mostly aluminum) content. Data for 1981 and prior years represent aluminum content only.
 ◇ The source for these series is now the Bureau of Mines.
 § Source: *Metals Week*.

Page S-26

1. Reported annual total; monthly revisions are not available.
 2. Less than 50 tons.
- ◇ Includes secondary smelters' lead stocks in refinery shapes and in copper-base scrap.
 @ All data (except annual production figures) reflect GSA remelted zinc and zinc purchased for direct shipment.
 ‡ Source for monthly data: American Bureau of Metal Statistics. Source for annual data: Bureau of Mines.
 # Includes data not shown separately.
 § Beginning with the Aug. 1985 SURVEY, unadjusted fluid power shipments indexes are shown. Seasonally adjusted indexes are no longer available.
 * New series from The Material Handling Institute, Inc. and Cahners Economics. Includes bookings (new orders) for automatic guided vehicles, automated storage and retrieval systems, below hook lifters, cranes, hoists, monorails, racks, shelving, casters and floor trucks, and conveyors. Annual and quarterly historical data back to 1972 are available upon request.
 @@ Beginning Oct. 1986, the Lead price represents North American Mean.

Page S-27

1. See note "§" for p. S-6 regarding a change to a new reference base in 1988.
 2. Beginning January 1986, data have been restated because a new methodology has been adopted. Annual total for 1987 contains revisions not allocated to the months.
 3. Annual total includes revisions not distributed to the months.
 4. See note 4 for p. S-19.
- # Includes data for items not shown separately.
 § Includes nonmarketable catalyst coke. See also note "††" for this page.
 ◇ Includes small amounts of "other hydrocarbons and alcohol new supply (field production)," not shown separately.
 † Effective with the Oct. 1987 SURVEY, coal production data for 1986 have been revised. Effective with the May 1988 SURVEY, coal consumption and stocks back through 1986

have been revised. Effective with the Oct. 1988 SURVEY, coal production data for 1987 have been revised. These revisions are available upon request.

- @ Includes U.S. produced and imported microwave ovens and combination microwave oven/ranges.
 ‡ "Tractor shovel loaders" includes some front engine mount wheel tractors that had previously been included in "Tractors, wheel, farm, and nonfarm."
 †† Effective with the June 1988 SURVEY, data for 1987 have been revised and are available upon request.
 ‡‡ March, June, September and December are five-week months. All others consist of four weeks.

Page S-28

1. Reported annual totals; revisions not allocated to the months.
 2. See note "§" for p. S-6 regarding a change to a new reference base in 1988.
 3. See note 4 for p. S-19.
- # Includes data for items not shown separately.
 † Except for price data, see note "††" for p. S-27.

Page S-29

1. Reported annual totals; revisions not allocated to the months.
 2. See note "§" for p. S-6 regarding a change to a new reference base in 1988.
 3. See note 4 for p. S-19.
- ◇ Source: American Paper Institute. Total U.S. estimated consumption by all newspaper users.
 # Compiled by the American Newspaper Publishers Association.
 † Effective with the April 1988 SURVEY, the import price index for natural rubber has been revised. The index is now expressed on a base of 1985=100. Also new weights based on 1985 trade flows have been applied to all data from 1985 onward. Revised data are available back to 4th qtr. 1983.

Page S-30

1. Reported annual total; revisions not allocated to the months.
 2. Data are being withheld to avoid disclosing data from individual firms.
 3. Data cover five weeks; other months, four weeks.
 4. Beginning Jan. 1989, sales of industrial plasters are included with those of building plasters.
- # Includes data for items not shown separately.
 ◇ Cumulative ginnings to the end of month indicated.
 § Bales of 480 lbs.
 † Data for 1987 have been revised and are available upon request.

Page S-31

1. Less than 500 bales.
 2. Annual total includes revisions not distributed to the months.
 3. Average for crop year; Aug. 1-Jul. 31.
 4. For five weeks; other months four weeks.
 5. See note "§" for p. S-6 regarding a change to a new reference base in 1988.
- ◇ Based on 480-lb. bales, preliminary price reflects sales as of the 15th; revised price reflects total quantity purchased and dollars paid for the entire month (revised price includes discounts and premiums).
 # Beginning 1st Qtr. 1986; quarterly data are estimated by the American Textile Manufacturers Institute based on annual data collected by the Bureau of Census.
 § Bales of 480 lbs..
 † Beginning 1st Qtr. 1987, data are not comparable with earlier periods. Girls apparel are now included with women's, misses' and juniors' and boys' apparel are now included with men's. Also, some classification changes were made.

Page S-32

1. Annual total includes revisions not distributed to the months.
 2. Production of new vehicles (thous. of units) for Apr. 1989: *passenger cars, 648; trucks and buses, 364.*
 3. Data are reported on an annual basis only.
 4. See note 4 for p. S-19.
 5. Beginning with January 1987, data include Honda, Nissan, and Toyota passenger cars produced in U.S. plants.
 6. Beginning with January 1987, data include Nissan trucks produced in U.S. plants.
 7. Beginning with 1st qtr. 1987, jeans, jean-cut casual and dungarees are included with trousers.
 8. See note "†" for this page.
 9. Effective with July 1988 SURVEY, data have been revised back to 1985 and are available upon request.
 10. Data for jumpers are included with dresses to avoid disclosing information for individual companies.
 11. Beginning Jan. 1989, Shipments of trailer bodies are included with trailer chassis to avoid disclosure of data from individual firms.
- # Total includes backlog for nonrelated products and services and basic research.
 § Domestic comprise all cars assembled in the U.S. and cars assembled in Canada and imported to the U.S. under the provisions of the Automotive Products Trade Act of 1965. Imports comprise all other cars.
 ◇ Courtesy of R.L. Polk & Co.; republication prohibited. Because data for some states are not available, month-to-month comparisons are not strictly valid.
 ‡ Excludes railroad-owned private refrigerator cars and private line cars.
 † Effective with the Mar. 1988 SURVEY, retail inventories for trucks and buses have been restated to exclude captive imports (vehicles manufactured overseas by U.S. affiliates). These data are available back through 1966.
 ‡‡ See note "†" for page S-31.

BEA Information

Available From GPO

SURVEY OF CURRENT BUSINESS. Contains estimates and analyses of U.S. economic activity. Features include a review of current economic developments; articles pertaining to BEA's work on the national, regional, and international economic accounts and related topics; quarterly national income and product accounts tables; and 36 pages of tables that present over 1,900 major economic series obtained from other public and private sources. Monthly. \$6.50 single copy; \$18.00 per year.

Business Statistics: 1986. (1987) Provides monthly or quarterly data for 1983-86 and annual data for 1961-86 for series that appear in the SURVEY OF CURRENT BUSINESS. Also contains definitions of terms, sources of data, and methods of compilation. 325 pages. \$16.00 (GPO Stock No. 003-010-00181-0).

Business Conditions Digest. Contains tables and charts for 300 series, including business cycle indicators and other series that help evaluate business conditions. Features the composite indexes of leading, coincident, and lagging indicators. Also included are cyclical comparison charts and data sources. Monthly. \$4.00 single copy; \$44.00 per year.

The National Income and Product Accounts of the United States, 1929-82: Statistical Tables. (1986) Contains detailed estimates of the national income and product accounts for 1929-82 from the comprehensive revision released in 1985. Also includes definitions of the major components of the accounts and of the major sectors of the economy. 442 pages. \$23.00 (GPO Stock No. 003-010-00174-7).

BEA Methodology Paper No. 1: Introduction to National Economic Accounting. (1985) Introduces the concepts of the national income and product accounts by placing these accounts within the framework of national economic accounting. Shows how the national income and product accounts, capital finance accounts, and input-output accounts—the major branches of national economic accounting in the United States—are derived from the conventional accounting statements. 19 pages. \$1.25 (GPO Stock No. 003-010-00158-5).

BEA Methodology Paper No. 2: Corporate Profits: Profits Before Tax, Profits Tax Liability, and Dividends. (1985) Describes the concepts, sources, and methods of the corporate profits components of the national income and product accounts. 61 pages \$2.50 (GPO Stock No. 003-010-00143-7).

BEA Methodology Paper No. 3: Foreign Transactions. (1987) Describes the preparation of estimates in the national income and product accounts (NIPA's) of net exports (both current- and constant-dollar), transfer payments to foreigners, capital grants received by the United States, interest paid by Government to foreigners, and net foreign investment. Also describes the relationship between foreign transactions estimates in the NIPA's and those in the balance of payments accounts. 52 pages. \$2.75 (GPO Stock No. 003-010-00178-0).

BEA Methodology Paper No. 4: GNP: An Overview of Source Data and Estimating Methods. (1987) Provides basic information about GNP, including the conceptual basis for the account that presents GNP, definitions of each of the components on the income and product side of that account, and a summary, presented in tabular form, of the source data and methods used in preparing estimates of current- and constant-dollar GNP. Also provides an annotated bibliography, with a directory, of the more than 50 items over the last decade that provided methodological information about GNP. 36 pages. \$2.00 (GPO Stock No. 003-010-00179-8).

BEA Methodology Paper No. 5: Government Transactions. (1988) Presents the conceptual basis and framework of government transactions in the national income and product accounts; describes the presentations of the estimates; and delineates the sources and methods used to prepare estimates of Federal transactions and of State and local transactions. 112 pages. \$5.50 (GPO Stock No. 003-010-00187-9).

Index of Items Appearing in the National Income and Product Accounts Tables. (1987) Indexes general subject areas as well as detailed line items in the national income and product accounts tables. 18 pages. \$1.25 (GPO Stock No. 003-010-00180-1).

Fixed Reproducible Tangible Wealth in the United States, 1925-85. (1987) Contains annual estimates of the stock of privately owned and government-owned durable equipment and structures and of durable goods owned by consumers in the United States for 1925-85.

Estimates are for fixed nonresidential private capital by major industry group (farm, manufacturing, and nonfarm nonmanufacturing), for residential capital by tenure group (owner-occupied and tenant-occupied), for government-owned fixed capital by type of government (Federal and State and local), and for 11 types of durable goods owned by consumers. 400 pages. \$18.00 (GPO Stock No. 003-010-00177-1).

Local Area Personal Income, 1981-86. (1988) Contains estimates of personal income by major type of payment and earnings by major industry, population, and total and per capita personal income for regions, States, counties, and metropolitan areas.

Vol. 1. Summary: Regions, States, and Metropolitan Areas. Estimates for the United States, regions, States, and metropolitan areas.

Also contains county definitions of metropolitan areas, a detailed description of sources and methods, and samples of tables available. 254 pages. \$13.00 (GPO Stock No. 003-010-00182-3).

Vol. 2. New England, Mideast, and Great Lakes Regions. (CT, DE, DC, IL, IN, ME, MD, MA, MI, NH, NJ, NY, OH, PA, RI, VT, WI) 276 pages. \$14.00 (GPO Stock No. 003-010-00183-6).

Vol. 3. Plains Region. (IA, KS, MN, MO, NE, ND, SD) 190 pages. \$11.00 (GPO Stock No. 003-010-00184-4).

Vol. 4. Southeast Region. (AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, VA, WV) 326 pages. \$16.00 (GPO Stock No. 003-010-00185-2).

Vol. 5. Southwest, Rocky Mountain, and Far West Regions and Alaska and Hawaii. (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OK, OR, TX, UT, WA, WY) 278 pages. \$14.00 (GPO Stock No. 003-010-00186-1).

Regional Multipliers: A User Handbook for the Regional Input-Output Modeling System (RIMS II). (1986) Contains an explanation of how to use regional input-output multipliers, by industry, for output, earnings, and employment. 131 pages. \$6.50 (GPO Stock No. 003-010-00163-1).

TO ORDER: The GPO publications listed above must be ordered from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Payment may be by check (made payable to Superintendent of Documents) or charged to a GPO deposit account number, VISA, or MasterCard. To order by phone: (202) 783-3238; by fax (202) 275-0019.

Available From BEA

Foreign Direct Investment in the United States: Operations of U.S. Affiliates of Foreign Companies, Preliminary 1986 Estimates. (1988) Contains information on the financial structure and operations of nonbank U.S. affiliates of foreign direct investors. Data are classified by industry of U.S. affiliate, by country and industry of ultimate beneficial owner, and, for selected data, by State. 56 pages. \$5.00 (Accession No. BEA-IID-88-102).

U.S. Direct Investment Abroad: Operations of U.S. Parent Companies and Their Foreign Affiliates, Preliminary 1986 Estimates. (1988) Contains information on the financial structure and operations of both U.S. parent companies and their foreign affiliates. Data are classified by country and industry of foreign affiliate and by industry of U.S. parent. 76 pages. \$5.00 (Accession No. BEA-IID-88-104).

BEA Working Paper No. 6: Status Report on Statistical and Methodological Improvements in the U.S. Balance of Payments Statistics. (1988) Reviews major problems, such as timing and coverage, in the balance of payments accounts; describes statistical and methodological improvements BEA has undertaken to resolve some of the problems; and discusses projects for future improvements. 20 pages. \$5.00 (Accession No. BEA-OD-88-001).

TO ORDER: The BEA publications listed above must be ordered from: Economic and Statistical Analysis/BEA, U.S. Department of Commerce, Citizens and Southern National Bank, 222 Mitchell St., P.O. Box 100606, Atlanta, GA 30384. Orders must include a check, payable to Economic and Statistical Analysis/BEA. For further information, call (202) 523-0777.

BEA's economic information is available in publications, on computer tapes, on diskettes, and through a variety of other products and services. Most of these are described in *A User's Guide to BEA Information*. For a copy, send a self-addressed stamped envelope (8 1/2 by 11 inches, with 75 cents postage) to Public Information Office, Bureau of Economic Analysis, U.S. Department of Commerce, Washington, DC 20230.

UNITED STATES
 GOVERNMENT PRINTING OFFICE
 SUPERINTENDENT OF DOCUMENTS
 WASHINGTON, D C 20402

OFFICIAL BUSINESS

Penalty for Private Use, \$300

SECOND CLASS MAIL

POSTAGE AND FEES PAID
 U.S. GOVERNMENT PRINTING OFFICE

USPS Pub. No. 337-790

1989 RELEASE DATES FOR BEA ESTIMATES

Subject	Release Date*	Subject	Release Date*
State Personal Income, 3d quarter 1988	Jan. 24	State Personal Income, 1st quarter 1989	July 20
Gross National Product, 4th quarter 1988 (advance).....	Jan. 27	Gross National Product, 2d quarter 1989 (advance)	July 27
Personal Income and Outlays, December 1988	Jan. 30	Personal Income and Outlays, June 1989.....	July 28
Composite Indexes of Leading, Coincident, and Lagging Indicators, December 1988.....	Feb. 1	Composite Indexes of Leading, Coincident, and Lagging Indicators, June 1989.....	Aug. 3
Gross National Product, 4th quarter 1988 (preliminary).....	Feb. 28	State Per Capita Personal Income, 1988 (revised).....	Aug. 23
Merchandise Trade (balance of payments basis), 4th quarter 1988.....	Feb. 28	Merchandise Trade (balance of payments basis), 2d quarter 1989	Aug. 28
Personal Income and Outlays, January 1989	Mar. 1	Gross National Product, 2d quarter 1989 (preliminary).....	Aug. 29
Composite Indexes of Leading, Coincident, and Lagging Indicators, January 1989.....	Mar. 3	Corporate Profits, 2d quarter 1989.....	Aug. 29
Summary of International Transactions, 4th quarter 1988.....	Mar. 14	Personal Income and Outlays, July 1989.....	Aug. 30
Gross National Product, 4th quarter 1988 (final)	Mar. 23	Composite Indexes of Leading, Coincident, and Lagging Indicators, July 1989.....	Sept. 1
Corporate Profits, 4th quarter 1988	Mar. 23	Summary of International Transactions, 2d quarter 1989	Sept. 12
Personal Income and Outlays, February 1989.....	Mar. 24	Gross National Product, 2d quarter 1989 (final).....	Sept. 21
Composite Indexes of Leading, Coincident, and Lagging Indicators, February 1989.....	Mar. 29	Corporate Profits, 2d quarter 1989 (revised).....	Sept. 21
State Personal Income, 4th quarter 1988 and Per Capita Personal Income, 1988 (preliminary).....	Apr. 20	Personal Income and Outlays, August 1989.....	Sept. 22
Gross National Product, 1st quarter 1989 (advance)	Apr. 26	Composite Indexes of Leading, Coincident, and Lagging Indicators, August 1989.....	Sept. 29
Corporate Profits, 4th quarter 1988 (revised).....	Apr. 26	State Personal Income, 2d quarter 1989	Oct. 19
Personal Income and Outlays, March 1989.....	Apr. 27	Gross National Product, 3d quarter 1989 (advance)	Oct. 26
Composite Indexes of Leading, Coincident, and Lagging Indicators, March 1989.....	Apr. 28	Personal Income and Outlays, September 1989	Oct. 27
Metropolitan Area Personal Income, 1987	May 4	Composite Indexes of Leading, Coincident, and Lagging Indicators, September 1989.....	Oct. 31
Gross National Product, 1st quarter 1989 (preliminary).....	May 25	Merchandise Trade (balance of payments basis), 3d quarter 1989	Nov. 28
Corporate Profits, 1st quarter 1989.....	May 25	Gross National Product, 3d quarter 1989 (preliminary).....	Nov. 29
Merchandise Trade (balance of payments basis), 1st quarter 1989	May 26	Corporate Profits, 3d quarter 1989.....	Nov. 29
Personal Income and Outlays, April 1989.....	May 26	Personal Income and Outlays, October 1989	Nov. 30
Composite Indexes of Leading, Coincident, and Lagging Indicators, April 1989.....	May 31	Composite Indexes of Leading, Coincident, and Lagging Indicators, October 1989.....	Dec. 1
Summary of International Transactions, 1st quarter 1989	June 13	Summary of International Transactions, 3d quarter 1989	Dec. 13
Gross National Product, 1st quarter 1989 (final).....	June 22	Gross National Product, 3d quarter 1989 (final).....	Dec. 20
Corporate Profits, 1st quarter 1989 (revised).....	June 22	Corporate Profits, 3d quarter 1989 (revised).....	Dec. 20
Personal Income and Outlays, May 1989.....	June 23	Personal Income and Outlays, November 1989.....	Dec. 21
Composite Indexes of Leading, Coincident, and Lagging Indicators, May 1989.....	June 28	Composite Indexes of Leading, Coincident, and Lagging Indicators, November 1989.....	Dec. 29

* These are target dates and are subject to revision.

For information, call (202) 523-0777, Bureau of Economic Analysis, U.S. Department of Commerce.